The University of Iowa 2025-26 General Catalog

The General Catalog provides information about academic programs at the University of Iowa, one of three universities governed by the Iowa Board of Regents. The catalog also provides links to supporting offices at the university, a list of administrative officers, an A–Z list of University of Iowa faculty members, a university calendar, and a link to the Code of Iowa for information regarding admission requirements and Iowa resident/nonresident standing.

The General Catalog is published for informational purposes and should not be construed as the basis of a contract between a student and the University of Iowa. Every effort is made to provide information that is accurate at the time of publication. However, information on courses, curricula, policies, regulations, and other matters is subject to change at any time during the period for which the catalog is in effect. The 2025–26 General Catalog overviews requirements for the fall 2025 through summer 2026 academic sessions.

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Academics at Iowa

Degree and Nondegree Programs

The University of Iowa offers academic degree and nondegree programs at the undergraduate and graduate levels. It also offers professional degrees, postdoctoral study, and other opportunities for nondegree study and research. The General Catalog describes the university's degree and nondegree programs at the undergraduate and graduate levels.

The following pages provide global information about undergraduate, graduate, and professional study across the university. They include all undergraduate and graduate majors, minors, and certificate programs with links to the relevant catalog sections; descriptions of the university's Course Numbering [p. 12] and Grading [p. 17] systems; and contact information for Supporting Offices [p. 19].

Searching for Programs

The catalog offers a few different ways to search for programs. The A–Z Directory lists information in alphabetical order. Catalog Contents allows a user to search by department or unit for the majors, minors, or certificates offered, and for information about each university program. Find Your Program provides users the ability to search by undergraduate, graduate, and professional program options, as well as additional learning opportunities in college or precollege programs by selecting choices with the Filter Options drop-down list. UI Courses lists all the university courses by academic unit. Finally, users can type keywords into the search bar at the top of the screen to find where they appear throughout the catalog.

Explore what the University of Iowa has to offer!

Course Numbering

Courses at the University of Iowa

Course numbers at the University of Iowa consist of an alphabetical prefix (up to four letters) showing the college, department, or program, followed by a colon and a four-digit numerical suffix for the individual course. For example, SOC:2810 identifies the course numbered 2810 in the Department of Sociology and Criminology (SOC), titled Social Inequality.

Course suffix numbers:

- 0000–0999 designate prelower-level courses;
- 1000–2999 designate lower-level undergraduate courses;
- 3000–4999 designate courses for upper-level undergraduate and graduate students (except in the College of Engineering, where numbers 3000–5999 designate courses for undergraduate and graduate students);
- 5000–7999 designate graduate-level courses; and
- 8000–9999 designate professional-level courses.

Tippie College of Business

ACCT	Accounting
BAIS	Business Analytics
BUS	Business Administration (Tippie College of Business)
ECON	Economics
ENTR	Entrepreneurship (Entrepreneurial Management)
FIN	Finance
MBA	Tippie Professional Programs (Master of Business Administration Program)
MGMT	Management (Management and Entrepreneurship)
MKTG	Marketing

College of Dentistry

DENT	Dentistry
DPH	Dental Public Health (Preventive and Community Dentistry)
ENDO	Endodontics
FAMD	Family Dentistry
GSND	Geriatric and Special Needs Dentistry
OMFS	Oral and Maxillofacial Surgery
OPER	Operative Dentistry
OPRM	Oral Pathology, Radiology, and Medicine
ORDN	Orthodontics
ORSC	Oral Science
PCD	Preventive and Community Dentistry
PEDO	Pediatric Dentistry
PERI	Periodontics
PROS	Prosthodontics

College of Education

BBC	Belin-Blank Center for Gifted Education
CSED	Counselor Education
EALL	Education Interdepartmental (College of Education)
EDTL	Education Teaching and Learning (Teaching and Learning)
EHOP	Education Honors Opportunity Program (College of Education)
EPLS	Educational Policy and Leadership Studies
PSQF	Psychological and Quantitative Foundations
REA	UI REACH
SIED	Science Education (Teaching and Learning)

College of Engineering

BME	Biomedical Engineering (Roy J. Carver Department of Biomedical Engineering)
CBE	Chemical and Biochemical Engineering
CEE	Civil and Environmental Engineering
ECE	Electrical and Computer Engineering
EIT	Engineering and Information Technology (College of Engineering)
ENGR	Core Engineering Courses
ISE	Industrial and Systems Engineering
ME	Mechanical Engineering

Graduate College

AMCS	Applied Mathematical and Computational Sciences
BMED	Biomedical Science
CBIO	Cancer Biology (Biomedical Science)
GENE	Genetics
GRAD	Graduate College
IGPI	Interdisciplinary Graduate Program in Informatics (Informatics)
IMMU	Immunology
IWP	International Writing Program
MMED	Molecular Medicine
NSCI	Neuroscience
PBAF	Public Affairs (Planning and Public Affairs)
SDG	Sustainable Development Goals (Sustainable Development)
SLIS	Library and Information Science
TBM	Translational Biomedicine
TOX	Human Toxicology
UICB	University of Iowa Center for the Book (Center for the Book)
URP	Urban and Regional Planning (Planning and Public Affairs)

College of Law

HRTS	University of Iowa Center for Human Rights
LAW	Law
LWAB	Law Study Abroad

College of Liberal Arts and Sciences

ACTS	Actuarial Science (Statistics and Actuarial Science)
AFAM	African American Studies
AMST	American Studies
ANTH	Anthropology
ARAB	Arabic (Languages, Linguistics, Literatures, and Cultures)
ARTE	Art Education (Art, Art History, and Design)

ARTH	Art History (Art, Art History, and Design)
ARTS	General Art (Art, Art History, and Design)
ASIA	Asian Languages and Literatures (Languages, Linguistics, Literatures, and Cultures)
ASL	American Sign Language (Languages, Linguistics, Literatures, and Cultures)
ASLE	American Sign Language in English (Languages, Linguistics, Literatures, and Cultures)
ASP	Aging and Longevity Studies
ASTR	Astronomy (Physics and Astronomy)
BIOL	Biology
BKAT	Papermaking (Art, Art History, and Design)
CCCC	Critical Cultural Competence
CERM	Ceramics (Art, Art History, and Design)
CHEM	Chemistry
CHIN	Chinese (Languages, Linguistics, Literatures, and Cultures)
CINE	Cinematic Arts
CLAS	Liberal Arts and Sciences Nondepartmental (College of Liberal Arts and Sciences)
CLSA	Classics: Ancient Civilizations (Classics)
CLSG	Greek (Classics)
CLSL	Latin (Classics)
CNW	Creative Nonfiction Writing (English)
COMM	Communication Studies
CRIM	Criminology, Law, and Justice (Sociology and Criminology)
CS	Computer Science
CSD	Communication Sciences and Disorders
CW	Creative Writing—Writers' Workshop (English)
DANC	Dance
DATA	Data Science (Statistics and Actuarial Science)
DIGA	Digital Arts
DRAW	Drawing (Art, Art History, and Design)
DSGN	Design (Art, Art History, and Design)
DST	Disability Studies
ENGL	English
ESL	English as a Second Language (Languages, Linguistics, Literatures, and Cultures)
EVNT	Event Management
FREN	French (Languages, Linguistics, Literatures, and Cultures)
GHS	Global Health Studies
GRMN	German (Languages, Linguistics, Literatures, and Cultures)
GWSS	Gender, Women's, and Sexuality Studies
HHP	Health and Human Physiology (Health, Sport, and Human Physiology)
HIST	History
HPAS	Health and Physical Activity Skills (Health, Sport, and Human Physiology)
INTD	Interdepartmental Studies
INTM	Intermedia (Art, Art History, and Design)
IS	International Studies (Languages, Linguistics, Literatures, and Cultures)
ISA	Iowa Sciences Academy
ITAL	Italian (Languages, Linguistics, Literatures, and Cultures)
JMC	Journalism and Mass Communication
JPNS	Japanese (Languages, Linguistics, Literatures, and Cultures)
JSTU	Jewish Studies (History)
KORE	Korean (Languages, Linguistics, Literatures, and Cultures)
LAS	Latin American Studies (Languages, Linguistics, Literatures, and Cultures)
LATH	Latham Science Engagement Initiative
LATS	Latina/o/x Studies
LING	Linguistics (Languages, Linguistics, Literatures, and Cultures)
MATH	Mathematics
MDVL	Medieval Studies
MTLS	Jewelry and Metal Arts (Art, Art History, and Design)
MUS	Music
MUSM	Museum Studies
NAIS	Native American and Indigenous Studies
PHIL	Philosophy
PHTO	Photography (Art, Art History, and Design)
PHYS	Physics (Physics and Astronomy)
PNTG	Painting (Art, Art History, and Design)
POLI	Political Science
PORT	Portuguese (Spanish and Portuguese)
PRNT	Printmaking (Art, Art History, and Design)
PSY	Psychology (Psychological and Brain Sciences)
RELS	Religious Studies
RHET	Rhetoric
RUSS	Russian (Languages, Linguistics, Literatures, and Cultures)
SCLP	Sculpture (Art, Art History, and Design)
SEES	Earth, Environment, and Sustainability (School of)
SJUS	Social Justice (Gender, Women's, and Sexuality Studies)
SLA	Second Language Acquisition (Languages, Linguistics, Literatures, and Cultures)
SMC	Sport Media and Culture
SOAS	South Asian Studies (Languages, Linguistics, Literatures, and Cultures)
SOC	Sociology (Sociology and Criminology)
SPAN	Spanish (Spanish and Portuguese)
SPST	Sport Studies (American Studies)
SRM	Sport and Recreation Management (Health, Sport, and Human Physiology)
SSW	Social Work
STAT	Statistics (Statistics and Actuarial Science)
SWAH	Swahili (Languages, Linguistics, Literatures, and Cultures)
TAPE	Teaching Assistant Preparation in English (Languages, Linguistics, Literatures, and Cultures)
TDSN	Three-Dimensional Design (Art, Art History, and Design)
THTR	Theatre Arts
TR	Therapeutic Recreation (Health, Sport, and Human Physiology)
TRNS	Translation (Languages, Linguistics, Literatures, and Cultures)

WLLC	Languages, Linguistics, Literatures, and Cultures
WRIT	Writing (Magid Center for Writing)

Carver College of Medicine

ACB	Anatomy and Cell Biology
ANES	Anesthesia
AT	Athletic Training (Orthopedics and Rehabilitation)
BMB	Biochemistry and Molecular Biology
CTS	Cardiothoracic Surgery
DERM	Dermatology
DIET	Dietary
EM	Emergency Medicine
EMTP	EMT—Paramedic Program (Carver College of Medicine)
FAM	Family and Community Medicine
FRRB	Free Radical and Radiation Biology
IM	Internal Medicine
MED	Carver College of Medicine
MICR	Microbiology and Immunology
MPB	Molecular Physiology and Biophysics
MSTP	Medical Scientist Training Program
NEUR	Neurology
NSG	Neurosurgery
OBG	Obstetrics and Gynecology
OPHT	Ophthalmology and Visual Sciences
ORTH	Orthopedics and Rehabilitation
OTO	Otolaryngology–Head and Neck Surgery
OTP	Orthoptics Teaching Program (Carver College of Medicine)
PA	Physician Assistant Studies and Services
PATH	Pathology
PCOL	Pharmacology (Neuroscience and Pharmacology)
PEDS	Pediatrics (Stead Family Department of Pediatrics)
PERF	Perfusion (Cardiothoracic Surgery)
PSYC	Psychiatry
PTRS	Physical Therapy and Rehabilitation Science
RAD	Radiology
RADO	Radiation Oncology
RSBI	Breast Imaging (Radiation Sciences)
RSCI	Cardiovascular Interventional (Radiation Sciences)
RSCT	Computed Tomography (Radiation Sciences)
RSMR	Magnetic Resonance Imaging Program (Radiation Sciences)
RSMS	Diagnostic Medical Sonography Program (Radiation Sciences)
RSNM	Nuclear Medicine Technology
RSP	Radiation Sciences Program
RSRT	Radiologic Technology (Radiation Sciences)
RSTH	Radiation Therapy (Radiation Sciences)
SURG	Surgery
URO	Urology

College of Nursing

NURS	Nursing

College of Pharmacy

PHAR	Pharmacy

College of Public Health

BIOS	Biostatistics
CBH	Community and Behavioral Health
CPH	College of Public Health
EPID	Epidemiology
HMP	Health Management and Policy
OEH	Occupational and Environmental Health

University College

ABRD	Study Abroad
AERO	Aerospace Studies
CCP	Career Center Programs
CSI	College Success Initiatives
HONR	Honors Program (University of Iowa Honors Program)
IALL	Iowa Lakeside Laboratory
INTL	International Activities (Study Abroad)
LLS	Lifetime Leisure Skills
LS	Leadership Studies
MILS	Military Science
UIUB	University of Iowa Upward Bound
ULIB	University Libraries
URES	Undergraduate Research Experiences

General Education Requirements

Undergraduate general education requirements vary based on the college. This table is intended to be used for comparative purposes between colleges. Some colleges and some programs of study do not have undergraduate general education requirements; others have general education requirements specific to an individual program of study, like those in Carver College of Medicine. Check each program of study's page in the catalog for program-specific requirements. World language [p. 15] graduation requirements by college can be found following this table.

General Education Requirement	College of Liberal Arts and Sciences	College of Public Health	Tippie College of Business	College of Education	College of Nursing	University College	College of Engineering
Approved Course Subjects							X
Business/ Management						BAS only	
Critical Thinking						BLS only	
Understanding Cultural Perspectives	X	X	X	X	X		X
Engineering Be Creative							X
Historical Perspectives	X	X	X	X			
International and Global Issues	X	X	X	X	X	X	X
Interpretation of Literature	X	X	X	X		BLS only	
Information Literacy						BLS only	
Leadership and Career Development						BLS only	
Literary, Visual, and Performing Arts	X	X		X	X		
Natural Sciences with lab	X	X		X	See "Natural Science Prerequisites" on BSN page	X	
Natural Sciences without lab			X		See "Natural Science Prerequisites" on BSN page	BLS only	
Quantitative or Formal Reasoning	X	X		X		X	
Rhetoric	X	X	X	X	X	X	X
Social Sciences	X	X	X	X		BAS only	
Sustainability	X	X		X			
Values and Society	X	X	X	X	X	X	

World Languages

College of Liberal Arts and Sciences

Students in the College of Liberal Arts and Sciences have three options to meet the World Language requirement.

- Complete the fourth level of a single world language.
- Complete the third level of a single world language + a 3 s.h. approved World Language and Cultural Exploration course.
- Complete the second level of two different world languages.

College of Public Health

Students in the College of Public Health have three options to meet the World Language requirement.

- Complete the fourth level of a single world language.
- Complete the second level of two different world languages.
- Complete the second level of a single world language + a 3 s.h. course from one of the following categories: Values and Society, Understanding Cultural Perspectives, International and Global Issues, or World Language and Cultural Exploration.

Tippie College of Business

Students in the Tippie College of Business have three options to meet the World Language requirement.

- Complete the fourth level of a single world language.
- Complete the second level of two different world languages.
- Complete the third level of a single world language + a 3 s.h. approved World Language and Cultural Exploration course.

College of Education

Students in the College of Education have three options to meet the World Language requirement.

- Complete the fourth level of a single world language.
- Complete the third level of a single world language + a 3 s.h. approved World Language and Cultural Exploration course.
- Complete the second level of two different world languages.

College of Nursing

Students in the College of Nursing prelicensure BSN program of study have three options to meet the World Language requirement.

- Complete the fourth level of a single world language.
- Complete the second level of two different world languages.
- Complete the second level of a single world language + a 3 s.h. course from one of the following categories: Values and Society, Understanding Cultural Perspectives, International and Global Issues, or World Language and Cultural Exploration.

College of Engineering

Students in the College of Engineering must complete the second level of a world language to be considered for admission to the college.

University College

Students in University College do not have a World Language general education requirement.

Grading

- Grading System [p. 17]
  - Grades and Points for Semester Hours [p. 17]
  - Not Used in Computing Grade-Point Average [p. 17]
  - Other Marks on the Permanent Record [p. 17]
  - Pass/Non-Pass Marks by College [p. 17]
- Distinction [p. 17]

Grading System

The University of Iowa uses a letter grading system for individual courses, except for the College of Law, which uses a numeric system for course grading. In order to compute grade-point average (GPA), letter grades are converted according to the following numerical scale. GPAs are displayed at the bottom of students' grade reports. All of the following marks appear on the permanent record.

Grades and Points for Semester Hours

A+	4.33
A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
D-	0.67
F	0

Not Used in Computing Grade-Point Average

AUS	Audit Successful
AUU	Audit Unsuccessful
H	Honors
H-	Near Honors
IP	In Progress
N	Nonpass
P	Pass
S	Satisfactory
U	Unsatisfactory

Other Marks on the Permanent Record

H	Undergraduate honors section
HC	Individual undergraduate honors earned
I	Incomplete
IP	In progress
O	No grade reported
R	Registered, no grade required
W	Withdrawn
X	Excused
=	Changed grade
#	Grade not included in grade-point average
*	Undergraduate honors section

Pass/Non-Pass Marks by College

Pass Marks

A, B, C, D, PS	College of Pharmacy, Tippie College of Business
A, B, C, D, R, S	College of Dentistry
A, B, C, D, R, PS	College of Education, College of Engineering, College of Liberal Arts and Sciences, College of Nursing, University College
A, B, C, D (not accepted toward graduate degree), R, S	Graduate College, College of Public Health, Tippie Graduate and Professional Programs
3.60, 2.70, 2.10, 1.80, R, P	College of Law, numerals describe the lower limit for the equivalent letter grade
H, H-, P, R, P	Carver College of Medicine, circa 1997

Non-Pass Marks

F	College of Dentistry, Carver College of Medicine
F, N	Tippie College of Business, College of Education, College of Engineering, College of Liberal Arts and Sciences, College of Nursing, College of Pharmacy, University College
F, U	Graduate College, College of Public Health, Tippie Graduate and Professional Programs
1.50	College of Law, number describes the lower limit for equivalent letter grade

Distinction

Undergraduate

The criteria for undergraduate students to graduate with distinction is consistent among undergraduate colleges. The criteria is based solely on a static GPA.

The Office of the Registrar certifies to the deans of the colleges the names of students eligible to graduate with distinction. To be eligible for consideration, degree candidates must complete 60 semester hours in residence as an undergraduate at the University of Iowa and at least 45 graded semester hours must have been completed prior to the final semester or session of registration. The GPAs upon which distinction is determined are the University of Iowa cumulative GPA (coursework taken at UI) and overall cumulative GPA (coursework taken at UI and any transfer work) prior to the beginning of the final semester or session.

The three levels of distinction are as follows.

- With highest distinction: 3.95 GPA or above.
- With high distinction: 3.85–3.94 GPA.
- With distinction: 3.75–3.84 GPA.

College of Pharmacy

The College of Pharmacy employs three levels of distinction as follows.

- With highest distinction: 4.00 GPA or above.
- With high distinction: 3.75–3.99 GPA.
- With distinction: 3.50–3.74 GPA.

Tippie Professional Programs

Iowa MBA and CIMBA graduates must meet the following criteria prior to the final registration to graduate with distinction. Distinction appears on the transcript and diploma.

- Iowa MBA and CIMBA: 3.80 GPA or above in their MBA program coursework completed at the University of Iowa.

Supporting Offices

Prospective undergraduate, graduate, and professional students should apply to the University of Iowa through Admissions. Several other University of Iowa offices provide major services to entering and continuing students.

Admissions

Application for admission (undergraduate, graduate, and professional programs).
The University of Iowa
2900 University Capitol Centre
Iowa City, IA 52242

Undergraduate

Phone: 319-335-3847
Email: admissions@uiowa.edu
Website: https://admissions.uiowa.edu

Graduate and Professional

Domestic Admissions

Phone: 319-335-1523
Email: gradmail@uiowa.edu
Website: https://grad.admissions.uiowa.edu

International Admissions

Phone: 319-335-1524
Email: internationalgrad@uiowa.edu
Website: https://grad.admissions.uiowa.edu

Office of the Registrar

Course offerings, classroom scheduling, tuition and fees, General Catalog, degree audits, sample plans, commencement. Assists students with general questions regarding registration, tuition and fees, name changes, transcripts, enrollment verification, student record of consent, residency, and navigation in MyUI.
The University of Iowa
2900 University Capitol Centre
Iowa City, IA 52242-1316
Email: registrar@uiowa.edu
Website: https://registrar.uiowa.edu

Office of Student Financial Aid

Scholarships, grants, loans, student employment.
The University of Iowa
2400 University Capitol Centre
Iowa City, IA 52242
Phone: 319-335-1450
Email: financial-aid@uiowa.edu
Website: https://financialaid.uiowa.edu

Billing and ID Card Service Center

ID cards, U-bill payments and questions, billing and loan collections, scholarship check submissions, third-party billing questions..
The University of Iowa
2700 University Capitol Centre
Iowa City, IA 52242

University Housing and Dining

Student housing information, application.
The University of Iowa
4141 Burge Hall
Iowa City, IA 52242-1214
Phone: 319-335-3000
Email: res-education@uiowa.edu
Website: https://housing.uiowa.edu

Office of Civil Rights Compliance

Title IX, gender equity, equity investigations, ADA compliance, reporting and review of bias, harassment, discrimination, free speech, and sexual misconduct concerns.
The University of Iowa
202 Jessup Hall
Iowa City, IA 52242-1316
Phone: 319-335-0705
Website: https://ocrc.uiowa.edu/

College of Liberal Arts and Sciences

Dean

- Sara Sanders

Associate Dean for the Arts and Humanities

- Roland Racevskis

Associate Dean for the Natural, Mathematical, and Social Sciences

- Christopher Cheatum

Associate Dean for Research

- Joshua Weiner

Associate Dean for Undergraduate Education

- Cornelia C. Lang

Undergraduate majors: BA; BS; BFA; BM

Graduate degrees: programs leading to AuD; DMA; MA; MCS; MFA; MS; MSW; PhD (degrees conferred by the Graduate College)

Website: https://clas.uiowa.edu

The College of Liberal Arts and Sciences (CLAS), established in 1900, is the largest of the 12 colleges that comprise the University of Iowa, with 37 academic units spanning the visual, performing, literary, and cinematic arts; humanities; natural and mathematical sciences; social and behavioral sciences; and communication disciplines.

Throughout CLAS departments and programs, faculty are at the forefront of their disciplines. They bring their world-class research and artistry into their classrooms, studios, and labs, giving students the unparalleled opportunity to learn right from the source of the latest innovations in knowledge and practice.

Graduate students and many undergraduates work side-by-side with faculty members, conducting breakthrough research that advances understanding of ourselves and the complex, ever-changing world in which we live.

Faculty members help students discover their individual talents and passions, mentoring students about research opportunities, internships, and career choices. Professional academic advisors encourage students to create unique academic portfolios that help them stand out among their peers, with students developing creative strategies to combine majors, minors, and certificates—a common practice in CLAS, where all work together to support students' diverse interests and goals.

CLAS students can choose from almost 70 undergraduate majors, 70 minors, and 27 undergraduate interdisciplinary certificate programs, with choices that particularly focus on applied skills helpful in a chosen profession, and that encourage students to pursue intellectual and artistic interests along with pragmatic preparation for a first career. Students in CLAS have many opportunities to engage beyond the classroom: for example, faculty-mentored research, study abroad, honors, community engagement, and internships.

CLAS Undergraduate Programs

Located in Schaeffer Hall, at the center of campus on the Pentacrest, CLAS Undergraduate Programs (CLAS UP) is an integral part of the College of Liberal Arts and Sciences. Under the direction of the Associate Dean for Undergraduate Education, CLAS UP oversees academic advising in the college; the development of the undergraduate curriculum, including the General Education CLAS Core; and the collegiate academic standards.

Academic staff in CLAS UP meet with students about requirements, collegiate policies that affect students, and a range of other issues, including successful completion of a degree. CLAS UP staff strive to promote the success of every student, maintain the academic integrity of CLAS, and impart the value of a liberal arts education.

GE CLAS Core

Students entering the College of Liberal Arts and Sciences who wish to earn a Bachelor of Arts (BA), Bachelor of Science (BS), Bachelor of Fine Arts (BFA), or Bachelor of Music (BM) degree must complete the requirements of the General Education CLAS Core in addition to the requirements of a major and other UI and CLAS graduation requirements.

The GE CLAS Core encourages students to explore beyond familiar topics, helping students to discover intriguing majors, minors, and certificates while challenging students to embrace personal transformation by expanding their core knowledge and perspectives. For this reason, the GE CLAS Core is framed by the overall concept that general education (GE) courses also teach students how to learn, thereby fostering success in the major and lifelong learning.

For GE CLAS Core requirements, related academic policies, and lists of approved courses, see the GE CLAS Core [p. 22] and related GE courses in the catalog.

Programs

CLAS Units and Academic Programs

Undergraduate Majors, Minors, and Certificates

The College of Liberal Arts and Sciences (CLAS) has 37 departments and offers about 70 undergraduate majors, 70 minors, and 18 undergraduate certificates.

In addition, CLAS collaborates with other University of Iowa colleges to award degrees in the following majors: enterprise leadership (BA) with Tippie College of Business; biochemistry (BA and BS) and microbiology (BS) with Carver College of Medicine; and science studies (BS) with the College of Education. For descriptions of these majors and their requirements, view those programs in the catalog. CLAS also offers three majors both on campus and online: enterprise leadership, political science, and sport and recreation management.

CLAS also works closely with the College of Education, which offers a Teacher Education Program (BA) designed to lead to licensure at the secondary level. These students must also complete a related CLAS major to earn the education

degree, such as a major in art, English, mathematics, the sciences, the social sciences, or various world languages. Students must apply for admission to the Teacher Education Program; contact the College of Education's Office of Student Services for more information.

Students who begin their studies in CLAS may apply to degree programs in other colleges at the University of Iowa. If they are accepted, they may earn undergraduate degrees in business (BA, BBA, BS), education (BA), engineering (BSE), nursing (BSN), or public health (BA or BS); a BS with a major in medical laboratory science, nuclear medicine technology, or radiation sciences; or a professional degree in pharmacy (PharmD). Use the General Catalog's Catalog Contents page to find these programs.

Students who are interested in earning a professional or graduate degree in addition to a bachelor's degree may apply for early admission or to combined degree programs offered through partnerships between CLAS and other UI colleges. Students admitted to these programs may count a limited amount of credit toward both degrees. CLAS has early admission programs with the College of Dentistry [p. 1291] (DDS) and the College of Law [p. 1815] (JD), for example. Combined bachelor's/graduate degree programs are available in several disciplines; see Combined Programs [p. 1683] in the Graduate College section of the catalog.

CLAS offers a wide selection of undergraduate certificates and minors. CLAS students may also earn undergraduate certificates and minors offered by other colleges. For lists of all undergraduate certificates and minors offered by the university, see Find Your Program in the catalog.

Graduate Degrees and Certificates

The College of Liberal Arts and Sciences offers graduate programs in most of its disciplines, with degrees conferred by the Graduate College. Students may earn degrees at the master's and doctoral levels; graduate certificates are available in some areas of study. See the Graduate [p. 1682] College section of the catalog for a complete list of graduate degrees offered by the university.

For information about CLAS graduate programs, consult the specific academic programs.

Courses

Most College of Liberal Arts and Sciences courses are offered by the college's departments, programs, and schools. They are listed and described in the corresponding General Catalog sections.

The college also offers the following nondepartmental courses.

Liberal Arts and Sciences Nondepartmental Courses

CLAS:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

CLAS:1005 ESL Special Topics 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings). Same as ESL:1005.

CLAS:1800 The Art of Active Learning 1 s.h.
Case studies, individual assessments, video, class discussions, and short readings to encourage understanding of academic standards and active engagement in the learning process; examination of behaviors, study skills, habits, and attitudes that can affect success in the classroom and in life.

CLAS:3500 Fundamentals of Project Management Leadership 3 s.h.
Overview of the fundamental principles of project management and interdisciplinary team leadership. Students develop essential skills to plan, execute, and oversee projects of varying types and complexity. Key concepts include project planning, risk management, team leadership, conflict resolution, communication, and decision-making within organizational contexts. Students are introduced to technological tools used by organizational leaders to effectively plan, lead, and execute projects across organizations. Same as INTD:3500.

CLAS:3600 Advanced Topics in Project Management Leadership 3 s.h.
Builds on foundational project management concepts to deepen students' understanding of strategic project management and leadership in complex, ever-changing economic, business, and social environments. Examine advanced topics such as strategic growth planning, organizational change, technology innovation, stakeholder engagement, and implementation. Enhances students' ability to lead high-performing teams and manage multifaceted projects with confidence and impact. Prerequisites: CLAS:3100. Same as INTD:3600.

CLAS:4100 Peer Assistant 1-2 s.h.
Opportunities to participate in classroom and course activities; work with students as an assistant to course instructor.

CLAS:5100 Practicum: College Teaching and Professional Development for Teaching Assistants arr.
Guidance for teaching assistants seeking introduction to teaching at college level; focus on practical pedagogical concerns, including how to structure a course, devise learning outcomes, develop a syllabus and a calendar of assignments, evaluate student work, and create a student-centered classroom with collaborate learning experiences; pre-semester intensive training session, weekly meetings during first month of semester, periodic meetings to address midterm and late-semester issues; concurrent with TA teaching assistantships. Recommendations: interest in teacher training and preparation. Same as RHET:5100.

CLAS:6290 Interdisciplinary Humanities Seminar 3 s.h.
Examination of interdisciplinary topics related to the humanities; topics vary.

CLAS:7290 Digital Humanities Theory and Practice 3 s.h.
Overview of theories and use of technology to preserve, deploy, visualize, map, and analyze concepts; discussions with practicing digital public scholars; assignments consist of a digital portfolio tailored to student research; introductory course in public digital humanities certificate.

GE CLAS Core

Website: https://clas.uiowa.edu/academics/general-education/requirements

The College of Liberal Arts and Sciences GE CLAS Core requirements provide students with a broad foundation of knowledge and a focused practice of transferable skills necessary for a lifetime of learning.

GE CLAS Core courses are particularly valuable for students making the transition into the University of Iowa. They help students understand the academic expectations of the College of Liberal Arts and Sciences while providing the knowledge and skills needed for more advanced work in the major.

All students in the College of Liberal Arts and Sciences who wish to earn an undergraduate degree—Bachelor of Arts (BA), Bachelor of Science (BS), Bachelor of Fine Arts (BFA), or Bachelor of Music (BM)—must complete the requirements of the GE CLAS Core.

GE CLAS Core Areas and Requirements

The GE CLAS Core has 11 required areas, grouped into three categories. Students must fulfill the requirements in each GE CLAS Core area. The requirements that follow are for students who entered the University of Iowa during summer 2025 or after. Students who entered during a previous semester are held to different requirements as indicated on a student's degree audit.

Communication and Literacy

- Understanding Cultural Perspectives [p. 22]: a minimum of 3 s.h.
- Interpretation of Literature [p. 23]: a minimum of 3 s.h.
- Rhetoric [p. 24]: a minimum of 4 s.h.
- World Languages Pathways [p. 24]: required credit varies (see "World Languages Pathways" in this section of the catalog)

Sustainability

Students complete this requirement by choosing an approved GE CLAS Core course that integrates Sustainability [p. 28] (with no additional semester hours) with a course from the Natural, Quantitative, and Social Sciences category or the Culture, Society, and the Arts category.

Natural, Quantitative, and Social Sciences

- Natural Sciences [p. 28]: a minimum of 7 s.h.; must include one lab
- Quantitative or Formal Reasoning [p. 29]: a minimum of 3 s.h.
- Social Sciences [p. 30]: a minimum of 3 s.h.

Culture, Society, and the Arts

- Historical Perspectives [p. 30]: a minimum of 3 s.h.
- International and Global Issues [p. 31]: a minimum of 3 s.h.
- Literary, Visual, and Performing Arts [p. 32]: a minimum of 3 s.h.
- Values and Society [p. 33]: a minimum of 3 s.h.

Students may count transfer credit and/or credit by exam toward some GE CLAS Core requirements. See CLAS Core Policies for details regarding the use of transfer credit, credit by exam, and other policies for how GE CLAS Core requirements may be fulfilled.

Communication and Literacy

Understanding Cultural Perspectives

Courses in the Understanding Cultural Perspectives area help students better understand social and cultural differences. Students will reflect on their own social and cultural perspectives while increasing their ability to engage with people who have backgrounds different than their own.

All students must complete at least 3 s.h. of coursework in the Understanding Cultural Perspectives area. The following courses are approved for the area.

Course #	Title	Hours
AFAM:1020/ AMST:1030	Introduction to African American Culture	3
AFAM:1030	Introduction to African American Society	3
AFAM:1130	The History of African American Film	3
AFAM:1241/ MUS:1741	The Soundtrack of Black America	3
AFAM:1900	Diverse Topics in African American Studies	3
AFAM:2064/ SOC:2064	African American Families: Urban and Suburban	3
AFAM:2070/ COMM:2069	Black Television Culture	3
AFAM:2500	Black Culture and Experience: Contemporary Issues	3
AMST:1290/ GHS:1290/ HIST:1290/ NAIS:1290	Native American Foods and Foodways	3
AMST:2025	Diversity in American Culture	3
ANTH:2151/ GWSS:2151/IS:2151	Global Migration in the Contemporary World	3
ANTH:2165/ AMST:2165/ NAIS:2165	Native Peoples of North America	3
ARTS:2100	Printmaking and Politics of Protest	3
CCCC:2220	Foundations of Critical Cultural Competence	3
CINE:1195	Video Games and Identity	3
CINE:1625	Race, Gender, and Sexuality on Screen	3
CLSA:1415	Ancient Origins of Religious Conflict	3
CLSA:1910	Ancient and Modern Worlds: Common Problems	3
CLSA:2620/ RELS:2620	Sex and the Bible	3
CLSA:2800	Race and Ethnicity in the Ancient Mediterranean World	3

COMM:1168	Music and Social Change	3
COMM:1898/ LATS:1898	Introduction to Latina/o/x Communication and Culture	3
DANC:2065	Performing Power/ Performing Protest: The Body, Identity, and the Image	3
DANC:2085	Introduction to African Caribbean Dance Practices	3
DST:1101	Introduction to Disability Studies	3
EDTL:2670	Peacebuilding, Singing, and Writing in a Prison Choir	3
EDTL:4900	Foundations of Special Education	3
EPLS:1240	Student Success in College	3
FREN:2010/ ASIA:2001/ RUSS:2001/ TRNS:2001/ WLLC:2001	Global Science Fiction	3
GHS:1200/ DST:1200/ GRMN:1200/ WLLC:1200	Disabilities and Inclusion in Writing and Film Around the World	3
GRMN:2600	Witch Hunts in Fact and Fiction: A Global History of Exclusion	3-4
GRMN:2620/ WLLC:2620	Anne Frank and Her Story	3-4
GRMN:2675/ MUSM:2675	The Politics of Memory: Holocaust, Genocide, and 9/11	3-4
GWSS:1001	Introduction to Gender, Women's, and Sexuality Studies	3
GWSS:1002	Diversity and Power in the U.S.	3
HHP:1045	Diversity and Inclusion in Healthy Living	3
HHP:2280	Cultural Competency and Health	3
HIST:1040	Diversity in History	3
HIST:2155/ JSTU:2155	Global Jewish History	3
HIST:2156/ JSTU:2156	Arabs and Jews in Palestine and Israel	3
HIST:2267/ AFAM:2267	African American History to 1877	3
HIST:2268/ AFAM:2268	African American History Since the Civil War	3
IS:2020	World Events Today!	3
ITAL:2660	The Italian American Experience	3
JMC:2500	Community Media	3
JMC:2600	Freedom of Expression	3
LATS:2280/ HIST:2280	Introduction to Latina/o/x Studies	3
MATH:1210	Diverse Perspectives in the Mathematical Sciences	3
PHIL:2425	Sex, Marriage, Friendship, and the Law	3
POLI:1601	Introduction to Social Media and Politics	3
POLI:1800	Introduction to the Politics of Class and Inequality	3
POLI:1900	Introduction to the Politics of Race	3
POLI:1950	Introduction to the Politics of Religion	3
PSQF:3104	Multicultural Issues in Counseling and Psychology	3
PSY:1501	Everyone's a Little Bit Biased: The Science Behind Prejudice	3
RELS:1015	Global Religious Conflict and Diversity	3
RELS:2000	Engaging Religious Diversity for Leadership and Entrepreneurship	3
RELS:2330	Wealth, Inequality, and Islam	3
RHET:2135/ SJUS:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
SJUS:1001/ GWSS:1003	Introduction to Social Justice	3
SJUS:2240/ HIST:2149/ JSTU:2149/ RELS:2240	Introduction to Jewish Studies	3
SOC:1030	Contemporary Social Problems	3-4
SOC:2830	Race and Ethnicity	3
SPAN:1070/ LING:1070	Language Attitudes: Is How You Sound How You Are Seen?	3
SPAN:2050	Spanish in the United States	3
SPST:1074/ AMST:1074/ GWSS:1074	Inequality in American Sport	3
SSW:1200	Mental Health Across the Lifespan	3
THTR:2320	Playwriting in a Global World	3
THTR:2405	Staging Americans: U.S. Cultures Through Theatre and Performance	3
THTR:2605/ EDTL:2963	Monsters, Victims, and Villains: Changing Perceptions	3
TRNS:2000	Translation and Global Society	3
WLLC:2222/ ASIA:2222/ GWSS:2222	Women in Premodern East Asian Literature	3
WRIT:2100	Writing and Community Outreach	3

Interpretation of Literature

Courses in the Interpretation of Literature area focus on the major genres of literature (short and long fiction, nonfiction, poetry, and drama), improving students' abilities to read and analyze a variety of texts. Small group discussions in

these courses challenge students to think critically, to share insights, and to listen thoughtfully to the arguments of others.

All students must complete at least 3 s.h. of coursework in the Interpretation of Literature area. The following courses are approved for the area.

Course #	Title	Hours
CLSA:1200	Interpretation of Ancient Literature	3
ENGL:1200	The Interpretation of Literature	3
ENGL:2010	Foundation of the English Major: Histories, Literatures, Pleasures	3
FREN:1005	Texts and Contexts: French-Speaking World	3
FREN:1007	Nature/Ecology French Philosophy and Fiction	3
WLLC:1510/ ASIA:1510	Ghost Stories and Tales of the Weird in Premodern Chinese Literature	3

Rhetoric

Rhetoric courses develop speaking, writing, listening, and critical reading skills and build competence in research, analysis, and argumentation.

All entering first-year students are required to complete RHET:1030 Rhetoric: Writing and Communication. Because rhetorical skills lay the foundation for further study at the University, most students register for RHET:1030 during their first year at Iowa.

Students who must enroll in English as a Second Language (ESL) courses as determined by their English proficiency evaluation must complete all ESL courses before they may register for RHET:1030 Rhetoric: Writing and Communication.

Students who have transfer credit in composition, speech, and argumentation but have not been granted an AA degree from an institution that has an articulation agreement with the University of Iowa often must take RHET:1040 College Writing and Reading or RHET:1060 College Communication and Reading in addition to their transfer courses in composition and/or speech to complete the equivalent of RHET:1030 Rhetoric: Writing and Communication.

Each entering student's degree audit shows the course(s) that must be completed in order to fulfill the Rhetoric requirement.

The following courses are approved for the Rhetoric area.

Course #	Title	Hours
RHET:1030	Rhetoric: Writing and Communication	4-5
RHET:1040	College Writing and Reading	3
RHET:1060	College Communication and Reading	3

Transfer of Credit for Rhetoric

Transfer students who have been granted an Associate of Arts (AA) degree from an Iowa or Illinois community college or Waldorf College in Iowa have satisfied the Rhetoric requirement.

Transfer credit for students without an AA degree from an institution that has an articulation agreement with the University of Iowa is evaluated as follows:

- transfer students who have completed composition I, composition II, and speech at another institution have satisfied the GE CLAS Core Rhetoric requirement of RHET:1030 Rhetoric: Writing and Communication;
- transfer students who have completed only composition I must complete RHET:1030 Rhetoric: Writing and Communication at the University of Iowa;
- transfer students who have completed composition I and speech must complete RHET:1040 College Writing and Reading at the University of Iowa;
- transfer students who have completed only speech must complete RHET:1040 College Writing and Reading at the University of Iowa;
- transfer students who have completed composition I and II or only composition II must complete RHET:1060 College Communication and Reading at the University of Iowa;
- for transfer students who have completed any other course at another institution that may be equivalent to RHET:1030 Rhetoric: Writing and Communication, University of Iowa Admissions examines the content of the course and decides on equivalency based on the content of that course, conferring with the Department of Rhetoric on the correct equivalency, if necessary.

World Languages Pathways

GE CLAS Core courses in World Languages provide the practice of important communication skills in a second language as well as the knowledge of the cultures in which the language is spoken. This in-depth study allows students to better understand how languages function, encouraging students to learn more about their own first language, including how it creates both inclusion and diversity. To fulfill the GE CLAS Core requirement in World Languages, students may choose one of the following pathways.

Fourth Level

The fourth-level pathway requires students to:

- complete four years of a single world language in high school; or
- achieve the fourth level of proficiency in a world language by completing the appropriate sequence of courses offered at the University of Iowa; or
- achieve the fourth level of proficiency by completing appropriate courses at another college or university or through approved study abroad courses; or
- achieve an equivalent score on a related Advanced Placement, International Baccalaureate, or other approved college-level examination accepted by the University of Iowa and the College of Liberal Arts and Sciences (see Credit By Exam Options on the Admissions website); or
- earn an equivalent score on both a UI written placement test and on a UI oral proficiency exam in a language taught at the University of Iowa (see World Languages Placement Test (WLPT) on the New Student Services website); or
- earn an equivalent score on a proficiency exam in a language that is not taught at the University of Iowa (see Proficiency Examinations for Languages Not Taught at UI on the College of Liberal Arts and Sciences website).

A fourth level of proficiency is equivalent to the successful completion of an intermediate II language course (or of a second-year second-semester course, for example) as taught at the University of Iowa. Depending on a student's placement test results and the language taken, a student may need to take four semesters of a language to satisfy the requirement

using this pathway, starting with a beginning course and ending with a second-semester intermediate course. Other students may be able to start elsewhere in the language sequence and reach fourth-level proficiency by taking one, two, or three courses. See "World Languages Placement Tests" under Placement Tests on the College of Liberal Arts and Sciences website.

Third Level Plus a World Language and Cultural Exploration Course

The third-level plus a World Language and Cultural Exploration Course pathway requires students to:

- complete third-level coursework in a single world language in high school or college; and
- complete a World Language and Cultural Exploration course.

In courses approved for the World Language and Cultural Exploration GE area, students explore topics and issues through the lens of a world language (other than English) and/or culture, or multiple world languages and/or cultures. These courses help students expand their knowledge of language systems and structure, as well as the role of language in social interactions, cultural environments, and identity formation. The World Language and Cultural Exploration course may be taken at any time: before, concurrently, or after taking the three levels of world language coursework. The World Language and Cultural Exploration course may be taken in an area related to the world language coursework or in a different area. Suitable work may include a study abroad or experiential learning course. A minimum of 3 s.h. is required in this area for students who choose this pathway.

Second Level of Two Languages

The second level of two languages pathway requires students to complete second-level coursework in each of two different world languages in high school or college.

Course Information

World language courses for the third level plus a World Language and Cultural Exploration course pathway or the second level of two languages pathway may include any combination of high school and college-level coursework, including transfer courses.

Transfer students who have not sent an official high school transcript to UI Admissions must do so if they want to use high school courses to satisfy any portion of the GE CLAS Core World Languages requirement.

Semester hours earned for these courses vary by language and pathway. Students should be sure to take the placement test for the language of interest and should be aware of the course sequence required to fulfill the GE requirement in World Languages for that particular language.

Once the World Languages requirement is completed, a student may earn up to an additional 8 s.h. of college credit while studying a world language. See Furthering Language Incentive Program (FLIP) on the College of Liberal Arts and Sciences website.

Students may use the following language course sequences to fulfill the World Languages requirement using the fourth-level pathway. Completing part of one of the following sequences, finishing with the third or second level, would fulfill part of the third level plus a World Language and Cultural Exploration course pathway or the second level of two languages pathway. To avoid duplication or regression, and with questions about what qualifies as second or third level for a given language, consult the appropriate language department before registering for courses.

American Sign Language

Courses in American Sign Language (ASL) are offered by the Department of Languages, Linguistics, Literatures, and Cultures [p. 659]. The following sequence achieves fourth-level proficiency and fulfills one of the ways to meet the GE CLAS Core World Languages requirement.

Course #	Title	Hours
ASL:1001	American Sign Language I	4
ASL:1002	American Sign Language II	4
ASL:2001	American Sign Language III	4
ASL:2002	American Sign Language IV	4

Students with previous knowledge of American Sign Language should consult the department for placement.

Arabic

Courses in Arabic are offered by the Department of Languages, Linguistics, Literatures, and Cultures [p. 659]. The following sequence achieves fourth-level proficiency and fulfills one of the ways to meet the GE CLAS Core World Languages requirement.

Course #	Title	Hours
ARAB:1001	Elementary Modern Standard Arabic I	5
ARAB:1002	Elementary Modern Standard Arabic II	5
ARAB:2001	Intermediate Modern Standard Arabic I	5
ARAB:2002	Intermediate Modern Standard Arabic II	5

Students with previous knowledge of Arabic should consult the department for appropriate placement.

Biblical Hebrew

Courses in biblical Hebrew are offered by the Department of Classics [p. 217]. The following sequence achieves second-level proficiency.

Course #	Title	Hours
CLSA:4901/ RELS:4001	Biblical Hebrew I	3-4
CLSA:4902/ RELS:4002	Biblical Hebrew II	3

Chinese

Courses in Chinese are offered by the Department of Languages, Linguistics, Literatures, and Cultures [p. 659]. The following sequence is one way to fulfill the GE CLAS Core World Languages requirement and is appropriate for students without previous knowledge of Chinese.

Course #	Title	Hours
CHIN:1111	First-Year Chinese: First Semester	5
CHIN:1112	First-Year Chinese: Second Semester	5
CHIN:2101	Second-Year Chinese: First Semester	5
CHIN:2102	Second-Year Chinese: Second Semester	5

Students may use varied combinations of Chinese language courses approved to fulfill the GE CLAS Core World Languages requirement. Heritage learners and students who have studied Chinese abroad may be able to substitute CHIN:2103 Accelerated Second-Year Chinese: First Semester and CHIN:2104 Accelerated Second-Year Chinese: Second Semester for CHIN:2101 and CHIN:2102. Consult the department for more information.

French

Courses in French are offered by the Department of Languages, Linguistics, Literatures, and Cultures [p. 659]. The following sequence is one way to fulfill the GE CLAS Core World Languages requirement and is appropriate for students without previous knowledge of French.

Course #	Title	Hours
FREN:1001	Elementary French I	4
FREN:1002	Elementary French II	4
FREN:2001	Intermediate French I	4
FREN:2002	Intermediate French II	4

Students may use varied combinations of French language courses approved to fulfill the GE CLAS Core World Languages requirement. Those with previous knowledge of French may be able to substitute FREN:1010 First-Year French Review for FREN:1001 and FREN:1002 in the preceding sequence. Some students may be evaluated as ready for FREN:2001 or FREN:2002. Consult the department for appropriate placement.

German

Courses in German are offered by the Department of Languages, Linguistics, Literatures, and Cultures [p. 659]. The following sequence is one way to fulfill the GE CLAS Core World Languages requirement and is appropriate for students without previous knowledge of German.

Course #	Title	Hours
GRMN:1001	Elementary German I	4
GRMN:1002	Elementary German II	4
GRMN:2001	Intermediate German I	4
GRMN:2002	Intermediate German II	4

Students may use varied combinations of German language courses approved to fulfill the GE CLAS Core World Languages requirement. Those with previous knowledge of German may be able to substitute GRMN:1010 First-Year German Review for GRMN:1001 and GRMN:1002 in the preceding sequence. Some students may be evaluated as ready for GRMN:2001 or GRMN:2002. Consult the department for appropriate placement.

Greek

Courses in Greek are offered by the Department of Classics [p. 217]. The following sequence is one way to fulfill the GE CLAS Core World Languages requirement and is appropriate for students without previous knowledge of Greek.

Course #	Title	Hours
CLSG:1001	Classical and New Testament Greek I	5
CLSG:1002	Classical and New Testament Greek II	5
CLSG:2001	Second-Year Greek I	3
CLSG:2002	Second-Year Greek II	3

Students with previous knowledge of Greek should consult the department for appropriate placement.

Italian

Courses in Italian are offered by the Department of Languages, Linguistics, Literatures, and Cultures [p. 659]. The following sequence is one way to fulfill the GE CLAS Core World Languages requirement and is appropriate for students without previous knowledge of Italian.

Course #	Title	Hours
ITAL:1101	Elementary Italian I	5
ITAL:1102	Elementary Italian II	5
ITAL:2203	Intermediate Italian I	4
ITAL:2204	Intermediate Italian II	4

Students with strong language learning abilities or a background in Italian or another Romance language may be able to substitute ITAL:1103 Intensive Elementary Italian for ITAL:1101 and ITAL:1102 in the preceding sequence. Consult the department for appropriate placement.

Japanese

Courses in Japanese are offered by the Department of Languages, Linguistics, Literatures, and Cultures [p. 659]. The following sequence is one way to fulfill the GE CLAS Core World Languages requirement and is appropriate for students without previous knowledge of Japanese.

Course #	Title	Hours
JPNS:1001	First-Year Japanese: First Semester	5
JPNS:1002	First-Year Japanese: Second Semester	5
JPNS:2001	Second-Year Japanese: First Semester	5
JPNS:2002	Second-Year Japanese: Second Semester	5

Students may use varied combinations of Japanese language courses approved to fulfill the GE CLAS Core World Languages requirement. Those with previous knowledge of Japanese should consult the department for appropriate placement.

Korean

Courses in Korean are offered by the Department of Languages, Linguistics, Literatures, and Cultures [p. 659]. The following sequence is one way to fulfill the GE CLAS Core World Languages requirement and is appropriate for students without previous knowledge of Korean.

Course #	Title	Hours
KORE:1101	First-Year Korean: First Semester	4
KORE:1102	First-Year Korean: Second Semester	4
KORE:2101	Second-Year Korean: First Semester	4
KORE:2102	Second-Year Korean: Second Semester	4

Students with previous knowledge of Korean should consult the department for appropriate placement.

Latin

Courses in Latin are offered by the Department of Classics [p. 217]. The following sequence is one way to fulfill the GE CLAS Core World Languages requirement and is appropriate

for students without previous knowledge of Latin. Students must take both CLSL:2001 and CLSL:2002 in order to fulfill the fourth-level pathway of the World Languages requirement. These courses require a similar knowledge of Latin, but one focuses on poetry and the other on prose. Other world languages permit a student to complete the last courses in the sequence to meet the GE CLAS Core requirement because the final course is more difficult than the previous ones. This is not true with the Latin sequence, and therefore, both courses must be successfully completed.

Course #	Title	Hours
CLSL:1001	Elementary Latin I	5
CLSL:1002	Elementary Latin II	5
CLSL:2001	World of Cicero	3
CLSL:2002	Golden Age of Roman Poetry	3

Students with previous knowledge of Latin should consult the department for appropriate placement.

Portuguese

Courses in Portuguese are offered by the Department of Spanish and Portuguese [p. 1043]. Two sequences in Portuguese are approved to achieve fourth-level proficiency. All courses are open to entering first-year students.

Course #	Title	Hours
PORT:2000	Accelerated Elementary Portuguese	5
PORT:2500	Accelerated Intermediate Portuguese	5

Students may also substitute PORT:2015 Elementary Portuguese II for PORT:2000 in the preceding sequence.

Students with previous knowledge of Portuguese should consult the department for appropriate placement.

Russian

Courses in Russian are offered by the Department of Languages, Linguistics, Literatures, and Cultures [p. 659]. The following sequence is one way to fulfill the GE CLAS Core World Languages requirement and is appropriate for students without previous knowledge of Russian.

Course #	Title	Hours
RUSS:1111	First-Year Russian I	5
RUSS:1112	First-Year Russian II	5
RUSS:2111	Second-Year Russian I	4
RUSS:2112	Second-Year Russian II	4

Students with previous knowledge of Russian should consult the department for appropriate placement.

Spanish

Courses in Spanish are offered by the Department of Spanish and Portuguese [p. 1043]. The following sequence is one way to fulfill the GE CLAS Core World Languages requirement and is appropriate for students without previous knowledge of Spanish.

Course #	Title	Hours
SPAN:1001	Elementary Spanish I	4
SPAN:1002	Elementary Spanish II	4
SPAN:1501	Intermediate Spanish I	4
SPAN:1502	Intermediate Spanish II	4

Students may use varied combinations of Spanish language courses to fulfill the GE CLAS Core World Languages requirement. Those with previous knowledge of Spanish may be able to substitute SPAN:1003 Elementary Spanish Review for SPAN:1001 and SPAN:1002 in the preceding sequence.

The accelerated course SPAN:1503 Accelerated Intermediate Spanish, which combines SPAN:1501 and SPAN:1502, may be appropriate for some students.

The accelerated course SPAN:1505 Intermediate Spanish for Heritage Speakers may be appropriate for other students.

Students with previous knowledge of Spanish should take the language placement test in Spanish to help determine proper placement.

Swahili

Courses in Swahili are offered by the Department of Languages, Linguistics, Literatures, and Cultures [p. 659]. The following sequence is one way to fulfill the GE CLAS Core World Languages requirement and is appropriate for students without previous knowledge of Swahili. Each of these courses is open to entering first-year students.

Course #	Title	Hours
SWAH:1001	Elementary Swahili I	4
SWAH:1002	Elementary Swahili II	4
SWAH:2001	Intermediate Swahili I	4
SWAH:2002	Intermediate Swahili II	4

Students with previous knowledge of Swahili should consult the department for appropriate placement.

World Language and Cultural Exploration

The following courses are approved for the World Language and Cultural Exploration area.

Course #	Title	Hours
ARAB:2525	We Are What We Eat: Food Culture in the Middle East and North Africa	3
ASIA:1005	Scripts and Trips: A Journey Through East Asia	3
ASL:1500	Exploring the Deaf World	3
EDTL:4410	Language, Power, and Multilingual Education	3
FREN:1500	Trip to Belgium, France, and Switzerland	3
GRMN:1550	German Food, History, and Culture: Beyond Bier and Bratwurst	3
GRMN:1685	German Cultural History	3
ITAL:2205	Exploring Italy: Culture, Society, and Communication	3
JPNS:2127/ ASIA:2127/ CLSA:2127	Books of the Silk Roads	3
LING:1075	World Englishes	3
LING:1080	Communicating Across Linguistic Differences	3
SPAN:1800	Writing and Writers From Latin America	3
SPAN:2700/ IS:2700/LAS:2700/ PORT:2700	Introduction to Latin American Studies	3
SWAH:2100	Exploring East African Languages and Cultures	3

TRNS:2578	Translation in the Humanities: Modes and Approaches	3

Other Course Sequences

A student who successfully completes a four-semester world language sequence that has not been approved for the GE CLAS Core may have the sequence substituted for a proficiency test to fulfill the GE CLAS Core requirement.

Students who complete a world language sequence this way should notify the department that offers the sequence; the department will contact Degree Services in the Office of the Registrar, which will update a student's degree audit to show fulfillment of the World Languages requirement.

Sustainability

Courses in the Sustainability area focus on identifying concepts and terminology associated with sustainability and systems-thinking, investigating the interconnectedness of human and natural systems, and evaluating how students' own actions affect and are affected by society's ability to meet sustainability goals. Students also investigate institutional and/or cultural processes or natural systems processes.

Sustainability learning outcomes are integrated with the outcomes for another GE CLAS Core area so that one approved course satisfies this requirement without adding semester hours. Students complete this requirement by choosing one of the following courses that have been approved for Sustainability and another GE CLAS Core area.

Sustainability and Natural Sciences

Course #	Title	Hours
CHEM:1050	Chemistry of Our World	3
SEES:1020	The Global Environment	3
SEES:1080	Introduction to Environmental Science	3-4
SEES:1085	Fundamentals of Environmental Science	4
SEES:1400	Natural Disasters	3
SIED:3164	Introduction to Global Socioscientific Challenges	3
SIED:4110	Exploring the Geology, Mining History, and Environmental Issues of the Colorado Rockies	4

Sustainability and Quantitative or Formal Reasoning

Course #	Title	Hours
SEES:1035	Our Digital Earth	3

Sustainability and Social Sciences

Course #	Title	Hours
ANTH:2261	Human Impacts on the Environment	3
SEES:2013/ BUS:2013/ URP:2013	Introduction to Sustainability	3
SOC:1040	Energy, Sustainability, and Society	3
URP:2020/ PBAF:2020	Environment and Society: Sustainability, Policy, and Politics	3

Sustainability and Historical Perspectives

Course #	Title	Hours
HIST:1115/ SEES:1115	The History of Oil	3

Sustainability and International and Global Issues

Course #	Title	Hours
ANTH:1046/ GWSS:1046/ SEES:1046/ SJUS:1046	Environmental Politics in India	3
CPH:2200	Climageddon: Understanding Climate Change and Associated Impacts on Health	3
POLI:1510	International Politics of Environmental Issues	3
POLI:2500	Politics of Natural Disasters	3
SEES:1070	Contemporary Environmental Issues	3
SPST:2170	Sport and Globalization	3

Sustainability and Literary, Visual, and Performing Arts

Course #	Title	Hours
TDSN:2210	Introduction to 3D Design	3

Sustainability and Values and Society

Course #	Title	Hours
JMC:1800	Environmental Communication	3
SRM:1049	Foundations for Sport and Physical Activity: Catalyst for Sustainable Communities	3

Natural, Quantitative, and Social Sciences

Natural Sciences

Courses in the Natural Sciences area explore the scope and major concepts of a scientific discipline. Students learn the attitudes and practices of scientific investigators: logic, precision, experimentation, tentativeness, and objectivity. In courses with a laboratory component, students gain experience in the methods of scientific inquiry.

All students must complete at least 7 s.h. of coursework in the Natural Sciences area, including at least one natural science lab component. The following courses are approved for the area; courses with a lab component are noted "(lab)."

Course #	Title	Hours
ANTH:1301	Human Origins	3
ASTR:1060/ BIOL:1060/ SEES:1060	Big Ideas: Origins of the Universe, Earth, and Life	3

ASTR:1070	Stars, Galaxies, and the Universe (with lab 4 s.h.; without lab 3 s.h.)	3-4
ASTR:1079	Introductory Astronomy Laboratory (lab only)	1
ASTR:1080	Exploration of the Solar System (lab)	4
ASTR:1085	Citizen Astronomy	3
ASTR:1771	Fundamental Astronomy I: The Solar System and Exoplanets (lab)	4
ASTR:1772	Fundamental Astronomy II: Evolution of Stars, Galaxies, and the Universe (lab)	4
BIOL:1140	Human Biology: Nonmajors (lab)	4
BIOL:1141	Human Biology: Health Professions (lab)	4
BIOL:1251	How the Brain Works (and Why it Doesn't)	3-4
BIOL:1261	Introduction to Botany (lab)	4
BIOL:1370	Understanding Evolution	3
BIOL:1411	Foundations of Biology (lab)	4
BIOL:1412	Diversity of Form and Function (lab)	4
BIOL:2120	Good Genes Gone Bad: Genetic Disorders of Notable Celebrities	3
CHEM:1050	Chemistry of Our World	3
CHEM:1060	Technology and Society Laboratory (lab only)	1
CHEM:1070	General Chemistry I	3
CHEM:1080	General Chemistry II	3
CHEM:1100	Chemistry in Industry and the Economy	3
CHEM:1110	Principles of Chemistry I (lab)	4
CHEM:1120	Principles of Chemistry II (lab)	4
CHEM:1160	Principles of Chemistry Lab (lab only)	2
HHP:1400	Human Anatomy and Physiology	3
HHP:2110	Human Anatomy Laboratory (lab only)	1
HHP:2310	Nutrition and Health	3
PCOL:2220	Drug Use and Abuse	3
PHYS:1200	Physics of Everyday Experience	3
PHYS:1400	Basic Physics (with lab 4 s.h.; without lab 3 s.h.)	3-4
PHYS:1409	Basic Physics Lab (lab only)	1
PHYS:1410	Physics of Sound (with lab 4 s.h.; without lab 3 s.h.)	3-4
PHYS:1511	College Physics I (lab)	4
PHYS:1512	College Physics II (lab)	4
PHYS:1611	Introductory Physics I (lab)	4
PHYS:1612	Introductory Physics II (lab)	4
PHYS:1619	Introductory Physics II Lab (lab only; students must have previously completed PHYS:1612 without the lab)	1
PHYS:1701	Physics I (lab)	4
PHYS:1702	Physics II (lab)	4
SEES:1020	The Global Environment	3
SEES:1021	The Global Environment Lab (lab only)	1
SEES:1030/ CEE:1030	Introduction to Earth Science (with lab 4 s.h.; without lab 3 s.h.)	3-4
SEES:1031/ CEE:1031	Introduction to Earth Science Laboratory (lab only; students must have previously completed CEE:1030/SEES:1030 without the lab)	1
SEES:1040	Evolution and the History of Life (with lab 4 s.h.; without lab 3 s.h.)	3-4
SEES:1050	Introduction to Geology (lab)	4
SEES:1080	Introduction to Environmental Science (with lab 4 s.h.; without lab 3 s.h.; not for students who have taken SEES:1085)	3-4
SEES:1081	Introduction to Environmental Sciences Laboratory (lab only)	1
SEES:1085	Fundamentals of Environmental Science (lab; not for students who have taken SEES:1080)	4
SEES:1100	Age of Dinosaurs (lab)	4
SEES:1290	Energy and the Environment	3
SEES:1400	Natural Disasters	3
SIED:3164	Introduction to Global Socioscientific Challenges	3
SIED:4110	Exploring the Geology, Mining History, and Environmental Issues of the Colorado Rockies (lab)	4

Quantitative or Formal Reasoning

Courses in the Quantitative or Formal Reasoning area help develop analytical skills through the practice of quantitative or formal symbolic reasoning. Courses focus on presentation and evaluation of evidence and argument; understanding the use and misuse of data; and organization of information in quantitative or other formal symbolic systems, including those used in computer science, linguistics, mathematics, philosophy, and statistics.

All students must complete at least 3 s.h. of coursework in the Quantitative or Formal Reasoning area. Students may also fulfill this GE CLAS Core requirement by completing a course that lists an approved GE CLAS Core course as a prerequisite. The following courses are approved for the area.

Course #	Title	Hours
COMM:1117	Advocacy and Argument	3
CPH:1600	Public Health Science: Inquiry and Investigation in Public Health	3

CS:1020	Principles of Computing	3
CS:1110	Introduction to Computer Science	3
CS:1210	Computer Science I: Fundamentals	4
LING:1050	Language and Formal Reasoning	3
MATH:1020	Elementary Functions	4
MATH:1120	Logic of Arithmetic	4
MATH:1260	PokeMath: The Mathematics of Pokemon Go	3
MATH:1340	Mathematics for Business	4
MATH:1350	Quantitative Reasoning for Business	4
MATH:1440	Mathematics for the Biological Sciences	4
MATH:1460	Calculus for the Biological Sciences	4
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4
PHIL:1636	Principles of Reasoning: Argument and Debate	3
POLI:1700	Introduction to Political Analysis	3
PSY:2811	Research Methods and Data Analysis in Psychology I	3
RELS:1050/ POLI:1050	Big Ideas: Introduction to Information, Society, and Culture	3
SEES:1035	Our Digital Earth	3
STAT:1010	Statistics and Society	3
STAT:1015/ DATA:1015	Introduction to Data Science	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:2010	Statistical Methods and Computing	3

Social Sciences

Courses in the Social Sciences area focus on human behavior and the institutions and social systems that shape and are shaped by that behavior. Courses provide an overview of one or more social science disciplines, their theories, and their methods.

All students must complete at least 3 s.h. of coursework in the Social Sciences area. The following courses are approved for the area.

Course #	Title	Hours
ANTH:1101/IS:1101	Cultural Anthropology	3
ANTH:2136	Race, Place, and Power: Urban Anthropology	3
ANTH:2261	Human Impacts on the Environment	3
ASP:1800/ CSD:1800/ NURS:1800/ SSW:1800/TR:1800	Aging Matters: Introduction to Gerontology	3
COMM:1170	Communication Theory in Everyday Life	3
COMM:1174	Media and Society	3
CPH:1400	Fundamentals of Public Health	3
CRIM:1410	Introduction to Criminology	3
CSD:3117/ LING:3117	Psychology of Language	3
CSD:3118/ LING:3118	Language Acquisition	1-3
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
EDTL:2630/ MUS:2630	Introduction to the Psychology of Music	3
JMC:1100	Introduction to Media Effects	3
LAW:1010	Introduction to the Legal System and Practice	3
LING:1010	Language and Society	3
LING:1060	Languages of the World	3
MUSM:3001/ ANTH:3001/ EDTL:3001/ SIED:3001	Introduction to Museum Studies	3
POLI:1100	Introduction to American Politics	3
POLI:1200	Introduction to Political Behavior	3
POLI:1300	Introduction to Political Thought and Action	3
POLI:1600	Introduction to Political Communication	3
PSQF:2115	Introduction to Counseling Psychology	3
PSY:1001	Elementary Psychology	3
PSY:2301	Introduction to Clinical Psychology	3
PSY:2401	Introduction to Developmental Science	3
PSY:2601	Introduction to Cognitive Psychology	3
SEES:2013/ BUS:2013/ URP:2013	Introduction to Sustainability	3
SEES:2110/ GHS:2110	Eight Billion and Counting: Introduction to Population Dynamics	3
SOC:1010	Introduction to Sociology	3-4
SOC:1040	Energy, Sustainability, and Society	3
SOC:1220	Principles of Social Psychology	3-4
URP:1001/ PBAF:1001	How to Change the World	3
URP:2020/ PBAF:2020	Environment and Society: Sustainability, Policy, and Politics	3

Culture, Society, and the Arts

Historical Perspectives

Courses in the Historical Perspectives area help students comprehend the historical processes of change and continuity; develop the ability to generalize, explain, and

interpret historical change; and understand the past in its own terms.

All students must complete at least 3 s.h. of coursework in the Historical Perspectives area. The following courses are approved for the area.

Course #	Title	Hours
ANTH:1201	World Archaeology	3
ARTH:1010	Art and Visual Culture	3
ARTH:1050	From Cave Paintings to Cathedrals: Survey of Western Art I	3
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II	3
ARTH:1070	Asian Art and Culture	3
ARTH:2320/ CLSA:2226	Ancient Art From the Great Pyramids of Egypt to the Colosseum in Rome	3
CLSA:1181/ GHS:1181	Ancient Medicine	3
CLSA:1830	Greek Civilization	3
CLSA:1840	Roman Civilization	3
CLSA:2444/ RELS:2444	Cities of the Bible	3
EPLS:4250/ AFAM:4250	Education In Black America	3
HIST:1010	History Matters	3
HIST:1016	The History That Made Our World	3
HIST:1101	The Modern World	3
HIST:1115/ SEES:1115	The History of Oil	3
HIST:1261	American History to 1877	3
HIST:1262	American History 1877-Present	3
HIST:1401	The West and the World: Ancient	3
HIST:1402	The West and the World: Medieval	3
HIST:1403	The West and the World: Modern	3
HIST:1601/ ASIA:1601	Civilizations of Asia: China From Origins to the 17th Century	3
HIST:1602/ ASIA:1602	Civilizations of Asia: China from the 17th Century to the Present	3
HIST:1604/ ASIA:1604	Civilizations of Asia: Japan	3-4
HIST:1606/ ASIA:1606/ RELS:1606	Civilizations of Asia: South Asia	3-4
HIST:1607/ ASIA:1607	Civilizations of Asia: Korea	3-4
HIST:2461/ CLSA:2461/ RELS:2361	Middle East and Mediterranean: Alexander to Suleiman	3
ITAL:2550	Images of Modern Italy	3-4
JMC:1200	Introduction to Media and Culture	3
MUS:1303	Roots, Rock, and Rap: A History of Popular Music	3
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
PHIL:1033	The Meaning of Life	3
PHIL:1034	Liberty and the Pursuit of Happiness	3
RELS:1001	Judaism, Christianity, and Islam	3
RELS:1225/ HIST:1025	Medieval Religion and Culture	3
RELS:1250/ HIST:1050	Modern Religion and Culture	3
RELS:2930/ COMM:2079	Digital Media and Religion	3
RUSS:1531	Slavic Folklore	3
RUSS:1532	Traces of Ancient Russian Culture (IX-XVII Centuries): Vikings, Mongols, and Tsars	3
RUSS:2110	Russian Sports: Politics, Scandal, Glory	3
THTR:1400	Theatre and Society: Ancients and Moderns	3
THTR:1401	Theatre and Society: Romantics and Rebels	3
THTR:2410	History of Theatre and Drama I	3
THTR:2411	History of Theatre and Drama II	3
UICB:2190/ ENGL:2901/ HIST:2190	The Book in Global History	3

International and Global Issues

Courses in the International and Global Issues area focus predominantly on countries or issues outside the United States, encouraging students to understand contemporary issues from an international perspective. Students develop knowledge of one or more contemporary global or international issues, gain a greater awareness of varied international perspectives, and improve their skills of analysis and critical inquiry.

All students must complete at least 3 s.h. of coursework in the International and Global Issues area. The following courses are approved for the area.

Course #	Title	Hours
ANTH:1046/ GWSS:1046/ SEES:1046/ SJUS:1046	Environmental Politics in India	3
ANTH:2100	Anthropology and Contemporary World Problems	3
ARTH:1040	Arts of Africa	3
CPH:2200	Climageddon: Understanding Climate Change and Associated Impacts on Health	3
FREN:1006	Global Sports and National Cultures	3
FREN:1510	Cultural Misunderstandings: France and U.S.A.	3

GHS:2000/ ANTH:2103	Introduction to Global Health Studies	3
GRMN:2720/ HIST:2420	Germany in the World	3-4
HIST:1016	The History That Made Our World	3
HIST:1403	The West and the World: Modern	3
HIST:1602/ ASIA:1602	Civilizations of Asia: China from the 17th Century to the Present	3
HIST:1604/ ASIA:1604	Civilizations of Asia: Japan	3-4
HIST:1606/ ASIA:1606/ RELS:1606	Civilizations of Asia: South Asia	3-4
HIST:1607/ ASIA:1607	Civilizations of Asia: Korea	3-4
IS:2000	Introduction to International Studies	3
IS:2400	Global Citizenship and the College Student	3
IS:2560	Global Food Migrations	3
ITAL:2770	The Mafia and the Movies	3
LING:1040/ ANTH:1040	Language Rights	3
LING:1090	Language and Globalization	3
POLI:1400	Introduction to Comparative Politics	3
POLI:1401	Introduction to Russian Politics	3
POLI:1449	Introduction to European Politics	3
POLI:1500	Introduction to International Relations	3
POLI:1501	Introduction to American Foreign Policy	3
POLI:1510	International Politics of Environmental Issues	3
POLI:2415/ LAS:2415	Latin American Politics	3
POLI:2500	Politics of Natural Disasters	3
RELS:1130/ HIST:1030	Introduction to Islamic Civilization	3
RELS:2852/ GWSS:2052	Women in Islam and the Middle East	3
RELS:2955/IS:2955	Human Rights and Islam	3
RUSS:1132	Russia Today	3
RUSS:2050/ WLLC:2050	Women From an Unknown Land: The Fight for Independence	3
SEES:1070	Contemporary Environmental Issues	3
SEES:1090	Globalization and Geographic Diversity	3
SEES:2910	The Global Economy	3
SPST:2170	Sport and Globalization	3
URP:2056/ PBAF:2056	The Splendor of Cities	3

Literary, Visual, and Performing Arts

Courses in the Literary, Visual, and Performing Arts area provide students with opportunities to appreciate the arts and to analyze them within their historical and theoretical contexts. They also help students develop the analytic, expressive, and imaginative abilities necessary for understanding, appreciating, and creating art.

All students must complete at least 3 s.h. of coursework in the Literary, Visual, and Performing Arts area. The following courses are approved for the area.

Course #	Title	Hours
AFAM:1240/ MUS:1740	The Art of Listening to Jazz	3
ARTH:1010	Art and Visual Culture	3
ARTH:1020	Masterpieces: Art in Historical and Cultural Perspectives	3
ARTH:1030	Themes in Global Art	3
ARTH:1040	Arts of Africa	3
ARTH:1050	From Cave Paintings to Cathedrals: Survey of Western Art I	3
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II	3
ARTH:1070	Asian Art and Culture	3
ARTH:1095/ NAIS:1095	Native American Art	3
ARTS:1010	Elements of Art	3
ARTS:1030	Elements of Jewelry and Metal Arts	3
ARTS:1050	Elements of Printmaking	3
ARTS:1080	Elements of Sculpture	3
CERM:2010	Ceramics I: Handbuilding	3
CHIN:1702	Chinese Popular Culture	3
CINE:1100	The Art of Smartphone Filmmaking	3
CINE:1602	Introduction to Film Studies	3
CINE:1610	Contemporary Cinema	3
CINE:2626	History of Animation	3
CLSA:1010	Hero, God, Mortal: Literature of Greece	3
CLSA:1020	Love and Glory: The Literature of Rome	3
CLSA:1740/ WRIT:1740	Writing Strategies: Word Origins and Word Choice	3
CLSA:1809	Ancient World on the Modern Screen	3
CLSA:2016	Classical Mythology	3
CNW:1620	Introduction to Creative Nonfiction	3
CW:1800	Creative Writing Studio Workshop	3
DANC:1010	Beginning Tap	3
DANC:1020	Beginning Jazz	3
DANC:1025	Beginning Hip Hop Dance	3
DANC:1030	Beginning Ballet	3
DANC:1040	Beginning Modern Dance	3
DANC:1110	Continuing Tap	3

DANC:1120	Continuing Jazz	3
DANC:1125	Continuing Hip Hop Dance	3
DANC:1130	Continuing Ballet	3
DANC:2020	Intermediate Jazz	3
DANC:2025	Intermediate Hip Hop Dance	3
DANC:2060	Dance and Society in Global Contexts	3
EDTL:2122	Creativity, Imagination, Play, and Human Development through the Arts	3
ENGL:1100	City of Literature	3
FREN:4100	French Cinema	3-4
GRMN:2275	Scandinavian Crime Fiction	3
GRMN:2630	German Cinema: Greatest Hits	3-4
GRMN:2666/ WLLC:2666	Pact With the Devil	3
GRMN:2785	Cyborgs, Monsters, and the Uncanny	3
HONR:2992	Classic Cult Cinema	3
HONR:2993	The Art of Creativity: How to Think Like a Writer	3
ITAL:2440	Italian Arts for International Success	3
LATS:1700/ SPAN:1700	Latina/o/x Literature in the United States	3
MUS:1001	Group Piano I: Non-Music Majors	1
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1012	Creativity in Music	3
MUS:1020	Performance Instruction for Nonmajors	1
MUS:1066	Introduction to Film Music	3
MUS:1301	Concepts and Contexts of Western Music	3
MUS:1302	Great Musicians	3
MUS:1310	World Music	3
MUS:1720	History of Jazz	3
MUS:1800	World of the Beatles	3
MUS:2005	Issues in Popular Music: Women Who Rock	3
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
PORT:2850/ LAS:2850/ SPAN:2850	Brazilian Narrative in Translation	3
SCLP:2810	Undergraduate Sculpture I	3
TDSN:2210	Introduction to 3D Design	3
THTR:1140	Basic Acting	3
THTR:1400	Theatre and Society: Ancients and Moderns	3
THTR:1401	Theatre and Society: Romantics and Rebels	3
THTR:1412/ DANC:1412	The Arts in Performance	3
THTR:2301	Playwriting I	3
THTR:2410	History of Theatre and Drama I	3
THTR:2411	History of Theatre and Drama II	3
TRNS:1240/ CLSA:1040	World Literature in Translation I	3
TRNS:1241	World Literature: 1700 to Present	3
UICB:2110/ BKAT:2110	Introduction to Book Arts	3

Values and Society

Courses in the Values and Society area focus on how culture shapes the human experience and the role of values in society, with students asking fundamental questions regarding the human experience while exploring their own values and beliefs.

All students must complete at least 3 s.h. of coursework in the Values and Society area. The following courses are approved for the area.

Course #	Title	Hours
AMST:1010	Understanding American Cultures	3
AMST:1049/ HIST:1049/ NAIS:1049	Introduction to Native American and Indigenous Studies	3
AMST:1154	Food in America	3
AMST:2000	Introduction to American Studies	3
ANTH:1101/IS:1101	Cultural Anthropology	3
ARTH:1030	Themes in Global Art	3
ARTH:1045	Race and Art in America	3
ARTH:1095/ NAIS:1095	Native American Art	3
ARTS:2000/ ASP:2000/ EDTL:2000/ RHET:2000	Big Ideas: Creativity for a Lifetime	3
ASIA:1502/ RELS:1502/ SOAS:1502	Asian Humanities: India	3
ASIA:1609/ HIST:1609	India Now! Surveying the World's Largest Democracy	3-4
ASIA:2450/ MUS:2450	India Beat: The Aesthetics and Politics of India Today	3
CHIN:1504	China Beyond Walls	3
CHIN:1800	Chinese Calligraphy and Culture	3
CLSA:1340	Magic in the Ancient World	3
CLSA:1454	Hebrew Bible for Everyone	3
CLSA:1455	New Testament for Everyone	3
CLSA:1875	Ancient Sports and Leisure	3
CLSA:2016	Classical Mythology	3
CLSA:2482/ RELS:2182	Ancient Mediterranean Religions	3
CLSA:2651/ GWSS:2651	Gender and Sexuality in the Ancient World	3
COMM:1174	Media and Society	3
DANC:1150/ LAS:1150	Brazilian Culture and Carnival	3
EPLS:4020	Being in Civic Dialogues	3

EPLS:4180	Human Relations for the Classroom Teacher	3
GHS:2100/ GWSS:2100	Foundations of Health Humanities	3
GRMN:2618/ WLLC:2618	Film and Literature of the Holocaust	3
GWSS:1060/ AMST:1060/ ENGL:1410	Sex and Popular Culture in America	3
HIST:1708	Civilizations of Africa	3
HONR:1670	Values and Culture	3
ITAL:2550	Images of Modern Italy	3
ITAL:2880	Italian Food Culture	3
JMC:1500	Introduction to Social Media	3
JMC:1800	Environmental Communication	3
JPNS:1506	Ghostly Japan	3
LATS:1700/ SPAN:1700	Latina/o/x Literature in the United States	3
LING:2900	Language and Gender	3
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1720	History of Jazz	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
PHIL:1401	Matters of Life and Death	3
PHIL:1861	Introduction to Philosophy	3
PHIL:2402	Introduction to Ethics	3
POLI:1300	Introduction to Political Thought and Action	3
RELS:1070	Introduction to the Hebrew Bible/Old Testament	3
RELS:1080	Introduction to the New Testament	3
RELS:1350/ AFAM:1250	Introduction to African American Religions	3
RELS:1404/ ASIA:1040/ HIST:1610	Introduction to Asian Religions	3
RELS:1506/ ASIA:1060/ HIST:1612	Introduction to Buddhism	3
RELS:1702	Religion in America Today	3
RELS:1810	Happiness in a Difficult World	3
RELS:1903	Quest for Human Destiny	3
RELS:2986	Religion and Women	3
RHET:2070	Persuasive Stories	3
RUSS:1082	Youth Subcultures After Socialism	3
RUSS:1131/ WLLC:1131	Introduction to Russian Culture	3
RUSS:1531	Slavic Folklore	3
RUSS:1532	Traces of Ancient Russian Culture (IX-XVII Centuries): Vikings, Mongols, and Tsars	3
RUSS:2100	Russian Mindset: Sex, Business, and Politics	3
SMC:1050/JMC:1050	Sport and the Media	3
SOC:1310/ GWSS:1310	Gender and Society	3
SOC:2710	The American Family	3
SOC:2810	Social Inequality	3
SPAN:2901	Diversity and Cultures in Spain	3
SRM:1049	Foundations for Sport and Physical Activity: Catalyst for Sustainable Communities	3
SRM:1070	Recreation and Parks in the United States: Foundations and Impact	3
SSW:1022/ SOC:1022	Social Justice and Social Welfare in the United States	3
THTR:1411	Comedy and Society	3
THTR:1412/ DANC:1412	The Arts in Performance	3
TR:1070	Leisure, Play, and the Human Experience	3

African American Studies

Interim Chair

- Rene R. Rocha

Undergraduate major: African American studies (BA)

Undergraduate minor: African American studies

Graduate degree: MA in African American world studies

Graduate certificate: African American studies

Faculty: https://africanamericanstudies.uiowa.edu/people

Website: https://africanamericanstudies.uiowa.edu/

African American studies (AAS) examines the unique experiences of African-descended people throughout the diaspora, drawing on a rich tradition of civic engagement, scholarship, and teaching. The faculty introduce students to the foundations of African American studies and collaborate with them to understand new intellectual perspectives. Courses and research revolve around three core areas of study: history, religion, and the diaspora; literature and performing arts; and media, politics, and society. Within these areas, students carefully consider the construction of race, ethnicity, and identity and the performance of class, gender, and sexuality. Students who take courses in African American studies acquire a special skill set that enables them to critically interrogate their own culture and other cultures in the world around them.

Cocurricular Activities

Afro-American Cultural Center

African American studies encourages students to use the Afro-American Cultural Center (Afro House). The center serves as a museum housing educational artifacts. Offering enrichment for the University of Iowa and promoting diversity among all members of the Iowa City community, the center also provides a cultural hub for African American students.

African American Studies Student Association

The African American Studies Student Association aims to promote knowledge about Black life in the United States by hosting speakers, publicizing artistic performances, and sponsoring relevant programs with various campus collaborators. The association is primarily designed for AAS majors and minors; however, any University of Iowa student interested in African American studies is eligible to become a member.

Seminar and Lecture Series

The African American Studies Seminar Series and the Darwin Turner Lecture bring important scholars and creative artists to the University of Iowa campus. Guests of the lecture and seminar series have included Amiri Baraka, Trudier Harris, Ta-Nehisi Coates, Michelle Wallace, Mary Patillo, J. Lorand Matory, Paul Butler, Gabrielle Forman, and Valerie Smith.

African American Studies Annual Awards Program

Each spring, the African American Studies Program honors AAS majors and minors, along with exceptional University of Iowa students and organizations. Scholarships are awarded by the Marie Nesbitt Foundation, the African American Studies Program, the National Association of Black Journalists, and the Iowa Black Alumni Association. Awards are offered that recognize student efforts in community service, leadership, creative arts, graduate research, cultural appreciation, and academic achievement.

Graduate Student Mentoring and Advising

The African American Studies Program sponsors several intellectual and social gatherings for graduate students across multiple disciplines. During these events, the Society of Black Graduate and Professional Students (BGAPS) and other graduate students connect with others interested in African American studies and receive advice about becoming faculty members, being productive members of the academic profession, and career options outside of academia.

Iowa Black Alumni Association

The Iowa Black Alumni Association (IBAA) promotes the general mission of the University of Iowa. The group enhances the career connections of prospective, current, and former Black University of Iowa students. It also recognizes these individuals for their service. The IBAA also supports the African American Studies Program in various ways, such as with fundraising and the advisory board.

Programs

Undergraduate Programs of Study

Major

- Major in African American Studies (Bachelor of Arts) [p. 40]

Minor

- Minor in African American Studies [p. 44]

Graduate Programs of Study

- Master of Arts in African American World Studies

The African American Studies Program is not accepting MA students at this time.

- Certificate in African American Studies [p. 46]

Courses

African American Studies Courses

AFAM:1000 First-Year Seminar **1 s.h.**
Small discussion class; topics chosen by instructor. Requirements: first-year standing.

AFAM:1020 Introduction to African American Culture **3 s.h.**
Examination of Black cultural experiences in the United States and the African diaspora; focus on literature, music, film, comics, anime, popular culture, and visual/performing arts. GE: Understanding Cultural Perspectives. Same as AMST:1030.

AFAM:1030 Introduction to African American Society 3 s.h.
Examination of Black social and historical institutions in the United States and the African diaspora; focus on education, sports, political science, religion, health, criminal justice, history, sociology, and other disciplines. GE: Understanding Cultural Perspectives.

AFAM:1041 African American Religion and Popular Culture 3 s.h.
Examination of the role African American religions play in shaping 20th century and contemporary popular culture in the United States; students explore recent histories of Black Christianity, American Islam, and African diaspora religions; gender and race; cultural production in hip hop, jazz, rhythm and blues, literature, poetry, film, sports, cuisine, visual art, and style. Same as RELS:1041.

AFAM:1130 The History of African American Film 3 s.h.
History of African American cinema; examination of various cycles of Black movie fare between 1912-1999. GE: Understanding Cultural Perspectives.

AFAM:1140 Introduction to Contemporary Black Art: Painting, Performance, and Process 3 s.h.
Introduction to African American art in the United States; exploration of major art events (i.e., Harlem Renaissance, Black Arts Movement); study of specific African American artists and their work; influence of race on artistic expression. Same as ARTS:1140.

AFAM:1240 The Art of Listening to Jazz 3 s.h.
What is jazz and its importance; guided introduction to jazz music, anatomy of jazz music, cultural context; development of skills to become an informed listener; process of performing jazz music, its connection with Black culture; focused listening/analysis of prominent jazz artists' work from past and present, including intersection between jazz and hip hop; formal music experience or training not required. GE: Literary, Visual, and Performing Arts. Same as MUS:1740.

AFAM:1241 The Soundtrack of Black America 3 s.h.
Linkage of African American culture and music; Black musical innovations that shaped mainstream American musical tastes over the last century; exploration of relationship between Black music and culture; examples of blues, jazz, gospel, hip hop; artists including Bessie Smith (blues), Mahalia Jackson (gospel), Miles Davis (jazz), Nas and Talib Kweli (hip hop). GE: Understanding Cultural Perspectives. Same as MUS:1741.

AFAM:1250 Introduction to African American Religions 3 s.h.
GE: Values and Society. Same as RELS:1350.

AFAM:1900 Diverse Topics in African American Studies 3 s.h.
Examination of African American experience based on a range of topics covering history and contemporary themes; significant contributions by African Americans to American society and around the world in the arts, literature, politics, music, religion, science, and other areas; evolution of African American culture and critical evaluation of issues, including intersectionality and inequality within specific subjects; social, cultural, and historical resources that challenge assumptions and biases when it comes to racial backgrounds and perspectives; key elements within each selected environment, along with meaningful events and individuals. GE: Understanding Cultural Perspectives.

AFAM:2064 African American Families: Urban and Suburban 3 s.h.
Racial inequality and experiences of African American families in the United States during the 20th and 21st centuries; historical context for contemporary research on African American family; relative impact of structural and cultural factors on various aspects of African American family life, declining marriage rates, family formation patterns; intersections of race and class in family life; research methods used to examine dynamics of African American family life, including quantitative analysis, structured qualitative interviews, and ethnography. GE: Understanding Cultural Perspectives. Same as SOC:2064.

AFAM:2070 Black Television Culture 3 s.h.
Social and political impact of television dramas featuring people of African descent in the West; examination of production, reception, representation, and industry as it relates to the African American images that are granted tenure on television screens. GE: Understanding Cultural Perspectives. Same as COMM:2069.

AFAM:2072 African American Popular Culture 3 s.h.
Examination of global popularity and impact of African American popular culture. Same as COMM:2072.

AFAM:2076 Race, Ethnicity, and Media 3 s.h.
Introduction to debates about media portrayals of race and ethnicity; focus primarily on entertainment media; use of general analytic perspectives (stereotype analysis, aesthetic analysis, history) applied to real-world examples; address one or more racial/ethnic groups in the United States. Same as COMM:2076.

AFAM:2079 Race and Ethnicity in Sport 3 s.h.
Structural and ideological barriers to racial and ethnic equality in sport, with focus on African American sport experiences; historical and contemporary issues, media representations. Same as SPST:2079.

AFAM:2266 Civil War and Emancipation 3 s.h.
160 years later, what can we learn about American history from studying a war that both killed and liberated an unprecedented number of people? Why did it take a war to end slavery? How did emancipation occur and how did enslaved people accelerate the destruction of U.S. slavery during the war? Same as HIST:2266.

AFAM:2267 African American History to 1877 3 s.h.
Experiences of African and African American people in the American colonies and the states of the new nation; history of Africans and African Americans as early settlers, enslaved and free, in places such as Detroit, Chicago, New York, and New Orleans; interactions with Indigenous people; role in the war for American independence; long history of resistance to slavery and racial discrimination; exploration of the rich history of community building, creation of significant Black social and cultural institutions, and formation of Black political thought and political activism. GE: Understanding Cultural Perspectives. Same as HIST:2267.

AFAM:2268 African American History Since the Civil War 3 s.h.
Exploration of racial oppression of African Americans and multiracial struggles against that oppression since the Civil War era; students examine the history of racism at individualized and systematic levels; historical efforts made by individuals and collective movements in service of the long Black freedom struggle; and the ways these twinned histories have shaped modern America. GE: Understanding Cultural Perspectives. Same as HIST:2268.

AFAM:2463 Topics in African American Literature 3 s.h.
Selected topics in African American literature. Same as ENGL:2463.

AFAM:2465 Selected African American Authors 3 s.h.
Literary works by selected African American authors. Same as ENGL:2465.

AFAM:2500 Black Culture and Experience: Contemporary Issues 3 s.h.
Exploration of various contemporary social topics (e.g., education, religion, literature, theater, media, politics, sports, criminal justice, health, economics); use of readings, interactive experiences, course assignments (reading essays, interview/profile, observation analysis, case study, final paper), and unit quizzes to understand Black life in the 21st century. GE: Understanding Cultural Perspectives.

AFAM:2700 The Black Image in Sequential Art: Comics, Graphic Novels, and Anime 3 s.h.
Provides a foundation to critically interpret the representation of people of African descent in sequential art; primary focus on serial comic strips, gags, comic books, graphic novels, video games, animation, anime, Manga, film, zines, and televisual examples of Blackness; emphasis of readings and viewing materials on gender, sexualities, economics, ethnicity, the transnational circulation and commodification of the Black image, fandom communities, independent and mainstream sequential art producers. Same as AMST:2700.

AFAM:2770 Black and White Community Politics 3 s.h.
Students study the movement for environmental justice within the broader context of U.S. land use and development to understand environmental racism's prevalence and how it can be addressed; topics include pollution, health, food access, transportation and agricultural practice to land loss, public space, and infrastructure; exploration of perspectives on the environment and environmentalism. Same as GHS:2770, SOC:2770.

AFAM:2800 African American Women, Health, Hair, and Sexuality 3 s.h.
From the exotic to the erotic, African American women's bodies have been constructed to fulfill a variety of personal and cultural fantasies as well as social functions that are "killing us softly"; how cultural icons and myths of Black women—Jezebel, Mammy, Tragic Mulatto, Aunt Jemima, Sapphire, Matriarch, Welfare Queen, and more recently, the overachieving Black woman—shape and create restrictions and visions of the self that contribute to health disparities; engaging Black feminist/womanist theory to explore how larger images influence everyday acts of self-care and pleasure, such as hair and sexuality, on the health of African American women. Same as GWSS:2800.

AFAM:3053 The Civil Rights Movement 3 s.h.
History of the American civil rights movement. Same as AMST:3053, HIST:3253.

AFAM:3100 Critical Race Theory: Culture, Power, and Society 3 s.h.
Examination of the historical context of race and racism in U.S. history; focus on how social structures perpetuate longstanding patterns of racial inequality. Same as AMST:3100, SOC:3100.

AFAM:3110 Race, Organizations, and Workplace 3 s.h.
Examination of racial discrimination in the American workplace and organizations; historical context for development of complex organizations; various forms of racial discrimination; longstanding patterns of racial inequality central to American organizations. Same as SOC:3110.

AFAM:3245 Twentieth- and Twenty-first Century African American Religion 3 s.h.
Twentieth- and twenty-first-century African American religious history; major political and cultural movements including civil rights, Black power, Black feminism/womanism, hip hop, and Black Lives Matter; their impact on Black Christianity and Islam in the United States. Same as RELS:3745.

AFAM:3256 The Great Migration(s) in the Midwest 3 s.h.
Investigation of African American migration to and within the Midwest; first and second Great Migrations (1910–1940, 1940–1970); focus on reaction to and social, cultural, political, and economic impact of newcomers arrival; class time devoted to actual practice of historical research; students work on a collaborative project focused on the history of racial discrimination, housing segregation, and resistance to that oppression in Iowa's six metropolitan areas. Same as HIST:3256.

AFAM:3257 Civil Rights and Racial Justice: A Tour Through the South 1-3 s.h.
Exploration of the history of modern civil rights movement through lectures, shared readings, videos, and discussion; includes preparation and two-week tour of civil rights sites in the South. Prerequisites: SJUS:1001 or SJUS:2250 or GWSS:1002 or CCCC:2220 or AFAM:1030 or HIST:2268 or HIST:2268 or HIST:3253 or HIST:3253 or HIST:3253 or HIST:3232 or AFAM:3100 or AFAM:3500 or AFAM:3260 or AFAM:3260 or HIST:3282 or HIST:3282 or HIST:4130. Same as GWSS:3257, HIST:3257, SJUS:3257.

AFAM:3260 Violence in Black America 3 s.h.
Examination of violence—physical, structural, gendered, and psychological—and its impact of shaping Black American experience through resistance, cultural production, and community development. Same as HIST:3260.

AFAM:3262 The Black Midwest: History, Literature, and Culture 3 s.h.
Exploration of history, culture, and art of the Black Midwest using literature and scholarly readings, poems, music, and film; modern issues impacting Black Midwesterners; cultural, social, and political contributions of Black Midwesterners to the region and nation. Same as HIST:3262.

AFAM:3275 History of Slavery in North America 3 s.h.
Examines the origin, evolution, and patchwork abolition of Black chattel slavery in the parts of North America that became the United States; emphasizes the ways that slavery was not a static institution, but rather changed over time and space; centers the enslaved as historical actors with their own politics, economics, and culture; wrestles with historical memory and popular representations of slavery. Same as HIST:3275.

AFAM:3459 African American Literature Before 1900 3 s.h.
African American literature before 1900. Same as ENGL:3459.

AFAM:3460 African American Literature After 1900 3 s.h.
African American literature after 1900. Same as ENGL:3460.

AFAM:3461 Twenty-First Century African American Literature 3 s.h.
African American literature from 20th- and 21st-century writers; African American experience(s) of race, sexuality, gender, class, and privilege in contemporary era; various ways poets, rappers, authors tackle these themes within literary forms (i.e., fiction, creative nonfiction, autobiography, poems, songs); societal structures of power. Same as ENGL:3461.

AFAM:3462 African American Drama 3 s.h.
African American dramatic literature. Same as ENGL:3462, THTR:3462.

AFAM:3465 African American Autobiography 3 s.h.
The autobiography by African American writers. Same as ENGL:3465.

AFAM:3500 Malcolm X, King, and Human Rights 3 s.h.
Religion and politics of Malcolm X and Martin Luther King, Jr. in the context of U.S. civil rights and international human rights in West Africa and the Muslim world; emphasis on civil rights connections to Gandhi, the Nobel Peace prize, and other international experiences that have impacted Pan Africanists, such as Stokely Carmichael, who worked on human rights. Recommendations: international studies major or undergraduate standing. Same as HIST:3160, RELS:3808.

AFAM:3550 African Literature 3 s.h.
Literature by African writers. Same as ENGL:3550.

AFAM:3555 Topics in African Cinema 3 s.h.
African cinema and literature. Same as ENGL:3555.

AFAM:3600 Digitizing Blackness 3 s.h.
Examination of Black cultural experiences in digital spheres, including digital humanities and new information technologies; focus on Afrofuturism, gaming, augmented reality, digital mapping, podcasting, social media, and digital cultures; exposure to digital tools and methods. Same as AMST:3600.

AFAM:3630 The Racial Wealth Gap: Black Debt, White Debt 3 s.h.
Exploration of extent, historical origins, and contemporary factors of the racial wealth gap with special attention to role of debt in U.S. race relations; potential topics include education debt, monetary sanctions in criminal justice, redlining, recession, bankruptcy, and reparations. Same as SOC:3630.

AFAM:3758 The Ancient African Past 3 s.h.
Africa to 1880; oral tradition and other sources; political development, ecological change, slavery and slave trade. Same as HIST:3758.

AFAM:3760 The Making of Modern Africa 3 s.h.
Africa in colonial and postcolonial period; economics, political structures of colonialism; social change, political life in the 20th century. Same as HIST:3760.

AFAM:3900 Topics in African American Studies arr.
Different topic each semester.

AFAM:3925 African Americans and the Media 3 s.h.
Exploration of the theoretical notion of racialism in various genres of mass communication (i.e., music, print media, television/cable, film, social media); analysis and discussion of contemporary images and messages in media related to African American culture with close attention to impact of stereotypes, historical myths, stigmas, problematic representations, biased framing, and traditional racism. Same as JMC:3165.

AFAM:4250 Education In Black America 3 s.h.
Introduction to various educational policies and events germane to the history of African American education from 1900 through the mid-1980s; read works and watch documentaries that examine those policies, concepts, strategies, and events surrounding Black education; analyze and synthesize this information through small and large class discussions, reading responses, quizzes, a debate, a book review, a short essay, and related presentation. GE: Historical Perspectives. Same as EPLS:4250.

AFAM:4770 Environmental Justice 3 s.h.
Introduction to the field of environmental justice; understanding and addressing the processes that lead poor and marginalized communities to face a disproportionate degree of environmental risks and hazards. Same as GHS:4770, SEES:4770.

AFAM:4910 Special Topics 3 s.h.
Selected topics, issues, and debates about various components of African American culture including literature, sociology, psychology, media, history, rhetoric, theater, sports, health, and education.

AFAM:4980 Independent Study arr.
Topics vary.

AFAM:4990 Honors Project arr.
Independent research and writing on interdisciplinary topic.

AFAM:5900 Advanced Readings in African American Studies: Historic and Contemporary Debates arr.
Weekly readings and discussions of scholarly book chapters and articles related to key topics; students synthesize, debate, and critically evaluate all course material; topic areas include African American history, culture, politics, Black feminist criticism, critical race theory, intersectionality, and more; introduction to current research of African American studies faculty members; for students interested in conducting research about African American culture.

AFAM:6500 Critical Readings in Cultural Studies: Stuart Hall's Legacy and Influences 3 s.h.
Exploration of the scholarship of Stuart Hall along with theories, methods, and history of cultural studies; focus on major areas of Hall's work including Marxist thought and the political economy, diasporas and globalization, cultural production and popular culture, film and cinema studies, race, ethnicity, identity, and differánce; key theorists that influenced Stuart Hall (e.g., Marx, Foucault, Fanon, Gramsci, Althusser) and scholars in cultural studies that have made appropriate use of Hall's writings and theories in their own work; role of theory in everyday life and the critical role of public intellectuals. Same as AMST:6500, ENGL:6050.

AFAM:6580 Seminar: Religion and Society 3 s.h.
Same as RELS:6580.

AFAM:6610 Studies in African American Literature 3 s.h.
Same as ENGL:6610.

AFAM:7205 New Histories: U.S. Slavery arr.
Our approach to study of slavery and discipline of history have been upended by recent works by and about women; exploration of that scholarship and consideration of where it takes us in grappling with systems and subjectivity of slavery. Same as GWSS:7205, HIST:7205.

AFAM:7207 American Emancipations 3 s.h.
Sample the historiography of slavery, abolition, and emancipation in the Western Hemisphere. Focus on the movements to abolish Black chattel slavery in the eighteenth- and nineteenth-century United States; engage related histories throughout the Atlantic world. Same as HIST:7207.

AFAM:7210 The Long Civil Rights Movement arr.
Exploration of the history and historiography of the modern Black freedom struggle in the United States, with particular attention to how historians in recent years have reconsidered traditional framings of that struggle's chronology, geography, gender politics, political aspirations, and achievements. Same as HIST:7210.

AFAM:7214 Readings: African American Women's History **arr.**
Same as GWSS:7214, HIST:7214.

African American Studies, BA

Learning Outcomes

Students will:

- understand basic facts, principles, key figures, and events related to African American experience in American society, plus recognize the significant contributions of African Americans in the United States and abroad;
- become familiar with the foundations of the discipline of African American studies and the development of the field, specifically conceptual ideas that shape the academic study of African American life;
- acquire the tools for contextualizing and understanding the intersectionality of race, class, gender, and/or sexual orientation in an effort to identify relevant challenges and solve human problems related to the African American community;
- learn to critically analyze cultural issues shaping the lives and conditions of African Americans through curriculum, community service, and service learning as they confirm the value of diversity in the 21st century; and
- be prepared for potential careers or postbaccalaureate work in African American studies and related fields through the development of skills in critical thinking, oral and written communication, and research.

Requirements

The Bachelor of Arts with a major in African American studies requires a minimum of 120 s.h., including at least 30 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Transfer credit is evaluated individually, and a maximum of 9 s.h. may be applied to the major in African American studies. Students may count up to 56 s.h. of African American studies coursework (prefix AFAM) toward credit required for the Bachelor of Arts degree.

The BA with a major in African American studies requires the following coursework.

Requirements	Hours
Introductory Courses	6
African American Studies Core	18
Electives	6

Introductory Courses

Students are required to complete the following introductory courses.

Course #	Title	Hours
AFAM:1020/ AMST:1030	Introduction to African American Culture	3
AFAM:1030	Introduction to African American Society	3

African American Studies Core

In addition to the two required introductory courses, all students must complete at least 6 s.h. from each of the three topical areas below (minimum of 18 s.h.). Other courses may be approved for the topical areas; consult with an African American studies advisor.

History, Religion, and the Diaspora

Course #	Title	Hours
At least 6 s.h. from these:		
AFAM:1041/ RELS:1041	African American Religion and Popular Culture	3
AFAM:1250/ RELS:1350	Introduction to African American Religions	3
AFAM:1900	Diverse Topics in African American Studies (when topic is history, religion, or the diaspora)	3
AFAM:2266/ HIST:2266	Civil War and Emancipation	3
AFAM:2267/ HIST:2267	African American History to 1877	3
AFAM:2268/ HIST:2268	African American History Since the Civil War	3
AFAM:2500	Black Culture and Experience: Contemporary Issues (when topic is history, religion, or the diaspora)	3
AFAM:3245/ RELS:3745	Twentieth- and Twenty-first Century African American Religion	3
AFAM:3260/ HIST:3260	Violence in Black America	3
AFAM:3262/ HIST:3262	The Black Midwest: History, Literature, and Culture	3
AFAM:3275/ HIST:3275	History of Slavery in North America	3
AFAM:3555/ ENGL:3555	Topics in African Cinema	3
AFAM:3758/ HIST:3758	The Ancient African Past	3
AFAM:3760/ HIST:3760	The Making of Modern Africa	3
AFAM:3900	Topics in African American Studies (when topic is history, religion, or the diaspora)	arr.
AFAM:7205/ GWSS:7205/ HIST:7205	New Histories: U.S. Slavery	arr.
EPLS:5126	Twentieth-Century Educational Movements	2-3

Literature and Performing Arts

Course #	Title	Hours
At least 6 s.h. from these:		
AFAM:1130	The History of African American Film	3
AFAM:1140/ ARTS:1140	Introduction to Contemporary Black Art: Painting, Performance, and Process	3
AFAM:1240/ MUS:1740	The Art of Listening to Jazz	3
AFAM:1241/ MUS:1741	The Soundtrack of Black America	3

AFAM:1900	Diverse Topics in African American Studies (when topic is literature or performing arts)	3
AFAM:2463/ ENGL:2463	Topics in African American Literature	3
AFAM:2465/ ENGL:2465	Selected African American Authors	3
AFAM:2500	Black Culture and Experience: Contemporary Issues (when topic is literature or performing arts)	3
AFAM:2700/ AMST:2700	The Black Image in Sequential Art: Comics, Graphic Novels, and Anime	3
AFAM:3459/ ENGL:3459	African American Literature Before 1900	3
AFAM:3460/ ENGL:3460	African American Literature After 1900	3
AFAM:3461/ ENGL:3461	Twenty-First Century African American Literature	3
AFAM:3462/ ENGL:3462/ THTR:3462	African American Drama	3
AFAM:3465/ ENGL:3465	African American Autobiography	3
AFAM:3900	Topics in African American Studies (when topic is literature or performing arts)	arr.

Media, Politics, and Social Institutions

Course #	Title	Hours
At least 6 s.h. from these:		
AFAM:1900	Diverse Topics in African American Studies (when topic is media, politics, or social institutions)	3
AFAM:2064/ SOC:2064	African American Families: Urban and Suburban	3
AFAM:2070/ COMM:2069	Black Television Culture	3
AFAM:2072/ COMM:2072	African American Popular Culture	3
AFAM:2076/ COMM:2076	Race, Ethnicity, and Media	3
AFAM:2079/ SPST:2079	Race and Ethnicity in Sport	3
AFAM:2500	Black Culture and Experience: Contemporary Issues (when topic is media, politics, or social institutions)	3
AFAM:2770/ GHS:2770/ SOC:2770	Black and White Community Politics	3
AFAM:3053/ AMST:3053/ HIST:3253	The Civil Rights Movement	3
AFAM:3100/ AMST:3100/ SOC:3100	Critical Race Theory: Culture, Power, and Society	3
AFAM:3110/ SOC:3110	Race, Organizations, and Workplace	3
AFAM:3500/ HIST:3160/ RELS:3808	Malcolm X, King, and Human Rights	3
AFAM:3600/ AMST:3600	Digitizing Blackness	3
AFAM:3630/ SOC:3630	The Racial Wealth Gap: Black Debt, White Debt	3
AFAM:3900	Topics in African American Studies (when topic is media, politics, or social institutions)	arr.
AFAM:3925/ JMC:3165	African Americans and the Media	3
AFAM:4250/ EPLS:4250	Education In Black America	3
AFAM:4770/ GHS:4770/ SEES:4770	Environmental Justice	3

Electives

Students must also take two elective courses (minimum of 6 s.h.) selected from the three topical areas previously listed. One of the two elective courses may be substituted with AFAM:4980 Independent Study or AFAM:4990 Honors Project. With the approval of an African American studies advisor, students may also substitute relevant courses offered by other departments for one or both electives; the substituted courses may not be cross-referenced with African American studies. Students must gain the advisor's approval before enrolling in a substitute course.

Course #	Title	Hours
Two electives selected from the three topical areas or approved substitutes		6

Language Requirement

The language requirement for the African American studies major is the same as the World Languages requirement of the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Students are encouraged, but not required, to take African language courses (Swahili is currently offered) or Spanish language courses to fulfill the World Languages requirement.

Honors

Honors in the Major

Students majoring in African American studies have the opportunity to graduate with honors in the major. Honors in the major offers students the opportunity to pursue special interests and individual in-depth research.

Honors students must complete all required coursework for the major while maintaining a University of Iowa grade-point average (GPA) of at least 3.33 and a major GPA of at least 3.33 (30 s.h.). Students must register for up to 6 s.h. of AFAM:4990 Honors Project, which enhances a student's ability to complete honors projects under the guidance of the supervising faculty member. Students enroll in AFAM:4990 with the approval of an African American studies faculty member, who will supervise the course. They may count up to 6 s.h. earned in AFAM:4990 toward the 30 s.h. required for the major.

Under the guidance of the African American studies faculty member, an honors student defines a research project (thesis)

using primary, secondary, or archival sources. Students submit a project proposal by the end of their junior year. They complete a thesis under the guidance of a supervising faculty member and present the results as a senior essay to a committee of three, including the supervising African American studies faculty member, one other African American studies faculty member, and the African American studies chair. A student's committee may choose to hear an oral defense of the honors thesis, usually during the student's last semester.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the African American studies major.

Career Advancement

The African American studies major provides valuable background for careers in a diverse society, in areas such as community work, public school teaching, religion, government, political science, and law. Some graduates go on to advanced study, many preparing for work as teachers and administrators at colleges and universities.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

During the first year of study, students should focus on completing the GE CLAS Core [p. 22], perhaps including Swahili or Spanish coursework to begin satisfying the World Languages requirement.

Before the fifth semester begins: at least three courses in the major, including AFAM:1020 Introduction to African American Culture and AFAM:1030 Introduction to African American Society.

Before the seventh semester begins: at least seven courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least nine courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

African American Studies, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
AFAM:1030 or AFAM:1020	Introduction to African American Society [b] or Introduction to African American Culture	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: Natural Sciences without Lab [c]		3
CSI:1600	Success at Iowa	1
Elective course [d]		2
	Hours	**15-16**
Spring		
AFAM:1020 or AFAM:1030	Introduction to African American Culture [b] or Introduction to African American Society	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Values and Society [c]		3
GE CLAS Core: Natural Sciences with Lab [c]		4
Elective course [d]		3
	Hours	**16-17**
Second Year		
Fall		
Major: history, religion, and the diaspora topical area course [e]		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: Quantitative or Formal Reasoning [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
	Hours	**16-17**
Spring		
Major: history, religion, and the diaspora topical area course [e]		3
Major: media, politics, and social institutions topical area course [e]		3
GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
	Hours	**16-17**
Third Year		
Fall		
Major: literature and performing arts topical area course [e]		3
Major: media, politics, and social institutions topical area course [e]		3

GE CLAS Core: World Languages Third Level Proficiency or elective course [f]	4 - 5
Elective course [d]	3
Elective course [d]	3
Hours	**16-17**
Spring	
Major: literature and performing arts topical area course [e]	3
GE CLAS Core: Social Sciences [c]	3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]	4 - 5
Elective course [d]	3
Elective course [d]	3
Hours	**16-17**
Fourth Year	
Fall	
Major: elective course [g]	3
Elective course [d]	3
Elective course [d]	3
Elective course [d]	3
Elective course [d]	3
Hours	**15**
Spring	
Major: elective course [g]	3
Elective course [d]	3
Elective course [d]	3
Elective course [d]	3
Elective course [d]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]	
Hours	**15**
Total Hours	**125-131**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e See the General Catalog for list of approved courses.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g Students must complete 6 s.h. in electives selected from the three topical areas; see the General Catalog for list of approved courses. With the approval of an African American studies advisor, students may substitute relevant courses offered by other departments for one or both electives.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

African American Studies, Minor

Requirements

The minor in African American studies requires a minimum of 15 s.h., including 12 s.h. taken at the University of Iowa. At least two of the African American studies core courses must be taken at the University of Iowa. Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. Coursework completed for another major or minor may not be counted toward the minor in African American studies.

The minor must include the following coursework.

Requirements	Hours
Introductory Courses	6
African American Studies Core	9

Introductory Courses

Students are required to complete the following introductory courses.

Course #	Title	Hours
Both of these:		
AFAM:1020/ AMST:1030	Introduction to African American Culture	3
AFAM:1030	Introduction to African American Society	3

African American Studies Core

Students must complete one course from each of the three topical areas below (9 s.h.), with at least two courses taken at the University of Iowa.

History, Religion, and the Diaspora

Course #	Title	Hours
One of these:		
AFAM:1041/ RELS:1041	African American Religion and Popular Culture	3
AFAM:1250/ RELS:1350	Introduction to African American Religions	3
AFAM:1900	Diverse Topics in African American Studies (when topic is history, religion, or the diaspora)	3
AFAM:2266/ HIST:2266	Civil War and Emancipation	3
AFAM:2267/ HIST:2267	African American History to 1877	3
AFAM:2268/ HIST:2268	African American History Since the Civil War	3
AFAM:2500	Black Culture and Experience: Contemporary Issues (when topic is history, religion, or the diaspora)	3
AFAM:3245/ RELS:3745	Twentieth- and Twenty-first Century African American Religion	3
AFAM:3260/ HIST:3260	Violence in Black America	3
AFAM:3262/ HIST:3262	The Black Midwest: History, Literature, and Culture	3
AFAM:3275/ HIST:3275	History of Slavery in North America	3
AFAM:3555/ ENGL:3555	Topics in African Cinema	3
AFAM:3758/ HIST:3758	The Ancient African Past	3
AFAM:3760/ HIST:3760	The Making of Modern Africa	3
AFAM:3900	Topics in African American Studies (when topic is history, religion, or the diaspora)	arr.
AFAM:7205/ GWSS:7205/ HIST:7205	New Histories: U.S. Slavery	arr.
EPLS:5126	Twentieth-Century Educational Movements	2-3

Literature and Performing Arts

Course #	Title	Hours
One of these:		
AFAM:1130	The History of African American Film	3
AFAM:1140/ ARTS:1140	Introduction to Contemporary Black Art: Painting, Performance, and Process	3
AFAM:1240/ MUS:1740	The Art of Listening to Jazz	3
AFAM:1241/ MUS:1741	The Soundtrack of Black America	3
AFAM:1900	Diverse Topics in African American Studies (when topic is literature or performing arts)	3
AFAM:2463/ ENGL:2463	Topics in African American Literature	3
AFAM:2465/ ENGL:2465	Selected African American Authors	3
AFAM:2500	Black Culture and Experience: Contemporary Issues (when topic is literature or performing arts)	3
AFAM:2700/ AMST:2700	The Black Image in Sequential Art: Comics, Graphic Novels, and Anime	3
AFAM:3459/ ENGL:3459	African American Literature Before 1900	3
AFAM:3460/ ENGL:3460	African American Literature After 1900	3
AFAM:3461/ ENGL:3461	Twenty-First Century African American Literature	3
AFAM:3462/ ENGL:3462/ THTR:3462	African American Drama	3
AFAM:3465/ ENGL:3465	African American Autobiography	3

AFAM:3900	Topics in African American Studies (when topic is literature or performing arts)	arr.

Media, Politics, and Social Institutions

Course #	Title	Hours
One of these:		
AFAM:1900	Diverse Topics in African American Studies (when topic is media, politics, or social institutions)	3
AFAM:2064/ SOC:2064	African American Families: Urban and Suburban	3
AFAM:2070/ COMM:2069	Black Television Culture	3
AFAM:2072/ COMM:2072	African American Popular Culture	3
AFAM:2076/ COMM:2076	Race, Ethnicity, and Media	3
AFAM:2079/ SPST:2079	Race and Ethnicity in Sport	3
AFAM:2500	Black Culture and Experience: Contemporary Issues (when topic is media, politics, or social institutions)	3
AFAM:2770/ GHS:2770/ SOC:2770	Black and White Community Politics	3
AFAM:3053/ AMST:3053/ HIST:3253	The Civil Rights Movement	3
AFAM:3100/ AMST:3100/ SOC:3100	Critical Race Theory: Culture, Power, and Society	3
AFAM:3110/ SOC:3110	Race, Organizations, and Workplace	3
AFAM:3500/ HIST:3160/ RELS:3808	Malcolm X, King, and Human Rights	3
AFAM:3600/ AMST:3600	Digitizing Blackness	3
AFAM:3630/ SOC:3630	The Racial Wealth Gap: Black Debt, White Debt	3
AFAM:3900	Topics in African American Studies (when topic is media, politics, or social institutions)	arr.
AFAM:3925/ JMC:3165	African Americans and the Media	3
AFAM:4770/ GHS:4770/ SEES:4770	Environmental Justice	3

African American Studies, Graduate Certificate

Requirements

The graduate Certificate in African American Studies requires a least 12 s.h. of credit. Students must maintain a grade-point average of at least 2.75 in work for the certificate. With civil and corporate work environments taking a distinct interest in the diversity of people, training, and ideas within their respective environments, the certificate provides a means of formally acknowledging cultural and intellectual understanding that is being sought by potential employers.

Students must be enrolled in a graduate degree program of study to earn the certificate. They meet yearly with the certificate advisor to plan their certificate coursework.

The Certificate in African American Studies requires the following coursework.

Course #	Title	Hours
AFAM:5900	Advanced Readings in African American Studies: Historic and Contemporary Debates	3
Three courses (3 s.h. each) related to African American studies numbered 3000 or above; at least 6 s.h. of these must be taken in a department other than a student's primary area of study (consult advisor)		9

Admission

Doctor of Philosophy students are encouraged to apply for the certificate program in their first year of graduate study, and students earning their master's degree in their first semester. Students then have sufficient time to select coursework in an area of African American studies that is most appealing to them. Applicants must have a grade-point average of at least 2.75 at the time of application.

Applicants who have taken courses that may apply toward the certificate can review a list of acceptable coursework on the Graduate Certificate in African American Studies website. They should note the courses that may apply toward the certificate on their certificate application in addition to a written justification, or they may meet with the director of African American studies as soon as possible to begin the consideration process.

For more information on formal application to the certificate program, please visit Graduate Programs on the African American Studies website.

Aging and Longevity Studies

Director, School of Social Work

- Miriam J. Landsman

Coordinator, Aging and Longevity Studies

- Mercedes Bern-Klug

Undergraduate minor: aging and longevity studies

Graduate certificate: aging and longevity studies

Faculty: https://socialwork.uiowa.edu/people

Website: https://socialwork.uiowa.edu/

Aging and Longevity Studies offers undergraduate and graduate programs and a selection of courses open to students in all majors.

Undergraduate students in the College of Liberal Arts and Sciences who would like to focus on aging and longevity studies as their major or as a second major should consider the individualized plan of study track offered by the Interdepartmental Studies Program; see Interdepartmental Studies [p. 586] in the catalog. Entry into the program requires approval of a plan of study.

Undergraduate students working on a Bachelor of Arts degree in the School of Social Work have the option to use some aging-related coursework as an area of focus in their major. Graduate students earning a Master of Social Work degree can declare gerontology/aging as an area of focus by completing coursework in aging. For more information, contact the School of Social Work.

Aging and Longevity Studies is administered by the School of Social Work [p. 998].

Programs

Undergraduate Programs of Study

Minor

- Minor in Aging and Longevity Studies [p. 49]

Graduate Program of Study

- Certificate in Aging and Longevity Studies [p. 50]

Career Advancement

The Aging and Longevity Studies Program minor or graduate certificate is an important asset for employment in any field. Working with an aging population and the issues affecting them will be increasingly important as the population of older adults also rises.

Among the organizations that have hired University of Iowa students and alumni are assisted living centers, retirement communities, senior centers, long-term care organizations, hospice centers, elder services, state government, businesses, advocacy organizations, and athletic clubs.

Areas of employment for individuals with specializations in aging and longevity studies include the following.

- State and local government agencies: State Department on Aging and Area Agency on Aging. All departments will be affected by population aging, even if they do not specialize in working with older adults, such as transportation, energy, housing, human services, small business supports, and veterans services, among others.
- Nonprofit organizations: senior centers, the American Association of Retired Persons (national, regional, and state offices), and Exploritas/Elderhostels (travel options for older adults).
- Social service organizations: Meals on Wheels, congregate meal sites, heating assistance programs, and transportation.
- Private corporations: human resources departments.

Courses

Aging and Longevity Studies Courses

ASP:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

ASP:1800 Aging Matters: Introduction to Gerontology **3 s.h.**
Overview of the field of gerontology from a bio-psycho-social framework; how the human body and brain age, effects of these biological changes on physical and cognitive functions, and interaction of these individual factors with societal contexts; broad perspective to give students a foundation in gerontology, paving the way for more advanced courses in biology of aging, psychology of aging, and global aging; for students from a wide range of disciplines and levels, no prior knowledge of aging required. GE: Social Sciences. Same as CSD:1800, NURS:1800, SSW:1800, TR:1800.

ASP:2000 Big Ideas: Creativity for a Lifetime **3 s.h.**
Exploration of what senior artists can teach about creativity and aging; interdisciplinary project-based collaborative learning opportunities that consider role of arts and creativity across a lifespan; essential skills necessary to be professionals in numerous careers including health, social work, education, humanities, and the arts; identification of ways for students to be more creative in their own lives and work. GE: Values and Society. Same as ARTS:2000, EDTL:2000, RHET:2000.

ASP:2181 The Anthropology of Aging **3 s.h.**
Comparative anthropological perspective on aging; ethnographies from diverse contexts used to examine intersections of kinship, religion, health, and medicine in later life. Same as ANTH:2181, GHS:2181.

ASP:2265 Hard Cases in Healthcare at the End of Life **3 s.h.**
Preparation for future healthcare providers to make difficult ethical decisions regarding the end of life; interactive course. Same as GHS:2265, RELS:2265.

ASP:3135 Global Aging **3 s.h.**
Demographic factors that contribute to the worldwide phenomena of population aging in context of WHO Active Aging and the United Nation's Principles for Older Persons frameworks. Same as GHS:3050, SSW:3135.

ASP:3150 Psychology of Aging **3 s.h.**
The later years of human life viewed from perspectives of developmental psychology, biology, sociology.

ASP:3152 Anthropology of Caregiving and Health 3 s.h.
Diverse understandings and practices of care around the world; focus on relationships between caregiving practices and health across the life course. Same as ANTH:3152, GHS:3152.

ASP:3170 Health and Aging 3 s.h.
Lifespan approach to understanding human biological development with emphasis on the experience of older adulthood and health; key concepts and how they are measured, including health promotion, wellness, and optimal aging. Recommendations: ASP:1800.

ASP:3175 Physical Activity and Recreation for Aging Populations 3 s.h.
Provides an overview of physical, social, and psychological aspects of aging and how these changes relate to designing exercise programs and leisure opportunities to improve the quality of life for older adults. Prerequisites: TR:2160 or HHP:2200. Same as HHP:3175, TR:3175.

ASP:3519 Politics of Aging 3 s.h.
Core concepts and methods related to aging and policies that address the needs of older persons; demographic measures of population health and aging, including incidence and distribution of specific conditions relevant in older age; theories of public policy and involvement of older persons in the political process; key historical and current policies, at both the federal and state/local levels, that influence service provision and the well-being of older persons in the United States. Same as POLI:3519.

ASP:3740 End-of-Life Care for Adults and Families 3 s.h.
End-of-life issues in care of adults, older adults, and their families. Same as MED:3740, NURS:3740.

ASP:3786 Death/Dying: Issues Across the Life Span 3-4 s.h.
Introduction to the field of end-of-life care; examination of student concerns about death, dying, and grieving process; historical, cultural, societal, and personal perspectives of death and dying in modern society. Same as SSW:3786.

ASP:4190 Aging Studies Internship and Seminar 3 s.h.
Opportunities for students in various disciplines to relate their areas of study to older adults and aging; interdisciplinary relationships, approaches to meeting needs of older adults. Requirements: enrollment in undergraduate aging and longevity studies certificate program. Same as SSW:4190.

ASP:4470 Physiology of Aging 3 s.h.
Aging's effects on cells, tissues, and organs; how aging influences function of major body organ systems and the whole organism; physiological mechanisms that underlie age-related changes in body function and performance; integrative approach with focus on human aging. Prerequisites: HHP:3500 or HHP:3550. Same as HHP:4470.

ASP:5401 The Care of the Frail Elderly 3 s.h.
Clinical management of the elderly; emphasis on economic considerations, principles of gerontological care, common syndromes, ethical issues; clinical application experience in a long-term care setting. Prerequisites: NURS:5035. Corequisites: NURS:6200 and NURS:6701. Same as NURS:5401.

ASP:5750 Medicare and Medicaid Policy 3 s.h.
Health policies most pertinent to Americans over age of 65. Same as HMP:5750.

ASP:6000 Graduate Gerontology Capstone 3 s.h.
Review of core concepts as identified by the Academy for Gerontology in Higher Education (AGHE) in the form of core competencies; students engage in discussions related to gerontological ethical issues at individual, family, and societal levels; receive guidance in developing and writing a major research paper relevant to their field; and engage in discussions related to uses of their gerontological knowledge in terms of looking for a job or pursuing further education.

Aging and Longevity Studies, Minor

Requirements

The undergraduate minor in aging and longevity studies requires a minimum of 15 s.h. in aging-related coursework. Students must maintain a grade-point average of at least 2.00 in all courses for the minor. Coursework in the minor may not be taken pass/nonpass. Courses for the minor must be approved by the Aging and Longevity Studies Program if they are not aging and longevity studies courses (prefix ASP) or do not have aging and longevity studies courses cross-referenced.

The minor may be earned by undergraduate students in the colleges of Liberal Arts and Sciences, Education, Engineering, Nursing, and the Tippie College of Business.

The minor in aging and longevity studies requires the following coursework.

Course #	Title	Hours
ASP:1800/ CSD:1800/ NURS:1800/ SSW:1800/TR:1800	Aging Matters: Introduction to Gerontology (recommended as first course for the minor)	3
Aging and longevity studies courses with the prefix ASP (except ASP:4190) or courses with aging and longevity cross-referenced; at least 6 s.h. of these must be numbered 3000 or above and must be taken at the University of Iowa		12

Aging and Longevity Studies, Graduate Certificate

Requirements

The graduate Certificate in Aging and Longevity Studies requires 12 s.h. of credit taken at the University of Iowa. Students must maintain a cumulative grade-point average of at least 2.75 in coursework to earn the certificate. The certificate program is open to University of Iowa graduate students with aging-related career interests and needs.

The Certificate in Aging and Longevity Studies takes a multidisciplinary approach to gerontology. Its coursework is coordinated and sequenced to provide a broad background in aging for students from varied disciplines.

Credit for the certificate must be earned in Aging and Longevity Studies Program courses (prefix ASP) and other courses approved for the program. With permission from the aging and longevity studies coordinator, students may be able to apply other aging-related courses to the certificate.

The Certificate in Aging and Longevity Studies requires the following coursework.

Core Courses

Students must complete three core courses.

Course #	Title	Hours
Both of these:		
ASP:3135/ GHS:3050/ SSW:3135	Global Aging	3
ASP:3150	Psychology of Aging	3
One of these:		
ASP:3170	Health and Aging	3
ASP:4470/HHP:4470	Physiology of Aging	3

Capstone Course

Course #	Title	Hours
This course:		
ASP:6000	Graduate Gerontology Capstone	3

Admission

University of Iowa students pursuing a graduate degree in any field who are in good academic standing are eligible to add the Aging and Longevity Studies Certificate as a program of study.

Domestic or international individuals who are not already enrolled in the Graduate College at the University of Iowa and who do not intend to earn a graduate degree must first apply for admission on the Admissions website as a nondegree graduate student. Prospective students should indicate an intention to pursue the certificate on their application.

American Studies

Interim Chair

- Rene R. Rocha

Undergraduate minor: American studies

Graduate degrees: MA in American studies; PhD in American studies

Faculty: https://americanstudies.uiowa.edu/people

Website: https://americanstudies.uiowa.edu/

The Department of American Studies provides an interdisciplinary introduction to American culture, past and present. It helps students acquire a broad familiarity with the dynamics of cultural experience and explore aspects of life in the United States, such as sport, popular and fine arts, institutions, values, gender and ethnic relations, artifacts, and the everyday life of a diverse citizenry.

The department offers an undergraduate minor in American studies as well as graduate programs of study in American studies, with a sport studies subprogram available in the PhD program of study.

The department is the administrative home of the Native American and Indigenous Studies Program and the Latina/o/x Studies Program, which offer undergraduate minors and undergraduate and graduate certificates; see Native American and Indigenous Studies [p. 868] and Latina/o/x Studies [p. 763] in the catalog.

Programs

Undergraduate Programs of Study

Minor

- Minor in American Studies [p. 57]

Graduate Programs of Study

- Master of Arts in American Studies [p. 58]
- Doctor of Philosophy in American Studies [p. 60]

The Doctor of Philosophy program in American studies is not currently accepting new applicants.

Courses

- American Studies Courses [p. 51]
- Sport Studies Courses [p. 54]

American Studies Courses

AMST:1000 First-Year Seminar 0-1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, field trips). Requirements: undergraduate first-year standing.

AMST:1010 Understanding American Cultures 3 s.h.
The United States in historical, contemporary, and transnational perspective; social and cultural diversity and conflict in American life; debates on concepts of America, the American Dream, national culture, citizenship. GE: Values and Society.

AMST:1030 Introduction to African American Culture 3 s.h.
Examination of Black cultural experiences in the United States and the African diaspora; focus on literature, music, film, comics, anime, popular culture, and visual/performing arts. GE: Understanding Cultural Perspectives. Same as AFAM:1020.

AMST:1049 Introduction to Native American and Indigenous Studies 3 s.h.
Exploration of past, present, and future of American Indians in the United States and beyond through film, art, music, and comedy. GE: Values and Society. Same as HIST:1049, NAIS:1049.

AMST:1060 Sex and Popular Culture in America 3 s.h.
Critical and historical introduction to representation of human sexuality in American popular culture from World War II to the present. GE: Values and Society. Same as ENGL:1410, GWSS:1060.

AMST:1074 Inequality in American Sport 3 s.h.
Cultural meanings of sport in contemporary U.S. culture; sport experiences, inclusion, and exclusion as affected by social class, gender and sexuality, age and ability, race and ethnicity, and religion. GE: Understanding Cultural Perspectives. Same as GWSS:1074, SPST:1074.

AMST:1080 American Political Humor 3 s.h.
How political humor reflects and influences American attitudes regarding government institutions, elected officials, the democratic process; how humor works; examples from Revolutionary War present and from varied media, including cartoons, fiction, film, television, internet.

AMST:1154 Food in America 3 s.h.
Cultural significance of production, distribution, and consumption of food in the United States. GE: Values and Society.

AMST:1290 Native American Foods and Foodways 3 s.h.
Native Americans as original farmers of 46% of the world's table vegetables; examination of food as a cultural artifact (e.g., chocolate, tobacco); food as a primary way in which human beings express their identities; environmental, material, and linguistic differences that shape unique food cultures among Native peoples across the Western Hemisphere; close analysis of Indigenous foods, rituals, and gender roles associated with them; how colonization transformed Native American, European, and African American cultures. GE: Understanding Cultural Perspectives. Same as GHS:1290, HIST:1290, NAIS:1290.

AMST:1600 War Stories 3 s.h.
Exploration of the history of U.S. conflicts from Vietnam to the War on Terror through novels, film, and other cultural forms; specific focus on how U.S. social structures influence experiences of war. Same as LATS:1600, SJUS:1600.

AMST:1700 Fake News: A History of Misinformation in the United States 3 s.h.
Fake news is sometimes imagined as a recent phenomenon, but misinformation campaigns have a long history in the United States; students survey some of the most significant instances of misinformation in U.S. history from the18th century to present, explore the historical context that motivated the attempt at misinformation, consider how people sought to combat it, and reflect on outcomes and implications of these campaigns; tools to effectively identify and combat misinformation in contemporary life. Recommendations: basic knowledge of U.S. history.

AMST:2000 Introduction to American Studies 3 s.h.
Variety of historic and contemporary sources, such as literature, law, photography, painting, film, TV, music, fashions, environments, events of everyday life. GE: Values and Society.

AMST:2025 Diversity in American Culture 3 s.h.
History and variety of American identities, examined through citizenship, culture, social stratification; conflict and commonalities among groups according to race, ethnicity, gender, class, sexuality; how art, literature, music, film, photography, and other cultural artifacts represent diversity of identities. GE: Understanding Cultural Perspectives.

AMST:2084 Sport and Film 3 s.h.
Sport films as means of exploring contemporary ideas about sport in the U.S.; focus on narrative structure, characterization, historical, and political contexts; formal aspects of film analysis (e.g., editing, lighting, cinematography). Same as JMC:2084, SMC:2084, SPST:2084.

AMST:2101 Digital Media and the Future of Sport 3 s.h.
Emergence and significance of internet blogs, social media, convergence journalism, video games, and fantasy sports; economic, regulatory, and cultural forces that shape new media sport journalism and entertainment. Same as JMC:2101, SMC:2101, SPST:2101.

AMST:2150 Money, Capitalism, and Culture 3 s.h.
Investigation of novels, film, and art that represent complicated social and cultural life of money; how money's movement through American society shapes and is shaped by gender, race, and class dynamics; social origins and historical consequences of money, capital, and stock market; how novelists, filmmakers and artists come to terms with capitalism's ever-expanding reach.

AMST:2160 Love and Romance in America 3 s.h.
Exploration of the role of love and romance in the American experience; analysis of love and romance in their association with American ideals—pursuit of happiness, upward mobility, and liberation of self, nation, and world; history of romance as a genre; contemplation of picket fences, free love, bromance, valentines, green cards, desperate housewives, break-ups, hook-ups, and (un)happily ever after. Same as GWSS:2160.

AMST:2165 Native Peoples of North America 3 s.h.
History, culture of American Indian peoples; emphasis on North America. GE: Understanding Cultural Perspectives. Same as ANTH:2165, NAIS:2165.

AMST:2230 Fame and Celebrity in U.S. History 3 s.h.
Cultural history of the meanings and implications of fame and celebrity in America; conception of fame in the 18th century as something earned through great deeds and conferred by future generations; rise of a culture of celebrity in 19th- and 20th-century America; focus on theater, sports, movie, and musical stars; use of celebrities to sell products; implications for presidential campaigns; instant and ephemeral celebrity generated by television and the internet. Same as HIST:2230.

AMST:2292 Native American Law and Policy: A History 3 s.h.
Native Americans are citizens of governments that predate the U.S.; what it means to be a citizen of a federally recognized tribe within the U.S.; exploration of the peculiar status of Native nations and their citizens since 1789. Same as HIST:2292, NAIS:2292.

AMST:2300 Native Americans in Film 3 s.h.
Representations of Native Americans in film from the western to science fiction and animation. Same as NAIS:2300.

AMST:2700 The Black Image in Sequential Art: Comics, Graphic Novels, and Anime 3 s.h.
Provides a foundation to critically interpret the representation of people of African descent in sequential art; primary focus on serial comic strips, gags, comic books, graphic novels, video games, animation, anime, Manga, film, zines, and televisual examples of Blackness; emphasis of readings and viewing materials on gender, sexualities, economics, ethnicity, the transnational circulation and commodification of the Black image, fandom communities, independent and mainstream sequential art producers. Same as AFAM:2700.

AMST:2847 Hawkeye Nation: On Iowa and Sport 3 s.h.
Identity, community, and place explored within local frameworks: the University of Iowa, Iowa City, State of Iowa; how sport, literature, film, other cultural institutions forge connections to community and shape Iowa's image in the public imagination; identity and community as complex and contested issues; local rituals, sites of memorialization, acts of erasure, management and use of public and private space such as UI athletic complex, Field of Dreams, Iowa Writers' Workshop, Iowa Avenue Literary Walk, Blackhawk Park; interdisciplinary approaches grounded in American studies, sport studies, Native American and Indigenous studies, literature, history. Same as SPST:2847.

AMST:3050 Topics in American Cultural Studies 3 s.h.
Special topics in American history, literature, culture.

AMST:3053 The Civil Rights Movement 3 s.h.
History of the American civil rights movement. Same as AFAM:3053, HIST:3253.

AMST:3078 Archiving Women's History 3 s.h.
Exploration of girls' and women's history in Iowa through collections at the Iowa Women's Archives; introduction to archival research, digital humanities, and Omeka (a digital collection and exhibit platform) with focus on sport-related collections; guided individualized research and exhibit development. Same as GWSS:3078, MUSM:3078, SPST:3078.

AMST:3095 Central America and Its Diaspora 3 s.h.
Explore the social structures, histories, and cultures of a number of Central American countries; specificities of the U.S. Central American experience including the challenges they face from other Latinx groups, changing immigration regimes, their relationship to their "home" countries, and the cultures and communities they build once they arrive. Same as LATS:3095.

AMST:3100 Critical Race Theory: Culture, Power, and Society 3 s.h.
Examination of the historical context of race and racism in U.S. history; focus on how social structures perpetuate longstanding patterns of racial inequality. Same as AFAM:3100, SOC:3100.

AMST:3171 Baseball in America 3 s.h.
Forces that influenced political, economic, and social development of professional baseball in the United States; rise of major league baseball, its relationship to the minor leagues, and development of organized baseball industry. Same as SPST:3171.

AMST:3178 History of Sport in the United States 3 s.h.
Historic development of sport in the United States between 1700 and 2000; economic forces, professionalization, growth of media, increasing opportunities, and ongoing challenges for various sporting populations. Same as SPST:3178.

AMST:3179 Twentieth-Century American Sport 3 s.h.
Historic development of sport in the United States between 1900 and 2000; economic forces, professionalization, growth of media, and increasing opportunities and ongoing challenges for various sporting populations. Same as SPST:3179.

AMST:3205 American Cultural History 3 s.h.
Nineteenth- and twentieth-century U.S. history from a cultural perspective; culture defined broadly to encompass paintings, sculpture, theater, novels, and newer forms of entertainment made available by lithography, photography, cinema, the phonograph, radio, and television; rather than assume Americans were passive consumers of commercial culture, students examine how Americans expressed themselves through foodways, home decor, clothing fashions, or slang; how Americans drew on these cultural forms in social/political struggles over race, gender, class, and sexuality. Same as HIST:3205.

AMST:3249 Midwestern History 3 s.h.
People of Iowa and surrounding Midwestern states—a land where people work hard, are practical, down to earth, and honest; the idea of a place in the heartland as real or simply a myth; history of Midwestern states from Native American occupation to present; how reality, ideas, and images are portrayed. Same as HIST:3249.

AMST:3251 The Office: Business Life in America 3 s.h.
History of business life in America from birth of Wall Street to rise of Silicon Valley; modes of managing and regulating office workers; changing designs of office buildings, furniture, gadgets; corporate response to rise of class inequalities and growing gender and racial diversity in workforce; portrayal of businessperson in novels, movies, television, art, photography. Same as HIST:3251.

AMST:3264 Technology in American Culture and Society 3 s.h.
Social and cultural history of technology in the United States from cotton gin to smartphone; how technologies have shaped and been shaped by American culture, society, and politics—encompassing technologies of production, communication, transportation, entertainment, warfare, voting, surveillance, and more; economic forces spurring technological innovation and ways in which ordinary users re-appropriate technologies; cultural responses to new technologies (e.g., writers, artists, filmmakers, critics) ranging from fear to celebration; utopian and dystopian imaginings of future technologies. Same as HIST:3264.

AMST:3265 American Monuments 3 s.h.
History of public monuments in America from the inception of first major monuments in the 1820s to the latest incarnations (e.g., counter-monuments such as the 9/11 Memorial, spontaneous and temporary monuments, online memorials); how monuments have depicted Indians, Blacks, Southern confederates, women, and other groups; how monuments have commemorated wars, Indian massacres, lynchings, and political movements (e.g., civil rights, women's suffrage); how monuments have been reinterpreted through popular protests and depositing of artifacts; why monuments have attracted so much controversy, culminating in recent events at Charlottesville. Same as HIST:3265.

AMST:3410 Undocumented America: Citizenship, Race, and Immigration 3 s.h.
Examination of how literature and culture responds to and rearticulates culture, history, legal logic, and economic parameters that frame who is "legal" and "illegal" and how undocumented immigrants document and contest their lack of rights; how designations of immigrant's illegal or undocumented status depend on and maintain U.S. discourse about race and ethnicity. Same as LATS:3410.

AMST:3415 Latina/o/x Protest, Movement, Resistance 3 s.h.
Examination of history, form, and function of protest, social movement, and resistance by Latina/o/x peoples in the United States. Same as LATS:3415, SJUS:3415.

AMST:3420 Latinas/os/x and the Law 3 s.h.
Introduction and survey of Latina/o/x legal history; topics include segregation, educational rights, immigration, voting rights, citizenship, and the criminal justice system. Same as LATS:3420, POLI:3427, SJUS:3420.

AMST:3430 Women on Stage 3 s.h.
Examination of how and why women in the United States have expressed themselves through theatre and performance from 1776 to present; students study plays as performed events in specific times and places for specific audiences through works by African American, Asian American, European American, Latina, Native American, and lesbian/queer writers; what the theater—as a public, embodied art form—offers female writers; how stakes differ for women of diverse backgrounds in using this often suspect and uniquely powerful medium in particular historical moments; how changing definitions of gender and sexuality come into play; prior background in theater not required. Same as GWSS:3430, THTR:3430.

AMST:3450 Queer Latina/o/x Studies 3 s.h.
Relationship of Latina/o/x culture with gender, sexuality, and queerness. Same as LATS:3430, SJUS:3430.

AMST:3600 Digitizing Blackness 3 s.h.
Examination of Black cultural experiences in digital spheres, including digital humanities and new information technologies; focus on Afrofuturism, gaming, augmented reality, digital mapping, podcasting, social media, and digital cultures; exposure to digital tools and methods. Same as AFAM:3600.

AMST:3900 Seminar in American Cultural Studies 3 s.h.
Interdisciplinary perspectives on a single theme or period.

AMST:3994 Independent Study arr.

AMST:4800 Latina/o/x Popular Culture 3 s.h.
Role of Latina/o/x popular culture as a site of contemporary social practice and cultural politics in both local and global contexts; specific attention to notions of citizenship, identity, and culture. Taught in English. Same as LATS:4800.

AMST:4999 Honors Project arr.
Independent interdisciplinary research, writing.

AMST:5000 Interdisciplinary Research in American Cultures 3 s.h.
Research, theories, and methods in the interdisciplinary study of American cultures.

AMST:5002 Critical Theories and Cultural Studies 3 s.h.
Exploration and application of critical theories to contemporary sport; feminism, Marxism, critical race theory, whiteness studies, queer theory, postcolonial theory, postmodernism, and poststructuralism. Same as SPST:5002.

AMST:6050 Seminar: Topics in American Studies 3 s.h.
American cultural history; urbanization, mass media, pluralism, assimilation.

AMST:6074 Seminar in Sport History 3 s.h.
Topics in sport history; theoretical and methodological issues. Same as SPST:6074.

AMST:6140 Engaged Scholarship in the Humanities 0,3 s.h.
Survey of literature on community-engaged scholarship (CES) in the humanities; exploration of the pioneering work of engaged scholars in Native American, Latino, and African American studies; students write a research prospectus that is consistent with CES methodologies. Same as HIST:6140.

AMST:6300 Writing for Learned Journals 1-4 s.h.
Seminar that supports graduate students in bringing written work to publishable form; analysis of target journals' audiences, interests, and citation politics; submission and the publication process; response to reader reports and criticism; best writing and research practices; discussion of knowledge cultures and discourses in disciplines and the contemporary academy. Same as GRAD:6300, GWSS:6300, RHET:6330.

AMST:6500 Critical Readings in Cultural Studies: Stuart Hall's Legacy and Influences 3 s.h.
Exploration of the scholarship of Stuart Hall along with theories, methods, and history of cultural studies; focus on major areas of Hall's work including Marxist thought and the political economy, diasporas and globalization, cultural production and popular culture, film and cinema studies, race, ethnicity, identity, and differánce; key theorists that influenced Stuart Hall (e.g., Marx, Foucault, Fanon, Gramsci, Althusser) and scholars in cultural studies that have made appropriate use of Hall's writings and theories in their own work; role of theory in everyday life and the critical role of public intellectuals. Same as AFAM:6500, ENGL:6050.

AMST:7077 Sport Studies Workshop 1 s.h.
Development of individual research projects for group discussion. Requirements: graduate standing in American studies or sport studies. Same as SPST:7070.

AMST:7085 Dissertation Writing Workshop 1 s.h.
Dissertation preparatory work with peer and faculty critiques, including preparation of a prospectus, research activities, and chapter writing. Requirements: American studies graduate standing with postcomprehensive examination status.

AMST:7090 PhD Thesis arr.

AMST:7146 Temporality in History: United States and Beyond 1,3 s.h.
Introduction to growing field of temporal history; how time has been measured, regulated, experienced, and imagined in the West and non-West from antiquity to present with emphasis on 19th-and 20th-century United States; topics include time discipline (e.g., factory, slave plantation, corporate office), standard time, and deep time; focus on changing technologies of time (e.g., clocks, calendars) and to temporal impact of other technologies (e.g., cinema); application of temporal perspective to political revolution, warfare, nation building, class formation, gender relations, slavery, and urbanization. Same as HIST:7146.

AMST:7559 Race, Science, and Nature in Latin America arr.
Analysis of the history of United States and Latin America relations in the 20th century through the lens of scientific and agricultural change; how plant breeding, agrochemicals, heavy machinery, and irrigation systems set in motion trends that made the 20th century exceptional; possibility of feeding an unprecedented growing global population and transition of human species from being primarily rural to primarily urban in less than a hundred years; analysis of how a network of scientists, businesses, and governments made proliferation of agribusinesses possible to emphasize Indigenous and Mestizo peasants' role in that process. Same as HIST:7559, SEES:7559.

AMST:7994 Independent Study arr.

Sport Studies Courses

SPST:1000 First-Year Seminar 1-2 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

SPST:1074 Inequality in American Sport 3 s.h.
Cultural meanings of sport in contemporary U.S. culture; sport experiences, inclusion, and exclusion as affected by social class, gender and sexuality, age and ability, race and ethnicity, and religion. GE: Understanding Cultural Perspectives. Same as AMST:1074, GWSS:1074.

SPST:2077 Sport and Religion in America 3 s.h.
Sport as a religion; religiosity in sports; examination of religion and sport as connected in important ways in American society. Same as RELS:2877.

SPST:2078 Women, Sport, and Culture 3 s.h.
Feminist analysis of girls' and women's sports experiences, including reproduction of gender through sport, recent changes in women's intercollegiate athletics, media representations of women's sport, feminist critiques, alternatives to sport. Same as GWSS:2078.

SPST:2079 Race and Ethnicity in Sport 3 s.h.
Structural and ideological barriers to racial and ethnic equality in sport, with focus on African American sport experiences; historical and contemporary issues, media representations. Same as AFAM:2079.

SPST:2084 Sport and Film 3 s.h.
Sport films as means of exploring contemporary ideas about sport in the U.S.; focus on narrative structure, characterization, historical, and political contexts; formal aspects of film analysis (e.g., editing, lighting, cinematography). Same as AMST:2084, JMC:2084, SMC:2084.

SPST:2101 Digital Media and the Future of Sport 3 s.h.
Emergence and significance of internet blogs, social media, convergence journalism, video games, and fantasy sports; economic, regulatory, and cultural forces that shape new media sport journalism and entertainment. Same as AMST:2101, JMC:2101, SMC:2101.

SPST:2170 Sport and Globalization 3 s.h.
Sport as both a global and local phenomenon; influence of global economic, political, and cultural forces on local sporting expressions, experiences, and identities; global sporting cultures from cricket to capoeira; global sporting spectacles from the Olympics and Paralympics to the FIFA World Cup; global sporting celebrities and athlete migrants from Maria Sharapova and Christiano Rinaldo to Yao Ming and Dominican Republic baseball; global sporting production, consumption, and development from global labor and environmental concerns to sport for development and peace. GE: Sustainability. GE: International and Global Issues; Sustainability.

SPST:2500 Sport and Technology 3 s.h.
Connections between sport and technology; performance enhancement to Paralympians, sex testing to scientific racism, Fitbits to e-sports, data analytics and journalism; cultural approaches to understanding how science, medicine, and technology impact active bodies, sporting industries, and infrastructure; debates regarding risks and responsibilities; exploration of various roles (e.g., athletes, administrators, architects, engineers, programmers, trainers) in creating and sustaining past, present, and future of sports. Same as SMC:2500.

SPST:2847 Hawkeye Nation: On Iowa and Sport 3 s.h.
Identity, community, and place explored within local frameworks: the University of Iowa, Iowa City, State of Iowa; how sport, literature, film, other cultural institutions forge connections to community and shape Iowa's image in the public imagination; identity and community as complex and contested issues; local rituals, sites of memorialization, acts of erasure, management and use of public and private space such as UI athletic complex, Field of Dreams, Iowa Writers' Workshop, Iowa Avenue Literary Walk, Blackhawk Park; interdisciplinary approaches grounded in American studies, sport studies, Native American and Indigenous studies, literature, history. Same as AMST:2847.

SPST:3078 Archiving Women's History 3 s.h.
Exploration of girls' and women's history in Iowa through collections at the Iowa Women's Archives; introduction to archival research, digital humanities, and Omeka (a digital collection and exhibit platform) with focus on sport-related collections; guided individualized research and exhibit development. Same as AMST:3078, GWSS:3078, MUSM:3078.

SPST:3171 Baseball in America 3 s.h.
Forces that influenced political, economic, and social development of professional baseball in the United States; rise of major league baseball, its relationship to the minor leagues, and development of organized baseball industry. Same as AMST:3171.

SPST:3172 Football in America 3 s.h.
Forces that influenced political, economic, and cultural development of college and professional football in the United States; rise of the National Football League and its relationship to college football and commercial media interests.

SPST:3173 Cultures of Basketball 3 s.h.
Exploration of different ways basketball has been played, marketed, and celebrated in the United States and globally. Recommendations: background in U.S. history and/or African-American history.

SPST:3175 Sport and the Media 3 s.h.
Examination of sport and media's intimate relationship; aesthetic, cultural, political, economic, and industrial factors that shape it. Same as JMC:3183.

SPST:3176 Sport and Nationalism 3 s.h.
Role of sport in the phenomenon of nationalism; selected theories; case studies on Ireland, Australia, British West Indies, Cold War United States, and fascist Europe.

SPST:3178 History of Sport in the United States 3 s.h.
Historic development of sport in the United States between 1700 and 2000; economic forces, professionalization, growth of media, increasing opportunities, and ongoing challenges for various sporting populations. Same as AMST:3178.

SPST:3179 Twentieth-Century American Sport 3 s.h.
Historic development of sport in the United States between 1900 and 2000; economic forces, professionalization, growth of media, and increasing opportunities and ongoing challenges for various sporting populations. Same as AMST:3179.

SPST:3181 The Business of Sport Communication 3 s.h.
Critical and practical approach to understanding contemporary sports media and business practices that mark it; focus on sports media industries and institutions; branding, marketing, demographic, public relations, and promotional factors that shape content. Same as JMC:3540, SMC:3540.

SPST:3182 Sport, Scandal, and Strategic Communication in Media Culture 3 s.h.
Use of sport scandal to consider relationship between sport and media in American and global popular culture; broad range of case studies used to consider what constitutes a sport scandal, how this definition shifts in different circumstances; crucial roles media play in creating, communicating, and diffusing these crises; how phenomenon of sports scandal has intensified along with emergence of cable television, internet, and social media. Same as JMC:3182, SMC:3182.

SPST:3184 Narrative Sports Journalism 3 s.h.
Historical review of long-form sports journalism to understand development of subjects, form, and technique of sports coverage and long-form nonfiction writing; students read several long-form articles and books that incorporate reporting about sports, and propose an original long-form work about sports. Same as JMC:3184, SMC:3184.

SPST:3193 Independent Study 1-3 s.h.
Problem in a specific area.

SPST:3500 The Olympics 3 s.h.
Real-time analysis and evaluation of current Winter or Summer Olympic and Paralympic Games; cultural history of modern Olympic Games (1896 to present); economics and politics of mega-events (e.g., cancellations, boycotts, protests); amateurism, professionalism, and athlete migrants; commercialization, broadcasting rights, and branding; nationalism, internationalism, and (post)colonialism; social and cultural impacts and controversies (e.g., social and environmental sustainability); Olympic bids, committees, and hosts; sex, gender, and racial discrimination; doping; technology, television, and social media.

SPST:3600 Internship in Sport and Culture 1-3 s.h.
Faculty-supervised professional work experience in sport and culture. Requirements: major in sport media and culture or sport and recreation management.

SPST:4999 Honors Project 1-3 s.h.

SPST:5002 Critical Theories and Cultural Studies 3 s.h.
Exploration and application of critical theories to contemporary sport; feminism, Marxism, critical race theory, whiteness studies, queer theory, postcolonial theory, postmodernism, and poststructuralism. Same as AMST:5002.

SPST:6010 Nonprofit Organizational Effectiveness I **3 s.h.**
Operational and financing aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as HMP:6360, MGMT:9150, PBAF:6278, RELS:6070, SSW:6247, URP:6278.

SPST:6020 Nonprofit Organizational Effectiveness II **3 s.h.**
Qualities for leadership of nonprofit organizations, including relationships with staff and volunteers; relationship of nonprofit and outside world; marketing, public relations, advocacy strategies for nonprofits. Same as HMP:6365, MGMT:9160, PBAF:6279, RELS:6075, SSW:6248, URP:6279.

SPST:6072 Seminar in Cultural Studies of Sport **3 s.h.**
Current theoretical debates in sport studies; applications of critical cultural studies theories to critical analysis of sport.

SPST:6074 Seminar in Sport History **3 s.h.**
Topics in sport history; theoretical and methodological issues. Same as AMST:6074.

SPST:7070 Sport Studies Workshop **1 s.h.**
Development of individual research projects for group discussion. Requirements: graduate standing in American studies or sport studies. Same as AMST:7077.

SPST:7090 Thesis: PhD **arr.**

SPST:7940 Independent Study **arr.**

American Studies, Minor

Requirements

The undergraduate minor in American studies requires a minimum of 15 s.h. in American studies courses (prefix AMST), including 12 s.h. numbered above AMST:1010 Understanding American Cultures taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Students select courses for the minor according to their interests and the recommendation of their advisor.

American Studies, MA

Learning Outcomes

Students must demonstrate:

- comprehension of the history, values, and methods of interdisciplinary scholarship in the field of American studies;
- knowledge of the multiple forums that exist for the communication, implementation, and praxis of American studies scholarship in social and institutional contexts where diversity, equity, and inclusion are guiding values;
- proficiency in advanced research and scholarly writing skills in the field of American studies;
- ability to articulate one's own intellectual commitments and professional goals within and in relationship to the field;
- hands-on participation in university certificate programs, community-based projects and internships, or digital humanities projects, training in college teaching pedagogy where consistent with their individual development plan; and
- critical thinking, writing, and speaking skills that are central to being an effective teaching assistant in university or college courses numbered in the 1000 range, and creation of a teaching portfolio.

Requirements

The Master of Arts program in American studies requires a minimum of 36 s.h. of graduate credit. Students must maintain a program grade-point average of at least 3.00. The degree is generally offered without a thesis; students must petition the director of graduate studies for permission to pursue the thesis option.

Each MA student designs an interdisciplinary field of concentration in consultation with the student's American studies advisor.

The MA with a major in American studies requires the following work.

Course #	Title	Hours
AMST:5000	Interdisciplinary Research in American Cultures (taken twice in consecutive years for 3 s.h. each)	6
Two graduate seminars in American studies		6
Five courses in the interdisciplinary field of concentration		15
Electives		9
MA portfolio		
Total Hours		**36**

Each student must complete a portfolio or thesis. The portfolio includes a research paper, faculty evaluations for all courses taken during the student's first full year of graduate study, and a self-evaluation essay.

The research paper is a graduate seminar paper that demonstrates a student's skills as a research scholar and writer and represents the student's strongest work. The paper should be 25–30 pages, including a bibliography.

The self-evaluation essay summarizes the American studies methods and materials that have shaped the student's interdisciplinary work in the field and states how the master's degree work in American studies has contributed to, challenged, or complicated the student's goals and ambitions beyond the degree.

Students assemble the MA portfolio under the guidance of their advisors and should submit it no later than Dec. 1 of their third semester in residency. The portfolio is evaluated on a satisfactory/unsatisfactory (S/U) basis by a three-person American studies faculty committee. Students whose portfolio receives a U may resubmit the portfolio during their fourth semester of residency.

For students who wish to continue their education with doctoral study, the MA portfolio serves as the application for admission to the PhD program in American studies. The department informs applicants whether they have been accepted into the PhD program by the end of the fall semester in which they submit their MA portfolio; admission is contingent upon successful completion of the MA during a student's fourth semester of residency.

Thesis Option

As an alternative to the portfolio, students may complete a master's thesis. Students planning to write a thesis should inform their advisor as early as possible, and at least one or two semesters in advance of graduation. A thesis involves interdisciplinary research and analysis, and represents an original contribution to knowledge. In most cases, the thesis is a 50–75 page manuscript. However, students may propose alternatives to the traditional form, provided they have the dissertation committee's approval and complete a memorandum of understanding with the director of graduate studies in American studies.

The thesis will be assessed by a committee composed of a student's advisor and two other faculty members. The thesis is distributed to the committee at least two weeks ahead of an oral defense.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

American studies students' career goals are as varied as the topics they study. Graduates are well prepared for careers in a wide range of areas, such as business, education, arts and museum administration, government, journalism, or social services.

The program also provides a good foundation for graduate studies in the humanities, the social sciences, theology, and business as well as for professional studies in law or medicine.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

American Studies, MA

Course	Title	Hours
Academic Career		
Any Semester		
36 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
AMST:5000	Interdisciplinary Research in American Cultures [b]	3
Interdisciplinary Field of Concentration course [c]		3
Interdisciplinary Field of Concentration course [c]		3
	Hours	**9**
Spring		
American Studies seminar course [d]		3
Interdisciplinary Field of Concentration course [c]		3
Elective course [e]		3
	Hours	**9**
Second Year		
Fall		
AMST:5000	Interdisciplinary Research in American Cultures [b]	3
American Studies seminar course [d]		3
Interdisciplinary Field of Concentration course [c]		3
	Hours	**9**
Spring		
Interdisciplinary Field of Concentration course [c]		3
Elective course [e]		3
Elective course [e]		3
Final Exam [f]		
	Hours	**9**
	Total Hours	**36**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Take twice in consecutive years.

c Each student designs an interdisciplinary field of concentration which consists of at least five courses (15 s.h.). Work with faculty advisor to determine appropriate graduate coursework.

d Work with faculty advisor to determine appropriate graduate seminars.

e Work with faculty advisor to determine appropriate graduate elective coursework.

f Completion of an MA portfolio, which includes a research paper, faculty evaluations for all courses taken during the student's first full year of graduate study, and a self-evaluation essay.

American Studies, PhD

The Doctor of Philosophy program in American studies is not currently accepting new applicants.

Learning Outcomes

Students must demonstrate:

- comprehension of the history, values, and methods of interdisciplinary scholarship in the discipline of American studies, and for sport studies subprogram students, this involves a knowledge of the current and foundational theory and methods in critical sport studies, as well as of the contributions to sport studies to American studies and vice-versa;
- knowledge of the multiple forums that exist for the communication, implementation, and praxis of American studies scholarship in social and institutional contexts, especially where diversity, equity, and inclusion are guiding values;
- ability to articulate one's own values, intellectual commitments, and professional goals within and in relationship to the field;
- proficiency in advanced research and scholarly writing skills in the field;
- hands-on participation in university certificate programs, community-based projects and internships, or digital humanities projects, training in college teaching pedagogy where consistent with the student's individual development plan;
- proficiency at situating and interpreting American social and cultural materials historically, while grasping the diversity and distinctness of historical factors as economic, colonial, racializing, transnational, global, and/or linguistic;
- proficiency and experience in communicating American studies scholarship publicly in at least three professional contexts including conference presentations and/or conference organizing; exhibitions/installations; editorial or curatorial work; invited talks; public engagement or public humanities project; publications; or digital humanities project;
- proficiency in the conceptualization, communication, and organizational skills that are crucial to pedagogy at multiple levels of a university or college curriculum, and the creation of a teaching portfolio;
- knowledge of major movements and debates in critical theory and cultural studies, as well as the theoretical and methodological issues and debates in sport history (for sport studies subprogram students); and
- understanding of how historical method, critical theory, and cultural studies concepts are utilized in critical sport studies scholarship, and identifying sports studies' place within and contributions to the wider study of culture and power (for sport studies subprogram students).

Requirements

The Doctor of Philosophy program in American studies requires a minimum of 72 s.h. of graduate credit. Students must maintain a program grade-point average of at least 3.00. They may focus on American studies or choose the sport studies subprogram.

Students work with their faculty advisor to map out a coherent plan of study that reflects their particular interests. Students are permitted considerable flexibility in constructing their study plan, but they must meet certain basic requirements, which include foundation courses, area foundation courses, two interdisciplinary fields of concentration, a research skills course, elective coursework, and a dissertation.

The two fields of concentration may be defined to correspond with a student's strongest intellectual interests, but they must be interdisciplinary in concept and multidisciplinary in scope. Each must include coursework from more than one of the university's departments and programs. The two concentration areas may, and usually should, have an intellectual relationship with each other.

Students are expected to address the cultural diversity of American life in their coursework and reading.

The PhD in American studies requires the following work. Some course requirements are different for American studies and sports studies.

Coursework

Required Foundation Course

All students complete the required foundation course and should take it as early as possible.

Course #	Title	Hours
AMST:5000	Interdisciplinary Research in American Cultures (taken twice in consecutive years for 3 s.h. each)	6

Area Foundation Courses

Course #	Title	Hours
American Studies Students		
Two American studies graduate seminars		6
Sport Studies Students		
SPST:5002	Critical Theories and Cultural Studies	3
SPST:6074	Seminar in Sport History	3

First Field of Concentration

Course #	Title	Hours
American Studies Students		
Courses in an interdisciplinary field with a historical concentration designed with the advisor and approved by the department's Plan of Study Committee		18
Sport Studies Students		
Courses on sport in cultural and historical contexts selected with the advisor and approved by the department's Plan of Study Committee		18

Second Field of Concentration

Course #	Title	Hours
American Studies Students		
Courses in an interdisciplinary field designed with the advisor and approved by the department's Plan of Study Committee		18
Sport Studies Students		
Courses in an interdisciplinary field designed with the advisor and approved by the department's Plan of Study Committee; may be a second field in sport studies or a field outside sport studies		18

Research Skills

All students take the following course.

Course #	Title	Hours
AMST:7085	Dissertation Writing Workshop (taken two or three times for 1 s.h. each)	2-3

Additional Requirements

All students take the following courses.

Course #	Title	Hours
All of these (to meet semester hours requirement to graduate):		
AMST:7090	PhD Thesis	arr.
Electives		

Admission to PhD Candidacy

Admission to PhD candidacy signifies that the department judges a doctoral student qualified to take the comprehensive examination. Doctoral students advance to PhD candidacy based on a review conducted during their second year in the PhD program (typically during fall semester); the review assesses a student's readiness to complete studies through the comprehensive examination and the dissertation, which is an original work of scholarship. In addition to judging a student's readiness for PhD candidacy, the review provides a progress report on the student's work and a tentative prognosis for future prospects in the field.

Comprehensive Examination

The comprehensive examination comprises three written exams and one oral exam.

The first exam is taken under the supervision of an American studies faculty member, who also chairs the comprehensive examination. The candidate takes a timed, take-home written exam of no less than four hours and no longer than two days. The exam details the candidate's approach to American studies (methods and models), including the student's position and critical engagement with models of American studies scholarship.

The remaining two written exams explore the candidate's major fields; these are at least four hours long and may be given on a take-home basis at the examiner's discretion.

The oral exam covers material from the written exams.

Dissertation

The final requirement for the PhD is the dissertation. A dissertation in American studies is a substantive work of scholarship that involves interdisciplinary research and analysis, and represents an original contribution to knowledge. In most cases, the dissertation takes the form of a book-length manuscript. However, students may propose alternatives to the traditional form, provided they have the dissertation committee's approval and complete a memorandum of understanding with the director of graduate studies in American studies. All dissertations must be approved by a committee of four faculty members, including at least two from the Department of American Studies.

Internships

Qualified graduate students in American studies can arrange internships with a number of local agencies, including the State Historical Society of Iowa, the Division of Historic Preservation, the University of Iowa Stanley Museum of Art, the Iowa Humanities Board, Brucemore, the Herbert Hoover Presidential Library and Museum, the Englert Theatre, and the Putnam Museum and Science Center. With special permission, candidates conducting research during on-the-job training may receive academic credit through AMST:7994 Independent Study. Other internships with social agencies, government, or businesses may also be arranged.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

American studies students' career goals are as varied as the topics they study. Graduates are well prepared for careers in a wide range of areas, such as business, education, arts and museum administration, government, journalism, or social services.

The program also provides a good foundation for further graduate studies in the humanities, the social sciences, theology, and business as well as for professional studies in law or medicine.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

American Studies, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Students work with their faculty advisor to map out a plan of study that reflects their particular interests; needs to include foundation courses, area foundation courses, two interdisciplinary fields of concentration, a research skills course, elective coursework, and a dissertation. [b]		
	Hours	**0**
First Year		
Fall		
AMST:5000	Interdisciplinary Research in American Cultures [c]	3
American Studies seminar course [d]		3
Field of Concentration course [e]		3
	Hours	**9**
Spring		
American Studies seminar course [d]		3
Field of Concentration course [e]		3

Field of Concentration course [f]		3
	Hours	**9**
Second Year		
Fall		
AMST:5000	Interdisciplinary Research in American Cultures [c]	3
Field of Concentration course [e]		3
Field of Concentration course [f]		3
	Hours	**9**
Spring		
Field of Concentration course [e]		3
Field of Concentration course [e]		3
Field of Concentration course [f]		3
	Hours	**9**
Third Year		
Fall		
Comprehensive Exam [g]		
Field of Concentration course [e]		3
Field of Concentration course [f]		3
Field of Concentration course [f]		3
	Hours	**9**
Spring		
AMST:7085	Dissertation Writing Workshop [h]	1
Field of Concentration course [f]		3
Elective course [i]		3
	Hours	**7**
Fourth Year		
Fall		
Prospectus Defense		
AMST:7085	Dissertation Writing Workshop [h]	1
Elective course [i]		3
Elective course [i]		3
	Hours	**7**
Spring		
AMST:7085	Dissertation Writing Workshop [h]	1
Elective course [i]		3
Elective course [i]		3
	Hours	**7**
Fifth Year		
Fall		
AMST:7090	PhD Thesis	3
	Hours	**3**
Spring		
AMST:7090	PhD Thesis	3
Final Exam [j]		
	Hours	**3**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b The two fields of concentration may be defined to correspond with a student's strongest intellectual interests, but they must be interdisciplinary in concept and multidisciplinary in scope. Each must include coursework from more than one department and program. The two concentration areas may, and usually should, have an intellectual relationship with each other.

c Take twice in consecutive years.

d Work with faculty advisor to determine appropriate graduate seminars.

e Complete at least 18 s.h. in a first field of concentration; work with faculty advisor to determine appropriate graduate coursework in an interdisciplinary field with a historical concentration.

f Complete at least 18 s.h. in a second field of concentration; work with faculty advisor to determine appropriate graduate coursework in an interdisciplinary field.

g Consists of three written and one oral exam.

h Take two or three times (2-3 s.h. total).

i Work with faculty advisor to determine appropriate graduate elective coursework; includes AMST:7090.

j Dissertation defense.

Anthropology

Chair

- Andrew Kitchen

Director of Graduate Studies

- Margaret Beck

Director of Undergraduate Studies

- Matthew E. Hill

Undergraduate major: anthropology (BA, BS)

Undergraduate minor: anthropology

Graduate degrees: MA in anthropology; PhD in anthropology

Faculty: https://anthropology.uiowa.edu/people

Website: https://anthropology.uiowa.edu/

Anthropology is the comparative study of peoples and cultures past and present. The discipline's two major subfields—medical anthropology and archaeology—share a holistic, global perspective and commitment to field-based methodologies. Anthropological knowledge constructively contributes these perspectives and methods to work in other social sciences, physical and biological sciences, and the arts and humanities.

Anthropology provides a framework for understanding the relation of human beings to their natural environment and to the social and cultural worlds they create and inhabit. The field provides insight into biological and sociocultural evolution and examines how economic, social, and political processes, symbolic systems, and social structures interact to shape human experience. Fieldwork-based comparative studies of past and present cultures yield information on regularities and differences, and special insight into the diversity of human creativity and cultural change.

Anthropological training provides skills useful in a variety of careers. As the American Anthropological Association points out, "careful record-keeping, attention to details, analytical reading, and clear thinking are taught by anthropological courses. Social ease in strange situations, critical thinking, and strong skills in oral and written expression are cultivated by anthropological training."

For undergraduates, the department offers two optional tracks within the major—archaeology and medical anthropology—for students with specialized interests in these areas.

The Department of Anthropology also offers numerous courses that undergraduate students in all majors may use to fulfill GE CLAS Core [p. 22] requirements.

At the graduate level, the department grants both MA and PhD degrees in anthropology. Most students enter the PhD program and are awarded an MA after fulfilling program requirements at the end of their second year. The department also offers a terminal MA degree with a focus on cultural resource management (CRM) in archaeology, which provides academic preparation for a professional career in this field. Students work closely with faculty and staff from the Office of the State Archaeologist.

The department serves as the administrative home for Global Health Studies, which offers two undergraduate degrees, a minor, and a graduate certificate; see Global Health Studies [p. 487] in the catalog for more information.

Faculty

Members of the anthropology faculty work within and across the discipline’s two subfields, and conduct both localized and multi-sited field research at locations worldwide, including South and Southeast Asia; Europe; southern Africa; North America (especially the United States); South America; and the Pacific (especially Hawaii and New Zealand).

Current faculty interests include North America, cultural politics, environmental anthropology, European archaeology, feminist anthropology and sexuality studies, medical anthropology, science and technology studies, and Asian studies. For more details, visit People on the Department of Anthropology website.

Programs

Undergraduate Programs of Study

Majors

- Major in Anthropology (Bachelor of Arts) [p. 69]
- Major in Anthropology (Bachelor of Science) [p. 74]

Minor

- Minor in Anthropology [p. 79]

Graduate Programs of Study

- Master of Arts in Anthropology [p. 80]
- Doctor of Philosophy in Anthropology [p. 83]

Resources and Facilities

The department has well-equipped laboratories for the study of archaeology, biological anthropology, computational genetics, and evolutionary anthropology. Resources include a GIS/quantitative analysis laboratory, ground penetrating radar, x-ray fluorescence equipment, and three-dimensional (3D) scanning equipment.

Under the direction of university archaeologists, students acquire skills in data recovery and interpretive techniques. Opportunities are available for students to participate in archaeological field research in Portugal, Sicily, and various sites in the United States.

Individual faculty members maintain field laboratories and conduct research outside the United States, maintaining ties with research institutions in other countries, including Gemeente Nijmegen, Bureau Archeologie, Nijmegen, the Netherlands; the Deutsches Archäologisches Institut of Madrid, Spain; and the National University of Singapore, Singapore.

The department has access to the Iowa Archaeological Collections through the Office of the State Archaeologist and maintains its own archaeological collections (midwestern prehistoric and historical and comparative faunal material).

The department maintains a documented human osteology teaching collection amassed by the University of Iowa Carver College of Medicine and the Department of Anatomy and Cell Biology. It also holds a substantial documented human osteology research collection originally from Stanford University's medical school that is maintained jointly with the Office of the State Archaeologist.

The university is a charter member of the Human Relations Area Files (HRAF), an extensively annotated set of source materials on the peoples of the world—their environments, behavioral patterns, social lives, and cultures. Through HRAF and other library resources, anthropology students have access to source materials on more than 400 different cultures.

The university's exchange programs for Iowa students provide opportunities and some scholarships for study abroad.

Courses

Anthropology Courses

ANTH:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g. films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

ANTH:1001 Issues in Anthropology 3 s.h.
In-depth exploration of methodological and theoretical issues in contemporary anthropology; emphasis on critical reading of primary texts.

ANTH:1040 Language Rights 3 s.h.
Language minorities and linguistic human rights in the United States and worldwide; language and identity, culture, power; case studies of language rights deprivation. GE: International and Global Issues. Same as LING:1040.

ANTH:1046 Environmental Politics in India 3 s.h.
How resources, commodities, people, and ideas cross borders; examination of globalization through issues of technology, social justice, environment; perspectives from anthropology, gender studies, geography, energy science, and development. GE: Sustainability. GE: International and Global Issues; Sustainability. Same as GWSS:1046, SEES:1046, SJUS:1046.

ANTH:1101 Cultural Anthropology 3 s.h.
Comparative study of culture, social organization. GE: Social Sciences; Values and Society. Same as IS:1101.

ANTH:1201 World Archaeology 3 s.h.
What do archaeologists know about the past, and how do they know about the past? Evolution of human cultures from ice ages to first cities; archaeological methods used to understand the past. GE: Historical Perspectives.

ANTH:1301 Human Origins 3 s.h.
Processes, products of human evolution from perspectives of heredity and genetics, evolutionary theory, human biological characteristics, fossil record, artifactual evidence, biocultural behaviors. GE: Natural Sciences without Lab.

ANTH:2009 Individual Study 1-3 s.h.
Readings in area or subdivision of anthropology in which student has had basic coursework.

ANTH:2100 Anthropology and Contemporary World Problems 3 s.h.
Selected world problems from an anthropological perspective; current dilemmas and those faced by diverse human groups in recent times and distant past. GE: International and Global Issues.

ANTH:2102 Anthropology of Marriage and Family 3 s.h.
Classic anthropological theories of kinship and marriage, including topics such as cousin marriage and incest; recent work on new reproductive technologies and transnational marriage. Same as GWSS:2102.

ANTH:2103 Introduction to Global Health Studies 3 s.h.
Global health as a study of the dynamic relationship between human health and social, biological, and environmental factors that drive the spread of disease; core areas of global health research that may include health inequalities, maternal and child health, infectious diseases, nutrition, environmental health, and health interventions. GE: International and Global Issues. Same as GHS:2000.

ANTH:2108 Gendering India 3 s.h.
Aspects of Indian culture, including nation, family, sexuality, work, and religion, through the lens of gender; Hindu India, differences in region, caste, and class. Same as GWSS:2108.

ANTH:2136 Race, Place, and Power: Urban Anthropology 3 s.h.
Cross-cultural approach to urban anthropology; urbanizing processes, migration and adaptation, aspects of class and ethnicity in urban settings, urban economic relations. GE: Social Sciences.

ANTH:2140 Food, Drink, and Culture 3 s.h.
Passion of food, eating, and drinking in our lives; students are challenged to study eating and drinking in all its variety and importance in different contemporary cultures of the world; exploration of how and why food and drink hold the power to bind people together or to set groups apart, how national cuisines are made, and how people connect food and drink to ritual and health care systems; these topics and many more linked with the study of food and drink production and consumption to examine societal processes, such as the construction of identities and symbolic meanings attached to eating and drinking.

ANTH:2143 Fashion and Culture: The Making, Wearing, and Meaning of Clothing 3 s.h.
Examines anthropological perspectives on fashion, clothing, and culture.

ANTH:2151 Global Migration in the Contemporary World 3 s.h.
Examination of social, economic, and cultural dimensions of global migration in the contemporary world from a transnational and anthropological perspective; primary focus is on migration to the United States, but in comparison to other migration trajectories. Recommendations: an introductory course in cultural anthropology is useful, but not required. GE: Understanding Cultural Perspectives. Same as GWSS:2151, IS:2151.

ANTH:2155 Fighting to Live: Anthropology and Health Social Movements 3 s.h.
Analyze how different groups of people have converged and channeled their collective power to change how societies address illness.

ANTH:2160 Culture, Health, and Wellness: Southeast Asia in Focus 3 s.h.
Exploration of complex cross-cultural interactions between health, wellness, and culture; insights drawn from the culturally diverse region of Southeast Asia including Indonesia, Vietnam, Singapore, Malaysia, Thailand, Cambodia, Burma, and Philippines, among others. Same as GHS:2160.

ANTH:2164 Culture and Healing: An Introduction to Medical Anthropology 3 s.h.
Health professions are increasingly focused on how to best provide health care to culturally diverse populations; introduction to key cultural and social influences on sickness and healing; worldwide examples. Same as GHS:2164.

ANTH:2165 Native Peoples of North America 3 s.h.
History, culture of American Indian peoples; emphasis on North America. GE: Understanding Cultural Perspectives. Same as AMST:2165, NAIS:2165.

ANTH:2181 The Anthropology of Aging 3 s.h.
Comparative anthropological perspective on aging; ethnographies from diverse contexts used to examine intersections of kinship, religion, health, and medicine in later life. Same as ASP:2181, GHS:2181.

ANTH:2182 Africa: Health and Society 3 s.h.
Cultural, political, and economic diversity of African societies from precolonial period to present day; relationship between lived experiences of African people and understanding of their societies from afar; why Africa, more than any other region, is associated with warfare, hunger, and disease; idea of "Africa" in the world today; shared misunderstanding of life on continent contrasted with everyday lives of people who are not so different from ourselves. Same as GHS:2182.

ANTH:2190 Love Rules: Law and the Family Across Cultures 3 s.h.
Recent debates over legalizing gay marriage remind us that the law is not an abstract concept, it is a social creation that emphasizes certain cultural norms over others, both powerful and changeable; family law outlines what one cultural vision of relationships—those between lovers, parent and child, and between kin—supposedly should look like in a given society, a vision always marked by gendered, racial, and sexual divisions of power; students consider what happens when legal norms intersect with diverse ways that people make families through topics including marriage, divorce, custody, and surrogacy across the world. Same as GWSS:2190, IS:2190.

ANTH:2191 Love, Sex, and Money: Sexuality and Exchange Across Cultures 3 s.h.
Everything from pop songs to advertisements warn us of the evils of gold diggers, “blingsexuals,” or “buyfriends"; in America, money is seen to corrupt the purity and authenticity of love and desire, but money also is an inevitable part of sex, love, and intimacy; cross-cultural examination of how relationships between love, money, and sexuality are organized in different places; different ways people form relationships with lovers, spouses, and persons who enable childbearing; rethinking gender roles, work, value, and power. Same as GWSS:2900.

ANTH:2199 Practicum in Sociocultural Anthropology arr.
Study of a wide range of cultural and linguistic anthropological data collected from a variety of sources, examined in an intensive, systematic manner.

ANTH:2208 Archaeological Methods 3 s.h.
Current theoretical approaches, methods used to investigate the past; site formation processes, taphonomy, sampling and research design, typology and seriation, subsistence-settlement reconstruction, cultural evolution. Prerequisites: ANTH:1201.

ANTH:2220 The Olmec, Maya, and Aztecs: Archaeology of Mesoamerica 3 s.h.
Archaeological data related to the evolution of civilization in Mesoamerica; sequence from hunter-gatherers to A.D. 1519; emphasis on Central Mexico, Maya area, Oaxaca. Same as LAS:2220.

ANTH:2248 The Invention of Writing: From Cuneiform to Computers 3 s.h.
Invention of writing as one of the most momentous events in the history of human civilizations; how the use of written sign systems, notations, maps, graphs, encryptions, and most recently, computer programs have consequences that reach deeply into all aspects of people's lives; how writing fascinates and delights, fosters reflexive thinking and facilitates development of complex societies, and gives rise to institutions of social power and control; students explore the invention of writing and its consequences in broad international and interdisciplinary context. Taught in English. Same as ASIA:2248, CLSA:2048, COMM:2248, GRMN:2248, HIST:2148, IS:2248, LING:2248, TRNS:2248, WLLC:2248.

ANTH:2261 Human Impacts on the Environment 3 s.h.
Long-term patterns of human-environment interactions surveyed through archaeological case studies; varied scales of human impacts, including animal extinction, habitat destruction, agricultural practices, urban growth, state-level societies. GE: Sustainability. GE: Social Sciences; Sustainability.

ANTH:2290 Practicum in Archaeology arr.
Intensive, hands-on examination of a wide range of materials recently recovered from archaeological sites; pottery, lithics (stone tools and related items), plant remains, animal bones; for students with strong archaeological interests or archaeological field experience.

ANTH:2320 Origins of Human Infectious Disease 3 s.h.
Origin and evolution of important infectious diseases in human history; biological evolution of infectious agents and biocultural responses to emerging infectious diseases; primary focus on viruses and bacteria; selected world problems from an anthropological perspective; current dilemmas and those faced by diverse human groups in recent times and distant past. Same as GHS:2320.

ANTH:2390 Laboratory Methods in Biological Anthropology arr.
Specimen preparation, cataloging, molding and casting, photography, computer analyses, library research.

ANTH:3001 Introduction to Museum Studies 3 s.h.
Overview of museum history, function, philosophy, collection, and curatorial practices; governance and funding issues; exhibition evaluation and audience studies; examples from Stanley Museum of Art, Museum of Natural History, Old Capitol Museum, and Medical Museum. GE: Social Sciences. Same as EDTL:3001, MUSM:3001, SIED:3001.

ANTH:3015 Independent Study arr.

ANTH:3017 Decolonizing Anthropology in Native North America 3 s.h.
Anthropology is coming to terms with its rather strange combination of colonialist origins and anti-colonial/anti-racist themes, and these contradictions have generated well-earned criticism from Indigenous peoples; how Indigenous critiques have constructively called for changes that make anti-colonialism and anti-racism more central to the profession, and examination of how the profession is responding; works by Indigenous activists, artists, and scholars, including anthropologists; examples of ethnographic and archaeological research from regions of Native North America that complement those covered in ANTH:2165. Prerequisites: ANTH:1101 or ANTH:2165 or HIST:1049.

ANTH:3103 Environment and Culture 3 s.h.
Individual and group responses to scarcities of natural resources such as land, water, food.

ANTH:3110 Colonialism and Indigenous Health Equity **3 s.h.**
Health problems and services for Indigenous populations worldwide, from perspective of Fourth World postcolonial politics. Prerequisites: ANTH:1101 or ANTH:2165 or GHS:2000 or HIST:1049 or CPH:1400. Same as CBH:4200, GHS:3110, NAIS:3110.

ANTH:3117 Using Ethnographic Methods **3 s.h.**
Ethnography, holistic, qualitative research in cultural context for anthropological and related research and careers involving interpersonal interaction; multiple ethnographic methods and their rationales. Recommendations: desire to interact with others, and prior coursework in fields that employ ethnographic or qualitative research (social sciences, social work, nursing, public health).

ANTH:3118 Politics of Reproduction **3 s.h.**
Examination of reproductive politics from historical, sociological, anthropological, and communicative perspectives; reproductive justice and bodily autonomy as key sites of feminist struggle in the United States and in global contexts; topical issues include abortion and birth control, assisted reproductive technologies, commercial surrogacy industries, LGBTQ family formation, and systems of reproductive violence. Same as COMM:3118, GWSS:3118.

ANTH:3121 Love, Marriage, and Family in India **3 s.h.**
Anthropological understandings of love in India and the region of South Asia more broadly; emphasis on contemporary society; filial and motherly love, arranged marriage and romantic love, devotional and artistic expressions, love between siblings. Same as GWSS:3121.

ANTH:3122 Historic House Management and Preservation **3 s.h.**
Historic house museums make up more than half of all museums in the United States; focus on management, preservation, and interpretation of historic houses as sites of historic memory and public engagement. Same as MUSM:3100.

ANTH:3125 Transnational Feminism **3 s.h.**
Exploration of feminist perspectives from the United States and outside of the United States; how geopolitics shapes understanding of familiar feminist issues (e.g., reproduction, cultural practices, sexualities, poverty); emphasis on global south regions and populations. Same as GWSS:3350, IS:3350.

ANTH:3127 Anthropology of Death **3 s.h.**
How anthropologists and archaeologists study death, dying, mortuary rituals, and notions of the afterlife in contemporary North America and in different places and times. Prerequisites: ANTH:1201 or ANTH:1101. Requirements: ANTH:1101 or ANTH:1201 or graduate standing.

ANTH:3145 Excavation to Exhibit: Making Artifacts Public **3 s.h.**
In-depth exploration of methodological, theoretical, and historical issues in the creation of archaeological museum exhibitions including hands-on learning involving the development of an exhibit for the Stanley Museum of Art. Same as MUSM:3145, NAIS:3145.

ANTH:3152 Anthropology of Caregiving and Health **3 s.h.**
Diverse understandings and practices of care around the world; focus on relationships between caregiving practices and health across the life course. Same as ASP:3152, GHS:3152.

ANTH:3190 Global Debt **3 s.h.**
Economies as cultural systems that emphasize the role of worldviews and "meaning-making" in organizing economies; debt as a key mechanism in creation and maintenance of relationships; focus on how exchange, distribution, and obligation serve to shore up or sever various social institutions and links between debt, inequality, and power; debt in various forms, from a round of drinks to student loans, and from the U.S. mortgage crisis to development aid; diverse array of economies—from gift exchange to ceremonial destruction of wealth, and from Melanesia to Wall Street—to evaluate assumptions that undergird different systems of debt and credit. Requirements: introductory course in anthropology or international studies or gender, women's, and sexuality studies. Same as IS:3190, SJUS:3190.

ANTH:3199 Understanding Health in an Unequal World: Anthropology and Global Health Policy **3 s.h.**
Global health has grown as an area of practice and study, with well-being and livelihoods of increasing numbers of people now deeply influenced by these ideas, practices, and policies; students engage with ways that global health programs have influenced experiences of health and illness by those who participate in these programs, critically analyzing how global health interacts with local dynamics of inequality, race, gender, and power. Same as GHS:3199, IS:3198.

ANTH:3200 The Archaeology of Roman Britain: From Julius Caesar to the Age of Arthur **3 s.h.**
Archaeology of Britain in the Roman period from the campaigns of Julius Caesar (55 BCE) to the end of Roman rule in the fifth century CE; explores themes of trade and connectivity, conquest and resistance, and identity negotiation visible in the archaeological and epigraphic record.

ANTH:3204 Food in Ancient Mediterranean Society **3 s.h.**
Practices and values influenced by consumption and production of food in ancient Mediterranean societies; varied topics, including methods of food production and distribution, hierarchies of status as associated with food, food and ethnic identity, food and health, food and religion; focus on classical Greek and Roman society, Egypt, the ancient Near East, and Persia. Recommendations: familiarity with Greek and Roman civilization and history. Same as CLSA:3836, HIST:3436.

ANTH:3207 Animal Bones in Archaeology **3 s.h.**
Use of faunal material in interpretation of archaeological remains, including skeletal anatomy, identification, taphonomy, determination of age and sex, seasonality, quantification, sampling, breakage and cutmarks, interpretations; laboratory sessions. Prerequisites: ANTH:1201.

ANTH:3237 Politics of the Archaeological Past **3 s.h.**
How control over management of material remains of the ancient past, and representations of that past, intersect with the identity of diverse groups, including archaeologists, Indigenous peoples, national governments, collectors, ethnic minorities and majorities, museum curators; struggles for control of the archaeological past at different scales (artifacts, skeletal remains, sites, imagery, narratives) and in different regions of the world. Same as HIST:3137, MUSM:3237.

ANTH:3239 The Archaeology of the First Europeans **3 s.h.**
Archaeology of European societies between the Mesolithic and Iron Age; how ideas about Europe's prehistoric past have been used for political purposes.

ANTH:3240 Cultural Resources Management Archaeology: Practice and Practicalities 3 s.h.
Cultural Resources Management (CRM) archaeology is the largest sector of archaeological research in the United States in terms of employment, funding, field- and lab-related activity; students investigate the past and navigate complexities of compliance requirements from federal, state, and local regulations concerning historic preservation; introduction to legal, procedural, and practical foundations of CRM archaeology; preparation for employment by acquisition of skills from project planning through dissemination of results. Recommendations: completion of other anthropology, geography, history, or Native American studies courses. Same as NAIS:3240.

ANTH:3243 Archaeology of the American Midcontinent 3 s.h.
Survey of the archaeology of the American midcontinent for students interested in the past beyond what historical documents reveal; exploration of Late Pleistocene and Archaic hunter-gatherer adaptations, Woodland and Late Prehistoric horticulturalists, Middle and Upper Mississippian emergent chiefdoms, and historic period first contact, fur trade, and fort sites; how archaeologists utilize regional archaeological data in addressing culture change issues to develop the essential grounding for understanding how people lived in different times and places in the past, and how prehistoric peoples relate to their modern descendants across the midcontinent. Recommendations: ANTH:1201. Same as NAIS:3243.

ANTH:3255 Introduction to Archaeological Ceramics 3 s.h.
Introduction to ceramic analysis; focus on ceramics of Native North America; ceramics as an important line of evidence for past human activities (e.g., cooking, eating, feasting, trading, storage); students learn how archaeologists interpret broken ceramics from excavations by practicing various analytical techniques and conducting their own ceramic analysis.

ANTH:3257 North American Archaeology 3 s.h.
Prehistoric cultural development north of Mexico from initial occupation to European contact and conquest; emphasis on dynamics of culture change. Same as NAIS:3257.

ANTH:3260 Pleistocene Peopling of the Americas 3 s.h.
Major themes in earliest human settlement of the Americas, including human mobility, subsistence, technology, human impacts on the environment.

ANTH:3261 Our Life With Dogs: The Anthropological Study of Animals in Human Societies 3 s.h.
Intricate connections between dogs and our social, economic, political, and spiritual lives; human relationships with dogs that extend back at least 16,000 years; process of dog domestication; roles dogs play in human ideology and past economies; modern interactions with dogs.

ANTH:3265 Archaeology of the Great Plains 3 s.h.
Contrasting lifeways, diets, and technologies that humans used to survive on North America's Great Plains, from Ice Age hunter-gatherers to Euramerican homesteaders.

ANTH:3275 Egyptian Archaeology 3 s.h.
Introduction to the archaeology of ancient Egypt from predynastic times to Roman Egypt, including monumental architecture; patterns of everyday life; social, economic, and demographic considerations; history of archaeology in Egypt. Same as CLSA:3596.

ANTH:3276 Greek Archaeology 3 s.h.
Archaeology and ethnology of the Greek world, from end of Bronze Age to late Roman Empire; sociocultural processes that influence development and persistence of Greek civilization. Same as CLSA:3235.

ANTH:3277 Roman Archaeology 3 s.h.
Archaeology and ethnology of Roman civilization from Iron Age eighth-century occupation of the Palatine Hill to the end of the Roman Empire in the West, A.D. 476. Same as CLSA:3240.

ANTH:3278 Archaeology of Ancient Cities 3 s.h.
Archaeological exploration of ancient world cities; physical plant, social institutions, regional context, cultural influence; major cities considered include Uruk, Luxor, Athens, Rome, Alexandria, Kyongju, Loyang, Teotihuacan, and Tenochtitlan.

ANTH:3291 Museum Registration and Records Management 3 s.h.
Processes and standards relating to the intellectual control of museum collections. Topics include the creation and maintenance of museum collections documentation; collections management systems (CMS); digital asset management; terminology control and linked data standards; and legal and ethical obligations for museum registration. Corequisites: MUSM:3001. Same as MUSM:3291.

ANTH:3295 Field Research in Archaeology arr.
Beginning skills in site surveying and excavation, lab work, record keeping at nearby prehistoric sites.

ANTH:3300 Mothers and Motherhood 3 s.h.
Treatment of motherhood; role of motherhood and devaluation of social status. Same as GWSS:3300.

ANTH:3305 Human Osteology 3 s.h.
The human skeletal system; normal and pathologic variation; skeletal measurement and analysis with application to paleoanthropology, forensic, and archaeological investigations. Same as NAIS:3305.

ANTH:3306 The Neanderthal Enigma 3 s.h.
Survey of Neanderthals as the most widely known, yet enigmatic, fossil human lineage; history of discoveries; current interpretations of Neanderthal's origins, anatomy and behavior, relationship to today's people, extinction.

ANTH:3307 Modern Human Origins 3 s.h.
Current data and theories regarding the emergence of Homo sapiens; how human anatomical modernity is defined and recognized in the fossil record; competing models for modern humans' emergence—multiregional evolution, out of Africa, the assimilation model; interpretation of recent developments and discoveries in the human fossil record; contemporary contributions from genetics, developmental biology, evolutionary ecology, paleodemography.

ANTH:3308 Human Variation 3 s.h.
Range and patterning of biological diversity in contemporary human populations; past and present attempts to organize and explain human genetic, morphological variation in light of recent data, theory.

ANTH:3328 Molecular Genetics of Human Disease 3 s.h.
Disease as an unfortunate, but unavoidable, aspect of human condition; genetic nature of disease that reveals origins of inherited disease; variation of disease across the globe. Recommendations: biology or genetics course to provide substantial background knowledge.

ANTH:3821 City of Athens: Bronze Age to Roman World 3 s.h.
Athens from Bronze Age to end of Roman period; topics include the city's role in development of political democracy and religion, as well as the art and archaeology of the city. Same as CLSA:3821, HIST:3403.

ANTH:4080 Anthropology Internship arr.
Internship opportunity for work experience in student's field of interest; formal internship agreement established between sponsoring institution, student, and UI anthropology faculty that specifies duties and objectives of internship; internship supervisor at sponsoring institution evaluates student performance and reports directly to UI anthropology faculty. Requirements: anthropology major.

ANTH:4140 Feminist Activism and Global Health 3 s.h.
How female gender intersects with culture, environment, and political economy to shape health and illness; reproductive health, violence, drug use, cancer; readings in anthropology, public health. Prerequisites: ANTH:1101 or GWSS:1001 or CPH:1400 or GHS:2000. Same as CBH:4140, GHS:4140, GWSS:4140.

ANTH:4315 Human Evolutionary Anatomy 3 s.h.
Interpretation of skeletal remains as the basis for reconstructing forms, adaptations, lifestyles of prehistoric humans; body size, musculature, stance, activity patterns, brain size, and sexual dimorphism. Prerequisites: ANTH:3305.

ANTH:4700 Latin American Studies Seminar 3-4 s.h.
Examination of past, present, and future of Latin America; interdisciplinary. Taught in English. Same as HIST:4504, LAS:4700, PORT:4700, SPAN:4900.

ANTH:4995 Honors Research Seminar 1-2 s.h.
Preparation for writing honors thesis, including project conception and research, proposal writing, oral and written presentations of student research. Corequisites: ANTH:4996, if not taken as a prerequisite. Requirements: honors standing in anthropology.

ANTH:4996 Honors Research 2-4 s.h.
Project chosen in consultation with honors advisor.

ANTH:5001 Graduate Teaching Proseminar 1 s.h.
Graduate student teaching skills: developing course guidelines, leading discussion, grading, review sessions, dealing with problem students and complaints; development of syllabi and teaching portfolios; mentoring of less-experienced teaching assistants.

ANTH:5101 Seminar Sociocultural Anthropology 3 s.h.
Social institutions in the world's societies; problems in theory, method, interpretation. Requirements: graduate standing or undergraduate anthropology honors standing.

ANTH:5110 Anthropological Data Analysis 3 s.h.
Applied statistics for quantitative analysis of anthropological data, including field notes, library materials, and archaeological information; introduction to elementary statistics and computational methods; discussion of hypothesis testing and correlation; emphasis on proper use and interpretation of statistical methods in anthropological research.

ANTH:5120 Reading Transnational Feminist Theory 3 s.h.
Issues in transnational feminist scholarship, including coloniality and globalization as related to domains of gendered work, cultural traditions, and development; interdisciplinary readings—including from qualitative social science—consider connections across the Global North and South. Same as GWSS:5120.

ANTH:5201 Seminar: Archaeological Theory and Method 3 s.h.
Development, current status of theory, method in Americanist archaeology. Requirements: graduate standing or undergraduate anthropology honors standing.

ANTH:5301 Seminar: Biological Anthropology 3 s.h.
Physical anthropology, including heredity and genetics, evolutionary theory, human biological characteristics, primate and human fossil record, primate behavior and ecology, human adaptations. Requirements: graduate standing or undergraduate anthropology honors standing.

ANTH:6005 Independent Study: Anthropology arr.

ANTH:6010 Research: Anthropology arr.

ANTH:6015 Thesis arr.

ANTH:6115 Ethnographic Field Methods 3 s.h.
Basic data-gathering techniques for field research in sociocultural anthropology. Same as CBH:6115.

ANTH:7110 Research Design and Writing 3 s.h.
Anthropological research design; preparation of proposals for fieldwork or laboratory analysis.

ANTH:7414 Slavery and Social Death: 1200 B.C.E. to 1865 C.E. 3 s.h.
Exploration of various slave systems in antiquity, the middle ages, and modernity in terms of their motivations, utilization, and broader social, economic, and political implications; use of literary sources and archaeological remains to investigate slave cultures in ancient Near East and Egypt, Jewish exploitation of enslaved persons, and use of chattel slavery in Greek, Roman, early Christian, and Islamic societies; antebellum U.S. slavery. Same as CLSA:7114, HIST:7414.

ANTH:7501 Dissertation Writing Seminar 1 s.h.
Organization of dissertation, setting and meeting deadlines, writing a chapter, and workshopping drafts; seminar group work and consultation with advisors; completion and revision of at least one dissertation chapter; for anthropology graduate students who are beginning, or about to begin, their dissertation writing process. Requirements: anthropology graduate student who passed comprehensive exams (prospectus and essays).

Anthropology, BA

Learning Outcomes

Graduates with a bachelor's degree in anthropology should be able to:

- describe a broad range of changing and diverse human experiences, practices, and challenges across time and space;
- demonstrate how diverse cultural backgrounds and structural inequalities, including race, gender, class, and other socially constructed categories of difference, relate to peoples' beliefs, experiences, and practices;
- explain the evolutionary and historical perspective as it pertains to human and nonhuman primates, including origins, behavior, ecology, biocultural variation, and material culture;
- apply anthropological research tools to collect and interpret data; and
- communicate anthropological concepts and findings.

Requirements

The Bachelor of Arts with a major in anthropology requires a minimum of 120 s.h., including 33 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major.

Students also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Students may count up to 56 s.h. of Department of Anthropology coursework (prefix ANTH) toward credit required for the Bachelor of Arts degree.

The BA is designed to offer a comprehensive overview of anthropology's main subfields and the broadest possible cross-cultural background.

Students may choose to complete one of two specialized tracks: archaeology or medical anthropology. See "Optional Undergraduate Tracks."

Undergraduates majoring in anthropology, including transfer students, must earn a minimum of 15 s.h. for the major at the University of Iowa. Students may apply credit earned at approved field schools offered by other institutions toward the major, with Department of Anthropology approval.

Students who declare anthropology as their major when they are admitted to the College of Liberal Arts and Sciences are advised at the Academic Advising Center until they have earned 30 s.h. Students who have earned more than 30 s.h. are advised by the departmental undergraduate advisor.

The BA with a major in anthropology requires the following coursework.

Requirements	Hours
Common Requirements	27
Advanced Coursework	6
Optional Undergraduate Track	

Common Requirements

Students must complete three foundational courses, three global challenges courses, one course in comparative human experience, one course about people in places, and 3 s.h. in practicum and methods training.

Course #	Title	Hours
Foundational Courses		
Three of these:		
ANTH:1001	Issues in Anthropology	3
ANTH:1101	Cultural Anthropology	3
ANTH:1201	World Archaeology	3
ANTH:1301	Human Origins	3
Global Challenges		
Three of these:		
ANTH:2100	Anthropology and Contemporary World Problems	3
ANTH:2151	Global Migration in the Contemporary World	3
ANTH:2164	Culture and Healing: An Introduction to Medical Anthropology	3
ANTH:2261	Human Impacts on the Environment	3
ANTH:2320	Origins of Human Infectious Disease	3
ANTH:3237	Politics of the Archaeological Past	3
Comparative Human Experience		
One of these:		
ANTH:2102	Anthropology of Marriage and Family	3
ANTH:2136	Race, Place, and Power: Urban Anthropology	3
ANTH:2140	Food, Drink, and Culture	3
ANTH:2181	The Anthropology of Aging	3
ANTH:2190	Love Rules: Law and the Family Across Cultures	3
ANTH:2191	Love, Sex, and Money: Sexuality and Exchange Across Cultures	3
ANTH:3103	Environment and Culture	3
ANTH:3110	Colonialism and Indigenous Health Equity	3
ANTH:3125	Transnational Feminism	3
ANTH:3127	Anthropology of Death	3
ANTH:3152	Anthropology of Caregiving and Health	3
ANTH:3199	Understanding Health in an Unequal World: Anthropology and Global Health Policy	3
ANTH:3261	Our Life With Dogs: The Anthropological Study of Animals in Human Societies	3
ANTH:3278	Archaeology of Ancient Cities	3
ANTH:4140	Feminist Activism and Global Health	3
People in Places		
One of these:		
ANTH:1046	Environmental Politics in India	3
ANTH:2108	Gendering India	3

ANTH:2160	Culture, Health, and Wellness: Southeast Asia in Focus	3
ANTH:2165	Native Peoples of North America	3
ANTH:2182	Africa: Health and Society	3
ANTH:2220	The Olmec, Maya, and Aztecs: Archaeology of Mesoamerica	3
ANTH:3017	Decolonizing Anthropology in Native North America	3
ANTH:3121	Love, Marriage, and Family in India	3
ANTH:3239	The Archaeology of the First Europeans	3
ANTH:3243	Archaeology of the American Midcontinent	3
ANTH:3257	North American Archaeology	3
ANTH:3260	Pleistocene Peopling of the Americas	3
ANTH:3265	Archaeology of the Great Plains	3
ANTH:3275	Egyptian Archaeology	3
ANTH:3276	Greek Archaeology	3
ANTH:3277	Roman Archaeology	3
Practicum and Methods Training		
3 s.h. from these:		
ANTH:2208	Archaeological Methods	3
ANTH:2290	Practicum in Archaeology	arr.
ANTH:2390	Laboratory Methods in Biological Anthropology	arr.
ANTH:3117	Using Ethnographic Methods	3
ANTH:3207	Animal Bones in Archaeology	3
ANTH:3240	Cultural Resources Management Archaeology: Practice and Practicalities	3
ANTH:3255	Introduction to Archaeological Ceramics	3
ANTH:3295	Field Research in Archaeology	arr.
ANTH:3305	Human Osteology	3
ANTH:4080	Anthropology Internship	arr.
ANTH:4315	Human Evolutionary Anatomy	3

Advanced Coursework

Students must complete two additional anthropology courses (6 s.h., prefix ANTH) numbered 3000 or above.

Anthropology offers many options for advanced coursework, including courses dealing with environment and culture, expressive culture (art, verbal arts, literature, music, and dance), gender and sexuality, human evolution, human osteology, human prehistory, identity, medical anthropology, molecular genetics, psychological anthropology, and urban anthropology. Department faculty members offer courses that focus on Europe, South Asia, and Native North America.

Additional Coursework

Students are strongly encouraged to take courses and participate in archaeological field and laboratory research, biological anthropology laboratory research, ethnographic research methods in sociocultural anthropology, and multimedia research in linguistic anthropology.

Optional Undergraduate Tracks

Students have the option of adding a particular focus to their study plan by completing a specialized track. They may choose one of two options: archaeology [p. 70] or medical anthropology [p. 71].

The optional tracks reflect broad issues bridging subfields in and outside of anthropology. Completion of a track indicates the acquisition of considerable expertise and is noted on a student's transcript.

The optional tracks each require 15 s.h. (typically five courses). By selecting courses carefully, students majoring in anthropology can complete a specialization track without adding to the semester hours required for graduation.

Archaeology

In North America and throughout much of the rest of the world, modern land use continually threatens evidence of past land use. Most archaeological excavations are conducted as cultural resource management (CRM), so it is essential that all researchers who work with archaeological data and individuals committed to site preservation have a basic understanding of CRM. Students who choose this emphasis learn about the field, how to address related ethical issues, and technical and theoretical challenges.

The archaeology track requires a fundamental overview course, two area electives, a technical/practical elective, and a field school course.

Course #	Title	Hours
Overview		
This course:		
ANTH:3240	Cultural Resources Management Archaeology: Practice and Practicalities	3
Area Electives		
Two of these:		
ANTH:2165	Native Peoples of North America	3
ANTH:3243	Archaeology of the American Midcontinent	3
ANTH:3257	North American Archaeology	3
ANTH:3260	Pleistocene Peopling of the Americas	3
ANTH:3265	Archaeology of the Great Plains	3
Technical/Practical Elective		
At least 3 s.h. from these:		
ANTH:2208	Archaeological Methods	3
ANTH:2290	Practicum in Archaeology	arr.
ANTH:3207	Animal Bones in Archaeology	3
ANTH:3237	Politics of the Archaeological Past	3
ANTH:3255	Introduction to Archaeological Ceramics	3
ANTH:3305	Human Osteology	3
Field School		
At least 3 s.h. from these:		

ANTH:3295	Field Research in Archaeology	arr.

An equivalent course from another university

Medical Anthropology Track

Human experiences of sickness and suffering are universal yet profoundly shaped by cultural and historical contexts. Medical anthropology explores cultural and biological diversity in sickness, health, and healing through approaches that include examining individual experiences of disrupted well-being, considering how biological and cultural factors interact to promote health or produce sickness, analyzing political/economic causes of health inequalities, and applying research to improve health research and services in an increasingly global world. Coursework in medical anthropology helps students prepare for a range of health professions and social services careers and for work in diverse settings that increasingly include nongovernmental organizations devoted to improving health. Future health professionals are increasingly called upon to understand how sociocultural and biological factors intersect to produce experiences of health, sickness, and healing.

The medical anthropology track requires an introductory course plus four electives that focus on health-related topics. Elective options include courses numbered 2000–3999 that apply medical anthropology to specific topics and a course numbered above 4000 that helps students engage with more complex topics in this field.

Course #	Title	Hours
Overview		
This course:		
ANTH:2164	Culture and Healing: An Introduction to Medical Anthropology	3
Electives		
Four of these:		
ANTH:2160	Culture, Health, and Wellness: Southeast Asia in Focus	3
ANTH:2181	The Anthropology of Aging	3
ANTH:2182	Africa: Health and Society	3
ANTH:2320	Origins of Human Infectious Disease	3
ANTH:3110	Colonialism and Indigenous Health Equity	3
ANTH:3118	Politics of Reproduction	3
ANTH:3152	Anthropology of Caregiving and Health	3
ANTH:3199	Understanding Health in an Unequal World: Anthropology and Global Health Policy	3
ANTH:3328	Molecular Genetics of Human Disease	3
ANTH:4140	Feminist Activism and Global Health	3

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students majoring in anthropology have the opportunity to graduate with honors in the major. Departmental honors students must have a grade-point average (GPA) of at least 3.50 in anthropology coursework and a cumulative University of Iowa GPA of at least 3.33. To graduate with honors in the major, they must conduct an independent research project that culminates in a 30–50-page thesis. The project includes the completion of 6 s.h. divided between ANTH:4995 Honors Research Seminar (offered only in fall semesters) and ANTH:4996 Honors Research, typically taken the next semester.

Contact the department's director of undergraduate studies to learn more about honors in anthropology.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the anthropology major.

Career Advancement

The major in anthropology prepares individuals for advanced training or careers in anthropology, allied fields, and professional programs. Students who complete an anthropology major gain special understanding of human relations, as well as expertise for jobs involving international or cross-cultural work, cultural resource management, and responding to social and ethnic diversity, whether in the United States or globally.

Upon graduation, anthropology majors embark on careers in government, international affairs, conservation, economic development, public health, cultural resource management, planning and public affairs, social work, museum work, and education. Many go on to help resolve contemporary world problems by working with international or domestic organizations such as AmeriCorps, the Peace Corps, and Teach for America. Some pursue graduate study in anthropology or related social and natural sciences, while others earn degrees in business, law, or the health professions.

The Pomerantz Career Center also offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the fifth semester begins: at least two courses in the major.

Before the seventh semester begins: at least seven courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least eight courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Anthropology, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
Major: foundational course [b]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [d]		3
	Hours	**14-16**
Spring		
Major: foundational course [b]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		2
	Hours	**15-17**
Second Year		
Fall		
Major: foundational course [b]		3
Major: global challenges course [f]		3
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
Elective course [d]		2
	Hours	**16-17**
Spring		
Major: global challenges course [f]		3
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
Major: comparative human experience course [f]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
Elective course [d]		2
	Hours	**15-16**
Third Year		
Fall		
Major: global challenges course [f]		3
Major: people in places course [f]		3
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: International and Global Issues [e]		3
Elective course [d]		3
	Hours	**15**
Spring		
Major: practicum and methods training course [f]		3
Major: optional track course or elective course [d, g]		3
GE CLAS Core: Values and Society [e]		3
GE CLAS Core: Social Sciences [e]		3
Elective course [d]		3
	Hours	**15**
Fourth Year		
Fall		
Major: advanced anthropology course/optional track course [g, h]		3
Major: optional track course or elective course [d, g]		3
GE CLAS Core: Natural Sciences without Lab [e]		3
Major: optional track course or elective course [d, g]		3
Elective course [d]		3
	Hours	**15**
Spring		
Major: advanced anthropology course/optional track course [g, h]		3
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15**
	Total Hours	**120-126**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Choose three courses from ANTH:1001, ANTH:1101, ANTH:1201, ANTH:1301.

c Students who have completed four levels of a single language or two levels of two different languages in high

school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f See the General Catalog for list of approved courses.

g Students have the option of adding a particular focus to their study by completing a specialized track (15 s.h.) in archeology or medical anthropology.

h Students must complete two additional anthropology courses (6 s.h., prefix ANTH) numbered 3000 or above.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Anthropology, BS

Learning Outcomes

Graduates with a bachelor's degree in anthropology should be able to:

- describe a broad range of changing and diverse human experiences, practices, and challenges across time and space;
- demonstrate how diverse cultural backgrounds and structural inequalities, including race, gender, class, and other socially constructed categories of difference, relate to peoples' beliefs, experiences, and practices;
- understand the evolutionary and historical perspective as it pertains to human and nonhuman primates, including origins, behavior, ecology, biocultural variation, and material culture;
- apply anthropological research tools to collect and interpret data; and
- communicate anthropological concepts and findings.

Requirements

The Bachelor of Science with a major in anthropology requires a minimum of 120 s.h., including a minimum of 39 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major.

Students also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Students may count up to 56 s.h. of Department of Anthropology coursework (prefix ANTH) toward credit required for the Bachelor of Science degree.

The BS is appropriate for students with interests in any of anthropology's subfields; it offers enhanced opportunities to gain experience and develop skills in research methods and scientific reasoning.

Students may choose to complete one of two specialized tracks: archaeology or medical anthropology. See "Optional Undergraduate Tracks."

Undergraduates majoring in anthropology, including transfer students, must earn a minimum of 15 s.h. for the major at the University of Iowa. Students may apply credit earned at approved field schools offered by other institutions toward the major, with Department of Anthropology approval.

Students who declare anthropology as their major when they are admitted to the College of Liberal Arts and Sciences are advised at the Academic Advising Center until they have earned 30 s.h. Students who have earned more than 30 s.h. are advised by the departmental undergraduate advisor.

The BS with a major in anthropology requires the following coursework.

Requirements	Hours
Common Requirements	30
Advanced Coursework	6
Quantitative, Mathematical, or Formal Reasoning Tool	3
Allied Topical Field	
Optional Undergraduate Track	

Common Requirements

Students must complete three foundational courses, three global challenges courses, one course in comparative human experience, one course about people in places, and 6 s.h. in practicum and methods training.

Course #	Title	Hours
Foundational Courses		
Three of these:		
ANTH:1001	Issues in Anthropology	3
ANTH:1101	Cultural Anthropology	3
ANTH:1201	World Archaeology	3
ANTH:1301	Human Origins	3
Global Challenges		
Three of these:		
ANTH:2100	Anthropology and Contemporary World Problems	3
ANTH:2151	Global Migration in the Contemporary World	3
ANTH:2164	Culture and Healing: An Introduction to Medical Anthropology	3
ANTH:2261	Human Impacts on the Environment	3
ANTH:2320	Origins of Human Infectious Disease	3
ANTH:3237	Politics of the Archaeological Past	3
Comparative Human Experience		
One of these:		
ANTH:2102	Anthropology of Marriage and Family	3
ANTH:2136	Race, Place, and Power: Urban Anthropology	3
ANTH:2140	Food, Drink, and Culture	3
ANTH:2181	The Anthropology of Aging	3
ANTH:2190	Love Rules: Law and the Family Across Cultures	3
ANTH:2191	Love, Sex, and Money: Sexuality and Exchange Across Cultures	3
ANTH:3103	Environment and Culture	3
ANTH:3110	Colonialism and Indigenous Health Equity	3
ANTH:3125	Transnational Feminism	3
ANTH:3127	Anthropology of Death	3
ANTH:3152	Anthropology of Caregiving and Health	3
ANTH:3199	Understanding Health in an Unequal World: Anthropology and Global Health Policy	3
ANTH:3261	Our Life With Dogs: The Anthropological Study of Animals in Human Societies	3
ANTH:3278	Archaeology of Ancient Cities	3
ANTH:4140	Feminist Activism and Global Health	3
People in Places		

One of these:		
ANTH:1046	Environmental Politics in India	3
ANTH:2108	Gendering India	3
ANTH:2160	Culture, Health, and Wellness: Southeast Asia in Focus	3
ANTH:2165	Native Peoples of North America	3
ANTH:2182	Africa: Health and Society	3
ANTH:2220	The Olmec, Maya, and Aztecs: Archaeology of Mesoamerica	3
ANTH:3017	Decolonizing Anthropology in Native North America	3
ANTH:3121	Love, Marriage, and Family in India	3
ANTH:3239	The Archaeology of the First Europeans	3
ANTH:3243	Archaeology of the American Midcontinent	3
ANTH:3257	North American Archaeology	3
ANTH:3260	Pleistocene Peopling of the Americas	3
ANTH:3265	Archaeology of the Great Plains	3
ANTH:3275	Egyptian Archaeology	3
ANTH:3276	Greek Archaeology	3
ANTH:3277	Roman Archaeology	3
Practicum and Methods Training		
6 s.h. from these:		
ANTH:2208	Archaeological Methods	3
ANTH:2290	Practicum in Archaeology	arr.
ANTH:2390	Laboratory Methods in Biological Anthropology	arr.
ANTH:3117	Using Ethnographic Methods	3
ANTH:3207	Animal Bones in Archaeology	3
ANTH:3240	Cultural Resources Management Archaeology: Practice and Practicalities	3
ANTH:3255	Introduction to Archaeological Ceramics	3
ANTH:3295	Field Research in Archaeology	arr.
ANTH:3305	Human Osteology	3
ANTH:4080	Anthropology Internship	arr.
ANTH:4315	Human Evolutionary Anatomy	3

Advanced Coursework

Students must complete two additional anthropology courses (6 s.h., prefix ANTH) numbered 3000 or above.

Anthropology offers many options for advanced coursework, including courses dealing with environment and culture, expressive culture (art, verbal arts, literature, music, and dance), gender and sexuality, human evolution, human osteology, human prehistory, identity, medical anthropology, molecular genetics, psychological anthropology, and urban anthropology. Department faculty members offer courses that focus on Europe, South Asia, and Native North America.

Quantitative, Mathematical, or Formal Reasoning Tool

Course #	Title	Hours
One of these:		
COMM:1117	Advocacy and Argument	3
CS:1110	Introduction to Computer Science	3
CS:1210	Computer Science I: Fundamentals	4
LING:1050	Language and Formal Reasoning	3
MATH:1440	Mathematics for the Biological Sciences	4
MATH:1850	Calculus I	4
PHIL:1636	Principles of Reasoning: Argument and Debate	3
STAT:1010	Statistics and Society	3
STAT:1020	Elementary Statistics and Inference	3
STAT:2010	Statistical Methods and Computing	3
STAT:3510	Biostatistics	3

Allied Topical Field

Students complete a topical concentration in one of the following allied fields: biology, chemistry, computer science, earth, environment, and sustainability sciences, economics, global health studies, health, sport, and human physiology, linguistics, mathematics, psychology, science studies, sport studies, or statistics and actuarial science. Minors (or at least five courses) in other fields, chosen in consultation with the student's advisor, may also be applied toward this requirement.

Students are strongly encouraged to take courses and participate in archaeological field and laboratory research, biological anthropology laboratory research, ethnographic research methods in sociocultural anthropology, and multimedia research in linguistic anthropology.

Optional Undergraduate Tracks

Students have the option of adding a particular focus to their study plan by completing a specialized track. They may choose one of two options: archaeology [p. 75] or medical anthropology [p. 76].

The optional tracks reflect broad issues bridging subfields in and outside of anthropology. Completion of a track indicates the acquisition of considerable expertise and is noted on a student's transcript.

The optional tracks each require 15 s.h. (typically five courses). By selecting courses carefully, students majoring in anthropology can complete a specialization track without adding to the semester hours required for graduation.

Archaeology

In North America and throughout much of the rest of the world, modern land use continually threatens evidence of past land use. Most archaeological excavations are conducted as cultural resource management (CRM), so it is essential that all

researchers who work with archaeological data and individuals committed to site preservation have a basic understanding of CRM. Students who choose this emphasis learn about the field, how to address related ethical issues, and technical and theoretical challenges.

The archaeology track requires a fundamental overview course, two area electives, a technical/practical elective, and a field school course.

Course #	Title	Hours
Overview		
This course:		
ANTH:3240	Cultural Resources Management Archaeology: Practice and Practicalities	3
Area Electives		
Two of these:		
ANTH:2165	Native Peoples of North America	3
ANTH:3243	Archaeology of the American Midcontinent	3
ANTH:3257	North American Archaeology	3
ANTH:3260	Pleistocene Peopling of the Americas	3
ANTH:3265	Archaeology of the Great Plains	3
Technical/Practical Elective		
At least 3 s.h. from these:		
ANTH:2208	Archaeological Methods	3
ANTH:2290	Practicum in Archaeology	arr.
ANTH:3207	Animal Bones in Archaeology	3
ANTH:3237	Politics of the Archaeological Past	3
ANTH:3255	Introduction to Archaeological Ceramics	3
ANTH:3305	Human Osteology	3
Field School		
At least 3 s.h. from these:		
ANTH:3295	Field Research in Archaeology	arr.
An equivalent course from another university		

Medical Anthropology Track

Human experiences of sickness and suffering are universal yet profoundly shaped by cultural and historical contexts. Medical anthropology explores cultural and biological diversity in sickness, health, and healing through approaches that include examining individual experiences of disrupted well-being, considering how biological and cultural factors interact to promote health or produce sickness, analyzing political/economic causes of health inequalities, and applying research to improve health research and services in an increasingly global world. Coursework in medical anthropology helps students prepare for a range of health professions and social services careers and for work in diverse settings that increasingly include nongovernmental organizations devoted to improving health. Future health professionals are increasingly called upon to understand how sociocultural and biological factors intersect to produce experiences of health, sickness, and healing.

The medical anthropology track requires an introductory course plus four electives that focus on health-related topics. Elective options include courses numbered 2000–3999 that apply medical anthropology to specific topics, as well as a course numbered above 4000 that helps students engage with more complex topics in this field.

Course #	Title	Hours
Overview		
This course:		
ANTH:2164	Culture and Healing: An Introduction to Medical Anthropology	3
Electives		
Four of these:		
ANTH:2160	Culture, Health, and Wellness: Southeast Asia in Focus	3
ANTH:2181	The Anthropology of Aging	3
ANTH:2182	Africa: Health and Society	3
ANTH:2320	Origins of Human Infectious Disease	3
ANTH:3110	Colonialism and Indigenous Health Equity	3
ANTH:3118	Politics of Reproduction	3
ANTH:3152	Anthropology of Caregiving and Health	3
ANTH:3199	Understanding Health in an Unequal World: Anthropology and Global Health Policy	3
ANTH:3328	Molecular Genetics of Human Disease	3
ANTH:4140	Feminist Activism and Global Health	3

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students majoring in anthropology have the opportunity to graduate with honors in the major. Departmental honors students must have a grade-point average (GPA) of at least 3.50 in anthropology coursework and a cumulative University of Iowa GPA of at least 3.33. To graduate with honors in the major, they must conduct an independent research project that culminates in a 30–50-page thesis. The project includes the completion of 6 s.h. divided between ANTH:4995 Honors Research Seminar (offered only in fall semesters) and ANTH:4996 Honors Research, typically taken the next semester.

Students may count their directed research project or laboratory practicum toward the requirements for graduation with honors, but fulfilling the research requirement for the BS degree does not by itself fulfill the honors research

requirement. Students must work with their honors thesis advisor to structure their research so that it meets the added requirements of honors work.

Contact the department's director of undergraduate studies to learn more about honors in anthropology.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the anthropology major.

Career Advancement

The major in anthropology prepares individuals for advanced training or careers in anthropology, allied fields, and professional programs. Students who complete an anthropology major gain special understanding of human relations, as well as expertise for jobs involving international or cross-cultural work, cultural resource management, and responding to social and ethnic diversity, whether in the United States or globally.

Upon graduation, anthropology majors embark on careers in government, international affairs, conservation, economic development, public health, cultural resource management, planning and public affairs, social work, museum work, and education. Many go on to help resolve contemporary world problems by working with international or domestic organizations such as AmeriCorps, the Peace Corps, and Teach for America. Some pursue graduate study in anthropology or related social and natural sciences, while others earn degrees in business, law, or the health professions.

The Pomerantz Career Center also offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the third semester begins: at least one anthropology course or other course in the major.

Before the fifth semester begins: at least four anthropology courses or other courses in the major, one course in the topical field, and one course for the quantitative or formal reasoning tool requirement.

Before the seventh semester begins: at least seven courses in the major, three courses in the topical field, the second quantitative or formal reasoning tool course, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least nine courses in the major, including the directed research requirement, and four courses in the topical field.

During the eighth semester: enrollment in all remaining coursework in the major (including the topical field), all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Anthropology, BS

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
Major: foundational course [b]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [d]		3
	Hours	**14-16**
Spring		
Major: foundational course [b]		3
Major: comparative human experience course [e]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Quantitative or Formal Reasoning [f]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
	Hours	**16-18**
Second Year		
Fall		
Major: foundational course [b]		3
Major: quantitative or formal reasoning tool course [e]		3
Major: people in places course [e]		2
GE CLAS Core: Understanding Cultural Perspectives [f]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
	Hours	**15-16**
Spring		
Major: global challenges course [e]		3
GE CLAS Core: Historical Perspectives [f]		3
Major: topical concentration course [g]		3
GE CLAS Core: Social Sciences [f]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
	Hours	**16-17**
Third Year		
Fall		
Major: global challenges course [e]		3
Major: topical concentration course [g]		3
GE CLAS Core: Natural Sciences with Lab [f]		4
GE CLAS Core: International and Global Issues [f]		3

Elective course [d]	3
Hours	**16**
Spring	
Major: advanced anthropology course/optional track course [h, i]	3
Major: global challenges course [e]	3
Major: topical concentration course [g]	3
Major: topical concentration course [g]	3
GE CLAS Core: Values and Society [f]	3
Hours	**15**
Fourth Year	
Fall	
Major: practicum and methods training course [e]	3
Major: topical concentration course/optional track course [g, h]	3
Major: topical concentration course/optional track course [g, h]	3
GE CLAS Core: Natural Sciences without Lab [f]	3
Elective course [d]	3
Hours	**15**
Spring	
Major: advanced anthropology course/optional track course [h, i]	3
Major: practicum and methods training course [e]	3
Major: topical concentration course/optional track course [g, h]	3
GE CLAS Core: Literary, Visual, and Performing Arts [f]	3
Elective course [d]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]	
Hours	**15**
Total Hours	**122-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Choose three courses from ANTH:1001, ANTH:1101, ANTH:1201, ANTH:1301.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e See the General Catalog for list of approved courses.

f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

g Students complete a topical concentration in one of the following allied fields: biology, chemistry, computer science, earth and environmental sciences, economics, geographical and sustainability sciences, global health studies, health and human physiology, linguistics, mathematics, psychology, science studies, sport studies, or statistics and actuarial science .Minors (or at least five courses) in other fields, chosen in consultation with a student's advisor, also may be applied toward this requirement.

h Students have the option of adding a particular focus to their study by completing a specialized track (15 s.h.) in archeology or medical anthropology.

i Students must complete two additional anthropology courses (6 s.h., prefix ANTH) numbered 3000 or above.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Anthropology, Minor

Requirements

The undergraduate minor in anthropology requires a minimum of 15 s.h. in anthropology courses, including 12 s.h. in Department of Anthropology courses (prefix ANTH) numbered 2000 or above taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Courses for the minor may not be taken pass/nonpass.

Students may create a focus for the minor by completing a specialization area; see "Optional Undergraduate Tracks" under the BA or BS anthropology requirements in the catalog.

Anthropology, MA

Graduate study in anthropology is open to individuals with varied undergraduate majors and training backgrounds.

Graduate students normally are admitted under the assumption that they intend to pursue the PhD. The department also offers a terminal MA, with a focus on cultural resource management (CRM) in archaeology, which provides academic preparation for a professional career in that field.

PhD students who enter the program with a bachelor's degree are typically awarded a master's degree upon fulfilling program requirements at the end of their second year. The MA portion of the PhD program features coursework across all subfields of anthropology. Students are also strongly encouraged to conduct independent summer research, which is often supported by departmental and other university-based funding sources.

For additional information, view the Graduate Programs website and the current Graduate Student Guidebook on the Department of Anthropology website.

Learning Outcomes

Disciplinary Expertise

Graduate students will gain an in-depth understanding of anthropology and the discipline's contributions to our understanding of people and culture, in the past and present.

Skills for Independent Research

Graduate students will acquire professional and ethical research, reasoning, methodological, and management skills to identify important research problems. They will also learn how to design and execute a project, productively engage with feedback, and successfully report (via writing and presentations) the results of their independent research to diverse sets of audiences.

Teaching Contributions

Graduate students will learn how to communicate anthropological concepts and theories effectively and ethically to different audiences.

Disciplinary, Academic, and Community Contributions

Graduate students will develop service, mentoring, and leadership skills that enable them to advance and support professional, management, academic, and community needs.

Requirements

The Master of Arts program in anthropology requires 30–36 s.h. of graduate credit, depending on a student's previous anthropological training. Students may count a maximum of 9 s.h. earned in courses outside of anthropology toward the MA in anthropology. It is expected that a full-time student will complete all MA requirements by the end of the second year in the program. Students must maintain a cumulative grade-point average of at least 3.00.

Master's degree students who choose to focus on cultural resource management—archaeology normally do not go on to earn a PhD in anthropology.

By the end of their first semester, each student must select an MA committee, consisting of an advisor and two additional professors. Each year, students compile, in consultation with their advisor, the three strongest papers written for anthropology courses, conferences, or journals; an annotated bibliography; their current curriculum vitae; and a three-page narrative to describe their intellectual trajectory in the MA program to date.

Master's degree students who intend to earn a doctorate should consider taking a statistics course during their MA study.

General Coursework

MA students not pursuing the cultural resource management—archaeology focus must complete core seminars in all three subfields (total of 9 s.h.).

Course #	Title	Hours
All of these:		
ANTH:5101	Seminar Sociocultural Anthropology	3
ANTH:5201	Seminar: Archaeological Theory and Method	3
ANTH:5301	Seminar: Biological Anthropology	3

Electives

In consultation with the advisor and committee members, a student selects a minimum of 21 s.h. of additional coursework to complete the remaining semester hours required for the MA. Elective work may include courses in other disciplines, directed study, and up to 6 s.h. of MA thesis credit for students who choose the thesis option.

Cultural Resource Management—Archaeology Focus

Most archaeological excavations and surveys are conducted as cultural resource management (CRM), so it is essential that all researchers who work with archaeological data and individuals committed to site preservation have a basic understanding of CRM. Students who select this focus area learn about the field and how to address related ethical issues as well as technical and theoretical challenges.

Students must complete the archaeological core graduate seminar. They must also complete a research paper, which is an archaeological study with a substantive data analysis directed toward an explicit archaeological research problem, suitable to meet the section three requirement for the Registry of Professional Archaeologists application form.

The cultural resource management—archaeology focus requires a total of 30 s.h., including 24 s.h. of coursework and 6 s.h. of independent research or thesis credit.

Required Coursework

Course #	Title	Hours
Both of these:		
ANTH:3240	Cultural Resources Management Archaeology: Practice and Practicalities	3
ANTH:5201	Seminar: Archaeological Theory and Method	3

Area Electives

Course #	Title	Hours
Two of these:		
ANTH:3243	Archaeology of the American Midcontinent	3
ANTH:3257	North American Archaeology	3
ANTH:3260	Pleistocene Peopling of the Americas	3
ANTH:3265	Archaeology of the Great Plains	3

Technical Electives

Course #	Title	Hours
Four of these:		
ANTH:3207	Animal Bones in Archaeology	3
ANTH:3237	Politics of the Archaeological Past	3
ANTH:3255	Introduction to Archaeological Ceramics	3
ANTH:3295	Field Research in Archaeology	3
ANTH:3305	Human Osteology	3

Independent Research or Thesis

Course #	Title	Hours
6 s.h. from these:		
ANTH:6005	Independent Study: Anthropology	arr.
ANTH:6010	Research: Anthropology	arr.
ANTH:6015	Thesis	arr.

Admission

Applicants for admission to the graduate program in anthropology are considered regardless of their previous field of training. Students without previous training in anthropology are expected to perform additional work as necessary to achieve the competence expected for their degree objective.

Students normally are admitted under the assumption that they intend to pursue the PhD, with the exception of students entering into the MA program with the cultural research management–archaeology subprogram. Students without an MA in anthropology devote the first two years to fulfilling the MA requirements. After those requirements are completed, the student's committee may award the MA with admittance to the PhD program.

Students with an MA in anthropology from another institution may proceed directly into a PhD program organized around their special research interests. If they lack any of the requirements of the graduate program at the University of Iowa, they are informed of those requirements when admitted. Acceptance of credit hours from other institutions will follow UI regulations.

Applicants for admission to the graduate program must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Anthropology graduate program applicants are required to upload the following documentation to the University of Iowa Graduate Admissions online application:

- official academic records/transcripts from previous institutions attended;
- a brief statement of interest or intent regarding why graduate study in the Department of Anthropology is desired;
- three letters of recommendation;
- a writing sample (preferably a research paper); and
- an application for graduate funding.

For more information concerning the required application elements, see Graduate Admissions Process on the Department of Anthropology website.

When completing the online Graduate College Application for Admission for Degree, applicants should enter MA or PhD based on their final degree objective. Students at the MA level do not write a thesis, so "MA (thesis)" is not an option. For questions about which degree option to choose, contact the Department of Anthropology.

Career Advancement

Graduates establish careers at universities, colleges, museums, healthcare institutions, and a diverse range of governmental and nongovernmental agencies. For more information, see Careers and Opportunities on the Department of Anthropology website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Anthropology, MA

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c, d]		
Students who are first-time teaching assistants must also complete ANTH:5001 Graduate Teaching Pro-Seminar.		
	Hours	**0**
First Year		
Fall		
Establish Master's Committee [e]		
Seek Internal Review Board (IRB) Approval [f]		
ANTH:5101	Seminar Sociocultural Anthropology	3
Elective course [g]		3
Elective course [g]		3
	Hours	**9**
Spring		
Master's Portfolio [h]		

ANTH:5201	Seminar: Archaeological Theory and Method	3
ANTH:5301	Seminar: Biological Anthropology	3
Elective course [g]		3
	Hours	**9**
Second Year		
Fall		
Elective course [g]		3
	Hours	**3**
Spring		
Master's Portfolio [i]		
Elective course [g]		3
Elective course [g]		3
Exam: Master's Final Exam [j]		
	Hours	**6**
	Total Hours	**27**

a Students normally are admitted (whether with a master's or a bachelor's degree) under the assumption that they intend to pursue the PhD degree. The department also offers a terminal MA degree, with a focus on cultural resource management-archaeology (CRM).

b Some students may complete up to 36 s.h. of graduate coursework for the degree, depending on their previous anthropological training. Students should consult with their faculty advisor to determine if this is necessary and, if so, which coursework is appropriate.

c A maximum of 9 s.h. of coursework outside anthropology may count towards the degree requirements.

d Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

e Composed of three members of the anthropology graduate faculty, one of whom serves as the committee chair, and the student's faculty advisor.

f Students who conduct research involving human subjects (e.g., ethnographic research in the summer months) are required to submit a detailed application about the scope of their study and data collection methods through the HawkIRB system for Institutional Review Board (IRB) approval.

g In consultation with faculty advisor and committee members, students select a minimum of 21 s.h. of additional coursework to complete the remaining semester hours required for the MA; may include courses in other disciplines and up to 9 s.h. of directed study. Students who intend to earn a doctorate should consider taking a statistics course.

h Compile, in consultation with faculty advisor, the three strongest papers written for anthropology courses, conferences, or journals; an annotated bibliography of 3 topical areas with 5 key annotated references in each; current curriculum vitae; and a three-page narrative to describe intellectual trajectory in the MA program to date.

i Compile, in consultation with faculty advisor, the three strongest papers written for anthropology courses, conferences, or journals; an annotated bibliography of 3-4 topical areas with 6-10 key references in each; current curriculum vitae; and a three-page narrative to describe intellectual trajectory in the MA program to date.

j Discuss committee and format with faculty advisor and graduate program coordinator.

Anthropology, PhD

Learning Outcomes

Disciplinary Expertise

Graduate students will gain an in-depth understanding of anthropology and the discipline's contributions to the understanding of people and culture, in the past and present.

Skills for Independent Research

Graduate students will acquire professional and ethical research, reasoning, methodological, and management skills to identify important research problems. They will also learn how to design and execute a project, productively engage with feedback, and successfully report (via writing and presentations) the results of their independent research to diverse sets of audiences.

Teaching Contributions

Graduate students will learn how to communicate anthropological concepts and theories effectively and ethically to different audiences.

Disciplinary, Academic, and Community Contributions

Graduate students will develop service, mentoring, and leadership skills that enable them to advance and support professional, management, academic, and community needs.

Requirements

The PhD leads to the accomplishment of professional-level skills in conducting independent research, and normally features specialized training in one or two of the discipline's subfields. Doctoral education is guided by a PhD committee composed of members of the faculty competent in the particular areas and topics chosen by a student. Students must maintain a cumulative grade-point average of at least 3.00.

The doctoral program includes an integrated process of progressively developing and completing reading lists, developing and submitting research proposals to funding agencies, developing and defending a dissertation prospectus, and writing two comprehensive exam essays. Upon successful completion of the comprehensive examination and the dissertation prospectus, a student advances to candidacy for the PhD. To complete the PhD, all doctoral candidates are required to conduct independent anthropological research, write a dissertation, and defend it.

For students who enter the doctoral program with an existing MA (in anthropology or a related field), the faculty develop an individualized program of study based on a student's existing coursework and goals.

PhD students may also elect to pursue an optional concentration in feminist anthropology.

For program requirements, refer to the current Graduate Student Guidebook on the Department of Anthropology website.

Admission

Applicants for admission to the graduate program in anthropology are considered regardless of their previous field of training. Students without previous training in anthropology are expected to perform additional work as necessary to achieve the competence expected for their degree objective.

Students normally are admitted under the assumption that they intend to pursue the PhD, with the exception of students entering into the cultural resource management–archaeology MA program. Students without an MA in anthropology devote the first two years to fulfilling the MA requirements. After those requirements are completed, the student's committee may award the MA with admittance to the PhD program.

Students with an MA in anthropology from another institution may proceed directly into a PhD program organized around their special research interests. If they lack any of the requirements of the graduate program at the University of Iowa, they are informed of those requirements when admitted. Acceptance of credit hours from other institutions will follow UI regulations.

Applicants for admission to the graduate program must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Anthropology graduate program applicants are required to upload the following documentation to the University of Iowa Graduate Admissions online application:

- official academic records/transcripts from previous institutions attended;
- a brief statement of interest or intent regarding why graduate study in the Department of Anthropology is desired;
- three letters of recommendation;
- a writing sample (preferably a research paper or MA thesis); and
- an application for graduate funding.

For more information concerning the required application elements, see Graduate Admissions Process on the Department of Anthropology website.

Career Advancement

Graduates establish careers at universities, colleges, museums, healthcare institutions, and a diverse range of governmental and nongovernmental agencies. For more information, see Careers and Opportunities on the Department of Anthropology website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Anthropology, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Students may elect to pursue an optional concentration in feminist anthropology; work with faculty advisor to determine appropriate coursework and sequence.		
Students who are first-time teaching assistants must also complete ANTH:5001 Graduate Teaching Pro-Seminar Graduate Teaching Pro-Seminar.		
	Hours	**0**
First Year		
Fall		
Seek Internal Review Board (IRB) Approval [c]		
Required Theory course [d]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Spring		
Language Competency Requirement [f]		
ANTH:5110	Anthropological Data Analysis	3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Second Year		
Fall		
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Spring		
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Third Year		
Fall		
Exam: Doctoral Comprehensive Exam [g]		
ANTH:7110	Research Design and Writing [h]	3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Spring		
Dissertation Prospectus [i]		
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Fourth Year		
Fall		
ANTH:6015	Thesis	9
	Hours	**9**
Spring		
ANTH:7501	Dissertation Writing Seminar	1
ANTH:6015	Thesis	8
Exam: Doctoral Final Exam [j]		
	Hours	**9**
	Total Hours	**72**

a A maximum of 18 s.h. of coursework outside anthropology (this includes and is not in addition to the 9 s.h. allowed at the MA level) may count towards the degree requirements; beyond the MA degree, no more than 9 additional semester hours of ANTH:6005 may count towards the PhD degree.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Students who conduct research involving human subjects (e.g., ethnographic research in the summer months) are required to submit a detailed application about the scope of their study and data collection methods through the HawkIRB system for Institutional Review Board (IRB) approval.

d Sociocultural Anthropology option: ANTH:5101; Archaeology options: ANTH:3237, ANTH:5201; Biological Anthropology options: ANTH:3308, ANTH:4315, ANTH:5301.

e Electives may include courses in other relevant study, a maximum of 18 s.h. of directed study, and dissertation credit. Work with faculty advisor to determine appropriate graduate level elective coursework and sequence.

f Students should consult with their advisor and committee and determine both existing and needed language competencies. A record of the status of, expected training in, and decisions (including waivers) related to language competency must be included in the student's file by the time of candidacy. The Language Competency Report can be found on the department website.

g The student will prepare two comprehensive essays: one in the geographical area of specialization and the other in the primary topical area of specialization. In some subfields and for some projects, a geographical area may not be relevant, and the student will focus on two topical areas. Each paper will address a question posed by the committee in consultation with the student.

h Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

i The dissertation prospectus should present a research question that contributes to ongoing discussions in anthropological scholarship, explain the background and significance of the question, and describe the methods that the student plans to use to answer it. The student publicly defends their prospectus before their PhD committee by the end of the final exam period of that semester

j Dissertation defense.

Art, Art History, and Design

Chair

- Andrew Casto

Undergraduate majors: art (BA, BFA); art history (BA)

Undergraduate minors: art; art history

Graduate degrees: MA in art; MA in art history; MFA in art; PhD in art history

Faculty: https://art.uiowa.edu/people/faculty

Website: https://art.uiowa.edu/

The School of Art, Art History, and Design provides a creative, multidisciplinary environment for students of the studio arts and the history of art. Established in 1936, the school is firmly grounded in the College of Liberal Arts and Sciences. It encourages interaction among its diverse faculty as well as collaboration with related disciplines across campus.

Iowa's art, art history, and design graduates enjoy success as practicing professional artists, professors of art history, teachers, museum directors and curators, theater designers, commercial designers, and art administrators.

The School of Art, Art History, and Design's Visual Arts Building opened in fall 2016 and is identified by architectural publications as one of the best designed new buildings in the world. The Visual Arts Building is adjacent to the second School of Art, Art History, and Design building, Art Building West. Visit the School of Art, Art History, and Design website and MyUI for information about studio, office, and classroom sites.

Studio Art

The School of Art, Art History, and Design is committed to students' professional futures. The studio laboratories, some of the finest facilities nationally, are updated annually with leading-edge production equipment. Students have the opportunity to develop the visual vocabulary and cross-media literacies required by the rapidly changing contemporary world. The visiting artist series introduces students to national and international leaders in the field, while a varied, diverse, and professionally active faculty ensures that the area is contemporary in its approach and pluralistic in its scope.

Undergraduate and graduate students select their major and minor studio art disciplines from ceramics, drawing, graphic design, intermedia, jewelry and metal arts, painting, photography, printmaking, sculpture, and three-dimensional (3D) design.

Art History

Art history, a broad intellectual discipline, is central to the humanities. Diverse approaches characterize the school's art history faculty, who have interdisciplinary ties within and beyond the university. Their primary mission is to help students develop skills for exploring issues and problems central to the history of art as a whole as well as to its specialized areas. Because the major in art history stresses the development of critical visual thinking and writing, it prepares students for graduate work in art history and for other professional fields as well.

Student Organizations

The undergraduate Art History Society and the graduate Art History Society sponsor activities for students. The Faculty/Graduate Student Art History Colloquium meets five times each semester to focus on professional development and issues of broad interest in art. Other student organizations include Students in Design, Children of the Clay (formerly the Ceramics Society), and the Iowa Smith Guild.

Interdisciplinary Resources

Colloquia, visiting artists and lecturer programs, and graduate workshops bring visitors to the School of Art, Art History, and Design and provide open forums for discussion of issues in art and scholarship.

Among the school's major assets is the Project for the Advanced Study of Art and Life in Africa (PASALA), an interdisciplinary program that brings together faculty with international reputations in art history, anthropology, film, history, and literature to offer courses and independent study of art in West, Central, East, and South Africa. The result is a program of unusual breadth and depth of expertise. PASALA offers scholarships and support for research in Africa and dissertation preparation to outstanding students. A major resource for PASALA is the Stanley Collection of African Art. Visit African Art on the Stanley Museum of Art website to learn more.

The School of Art, Art History, and Design affiliates with the Department of American Studies [p. 51], giving students opportunities to study not only the history of American art but a variety of interdisciplinary programs in American history, literature, and politics. The school also is linked to the Medieval Studies Program [p. 805], which offers an undergraduate certificate and courses in the history, literature, and culture of the Middle Ages.

Related Certificate

Certificate in Book Arts and Book Studies

The Center for the Book and the School of Art, Art History, and Design enable students to earn the Certificate in Book Arts and Book Studies [p. 1727] and the MFA in art. Students may wish to earn the MFA in a studio art area (printmaking, drawing, painting, design, etc.) in combination with the Certificate in Book Arts and Book Studies. If accepted to both programs, students are advised and matriculate through both programs independently. Most, if not all, of the 18 s.h. of elective coursework required for the MFA may be applied toward the Center for the Book certificate. It is possible for students to earn both credentials in the same amount of time required to earn the MFA degree.

Advisors in both areas of study assist interested students in discerning whether the MFA in book arts (Center for the Book) or the MFA in art and the certificate option is most appropriate to a student's background and career goals. In large part, this is determined by the degree to which books and book arts are central to the applicant’s chosen path.

Programs

Undergraduate Programs of Study

Majors

- Major in Art (Bachelor of Arts) [p. 99]
- Major in Art History (Bachelor of Arts) [p. 103]
- Major in Art (Bachelor of Fine Arts) [p. 112]

Minors

- Minor in Art [p. 126]
- Minor in Art History [p. 127]

Graduate Programs of Study

- Master of Arts in Art [p. 128]
- Master of Arts in Art History [p. 131]
- Master of Fine Arts in Art [p. 134]
- Doctor of Philosophy in Art History [p. 137]

Facilities

Reference Collections

Focusing on the creation and study of the visual arts, the Art Library has over 150,000 books, journals, and DVDs. It also provides access to digital resources and the major online research databases.

The Office of Visual Materials is the school's collection management service and it manages digital and physical collections. These collections include 650,000 digital images for teaching, the Thesis Rental Gallery, the Iowa Print Archive, and the DeCaso Visual Archive.

Museum of Art

The University of Iowa Stanley Museum of Art has a significant permanent collection that includes major holdings of 20th-century and contemporary art, African and pre-Columbian art, English and American silver, European and American prints, drawings and photographs, and Etruscan, Iranian, and contemporary American ceramics. As well as serving as a resource for research in a wide variety of art history areas, the museum offers a program of exhibitions, lectures, and recitals.

Learn about current exhibitions and events by visiting the University of Iowa Stanley Museum of Art website.

Art Buildings

The school's administrative center, Art Building West, is home to the school's main office as well as the Office of Visual Materials, the Art Library, an auditorium, art history classrooms, a gallery, a café, and studios for graphic design, painting, animation, and digital photography. Designed by architect Steven Holl, Art Building West has won numerous awards for its innovative design.

The Visual Arts Building has been identified by a number of publications as one of the top new buildings in the world. It also was designed by architect Steven Holl and sits adjacent to Art Building West.

Courses

- Art History Courses [p. 86]
- Studio Art Courses [p. 91]
- General Art Courses [p. 91]
- Ceramics Courses [p. 92]
- Design Courses [p. 93]
- Three-Dimensional Design Courses [p. 93]
- Drawing Courses [p. 94]
- Intermedia Courses [p. 94]
- Jewelry and Metal Arts Courses [p. 95]
- Painting Courses [p. 95]
- Papermaking Courses [p. 95]
- Photography Courses [p. 96]
- Printmaking Courses [p. 97]
- Sculpture Courses [p. 97]
- Art Education Courses [p. 98]

Art History Courses

An introductory course in the appropriate art history area or consent of the instructor is a prerequisite for some courses numbered above 3000. Courses titled "Themes in ..." consider topics of current interest in the field, organized thematically rather than chronologically.

ARTH:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

ARTH:1010 Art and Visual Culture 3 s.h.
Visual analysis, media and techniques, artistic subject matter and aesthetic issues; historical periods and movements from ancient times to present; provides strong orientation to visual aspects of humanities, background for other art history courses, and introduction to visual arts for personal enrichment; for students new to art history. GE: Historical Perspectives; Literary, Visual, and Performing Arts.

ARTH:1020 Masterpieces: Art in Historical and Cultural Perspectives 3 s.h.
Masterpieces of Western art—how to look at, think about, and understand some of the worlds' most exciting works of architecture, painting, and sculpture; their construction, hidden meanings, historical content, and their meanings today. GE: Literary, Visual, and Performing Arts.

ARTH:1025 Buyer Beware! Fakes, Thefts, and the Global Art Market 3 s.h.
Examination of how manipulated artworks and outright forgeries have been accepted as genuine and sold on the art market to museums and private collectors alike; how the global art market is connected to the theft of art and the looting of archaeological sites; case studies (i.e., Parthenon marbles, Benin bronzes, widespread looting under ISIS in Syria and Iraq) allow for discussions about the relationship between colonialism, geopolitical power, and artwork displayed in museums.

ARTH:1030 Themes in Global Art 3 s.h.
Exploration of how different cultures throughout history and across the globe have expressed their social, political, and religious values in visual form; key themes include social functions of art, the ideal body, art of the divine, funerary art, propaganda and power. GE: Literary, Visual, and Performing Arts; Values and Society.

ARTH:1040 Arts of Africa 3 s.h.
Arts, artists, and cultures of Africa; sculpture, paintings, pottery, textiles, architecture, human adornment. GE: International and Global Issues; Literary, Visual, and Performing Arts.

ARTH:1045 Race and Art in America 3 s.h.
Chronological development and critical themes of African American visual culture; material culture of slave artists, history of racist imagery in the U.S., most important African American fine artists; slave dwellings, quilts, paintings, sculpture, photography; W.E.B. Du Bois' claim to Egyptian artistic patrimony, controversial work of Kara Walker, hip hop aesthetic of Kehinde Wiley; previous art history experience not required. GE: Values and Society.

ARTH:1050 From Cave Paintings to Cathedrals: Survey of Western Art I 3 s.h.
Survey to foster development of critical skills in thinking and writing about visual culture, and to familiarize students with broad outlines of artistic development in the Western tradition, from prehistory through later Middle Ages; aesthetic qualities of artworks, relationship between style, function, and meaning. GE: Historical Perspectives; Literary, Visual, and Performing Arts.

ARTH:1060 From Mona Lisa to Modernism: Survey of Western Art II 3 s.h.
Survey of the Western world's visual arts from Renaissance (ca. 1400) to present; major movements and principal masters of Western Europe and the United States in their social and historical contexts; focus on stimulation of visual literacy and familiarity with outstanding cultural monuments. GE: Historical Perspectives; Literary, Visual, and Performing Arts.

ARTH:1070 Asian Art and Culture 3 s.h.
Art from India, China, and Japan in many media and forms, in their cultural and historical contexts; cultural distinctions of these Asian civilizations as seen through the visual arts; chronology used to highlight historical processes and provide perspectives on continuity and change. Taught in English. GE: Historical Perspectives; Literary, Visual, and Performing Arts.

ARTH:1075 Contemporary Art: A Global Perspective 3 s.h.
Introduction to contemporary art across globe; exploration of how artists work today and their approaches to pressing issues and questions of current times.

ARTH:1080 How to Write About Art 3 s.h.
Opportunity to develop understanding of and skill in using visual-arts writing conventions and linguistic competencies that are necessary for academic and professional success; formats such as exhibition reviews, art criticism, research writing, artist's statements; experience through exercises, formal essays, revision, workshops. Requirements: fulfillment of GE CLAS Core Rhetoric.

ARTH:1095 Native American Art 3 s.h.
Survey of the visual arts of Indigenous peoples in North America with emphasis on regions that have become the United States; exploration of painting, sculpture, ceramics, fiber arts, performance, and architecture as expressions of identity, creativity, resistance, and resilience from ancestral traditions through transformations prompted by non-Native contact to today's vibrant art scene. GE: Literary, Visual, and Performing Arts; Values and Society. Same as NAIS:1095.

ARTH:2020 Western Architecture From Prehistory to the Present 3 s.h.
Overview of monuments, Neolithic period to present; aesthetic and structural principles, major styles, architects.

ARTH:2120 Art and Architecture of the Islamic World 3 s.h.
Introduction to the artistic production of the Islamic world from the 7th century to present day; broad geographical coverage; examination of contributions of Arabia and the Middle East as well as those of Spain, North Africa, India, and Asia; students consider a wide variety of media including ceramics, metalwork, textiles, and calligraphy; emphasis on great buildings (e.g., Dome of the Rock, Alhambra, Taj Mahal); students are challenged to understand these works in their original cultural contexts and in relation to currently ongoing debates about intercultural exchange and religious identity in a globalizing world.

ARTH:2150 Art and Life in Africa 3 s.h.
Historical overview of themes and issues in African art (i.e., aesthetics, form and function, art in religion and the spiritual realm, art and politics, art and the individual); techniques used to create art (i.e., weaving, carving, brass casting, iron smelting and forging, architecture); art in daily life.

ARTH:2220 Introduction to the Art of China 3 s.h.
Visual arts of China and their history; emphasis on understanding in context of Chinese civilization, history. Same as ASIA:2231.

ARTH:2250 Introduction to the Art of Japan 3 s.h.
Chronological survey of Japan's visual arts in their historical and cultural contexts from Neolithic age to present; extensive use of slides, films, other visual materials. Taught in English. Same as JPNS:2250.

ARTH:2320 Ancient Art From the Great Pyramids of Egypt to the Colosseum in Rome 3 s.h.
Art and architecture of the Mediterranean world (ca. 3500 B.C.E.) to death of Constantine (337 C.E.); Egyptian, Cycladic, Minoan, Mycenaean, Greek, Etruscan, and Roman cultures; artistic responses to life and death; impact of breakthroughs in technology and engineering on visual culture; role of art in empire building; interrelationships of art, politics, religion. GE: Historical Perspectives. Same as CLSA:2226.

ARTH:2330 Ancient Egyptian, Mesopotamian, and Persian Art 3 s.h.
Art and architecture of Egypt and the Near East (ca. 3500 B.C.E.) to advent of Islam; Egyptian, Sumerian, Assyrian, Babylonian, and Persian cultures; artistic responses to life and death; impact of breakthroughs in technology and engineering on visual culture; role of art in empire building; interrelationships of art, politics, and religion. Same as CLSA:2330.

ARTH:2340 The Power of Art in Greece and Rome 3 s.h.
Art and architecture of Greece and Rome (ca. 3000 B.C.E.) to death of Constantine (337 C.E.); Cycladic, Minoan, Mycenaean, Greek, Etruscan, and Roman cultures; artistic responses to life and death; impact of breakthroughs in technology and engineering on visual culture; role of art in empire building; interrelationships of art, politics, and religion. Same as CLSA:2340.

ARTH:2420 Medieval Art From Constantine to Columbus 3 s.h.
Comprehensive survey of artistic traditions of Western Europe and Mediterranean Basin from roughly 300 to 1500; reign of Roman Emperor Constantine to lifetime of Christopher Columbus; complexity and diversity of cultural and artistic traditions that flourished in these so-called Middle Ages, where blending of Roman and northern legacies created European cultures.

ARTH:2520 Italian Renaissance Art 3 s.h.
Consequential works of art by Italian artists of the 14th and 15th centuries; diverse roles played by images in early Renaissance society; analysis of primary sources and seminal research in the field; (re)birth of art theory and advancing social status of the artist in cultural centers of Florence, papal Rome, republican Venice, and the courts of Northern Italy.

ARTH:2530 High Renaissance Art and Mannerism: Michelangelo to Caravaggio 3 s.h.
Most consequential works of High Renaissance and Mannerist art by late 15th-century and 16th-century Italian artists; developments in painting, architecture, sculpture, printmaking, and portable arts; Michelangelo, Leonardo da Vinci, Raphael, Giorgione, Titian, Correggio, Lotto, Bronzino, Sonfonisba Anguissola, Palladio, Cellini, Veronese, Carracci, and Caravaggio receive close consideration; particular attention given to materials and techniques employed, creative approach of the artist, and multiple functions of the image in government and statecraft, churches, public spaces, and private homes; constructing social and civic identity.

ARTH:2730 Transformations in Nineteenth-Century European Art 3 s.h.
Major European artists, works, movements, aesthetic theories from late 18th century to 1900; works in their aesthetic, cultural, intellectual, political contexts; boundaries, definitions of movements (i.e., Neo-Classicism, Romanticism, Realism, Impressionism, Post-Impressionism, Symbolism).

ARTH:2740 Art of the Northern Renaissance: Jan van Eyck, Hieronymus Bosch, Albrecht Durer, and Beyond 3 s.h.
Northern European art between 1350 and 1600; the transition between the late Middle Ages and the Renaissance; artistic output of this period; development of critical thinking skills by exploring ways in which the Northern Renaissance has been defined with respect to Italian Renaissance and northern medieval traditions.

ARTH:2820 Introduction to Twentieth-Century Art 3 s.h.
Modern European and American painting, sculpture, and architecture from 1880 to present; major art movements of modern art history.

ARTH:3000 Digital Approaches to the Study of Art 3 s.h.
Digital approaches to study of art history; emphasis on cultural identity.

ARTH:3010 Fakes, Frauds, and Forgeries: The Dark Side of Art History 3 s.h.
How fraudulent artworks have been accepted as genuine and incorporated into the art historical canon, from the famous gold and ivory Minoan snake goddess to paintings purportedly by Rembrandt; the danger frauds pose to our understanding of cultural heritage and historical past, how fakes have impacted the art market, and value of forgeries as indices of contemporary taste and preconceptions about art. Same as MUSM:3010.

ARTH:3020 Paris and the Art of Urban Life 3 s.h.
City of Paris examined in varied historical, artistic, and cultural contexts; interdisciplinary.

ARTH:3090 Contemporary Architecture 3 s.h.
Quality of contemporary-built environments in America, Western Europe, Asia, and Middle East from 1970 to present; stylistic evolution of postmodern design, new urbanism, sustainable architecture; impact of literary and cultural theory on contemporary practitioners such as Daniel Libeskind, Steven Holl.

ARTH:3160 Themes in African Art 3 s.h.
Themes and topics in African art.

ARTH:3225 Modern and Contemporary Art in China 3 s.h.
Introduction to art and culture of 20th- and 21st-century China, covering the period from 1911 to present day; focus on contextualizing art objects, performances, propagandas, and exhibitions produced by government, business sector, curators, avant-garde artists and groups in China; topics include biennales, museums, art districts, luxury brands, and censorship; use of discussions and readings to investigate artworks and events that speak to China's society and economy, as well as its place in globalization and international art market.

ARTH:3245 Mountains and Waters: Landscape Art of East Asia 3 s.h.
Shanshui (mountains and waters), commonly translated as landscape, has been one of the most esteemed genres in East Asian visual cultures for over a millennium. Nonetheless, the relationship between landscape, nature, and its visual representation remains in flux. Examine the development of this genre, its transmission and translation across East Asia (China, Korea, and Japan), and its continuous transformation.

ARTH:3250 Brushwork in Chinese Art 3 s.h.
In-depth study of history, aesthetics, and techniques of brushwork on multiple forms of material culture; hands-on practical experience in Chinese brushwork; analysis of visual elements of brushwork in Chinese paintings, calligraphy, ceramics, and other artistic forms; synthesis of studio art experience and art historical analysis to provide a deeper practical and aesthetic understanding of Chinese fine art techniques.

ARTH:3255 Copy and Paste: Methods of Reproduction in Asian Art 3 s.h.
Introduction to methods of reproduction in Asian art that predates photography, encompassing technologies of graphic reproduction (manual, mechanical, and somewhere in between); exploration of themes including piece-mold bronze casting, stamping and seals, rubbing, molding and mass production, woodblock printing, trace-copying calligraphy, and free-hand copying of paintings; overarching concepts across different subjects (e.g., authorship and authenticity, value of copies and impact on canon formation, relationship between technology and style, question of aura in—and before—the age of mechanical reproduction). Same as ASIA:3255.

ARTH:3270 Themes in Asian Art History 3 s.h.
Same as ASIA:3270.

ARTH:3310 Celtic and Viking Art 3 s.h.
Art and architecture of Celts and Vikings from prehistory to Middle Ages.

ARTH:3320 Egyptian Art 3 s.h.
Survey of ancient Egypt over 3,500 years with emphasis on art and architecture in context; workshops, patrons, and audiences of Egyptian art; major principles, themes, and meanings of Egyptian art; relationship between writing and artistic representation; connections between art, kingship, and Egyptian view of the world; art and architecture of central elite and other social groups. Same as RELS:3704.

ARTH:3325 Kings, Gods, and Heroes: Art of Ancient Mesopotamia and Persia 3 s.h.
Arts, kings, and cultures of Mesopotamia, Syria, and Iran; sculpture, seals, pottery, metalworking, architecture.

ARTH:3330 Classical Greek Art 3 s.h.
Art and architecture of classical Greece (ca. 480-323 B.C.); monuments of this period—from Parthenon in Athens to Aphrodite of Knidos—often viewed as embodiments of the highest achievements in Western art and culture; classical Greek art within social, political, religious, and historical contexts; role in ancient Greek society and its impact in the 21st century. Same as CLSA:3227.

ARTH:3335 Early Greek Art 3 s.h.
Art and architecture of Early Greece (circa 3000-480 BCE); development of sculpture, architecture, and ceramics. Coverage includes the Greek Bronze Age (Cycladic, Minoan, Mycenaean), and the Iron Age from the Geometric through the Archaic periods. Art and architecture will be assessed in their social, religious, and historical contexts.

ARTH:3340 Greek Vase Painting 3 s.h.
Greek ceramics as documents of religious beliefs, mythology, and daily life 1000-300 B.C.E. Same as CLSA:3250.

ARTH:3350 Art of Early Rome: Patrons and Politics 3 s.h.
Examination of architecture, sculpture, and painting in central Italy from c. 800 B.C. to the end of the Roman Republic in 27 B.C.; art in the service of social ideology and political propaganda; funerary art and its relationship to the living; artistic interactions between Etruria, Greece, and Rome. Same as CLSA:3232.

ARTH:3360 Art of the Ancient Roman Empire 3 s.h.
Major developments in architecture, sculpture, and painting from the ascension of Augustus to sole ruler in 31 B.C. to the death of Constantine in A.D. 337; influence of individual emperors on the development of artistic forms; relationship between public and private art; interdependency of Rome and the provinces. Same as CLSA:3233.

ARTH:3370 Life and Death in Ancient Pompeii 3 s.h.
Art and architecture as documents of ancient life in Pompeii, a town that was destroyed during the eruption of Mount Vesuvius in 79 C.E.; topics include artistic choices and achievements of the city's inhabitants, roles played by men and women inside and outside the family, slavery, political organization and expression, and attitudes towards death. Same as CLSA:3234.

ARTH:3375 The Great Collision 3 s.h.
Major developments in architecture, sculpture, ceramics, and mosaics in Israel, Palestine, Syria, and Arabia from death of Alexander the Great to rise of Islam (4 B.C.E. to 8 C.E.); Greek and Roman influences versus local traditions; Roman Empire; growth of churches, synagogues, and mosques; identity and religion. Same as RELS:3375.

ARTH:3390 Early Medieval Art 3 s.h.
Complex artistic traditions that developed roughly between 300 and 1000 in territories once governed by the Roman Empire and in areas of northern Europe directly influenced by Western Christian tradition; period as not simply a "Dark Age," but a pivotal chapter in history of Western art and culture; group discussion, individual research topics.

ARTH:3400 Romanesque and Gothic Art 3 s.h.
Art and architecture produced in Western Europe from the year 1000 to the Renaissance, a period when works of boldly original character that continue to define the landscape of Europe were created; histories of Romanesque and Gothic styles; shift from monastic to episcopal, civic, and courtly patronage; intersection between art and devotional practice; flowering of medieval urbanism and building technology; intersection between artistic traditions of later Gothic and emerging Renaissance.

ARTH:3420 Gothic Architecture 3 s.h.
Gothic architecture and its history, from varied perspectives (e.g., formal structural, symbolic, geometric, socioeconomic).

ARTH:3440 Geometry in Art: From Prehistory to the Present 3 s.h.
Overviews the process of geometrical form generation in art from prehistory to the present; emphasizes the “Iowa Idea” of synergy between art history and studio practice, arguing that consideration of compositional strategy deserves a more prominent place in the literature on art history than it has usually received.

ARTH:3550 Leonardo, Raphael, Michelangelo: Rivalry and the Rise of the Artist in the Italian Renaissance 3 s.h.
The arts in Italy 1485-1550.

ARTH:3560 Art in Renaissance Venice 3 s.h.
As a center of trade between East and West, Renaissance Venice became the wealthiest city in Europe and home to many of the greatest artists in the Western tradition; students focus on Venice's revolution in art, as it transformed from depictions of medieval religious imagery to Renaissance subjects and concepts associated with modernity such as image of the reclining nude, psychological portrait, poetic allegory, and the very idea that a visual medium might express an artist's internal feelings or state of mind; exploration and evaluation of workshops including the Bellini, Carpaccio, Giorgione, Titian, Veronese, and Tintoretto from multiple perspectives.

ARTH:3600 History of Printmaking 3 s.h.
History of printmaking from its origins to the present day, following a broadly chronological framework. Students examine the development of major printmaking techniques, including relief, intaglio, lithography, and screen printing, and consider how prints served as powerful vehicles for the transmission of artistic styles and iconography across geographical regions. Highlights the contributions of significant printmakers, situating their work within broader cultural and historical contexts.

ARTH:3700 Rococo to Realism: Making Art Modern in an Age of Revolution 3 s.h.
Developments in French art and culture in a period of artistic, cultural, and political upheavals from the rise of Rococo as a new art style to the innovations of Romanticism and Realism. Topics include the intersections of art with culture and politics, the impact of women artists and patrons, the role of psychology, biology, and the natural sciences in the making of art, the uses of myth, and the rise of modernism. Changes in patronage, the new role of museums and galleries, and innovations in printmaking and book illustration will also be explored. Artists include Watteau, Chardin, Fragonard, Vigee-Lebrun, David, Ingres, Gericault, and Delacroix, among others.

ARTH:3710 Fantasy and Seduction in Venice: The Renaissance Art of Bellini, Giorgione, and Titian 3 s.h.
Exploration of the birth of modern art through three Italian Renaissance painters essential to its emergence: Bellini, Giorgione, and Titian.

ARTH:3720 The Romantic Revolution 3 s.h.
Transformations in European art and culture 1750-1850, an age of artistic, political, cultural, intellectual crisis and revolutions; major artists, including David, Ingres, Gericault, Delacroix, Goya, Freidrich, Constable, Turner.

ARTH:3730 Impressionism and the Visual Revolution 3 s.h.
Naturalism, Realism, the Impressionist landscape, painting of modern life, new trends in subjectivity and exoticism mid- to late-19th-century European art and culture; Courbet, Manet, Degas, Monet, Renoir, Seurat, Cezanne, Van Gogh, Gauguin, Ensor, Munch.

ARTH:3740 Manet to Matisse 3 s.h.
Development of modernism and the avant-garde in late 19th- and early 20th-century Paris; intersection of innovation and tradition, literature and art; role of theory and criticism in works of Manet, Degas, Seurat, Cezanne, Gauguin, Rodin, Matisse, and Picasso.

ARTH:3750 Muses, Models, Artists, and Patrons: Women in the Visual Arts 3 s.h.
Women in the visual arts from various perspectives: women as subject and inspiration, as patrons and as artists; role of women in the arts from the late 18th through the early 20th centuries, primarily in Europe, a period that witnessed significant female patronage of the arts, the first modern feminist movements that gave impetus to newly independent women artists, and the transformation of ways in which women were represented in art across genres, including history, myth, portraiture, orientalism, and images of contemporary life; impact of the role of women in art and culture will be critically examined.

ARTH:3820 Modern Art 3 s.h.
Development of modern art from early years of 20th century through 1940s; focus on painting, sculpture, architecture, and photography; progress of Modernism; exploration of major movements including Fauvism, Cubism, and Surrealism.

ARTH:3840 Contemporary Art 3 s.h.
Painting, sculpture, architecture, and photography; developments during late 1960s to present; conceptual art, performance art, neo-abstraction, and picture/theory art with each approached from a global perspective.

ARTH:3850 Pop Art 3 s.h.
Survey of pop art in America, Britain, Europe; focus on developments in painting and sculpture 1950s to early 1960s; continuing influence of Pop Art.

ARTH:3860 Minimalism 3 s.h.
Survey of Minimalism; focus on developments in painting and sculpture during 1960s; continuing influence.

ARTH:3870 History of Photography 3 s.h.
Survey of photography 1839 to present.

ARTH:3955 Art and American National Parks 3 s.h.
Artistic history of American national parks; beginning with painter George Catlin's idea of a nation's park in the 1840s; how art has played a major role in development of and attitudes toward these special places; magazine engravings, tourist guidebooks, government reports, monumental oil paintings, photographs, and recent photomontages; focus on Yellowstone, Niagara, Yosemite, and the Grand Canyon, as well as less well-known sites such as Acadia National Park and the Pictured Rocks National Lakeshore.

ARTH:3980 American Print Culture 3 s.h.
Exploration of a wide range of imagery printed and published in the United States during 19th century (1776-1900); fine art original prints, popular imagery in periodicals and illustrated books, scholarly literature, history of evolving technologies, variety of printed work; shifting reputation of printed art and its makers. Same as UICB:3980.

ARTH:3985 Honors Research in Art History arr.
Research and preparation of thesis. Requirements: honors standing.

ARTH:3990 Topics in Art History 3 s.h.
Varied topics.

ARTH:3995 Independent Study in Art History arr.
Advanced work in art history.

ARTH:4070 The Art of Curation: Designing a Museum Exhibition 3 s.h.
Principles and practices of curating art exhibitions within museum settings. Students engage with key issues in exhibition curation through readings and discussions and by critically reviewing museum exhibitions and catalogues.

ARTH:4081 The Art Museum: Theory and Practice 3 s.h.
Introduction to different aspects of art museums; emphasis on roles of art historians, especially curatorial practice; current and historical theories and practices of art exhibitions; varying debates of the politics of display; art museum professions; the many facets of art exhibition preparation; the University of Iowa Stanley Museum of Art collections. Prerequisites: (MUSM:3001 or ARTH:1040) and (RHET:1030 or RHET:1040 or RHET:1060). Same as MUSM:4081.

ARTH:4941 American Art and the Environment 3 s.h.
Artists' responses to the American environment across a broad chronological period; analysis of works of art through visual characteristics, landscape theories, ecocriticism, and environmental and cultural history to reveal deeper meanings of this seemingly "natural" genre, and position it as a preeminent American artistic subject and a critically important art form in our own time as the environment becomes a global concern.

ARTH:4999 Capstone Seminar in Art History 3 s.h.
Critical thinking and research; readings in historical development of the discipline, from Renaissance to present; methodological issues. Offered fall semesters.

ARTH:5000 History and Methods 3 s.h.
Essential foundation of critical thinking and research in the history of art; students survey the historical development of the discipline of art history from Renaissance to present; various methodological paradigms that have been deployed in the field; for beginning graduate students.

ARTH:6020 Art History Colloquium 1 s.h.
Current topics and research in art history. Requirements: art history graduate standing.

ARTH:6040 Directed Studies arr.

ARTH:6100 Graduate Practicum in Art History 3 s.h.
Exploration of current methodologies and practices central to the discipline of art history. Students engage with a variety of practical frameworks and research methods, critically analyzing how these approaches shape the study and interpretation of art in different periods and cultures.

ARTH:6210 Graduate Seminar in Asian Art 3 s.h.
Key themes and issues in Asian art.

ARTH:6300 Graduate Seminar in Ancient Art 3 s.h.
Key themes and issues in ancient art. Same as CLSA:6200.

ARTH:6440 Seminar: Problems in Medieval Art 3 s.h.
Major issues, methodologies.

ARTH:6545 Graduate Seminar in Renaissance Art 3 s.h.
Key themes and issues in Renaissance art.

ARTH:6740 Graduate Seminar: Nineteenth-Century Art 3 s.h.

ARTH:6840 Seminar: Modern/Contemporary Art 3 s.h.
Major issues, methodologies.

ARTH:7010 PhD Readings arr.

ARTH:7020 PhD Thesis arr.

Studio Art Courses

Courses numbered below 3000 are primarily for undergraduates and may not be repeated unless noted on MyUI. Some courses numbered 2000–3000 are repeatable. Courses ARTS:1510 Basic Drawing and ARTS:1520 Design Fundamentals are prerequisites for all studio courses for art majors.

General Art Courses

ARTS:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

ARTS:1002 Colloquium in Visual Art and Design 1 s.h.
School of Art, Art History, and Design privileges, expectations, course offerings, and procedures; overview of various studio labs, processes, and equipment; introduction to faculty research; students receive support for development of their studio practice, build community and dialogue within the studio art division among majors, and explore career paths and internships.

ARTS:1010 Elements of Art 3 s.h.
Drawing, composition; selected reading. Requirements: non-art major. GE: Literary, Visual, and Performing Arts.

ARTS:1020 Elements of 3D Design 3 s.h.
Introduction to 3D design using drafting, modeling, and virtual reality software; basic concepts of drafting, planning, and color theory; basic Auto CAD, 3ds Max Studio, Vizard, InDesign software; students design an object to be printed 2D and 3D, and a conceptual space to be printed 2D and experienced virtually; student journal and portfolio. Requirements: non-art major.

ARTS:1030 Elements of Jewelry and Metal Arts 3 s.h.
Fundamental 3D design principles and appreciation of contemporary jewelry and metal artworks; techniques and materials in jewelry and metal arts; experimentation with diverse media. Requirements: non-art major. GE: Literary, Visual, and Performing Arts.

ARTS:1050 Elements of Printmaking 3 s.h.
Introduction to methods, materials, and concepts of printmaking. Requirements: non-art major. GE: Literary, Visual, and Performing Arts.

ARTS:1060 Elements of Digital Photography 3 s.h.
Introduction to history, aesthetics, and practice of photography as a fine art; includes demonstrations, workshops, critiques, final portfolio; photography time outside of class; digital camera required. Requirements: non-art major. GE: Engineering Be Creative.

ARTS:1070 Elements of Graphic Design 3 s.h.
Introduction to concepts and principles of graphic design and contemporary approaches to effective visual communication; demonstrations, workshops, critiques, final portfolio.

ARTS:1080 Elements of Sculpture 3 s.h.
Possibilities and definition of 3D form including time-based, performance, structural, installation, and kinetic sculpture. Requirements: non-art major. GE: Literary, Visual, and Performing Arts.

ARTS:1140 Introduction to Contemporary Black Art: Painting, Performance, and Process 3 s.h.
Introduction to African American art in the United States; exploration of major art events (i.e., Harlem Renaissance, Black Arts Movement); study of specific African American artists and their work; influence of race on artistic expression. Same as AFAM:1140.

ARTS:1510 Basic Drawing 3 s.h.
Two-dimensional visual language, media; space, form; color. Requirements: art major or art minor. GE: Engineering Be Creative.

ARTS:1520 Design Fundamentals 3 s.h.
Two- and three-dimensional concepts and their relations; working with basic drawing instruments; problems in visual arts; artists' philosophies and techniques. Requirements: art major. GE: Engineering Be Creative.

ARTS:2000 Big Ideas: Creativity for a Lifetime 3 s.h.
Exploration of what senior artists can teach about creativity and aging; interdisciplinary project-based collaborative learning opportunities that consider role of arts and creativity across a lifespan; essential skills necessary to be professionals in numerous careers including health, social work, education, humanities, and the arts; identification of ways for students to be more creative in their own lives and work. GE: Values and Society. Same as ASP:2000, EDTL:2000, RHET:2000.

ARTS:2100 Printmaking and Politics of Protest 3 s.h.
Examination of historical populace roots of the print. GE: Understanding Cultural Perspectives.

ARTS:2300 Hand Drawing Bicycles for Designers and Engineers 3 s.h.
For designers and engineers drafting and drawing go hand in hand. While working exclusively in digital drawing is the norm, a person who can draw ideas by hand has a fuller understanding of the object and project. Students will do drawings of bicycles, bicycle components, and bicycles in locations, learning hand drafting, using drawing tools including pen, pencil, and marker. With the bicycle as context, students will learn iterative drawing, sketching diagrams, loose orthogonal drawings, measured two-dimensional and three-dimensional drawing, perspective, isometric study, and basic drawing skills (line, contour, cross-contour, value, volume, texture, color theory). GE: Engineering Be Creative.

ARTS:2800 Digital Arts: An Introduction 3 s.h.
Introduction to potential of integrating art with technology to provide a foundation of skills and concepts through hands-on experimentation; lectures and demonstrations introduce key concepts and ideas as well as the history of digital arts; students develop skills that form a foundation for future investigation through labs; work may include using an Arduino, programming, and developing an interface to control a software project; final project is shared with the public in some way; critical discourse in the form of writing assignments allows for reflection and evaluation. GE: Engineering Be Creative. Same as CINE:2800, CS:2800, DANC:2800, DIGA:2800, MUS:2800, THTR:2800.

ARTS:2900 Book Design for Publishing 3 s.h.
Introduction to the major aspects of book design, including typography, layout, standard industry software, discussion of trends in the field. Same as ENGL:2900, UICB:2900, WRIT:2900.

ARTS:3230 Scenic Design I 3 s.h.
Development of theatre scenery; how to research, conceptualize, and express ideas in 3D models, simple sketches, and drafting. GE: Engineering Be Creative. Same as THTR:3230.

ARTS:4190 Honors in Studio Art 0-3 s.h.
Research, preparation, and exhibition of an honors project in studio art. Requirements: studio art major, UI GPA of at least 3.33, and art GPA of at least 3.50.

ARTS:4195 BFA Exhibition 0 s.h.
BFA students present a show of their work in final semester; use of flyers and other media to advertise show; meetings with faculty and academic advisors to complete required documentation; students planning to graduate with honors in the art major may combine honors project and BFA show; variations require approval by BFA faculty advisor and academic advisors. Requirements: BFA standing in final semester.

ARTS:4270 Scenic Art 3 s.h.
Basic techniques in scenic art for the theatre; classical scene painting, color theory, drawing, using nontraditional tools and materials, foam carving, and finishes. Offered every other year. GE: Engineering Be Creative. Same as THTR:4270.

ARTS:4300 Letterpress I 3 s.h.
Mechanics of letterpress printing, typography, and design as applied to hand set metal type and edition printing; printing on a Vandercook proof press; introduction to photopolymer plates and methods of illustration related to edition printing, historical aspects of printing technology, typecasting, type classification; role of letterpress in modern private press and contemporary artist books. Same as UICB:4300.

ARTS:4380 Letterpress II 3 s.h.
Builds on skills acquired in UICB:4300; students produce an editioned letterpress printed chapbook or artist book, a poster for a public event, and an image built from metal type; exploration of hand-set metal, digital typesetting, printing from photopolymer plates, and pressure printing; press mechanics and operation; publication philosophies, manuscript acquisition, and topics specific to literary fine press and artist books; historical and contemporary context for literary fine press publications and artist book work. Prerequisites: UICB:4300. Same as UICB:4380.

ARTS:4390 Book and Publication Design 3 s.h.
Students plan, design, and produce a book using Adobe Creative Suite; page layout software, typography, page layout and design, book formatting, handling of image files, preparation of materials for print and other contemporary book media; history of book design, book design in contemporary publishing; visit to University of Iowa Libraries Special Collections. Prerequisites: DSGN:2600 or UICB:4300. Same as UICB:4390.

ARTS:4400 History of Western Letterforms 3 s.h.
History of Western letterforms, with focus on tools, materials, techniques; the major hands, their place in history, their influence on modern times; creation of letterforms using appropriate tools; hands-on approach with emphasis on understanding rather than mastery. Same as UICB:4400.

ARTS:4415 Introduction to Classical Calligraphy 3 s.h.
Basic calligraphy with focus on the hands modern classic typefaces are inspired by (e.g., Roman capitals, lowercase Roman, italic). GE: Engineering Be Creative. Same as UICB:4415.

ARTS:4490 Advanced Studies in Letter Arts 3 s.h.
Special topics and advanced projects in calligraphy and letter arts. Prerequisites: UICB:4400 or UICB:4415 or UICB:4420. Same as UICB:4490.

ARTS:5330 Letterpress III: Imagemaking arr.
Advanced work in alternative and innovative letterpress technologies as they apply to imagemaking processes for fine press printing; topics include pressure printing, photopolymer from nondigital negatives, explorations of type-high surfaces, monoprints on the Vandercook, and applying hand work to editioned prints; students complete a series of print exercises for each process, a small printed book sketch, and a longer format editioned artist book. Prerequisites: UICB:4380. Same as UICB:5330.

ARTS:5340 Letterpress III: The Handprinted Book 3 s.h.
Advanced work in fine press book design; exploration of problems in hand-printing books, choice of manuscript, editing, design, typesetting, proofreading, printing and binding; histories of printing and of the book, emphasis on 20th- and 21st-century book design and literature; issues of book design and production related to letterpress printing. Prerequisites: UICB:4380. Same as UICB:5340.

ARTS:6000 MA Written Thesis 1 s.h.

ARTS:6190 Graduate Independent Study arr.
Individual instruction by a faculty member.

ARTS:7000 MFA Written Thesis 1 s.h.

Ceramics Courses

CERM:2010 Ceramics I: Handbuilding 3 s.h.
Basic handbuilding methods of forming, firing, glazing clay. GE: Engineering Be Creative; Literary, Visual, and Performing Arts.

CERM:2020 Ceramics II: Wheel Throwing 3 s.h.
Basic wheel-throwing techniques; clay, glaze formulation and preparation in kiln firing. Prerequisites: ARTS:1510 and ARTS:1520 and CERM:2010.

CERM:3010 Ceramics III: Intermediate Studio 4 s.h.
Intermediate studio; lectures and demonstrations covering intermediate techniques; content varies. Prerequisites: CERM:2010 and CERM:2020.

CERM:4010 Ceramics IV: Advanced Studio 4 s.h.
Advanced individual projects. Offered spring semesters. Prerequisites: CERM:2020.

CERM:4020 Ceramic Materials and Effects 4 s.h.
Empirical methods of glaze and clay body formulation; effects of various kilns and firing atmospheres on glaze materials and clay bodies. Prerequisites: CERM:2020.

CERM:4030 Advanced Concepts in Ceramics 3-4 s.h.
Advanced studio with rotating focus such as kiln theory, gallery representation, critique theory, and methodology. Prerequisites: CERM:2020.

CERM:4041 Kiln Building 4 s.h.
Kiln theory, design, and construction methods; may include participation in kiln construction. Prerequisites: CERM:2020.

CERM:4060 Professional Practice in Ceramics 1 s.h.
Instruction on a wide-ranging set of professional development skills, such as preparing materials for résumés, applying to exhibitions, taking images of work, and writing artist statements for use in application materials, as well as other opportunities to enhance student portfolios.

CERM:4099 Undergraduate Individual Instruction 1-3 s.h.
Individual instruction in ceramics for advanced students.

CERM:6075 Ceramics Workshop 3-4 s.h.
Advanced graduate studio; critique of student work; visiting artists, field trips. Prerequisites: CERM:4010. Requirements: CERM:4010 or graduate standing.

CERM:6099 Graduate Individual Instruction in Ceramics arr.
Requirements: knowledge of clay and glaze computation, and ability to fire kilns.

Design Courses

DSGN:2500 Graphic Design I 3 s.h.
Basic concepts and principles that can be applied to all modes of contemporary visual communication. Prerequisites: ARTS:1510 and ARTS:1520. Corequisites: DSGN:2600. GE: Engineering Be Creative.

DSGN:2600 Graphic Design II 3 s.h.
Fundamentals of typography as a core element in visual communication; introduction to historical typographic practices as well as modern modes of designing with type. Prerequisites: ARTS:1510 and ARTS:1520. Corequisites: DSGN:2500. Same as UICB:2600.

DSGN:3500 Graphic Design III 4 s.h.
Focus on browser-based user interfaces and user experiences; builds basic HTML and CSS knowledge base; skills. Prerequisites: ARTS:1510 and ARTS:1520 and DSGN:2500 and DSGN:2600.

DSGN:3600 Graphic Design IV 4 s.h.
Implementing the fundamental knowledge and skills gained in previous design courses to explore the interaction of typography and visual image. Prerequisites: DSGN:2500 and DSGN:2600. Corequisites: DSGN:3500.

DSGN:4000 Graphic Design V 4 s.h.
Critical theory and professional practice of branding and identity design; topics range from icon development to packaging design and prototyping. Prerequisites: DSGN:3500 and DSGN:3600. Corequisites: DSGN:4700.

DSGN:4199 Undergraduate Individual Instruction 1-3 s.h.
Individual instruction in design for advanced students.

DSGN:4700 Graphic Design VI 4 s.h.
Advanced exploration of contemporary and experimental user interface and user experience design methodology; topics include design for mobile devices and wearables, as well as immersive environments. Prerequisites: DSGN:3500 and DSGN:3600. Corequisites: DSGN:4000.

DSGN:4800 Graphic Design VII 4 s.h.
Concentrated semester-long opportunity for students to investigate a design project driven by their own personal research interests; projects closely guided by faculty and are critiqued throughout the semester; critical theory readings and discussion. Prerequisites: DSGN:4000 or DSGN:4700.

DSGN:6175 Graphic Design VIII 4 s.h.
Introduction to complex problems in graphic design; planning, development, and organization of integrated design programs; activities include research and studio assignments, individual presentations, discussions, demonstrations, and critiques.

DSGN:6699 Individual Instruction in Graphic Design arr.

Three-Dimensional Design Courses

TDSN:2210 Introduction to 3D Design 3 s.h.
Develop conceptual and critical design thinking while solving problems to create 3D structures with sustainable materials, processes, and consumption; discuss, develop, and evaluate composition principles and their relation to aesthetics, modular systems, structure, and sustainable use of material through handmade models and systems that lead to final designs; engage in diverse multidisciplinary collaborations. GE: Sustainability. GE: Engineering Be Creative; Literary, Visual, and Performing Arts; Sustainability.

TDSN:2240 Drafting and Modeling With AutoCAD and Rhino 3 s.h.
Learn to expertly navigate AutoCAD and Rhino software to produce precise plans, elevations, and sections for various objects and interior spaces. Develop proficiency in creating and manipulating geometric forms. Explore the intricacies of texture mapping, background settings, and lighting techniques to enhance the realism of models. Master the use of cameras and viewpoints to create compelling visualizations and walkthroughs. Delve into basic animation principles to bring dynamic elements to designs. This comprehensive experience equips students with the technical skills and creative tools needed to excel in the field of digital design and modeling. Prerequisites: ARTS:1510 and ARTS:1520 and (CERM:2010 or DSGN:2500 or DRAW:2310 or INTM:2710 or MTLS:2910 or PHTO:2600 or PNTG:2410 or PRNT:2610 or SCLP:2810 or TDSN:2210). Same as CEE:2240.

TDSN:2250 Digital Prototyping 3 s.h.
Basic knowledge and practical technical skills using 3ds Max studio software; experience creating and manipulating basic forms and working with texture, background, light, and camera viewpoints; basic animation. Prerequisites: ARTS:1510 and ARTS:1520 and TDSN:2210. Corequisites: TDSN:2240.

TDSN:2280 Materials, Tools, and Fabrication: Wood, Metal, and Composites 3 s.h.
Fundamentals of traditional building techniques in wood, metal, and composite materials. The curriculum focuses on constructing a sample set of techniques. Students create the composite material themselves. Prerequisites: ARTS:1510 and ARTS:1520 and (CERM:2010 or DSGN:2500 or DRAW:2310 or INTM:2710 or MTLS:2910 or PHTO:2600 or PNTG:2410 or PRNT:2610 or SCLP:2810 or TDSN:2210).

TDSN:3010 Introduction to Weaving 4 s.h.
Fundamentals of handweaving on rigid heddle and four-shaft looms. Emphasis on design principles, color, and materials for home textiles. Prerequisites: ARTS:1510 and ARTS:1520 and (CERM:2010 or DSGN:2500 or DRAW:2310 or INTM:2710 or MTLS:2910 or PHTO:2600 or PNTG:2410 or PRNT:2610 or SCLP:2810 or TDSN:2210).

TDSN:3200 Product Design 4 s.h.
How objects are designed and structured; modeling, graphic skills necessary for basic project development. Prerequisites: TDSN:2210 and TDSN:2240. Corequisites: TDSN:2250.

TDSN:3220 Interior Design 4 s.h.
Relationship of interior space to its architecture, environment, human element; color, materials, furnishings, lighting; projects. Prerequisites: TDSN:2250.

TDSN:3230 Color for Interior Design 4 s.h.
Use of color for interior spaces; principles of color theory reviewed and applied to 3D environments; color as a compositional element and psychological tool. Prerequisites: TDSN:2210 and TDSN:2240 and TDSN:2250.

TDSN:3240 3D Computer-Aided Design arr.
Three-dimensional computer-aided drafting; use of AutoCAD software. Prerequisites: ARTS:1510 and ARTS:1520 and (MTLS:2910 or SCLP:2810 or CERM:2010 or TDSN:2210).

TDSN:3260 Design for Production 4 s.h.
Special issues and topics in design. Prerequisites: TDSN:2210 and TDSN:2240 and TDSN:2250.

TDSN:3280 Forms and Textiles 4 s.h.
Products and seating design with soft materials; students experiment with diverse soft materials and textile construction techniques to design and make unique functional forms. Prerequisites: ARTS:1510 and ARTS:1520 and TDSN:2210. Corequisites: TDSN:2240 and TDSN:2250.

TDSN:3305 Portfolio and Curriculum Vitae Workshop 1 s.h.
How to build a strong portfolio, CV, and résumé for 3D design job applications. Prerequisites: TDSN:2250. Corequisites: TDSN:3200 or TDSN:3220 or TDSN:3230 or TDSN:3260 or TDSN:3280 or TDSN:4010 or TDSN:4020.

TDSN:4010 Wood Furniture Design 4 s.h.
Introduction to advanced problems in furniture design and manufacturing. Students design and fabricate a chair using sustainable methods, incorporating computer numerical control (CNC) technologies and plywood. Prerequisites: TDSN:2210 and TDSN:2240.

TDSN:4020 Metal Furniture Design 4 s.h.
Study, design, and fabricate a metal chair using classical and modern techniques. Prerequisites: TDSN:2210 and TDSN:2240.

TDSN:4050 Site Specific Design 1 s.h.
Art of planning, building, and presenting at real professional design venues; students plan, design, and build an environment to display selected 3D design work at one or two professional design venues. Prerequisites: TDSN:2250. Corequisites: TDSN:3200 or TDSN:3220 or TDSN:3230 or TDSN:3260 or TDSN:3280.

TDSN:4299 Undergraduate Individual Instruction arr.
Individual instruction in 3D design for advanced students.

TDSN:6299 Individual Instruction in 3D Design arr.
Individual instruction in 3D design for advanced students.

Drawing Courses

DRAW:2310 Life Drawing I 3 s.h.
Observational drawing of form in its spatial contexts; drawing in varied media; figural as well as nonfigural content including clothed and nude models. Prerequisites: ARTS:1510 and ARTS:1520.

DRAW:3310 Concepts in Drawing 3-4 s.h.
Intermediate-level topics; observation, theory, media, form, content; emphasis on personal direction. Prerequisites: DRAW:2310. Same as THTR:3205.

DRAW:4310 Advanced Concepts in Drawing 3-4 s.h.
Advanced-level topics. Prerequisites: DRAW:3310.

DRAW:4399 Undergraduate Individual Instruction 1-3 s.h.
Individual instruction in drawing for advanced students.

DRAW:6399 Individual Instruction in Drawing arr.

Intermedia Courses

INTM:2710 Introduction to Intermedia 3 s.h.
Interdisciplinary focus; emphasis on conceptual, installation, video, time-based media, performance art. Prerequisites: (ARTS:1510 and ARTS:1520) or CINE:1834. Requirements: for CINE:2869—grade of C or higher in CINE:1834. Same as CINE:2869.

INTM:3700 Topics in Intermedia 4 s.h.
Performance, writing, reading, observation, physical practice, improvisation, and devising methods; development or expansion of physical practices that articulate with current artistic production. Prerequisites: (ARTS:1510 and ARTS:1520 and (CERM:2010 or INTM:2710 or MTLS:2910 or PNTG:2410 or PRNT:2610 or SCLP:2810 or TDSN:2210)) or DANC:2800 or DANC:2050. Same as DANC:3710.

INTM:3799 Undergraduate Individual Instruction 1-3 s.h.
Individual instruction in intermedia for advanced students.

INTM:3876 Projection Design 3 s.h.
Introduction to the aesthetics and practical applications of projection design for live performance, including content creation, system design, media servers, projectors, cameras, and related professional equipment. Students learn how to create digital artwork with professional content/animation/effects software Adobe After Effects, Illustrator, Photoshop, Premiere Pro, Audition, etc. Through the media server QLab students learn how to integrate digital artwork and live video cameras into live performance via projectors and digital displays. GE: Engineering Be Creative. Same as CINE:3876, DANC:3876, DIGA:3876, THTR:3876.

INTM:6799 Individual Instruction in Intermedia and Video Art arr.

Jewelry and Metal Arts Courses

ARTS:1510 Basic Drawing and ARTS:1520 Design Fundamentals are prerequisites for all jewelry and metal arts courses for art majors; ARTS:1510 Basic Drawing is a prerequisite for nonmajors.

MTLS:2910 Introduction to Jewelry and Metal Arts 3 s.h.
Fabrication, hammer forming, hydraulic die forming, soldering, riveting, etching, texturing, anodization of aluminum and titanium, stone setting, and patination techniques; creation of jewelry, flatware, and other functional and nonfunctional sculptural objects using varied metals and other materials; emphasis on creativity, learning, and basic metalworking techniques. Prerequisites: ARTS:1520 and ARTS:1510. GE: Engineering Be Creative.

MTLS:3285 Fabrication and Design: Hand-Made Bicycle 4 s.h.
Building a bicycle frame by hand; use of CAD modeling and development of fabrication skills to create a modern-day work of art. Prerequisites: TDSN:2240.

MTLS:3910 Intermediate Jewelry and Metal Arts 4 s.h.
Exploration of different applications with casting (mostly gold, silver, and bronze), enameling, and stone setting; combining all three processes to create artwork; may include introduction to other processes (e.g., photo-etching, 3D computer modeling); historical and current trends in craft. Prerequisites: ARTS:1510 and ARTS:1520 and MTLS:2910.

MTLS:3915 Fabrication and Finishing in Jewelry and Metal Arts 4 s.h.
Students further their conceptual development with intermediate-level skills in fabrication and surface finishing; builds on introductory skills with techniques in complex and larger-scale soldering and forming, as well as new techniques (e.g., chasing, repousse); exploration of finishing and surface treatments (e.g., aluminum anodization, etching, powder coating). Prerequisites: MTLS:2910.

MTLS:3920 Advanced Jewelry and Metal Arts 4 s.h.
Electroforming; production of hollow copper structures through prolonged electroplating on a nonmetallic form (typically wax) with a conductive coating; metal-forming techniques (e.g., raising and fold forming); emphasis on development of personal aesthetics, learning, and refining technical skills in metalworking and jewelry techniques. Prerequisites: MTLS:2910.

MTLS:4910 Mixed Media and Professional Practices 3-4 s.h.
Free exploration of all media and materials, including found objects; creation of conceptual and/or functional mixed media objects, jewelry, sculptures, installation pieces; pioneering use of new materials, development of new techniques, creation of diverse innovative artworks. Prerequisites: ARTS:1510 and ARTS:1520 and MTLS:2910. Recommendations: MTLS:2910 and MTLS:3920.

MTLS:4920 Mold Making 4 s.h.
All aspects of mold making, including plaster, rubber, and silicone. Prerequisites: CERM:2010 or TDSN:2210 or MTLS:2910 or SCLP:2810.

MTLS:4930 Experimental Casting With New Technology 4 s.h.
Students combine traditional casting techniques with new technology (e.g., ceramic shell, 3D printed models, 3D printed resin sand molds, casting simulation software) in pursuit of their creativity; emphasis is on vessels and hollow objects; examples of historical and current application of casting, especially in mixed media and cross-disciplinary approaches. Prerequisites: SCLP:2810 or MTLS:2910.

MTLS:4960 Project Design Hand-Made Bike II 4 s.h.
Builds on MTLS:3285; advanced concepts of bicycle frame design and fabrication; concept development, fabrication geometry and design, metal properties and selection, tool selection, brazing and welding including titanium milling and how to build a frame jig; emphasis on applying fabrication skills while situating frame-building project within context of a design problem. Prerequisites: MTLS:3285.

MTLS:4970 Project Design Hand-Made Bike III 4 s.h.
Builds on MTLS:4960; advanced concepts of bicycle frame design and fabrication; concept development, fabrication geometry and design, metal properties and selection, tool selection; brazing and welding including titanium-milling and how to build a frame jig; emphasis on application of fabrication skills while situating frame building project within context of a design problem. Prerequisites: MTLS:4960.

MTLS:4999 Undergraduate Individual Instruction 1-3 s.h.
Individual instruction in metalsmithing and jewelry for advanced students.

MTLS:6999 Individual Instruction in Metalsmithing and Jewelry arr.

Painting Courses

ARTS:1510 Basic Drawing and ARTS:1520 Design Fundamentals are prerequisites for all painting courses for art majors; ARTS:1510 Basic Drawing is a prerequisite for nonmajors.

PNTG:2410 Painting I 3 s.h.
Emphasis on observational painting, theory and development of pictorial ideas and skills. Prerequisites: ARTS:1510 and ARTS:1520. GE: Engineering Be Creative.

PNTG:2420 Painting II 4 s.h.
Materials, techniques, beginning of a personal painting language through observation and imagination. Prerequisites: PNTG:2410.

PNTG:4100 Advanced Painting 4 s.h.
Individual projects as they aid the realization of a personal vision. Prerequisites: PNTG:2420.

PNTG:4499 Undergraduate Individual Instruction 1-3 s.h.
Individual instruction in painting for advanced students.

PNTG:6475 Graduate Drawing and Painting Workshop 3-4 s.h.
Group and individual criticism.

PNTG:6499 Individual Instruction in Painting arr.

Papermaking Courses

BKAT:2110 Introduction to Book Arts 3 s.h.
Topics related to artist books, hand bookbinding, letterpress printing, papermaking, and lettering arts. GE: Engineering Be Creative; Literary, Visual, and Performing Arts. Same as UICB:2110.

BKAT:3280 Elements of Book Art 3 s.h.
Overview of book art process and techniques for nonmajors; introduction to traditional bookbinding skills, nontraditional book structures, and content development for artist books. GE: Engineering Be Creative. Same as UICB:3280.

BKAT:3380 Letterpress 3 s.h.
Introduction to letterpress printing; metal type, relief printing, page layout, and basic typography; basic use of Vandercook Proof Press; experimentation with diverse letterpress techniques. GE: Engineering Be Creative. Same as UICB:3380.

BKAT:4100 Paperworks 3 s.h.
Conceptual and methodological approaches to 2D and 3D paper works; creation of works that couple unique properties of paper-pulp medium with personal visual ideas and clarity of intent; contemporary issues in paper pulp, medium's relationship to larger art and craft contexts. GE: Engineering Be Creative. Same as UICB:4100.

BKAT:4205 Bookbinding I: Materials and Techniques 3 s.h.
Hands-on introduction to materials and techniques commonly used in bookbinding. Same as UICB:4205.

BKAT:4210 Boxes and Enclosures 3 s.h.
Hands-on techniques for a variety of book enclosures; appropriateness, aesthetic issues concerning box design; Japanese wraparound case, drop-spine box, hinged and lidded boxes, slipcase; technical skill development. Prerequisites: UICB:4205. Same as UICB:4210.

BKAT:4270 Bookbinding II 3 s.h.
Builds on skills acquired in UICB:4205; projects to complete six bindings based on historical and contemporary models; sewing styles, board attachments, endband types; nonadhesive and case-bound structures, varied materials and binding styles, their effects on structure, aesthetic considerations, further development of solid binding skills; historical development of particular binding practices. Prerequisites: UICB:4205. Same as UICB:4270.

BKAT:4280 Artists' Books 3 s.h.
Exploration of the book as a form for artistic expression; emphasis on conceptual development; relationship between content, form, and structure; how a book's structure and design can enhance and integrate part of the work's meaning. Prerequisites: UICB:4205 or BKAT:4205. Same as UICB:4280.

BKAT:5110 Papermaking I: East Asia, Nepal, and Contemporary Practice 3 s.h.
History, technique, and aesthetics of East Asian and Nepalese papermaking, along with their respective contemporary practices. Same as UICB:5110.

BKAT:5120 Papermaking I: Central Asia, Europe, and Contemporary Practice 3 s.h.
Foundational papermaking; history, technique, and aesthetics of Central Asian, Islamicate, and European papermaking; respective contemporary practices. Same as UICB:5130.

BKAT:5140 Papermaking II: Contemporary Papermaking 3 s.h.
Contemporary papermaking studio practice and conceptual considerations; focus on nontraditional techniques and cross-disciplinary use of paper fibers and handmade paper; handmade paper as a form of artistic expression. Prerequisites: UICB:4100 or BKAT:4100 or UICB:5110 or BKAT:5110 or UICB:5130 or BKAT:5120. Same as UICB:5140.

BKAT:5170 Papermaking III: The Papermakers 3 s.h.
Students hone skills, drawing inspiration from papermaking societies, and conduct hands-on production and research. Prerequisites: UICB:4100 or UICB:5110 or UICB:5130 or UICB:5140 or BKAT:4100 or BKAT:5110 or BKAT:5120. Same as UICB:5170.

BKAT:5180 Advanced Projects in Paper 1-3 s.h.
Advanced independent projects undertaken in a classroom setting; collaborative group discussions to plan, implement, troubleshoot, and evaluate student projects. Prerequisites: UICB:5110 or UICB:5130 or BKAT:5110 or BKAT:5120. Same as UICB:5180.

BKAT:5210 Bookbinding III 3 s.h.
Bookbinding structures based on historical and contemporary models; differences in various binding practices, how these differences affect function, why the styles developed; experience choosing appropriate structures for particular uses; emphasis on fine tuning skills and techniques required for advanced binding practices; sewn endbands, rounding and backing, sewing on varied supports, board attachments, and covering methods. Prerequisites: (UICB:4205 or BKAT:4205) and (UICB:4270 or BKAT:4270). Requirements: for UICB:5210—UICB:4205 and UICB:4270; for BKAT:5210—BKAT:4205 or BKAT:4270 or UICB:4205 or UICB:4270. Same as UICB:5210.

Photography Courses

ARTS:1510 Basic Drawing and ARTS:1520 Design Fundamentals are prerequisites for all photography courses for art majors; ARTS:1510 Basic Drawing is a prerequisite for nonmajors.

PHTO:2600 Photography I 3 s.h.
Introduction to color theory, lighting, and utilizing color for conceptual concerns; experience operating digital SLR cameras in full manual mode, utilizing Adobe editing software, and producing fine art printed portfolios; requires a digital SLR camera. Prerequisites: ARTS:1510 and ARTS:1520. GE: Engineering Be Creative.

PHTO:3100 Photography II: Introduction to Darkroom Photography 4 s.h.
Darkroom techniques including operation of 35mm film cameras, exposing and developing black-and-white film, and producing fine art darkroom prints. Prerequisites: ARTS:1510 and ARTS:1520. Corequisites: PHTO:2600.

PHTO:3110 Photography III: The Constructed Image 4 s.h.
Introduction to industry practices of studio lighting and large format printing; focus on constructed scenes in and out of the studio with emphasis on conceptual development and use of advanced Adobe Photoshop techniques. Prerequisites: PHTO:2600.

PHTO:3200 Photography IV: Special Topics 4 s.h.
Investigation of contemporary themes including alternative processes, social documentary, portraiture, book making, and hybrid forms, among others. Prerequisites: INTM:2710 or (PHTO:2600 and PHTO:3100).

PHTO:3210 Photography IV: Contemporary Video Practices 4 s.h.
Investigation of contemporary themes pertaining to moving image capture with emphasis placed on conceptual development, technical mastery of software, and innovative installation approaches. Prerequisites: INTM:2710 or (PHTO:2600 and PHTO:3100).

PHTO:3220 Photography IV: Alternative Photographic Processes 4 s.h.
Investigation of historical photographic processes including cyanotype, van dyke brown, gum dichromate, and palladium printing among others. Introduction to contemporary artists using these media as well as working knowledge of analog and digital hybrid approaches. Prerequisites: PHTO:2600 and PHTO:3100.

PHTO:4000 Photography V: Advanced - Large Format Photography 4 s.h.
Individual portfolio projects with emphasis on conceptual development and craft pertaining to large and medium format camera use. Prerequisites: PHTO:2600 and PHTO:3100 and PHTO:3110.

PHTO:4010 Photography V: Advanced - Risograph Editions 4 s.h.
Alternative methods of printed image media, zines, and small collaborative publications using Risograph and print on demand services. Prerequisites: PHTO:2600 and (PHTO:3100 or PHTO:3110 or DSGN:2600).

PHTO:4200 Professional Practice in Photography 1 s.h.
Instruction on a wide-ranging set of professional development skills, such as preparing materials for grant and exhibition applications, website design, conference preparation, and other opportunities that enhance students' portfolios and preparedness for external employment options. Prerequisites: PHTO:2600 and PHTO:3100 and PHTO:3110.

PHTO:4300 Internship in Photography 1 s.h.
Professional working experience in the field of photography. Prerequisites: PHTO:2600 and PHTO:3100 and PHTO:3110.

PHTO:4599 Undergraduate Individual Instruction 1-3 s.h.
Individual instruction in photography for advanced students.

PHTO:6575 Graduate Photography Workshop 4 s.h.
Projects; group critiques; readings.

Printmaking Courses

ARTS:1510 Basic Drawing and ARTS:1520 Design Fundamentals are prerequisites for all printmaking courses for art majors; ARTS:1510 Basic Drawing is a prerequisite for nonmajors.

PRNT:2610 Introduction to Printmaking 3 s.h.
Introduction to methods, materials, and concepts of printmaking. Prerequisites: ARTS:1510 and ARTS:1520. Requirements: art major. GE: Engineering Be Creative.

PRNT:3600 Textile Printing and Surface Design 4 s.h.
Introduction to screen printing and block printing on textiles, including image generation and digital techniques from start to finish; effective use of design principles; application of a conceptual approach to work; possibilities of working with textiles. Prerequisites: ARTS:1510 and ARTS:1520 and PRNT:2610.

PRNT:3610 New Media for Printmaking 4 s.h.
New concepts and techniques for contemporary print media, including digital and less toxic applications in relief, intaglio, lithography, and screenprinting. Prerequisites: PRNT:2610.

PRNT:3620 Intaglio 4 s.h.
Concepts, techniques; traditional through contemporary ideas, methods; emphasis on metal plate printing, including etching, drypoint, engraving, softground, aquatint. Prerequisites: PRNT:2610. Requirements: PRNT:2610 or BFA candidacy in any area or graduate standing.

PRNT:3630 Woodcut and Relief 4 s.h.
Concepts and techniques of relief printmaking, including woodcut, linocut, relief etching, black-and-white and color printing methods; traditional and contemporary approaches. Prerequisites: PRNT:2610. Requirements: ARTS:1510, ARTS:1520, and PRNT:2610 for art majors; ARTS:1510 for nonmajors; or BFA candidacy in any area; or graduate standing.

PRNT:3640 Lithography 4 s.h.
Technical, aesthetic characteristics; basic direct drawing, processing, printing of stone and plate images in black and white. Prerequisites: PRNT:2610. Requirements: ARTS:1510, ARTS:1520, and PRNT:2610; or graduate standing.

PRNT:3660 Monoprint 3-4 s.h.
Concepts, techniques in use of traditional and alternative printmaking media to produce unique, matrix-generated prints. Prerequisites: PRNT:2610.

PRNT:3665 Frogman's Print Workshop 3 s.h.
Hands-on experience in printmaking techniques; workshop format. Offered summer session.

PRNT:3680 Screenprint 4 s.h.
Photographic, nonphotographic stencil techniques for silkscreen printing. Prerequisites: PRNT:2610. Requirements: ARTS:1510, ARTS:1520, and PRNT:2610 for art majors; ARTS:1010 and ARTS:1050 for nonmajors; or BFA candidacy in any area; or graduate standing.

PRNT:4610 Advanced Printmaking 4 s.h.
Print media (i.e., intaglio, lithography, relief, screenprint); emphasis on individual technical and conceptual growth and development of independent studio practices. Prerequisites: PRNT:2610 and (PRNT:3620 or PRNT:3630 or PRNT:3640 or PRNT:3680).

PRNT:4799 Undergraduate Individual Instruction 1-3 s.h.
Individual instruction in printmaking; for advanced students.

PRNT:6665 Frogman's Print Workshop 3 s.h.
Hands-on experience in printmaking techniques; workshop format. Offered summer session.

PRNT:6675 Graduate Print Workshop 3-4 s.h.
Contemporary issues in printmaking; emphasis on development of personal work and independent studio practice through group critiques, special research projects, work in all print media.

PRNT:6699 Individual Instruction in Printmaking arr.

Sculpture Courses

SCLP:2810 Undergraduate Sculpture I 3 s.h.
Basic sculptural concepts, processes, investigation of materials such as plaster, clay, wood; emphasis on developing formal language, acquiring basic skills; spatial, conceptual, technical issues. GE: Engineering Be Creative; Literary, Visual, and Performing Arts.

SCLP:3840 Robotic Art Studio 4 s.h.
Exploration, design, and creation of interactive artworks, kinetic sculpture, robotic art, sound works, light art, and performance environments; application of basic electronics and mechanical techniques; use of programmable micro-controller Arduino. Prerequisites: ARTS:1510 and ARTS:1520 and (SCLP:2810 or CERM:2010 or INTM:2710 or MTLS:2910 or TDSN:2210). GE: Engineering Be Creative. Same as DIGA:3840.

SCLP:3895 Topics in Sculpture 4 s.h.
Projects, reading; specialized conceptual forms and issues in contemporary sculpture, such as public art, installation. Prerequisites: ARTS:1510 and ARTS:1520 and (SCLP:2810 or CERM:2010 or INTM:2710 or TDSN:2210 or MTLS:2910).

SCLP:4825 Casting in Hot Metal 4 s.h.
Foundry work, wax working, mold making, and processes. Prerequisites: ARTS:1510 and ARTS:1520 and (SCLP:2810 or MTLS:2910).

SCLP:4835 Electronic Objects and Spaces 4 s.h.
Aesthetic use of electronics to sequence and control motion, light, and sound; introduction to basic electronics through hands-on workshops and discussions; demonstrations on how to build an Arduino, integrated circuits, power supplies, soldering, prototyping, motors, sensors; projects integrating electronics with objects and spaces; artist screenings and critiques. Prerequisites: ARTS:1510 and ARTS:1520 and (SCLP:2810 or CERM:2010 or INTM:2710 or MTLS:2910 or TDSN:2210). GE: Engineering Be Creative. Same as DIGA:4835.

SCLP:4840 Air, Actuators, and Motors 4 s.h.
Introduction to wide range of motors, actuators, and air devices available for integration in art projects; various forms of motor control and necessary means to power these devices; DC and AC motors, stepper motors, solenoids, electro magnets, relays, pneumatics, inflatables, and other air-driven devices; development of a project utilizing one or more systems; examples and media demonstrations to show how artists and scientists employ these systems. Prerequisites: ARTS:1510 and ARTS:1520 and (SCLP:2810 or CERM:2010 or INTM:2710 or MTLS:2910 or TDSN:2210). GE: Engineering Be Creative. Same as DIGA:4840.

SCLP:4899 Undergraduate Individual Instruction 1-3 s.h.
Individual instruction in sculpture for advanced students.

SCLP:6264 Graduate Sculpture and Intermedia Workshop 3-4 s.h.
Critique seminar with readings; for sculpture and non-sculpture graduate students.

SCLP:6899 Individual Instruction in Sculpture arr.

Art Education Courses

ARTE:3143 Methods of Elementary Art and Field Experiences 3 s.h.
Application of studio methods to teaching children in Saturday Children's Art Class Program. Same as EDTL:3143.

ARTE:6267 Seminar: Current Issues in Art Education 3-4 s.h.
Analysis of literature in art education and related disciplines. Same as EDTL:6267.

Art, BA

Learning Outcomes

Students will:

- develop an understanding of the formal traditions and contemporary practices in studio art through coursework in a variety of media;
- learn that art embodies historical, cultural, and social factors with global influences;
- acquire critical skills in visual analysis, research, and the production of original works of art;
- develop skills in oral and written communication regarding themes in studio art; and
- gain skills for professional practice and preparedness for real-world success beyond their degree process following graduation.

Requirements

The Bachelor of Arts with a major in art requires a minimum of 120 s.h., including at least 39 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The major provides a foundation in art history as well as an understanding of the formal traditions and contemporary practices in studio art. Students take courses in the school's studio art areas, including ceramics, drawing, graphic design, jewelry and metal arts, painting, photography, printmaking, sculpture and intermedia, and three-dimensional (3D) design.

Students may count a maximum of 56 s.h. earned in art, art history, and design courses toward the degree; they must earn at least 64 s.h. of credit in courses outside the School of Art, Art History, and Design in order to graduate.

BA students who are graduating with a double major in the school (e.g., a major in art and a major in art history) or a major and a minor in the school (e.g., a major in art and a minor in art history) may apply more than 56 s.h. from the School of Art, Art History, and Design toward their degree, but they must earn at least 56 s.h. of credit in courses outside the School of Art, Art History, and Design in order to graduate.

Students majoring in art begin their study in the Bachelor of Arts program. Those interested in pursuing concentrated work in a specific studio art discipline may apply for admission to the Bachelor of Fine Arts program through a process called "clearance," in which the faculty evaluates a student's readiness for BFA study. Clearance usually takes place during the third year, but it may be conducted earlier or later, depending on the student's readiness.

For more information about teaching art in elementary and/or secondary schools, see the following section titled "Teacher Licensure."

The BA with a major in art requires the following coursework. Not all courses are offered every semester, including required courses. When planning coursework, students should consult their advisors and MyUI to determine when specific courses will be offered.

Requirements	Hours
Art History Courses	12
Foundational Studio Art Courses	6
Studio Art 3D Courses	6
Studio Art 2D Courses	6
Upper-Level Studio Art Courses	6
Required Electives	3

Art History

Course #	Title	Hours
Two of these:		
ARTH:1040	Arts of Africa	3
ARTH:1050	From Cave Paintings to Cathedrals: Survey of Western Art I	3
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II	3
ARTH:1070	Asian Art and Culture	3
ARTH:1095	Native American Art	3
And:		
Two art history courses not on the above list, excluding ARTH:1000, ARTH:1080, ARTH:3985, ARTH:3995, and ARTH:4999		6

Foundational Studio Art

Students should complete ARTS:1510 Basic Drawing and ARTS:1520 Design Fundamentals prior to taking the foundational studio courses. It may be possible to take either ARTS:1510 or ARTS:1520 at the same time as a foundational studio art course; contact the art advisor for more information. Foundational studio art courses may also fulfill GE CLAS Core [p. 22] requirements.

CERM:2010 Ceramics I: Handbuilding, SCLP:2810 Undergraduate Sculpture I, and TDSN:2210 Introduction to 3D Design may be taken without completing either ARTS:1510 or ARTS:1520.

Course #	Title	Hours
Both of these:		
ARTS:1510	Basic Drawing	3
ARTS:1520	Design Fundamentals	3

Studio Art 3D Courses

Course #	Title	Hours
Two of these:		
CERM:2010	Ceramics I: Handbuilding	3
INTM:2710	Introduction to Intermedia	3
MTLS:2910	Introduction to Jewelry and Metal Arts	3
SCLP:2810	Undergraduate Sculpture I	3
TDSN:2210	Introduction to 3D Design	3

Studio Art 2D Courses

Course #	Title	Hours
Two of these:		
DRAW:2310	Life Drawing I	3
DSGN:2500	Graphic Design I	3
PHTO:2600	Photography I	3

PNTG:2410	Painting I	3
PRNT:2610	Introduction to Printmaking	3

Upper-Level Studio Art Courses

Students must take two upper-level studio art courses. They may take both upper-level courses in the same studio art discipline or one upper-level course in each of two disciplines. Any course beyond the introductory course in the discipline is considered upper-level.

Introductory courses include the following and do not count toward the upper-level studio arts courses requirement.

Course #	Title	Hours
CERM:2010	Ceramics I: Handbuilding	3
DRAW:2310	Life Drawing I	3
DSGN:2500	Graphic Design I	3
INTM:2710	Introduction to Intermedia	3
MTLS:2910	Introduction to Jewelry and Metal Arts	3
PHTO:2600	Photography I	3
PNTG:2410	Painting I	3
PRNT:2610	Introduction to Printmaking	3
SCLP:2810	Undergraduate Sculpture I	3
TDSN:2210	Introduction to 3D Design	3

Required Electives

School of Art, Art History, and Design elective courses must bring the total credit for the major in art to a minimum of 39 s.h.

Transfer Students

Transfer students should contact the undergraduate academic advisors in art for information about transfer portfolio review and specific coursework that satisfies the requirements for the major in art. Students may count a maximum of 12 s.h. of approved transfer credit toward their major.

Study Abroad

Students who wish to study abroad must meet with the undergraduate advisor before they depart in order to confirm approval of the courses they plan to take.

Students who take studio art courses abroad must bring their artwork back to campus and must present it in a portfolio review, which determines whether the work satisfies a requirement for their major. The portfolio review is not required if the study abroad course was taught by a School of Art, Art History, and Design faculty member who gave the student a grade for the course.

Students who plan to take art history courses abroad must present the course syllabus to their advisor well in advance of their departure. The head of the art history program determines whether the study abroad course is equivalent to a course required for the major; if it is, the student is credited with fulfilling the requirement once the course is completed with a passing grade.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

The BA in art education [p. 1447] is offered by the Department of Teaching and Learning, and the degree is awarded by the College of Education. In order to earn the BA in art education, students also must complete the BA in art. For more information, contact the College of Education Academic Advising Office.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Honors students must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.50 in their major. They should meet with their academic advisor at the start of their final semester to complete the steps needed to graduate with honors in the major.

Students must select a research project, find a faculty member whose expertise aligns with their research to act as the honors advisor, enroll in ARTS:4190 Honors in Studio Art, write a one-page abstract at the conclusion of the research, and participate in an honors in the major group show and presentation.

University of Iowa Honors Program

In addition to honors in the major, students have a variety of opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the art major.

Career Advancement

Many graduates pursue careers that match their degree specializations, for example, commercial or graphic designer, conservation or museum curator or administrator, art educator, public artist, or community art center coordinator or instructor. Others go on to graduate study in areas such as art history, art therapy, architecture, design, medical illustration, studio art, or disciplines outside of art.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: at least four courses in the major.

Before the seventh semester begins: at least four more courses in the major (total of eight) and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least three more courses in the major (total of 11).

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Art, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
ARTS:1510	Basic Drawing [b]	3
ARTS:1520	Design Fundamentals [b]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
Major: art history survey course [d]		3
Major: introductory-level studio 2D course [e]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences with Lab [c]		4
Elective course [f]		2
	Hours	**15-16**
Second Year		
Fall		
Major: art history survey course [d]		3
Major: introductory-level studio 3D course [g]		3
GE CLAS Core: Quantitative or Formal Reasoning [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Spring		
Major: art history non-survey course [i]		3
Major: introductory-level studio 2D course [e]		3
Major: introductory-level studio 3D course [g]		3
GE CLAS Core: World Languages Second Level Proficiency or elective [h]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Third Year		
Fall		
Major: art history non-survey course [i]		3
Major: elective art course [j]		3 - 4
Major: upper-level studio art course [k]		3 - 4
GE CLAS Core: Natural Sciences without Lab [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
	Hours	**16-19**
Spring		
Major: elective art course [j]		3
Major: upper-level studio art course [k]		3
GE CLAS Core: International and Global Issues or elective [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Fourth Year		
Fall		
Major: elective art course [j]		3
GE CLAS Core: Literary, Visual, and Performing Arts or elective course [c, l]		3
GE CLAS Core: Values and Society [c, l]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Spring		
Major: elective art course [j]		3
GE CLAS Core: Historical Perspectives [c, l]		3
GE CLAS Core: Social Sciences [c]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**15**
	Total Hours	**122-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students are required to complete ARTS:1510 and ARTS:1520 by the end of their first academic year.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Select art history survey course from ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, and ARTH:1095. Some introductory-level art history courses will fulfill GE CLAS Core requirements; students should consult with their advisor.

e Select introductory-level studio 2D course from DRAW:2310, DSGN:2500, PHTO:2600, PNTG:2410, or PRNT:2610.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.
g Select introductory-level studio 3D course from CERM:2010, INTM:2710, MTLS:2910, SCLP:2810, or TDSN:2210.
h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.
i Does not include ARTH:1000, ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, ARTH:1080, ARTH:1095, ARTH:3985, ARTH:3995, and ARTH:4999.
j Students may select an elective art course until they complete a maximum of 56 s.h. of art courses, or select a non-art elective course.
k The following introductory courses do not count toward the upper-level studio arts courses requirement: CERM:2010, DRAW:2310, DSGN:2500, INTM:2710, MTLS:2910, PHTO:2600, PNTG:2410, PRNT:2610, SCLP:2810, TDSN:2210.
l Students may fulfill this general education requirement while also fulfilling major requirements.
mPlease see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Art History, BA

The program in art history engages in problems of historical analysis and interpretation of culture. The major provides students with a strong liberal arts background and prepares them for competitive placement in graduate schools across the country. As students progress through the major, they become familiar with historical relationships between art objects and society, learn techniques of visual analysis, study patterns of patronage, and apply methods for interpreting the meanings of art, architecture, and other forms of visual culture. In the course of their studies, art history majors develop their research abilities and writing skills.

Learning Outcomes

Students will:

- acquire a breadth of knowledge about the field of art history through coursework in a diversity of areas;
- learn that art embodies historical, cultural, social, and political factors within a diverse range of national, international, and global cultures;
- acquire critical skills in visual analysis and research; and
- develop skills in oral and written communication.

Requirements

The Bachelor of Arts with a major in art history requires a minimum of 120 s.h., including 39 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students may count a maximum of 56 s.h. earned in art, art history, and design courses toward the degree; they must earn at least 64 s.h. of credit in courses outside the School of Art, Art History, and Design in order to graduate.

BA students who are graduating with a double major in the school (e.g., a major in art history and a major in art) or a major and a minor in the school (e.g., a major in art history and a minor in art) may apply more than 56 s.h. from the School of Art, Art History, and Design toward their degree, but they must earn at least 56 s.h. of credit in courses outside the School of Art, Art History, and Design in order to graduate.

Students choose one of these tracks: art, museums, and museology [p. 103]; global and interdisciplinary connections [p. 103]; or Iowa idea [p. 106].

The BA with a major in art history requires the following coursework.

Art, Museums, and Museology Track

Requirements	Hours
Museum Studies Courses	9
Art History Courses	27
Internship	3

Art, Museums, and Museology: Museum Studies Courses

Course #	Title	Hours
This course:		
MUSM:3001	Introduction to Museum Studies	3
Two of these:		
MUSM:3115	Museum Education and Interpretation	3
MUSM:3130	Topics in Museum Administration and Management	3
MUSM:3131	Museum Evaluation and Visitor Studies	3
MUSM:3500	Nonprofit Organizational Effectiveness I	3
MUSM:3710	Fundraising Fundamentals	3
MUSM:4045	Art, Law, and Ethics	3
MUSM:4600	Nonprofit Ethics and Governance	3

Art, Museums, and Museology: Art History Courses

Course #	Title	Hours
All of these:		
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II	3
ARTH:1080	How to Write About Art	3
ARTH:4999	Capstone Seminar in Art History	3
Six art history courses (prefix ARTH), including:		
At least one course numbered ARTH:2000-ARTH:2999		
At least four courses numbered ARTH:3000-ARTH:4998		

Art, Museums, and Museology: Internship

Course #	Title	Hours
This course:		
CCP:1201	Academic Internship	3

Global and Interdisciplinary Connections Track

Requirements	Hours
Art History Courses	30
Related Disciplines Courses	9

Global and Interdisciplinary Connections: Art History Courses

Course #	Title	Hours
All of these:		
ARTH:1030	Themes in Global Art	3
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II	3

ARTH:4999	Capstone Seminar in Art History	3
One of these:		
ARTH:1040	Arts of Africa	3
ARTH:1050	From Cave Paintings to Cathedrals: Survey of Western Art I	3
ARTH:1070	Asian Art and Culture	3
ARTH:1080	How to Write About Art	3
ARTH:1095	Native American Art	3
Six additional art history courses including:		
At least two art history courses (prefix ARTH) numbered 2000-2999		
At least 12 s.h. from art history courses (prefix ARTH) numbered 3000-4998		

Global and Interdisciplinary Connections: Related Disciplines Courses

Course #	Title	Hours
At least 9 s.h. from one of these disciplines:		
American Studies		
AMST:3100	Critical Race Theory: Culture, Power, and Society	3
AMST:3249	Midwestern History	3
AMST:3265	American Monuments	3
Anthropology		
ANTH:3001	Introduction to Museum Studies	3
ANTH:3017	Decolonizing Anthropology in Native North America	3
ANTH:3121	Love, Marriage, and Family in India	3
ANTH:3237	Politics of the Archaeological Past	3
ANTH:3239	The Archaeology of the First Europeans	3
ANTH:3243	Archaeology of the American Midcontinent	3
ANTH:3255	Introduction to Archaeological Ceramics	3
ANTH:3257	North American Archaeology	3
ANTH:3265	Archaeology of the Great Plains	3
ANTH:3276	Greek Archaeology	3
ANTH:3278	Archaeology of Ancient Cities	3
ANTH:3295	Field Research in Archaeology	arr.
Asian Languages and Literature		
ASIA:3055	Death, Dying, and Beyond in Asian Religions	3
ASIA:3208	Classical Chinese Literature Through Translation	3
ASIA:3650	Chinese History From 1600 to 1911	3
ASIA:3652	Twentieth-Century China	3
ASIA:3655	Zen Buddhism	3
ASIA:3685	Modern Korean History	3
CHIN:3341	Chinese Literature: Poetry	3
CHIN:4203	Modern Chinese Writers	3
CHIN:4206	Chinese Cinema	3
KORE:3070	Topics in Korean Studies	3
JPNS:3202	Traditional Japanese Literature in Translation	3
JPNS:3203	Modern Japanese Fiction in Translation	3
JPNS:3204	Topics in Japanese Literature in Translation	1-3
JPNS:3205	Major Authors in Modern Japanese Literature	3
JPNS:3206	Warriors' Dreams	3
JPNS:3207	Japan Illuminated: Japanese Literature and Visual Culture	3
JPNS:3208	Japanese Film	3
JPNS:3210	Japanese Theater	3
JPNS:3601	Contemporary Japanese Culture	3
JPNS:4201	Genji Lab	3
Classics: Ancient Civilizations		
CLSA:3016	Myth Makers of the Classical World	3
CLSA:3148	Barbarians and the Fall of Rome	3
CLSA:3235	Greek Archaeology	3
CLSA:3240	Roman Archaeology	3
CLSA:3404	The World of Ancient Greece	3
CLSA:3416	Greek Religion and Society	3
CLSA:3443	Pagans and Christians: The Church From Jesus to Muhammad	3
CLSA:3445	Mythology of Otherworldly Journeys	3
CLSA:3514	Roman Religion and Society	3
CLSA:3821	City of Athens: Bronze Age to Roman World	3
CLSA:3836	Food in Ancient Mediterranean Society	3
CLSA:4106	Warfare in Ancient Mediterranean Society	3
CLSA:4400	The Roman Empire	3
CLSA:4403	Alexander the Great	3
CLSA:4452	The Dead Sea Scrolls	3
English		
ENGL:3216	Topics in Medieval and Renaissance Literature	3
ENGL:3226	Literature and Culture of the Middle Ages	3
ENGL:3236	Literature and the Culture of the Renaissance	3
ENGL:3266	Medieval Celtic Literature	3
ENGL:3276	Medieval Drama	3
ENGL:3287	Shakespeare	3
ENGL:3329	Literature and Culture of Eighteenth-Century Britain	3
ENGL:3338	Literature and Culture of the Romantic Period	3
ENGL:3339	Literature and Culture of Nineteenth-Century Britain	3

ENGL:3459	African American Literature Before 1900	3
ENGL:3510	Topics in Transnational Literature	3
ENGL:3515	Topics in Postcolonial Studies	3
ENGL:3520	Literature and Culture of the 20th and 21st Century	3
ENGL:3525	Literature and Culture of the Americas	3
ENGL:3540	Literature of the Indian Subcontinent	3
ENGL:3550	African Literature	3
ENGL:3570	Transnational and Postcolonial Writing by Women	3
French		
FREN:3120	French Civilization	3
FREN:3240	Media French	3
FREN:4026	French Women Writers	3-4
FREN:4080	Post-Colonial Literature in France	3
FREN:4100	French Cinema	3-4
FREN:4110	Francophone Studies: Literature and the Arts	3
FREN:4210	Slavery Museums, Memorials, and Statues in the United States, Europe, and the Global South	3-4
FREN:4520	Versailles Under the Sun King	3-4
FREN:4750	Topics in French Studies II (may be taken more than once for credit)	3
German		
GRMN:3236	German Film	3
GRMN:3501	German Writers Engaged	3
GRMN:3850	Twentieth- and Twenty-first-Century German Children's Literature	3
GRMN:3860	German Language and Society	3
History		
HIST:3108	History of Human Rights	3
HIST:3128	Topics in Global Environmental History	3
HIST:3131	Unnatural Disasters: A Global History	3
HIST:3205	American Cultural History	3
HIST:3249	Midwestern History	3
HIST:3250	American Stuff: Discovering History in Things	3
HIST:3253	The Civil Rights Movement	3
HIST:3256	The Great Migration(s) in the Midwest	3
HIST:3260	Violence in Black America	3
HIST:3262	The Black Midwest: History, Literature, and Culture	3
HIST:3264	Technology in American Culture and Society	3
HIST:3265	American Monuments	3
HIST:3273	War and Violence in Early American Societies and Culture	3
HIST:3289	The Atlantic World c. 1450-1850	3
HIST:3404	The World of Ancient Greece	3
HIST:3414	Science, Magic, and Religion in Early Modern Europe	3
HIST:3427	Family, Gender, and Society in Early Modern Europe	3
HIST:3448	Barbarians and the Fall of Rome	3
HIST:3501	Rebel Island: A History of Cuba	3
HIST:3502	History of Mexico	3
HIST:3508	Disease and Health in Latin American History	3
HIST:3522	Indigenous Women and Rural Unrest in Latin America	3
HIST:3539	History of Environmental (In)Justice in Latin America	3
HIST:3650	Chinese History From 1600 to 1911	3
HIST:3652	Twentieth-Century China	3
HIST:3685	Modern Korean History	3
HIST:3758	The Ancient African Past	3
HIST:3760	The Making of Modern Africa	3
HIST:4400	The Roman Empire	3
HIST:4403	Alexander the Great	3
HIST:4406	Warfare in Ancient Mediterranean Society	3
HIST:4407	The Hellenistic World and Rome	3
HIST:4422	The Book in the Middle Ages	3
HIST:4429	The Book in Early Modern Europe	3
HIST:4478	Holocaust in History and Memory	3
Italian		
ITAL:4550	Topics in Italian Studies (may be taken more than once for credit)	3
ITAL:4633	Dante's Inferno	3-4
ITAL:4660	Transcultural Texts and Translations	3
ITAL:4667	Modern Italian Fiction	3
Philosophy		
PHIL:3143	Existentialism	3
PHIL:3342	Multiculturalism and Toleration	3
PHIL:3430	Philosophy of Human Rights	3
PHIL:4152	Plato	3
PHIL:4153	Aristotle	3
PHIL:4260	Spinoza and Leibniz	3
PHIL:4266	Kant	3
PHIL:4373	Heidegger	3
PHIL:4377	Wittgenstein	3
PHIL:4482	Early Modern Ethics	3
PHIL:4587	Epistemology	3

PHIL:4588	Philosophy of Mind	3
PHIL:4694	Philosophy of Science	3
Religious Studies		
RELS:2674	Food, Body, and Belief: A Global Perspective	3
RELS:3003	Classical and Hellenistic Periods I	3
RELS:3243	Pagans and Christians: The Church From Jesus to Muhammad	3
RELS:3245	Mythology of Otherworldly Journeys	3
RELS:3655	Zen Buddhism	3
RELS:3716	Greek Religion and Society	3
RELS:3808	Malcolm X, King, and Human Rights	3
RELS:4352	The Dead Sea Scrolls	3

Iowa Idea Track

Courses may count toward more than one requirement; however, students must earn at least 39 s.h. in the track.

Requirements	Hours
Art History Courses	33
Studio Art Courses	6

Iowa Idea Track: Art History Courses

Course #	Title	Hours
All of these:		
ARTH:1050	From Cave Paintings to Cathedrals: Survey of Western Art I	3
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II	3
ARTH:1080	How to Write About Art	3
ARTH:4999	Capstone Seminar in Art History	3
Seven additional art history courses from these (a course can count toward more than one requirement):		21
At least two art history courses (prefix ARTH) numbered 2000-2999		
At least four art history courses (prefix ARTH) numbered 3000-4998		
At least two art history courses in non-Western areas (e.g., African, Asian, Islamic, Native American) from these:		
ARTH:1040	Arts of Africa	3
ARTH:1070	Asian Art and Culture	3
ARTH:1095	Native American Art	3
ARTH:2120	Art and Architecture of the Islamic World	3
ARTH:2220	Introduction to the Art of China	3
ARTH:2250	Introduction to the Art of Japan	3
ARTH:2330	Ancient Egyptian, Mesopotamian, and Persian Art	3
ARTH:3160	Themes in African Art	3
ARTH:3225	Modern and Contemporary Art in China	3
ARTH:3250	Brushwork in Chinese Art	3
ARTH:3255	Copy and Paste: Methods of Reproduction in Asian Art	3
ARTH:3270	Themes in Asian Art History	3
ARTH:3320	Egyptian Art	3
ARTH:3325	Kings, Gods, and Heroes: Art of Ancient Mesopotamia and Persia	3
ARTH:3375	The Great Collision	3

Iowa Idea Track: Studio Art Courses

Course #	Title	Hours
This course (taken before enrollment in another studio art course):		
ARTS:1510	Basic Drawing	3
One of these:		
ARTS:1520	Design Fundamentals	3
CERM:2010	Ceramics I: Handbuilding	3
DRAW:2310	Life Drawing I	3
DSGN:2500	Graphic Design I	3
INTM:2710	Introduction to Intermedia	3
MTLS:2910	Introduction to Jewelry and Metal Arts	3
PHTO:2600	Photography I	3
PNTG:2410	Painting I	3
PRNT:2610	Introduction to Printmaking	3
SCLP:2810	Undergraduate Sculpture I	3
TDSN:2210	Introduction to 3D Design	3

Transfer Students

Transfer students should meet with the undergraduate advisor to discuss the requirements they may fulfill with transfer courses. Art history transfer courses must be reviewed by the head of the art history area to determine a student's placement in or exemption from required art history courses. Students may count a maximum of 15 s.h. of approved transfer credit toward their major.

Study Abroad

Students who wish to study abroad must meet with the undergraduate advisor before they depart in order to confirm approval of the courses they plan to take.

Students who take art history courses abroad must present the course syllabus to their advisor well in advance of their departure. The head of the art history program determines whether the study abroad course is equivalent to a course required for the major; if it is, the student is credited with fulfilling the requirement once the course is completed with a passing grade.

Students who take studio art courses abroad must bring their artwork back to campus and present it in a portfolio review, which determines whether the work satisfies a requirement for their major. The portfolio review is not required if the study abroad course was taught by a School of Art, Art History, and Design faculty member who gave the student a grade for the course.

Teacher Licensure

Majors interested in earning licensure to teach in elementary and/or secondary schools must complete the College of Education's Teacher Education Program (TEP) in addition to the requirements for the art history major and all requirements for graduation with a BA degree. The TEP requires several College of Education courses and student teaching. Students must satisfy all degree requirements and complete Teacher Education Program licensure before degree conferral. Contact the Office of Student Services in the College of Education for details.

Honors

Honors in the Major

The School of Art, Art History, and Design offers outstanding students the opportunity to graduate with honors in the art history major. Honors students in art history must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.50 in the major. They also must complete a departmental application to graduate with honors in the major.

Students research and write an honors paper of 5,000 to 7,500 words under the direction of an art history professor. Students work with an art history faculty member as their honors advisor. Students must register for ARTH:3985 Honors Research in Art History, earning a total of 3 s.h. over the course of one or two semesters. They must have the honors advisor's approval before beginning work on their honors paper.

The honors paper should conform to the Graduate College format for theses; see Formatting Your Thesis on the Graduate College website. The title page must follow the University of Iowa Honors Program format.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the art history major.

Career Advancement

Many graduates go on to careers in academics, museums, or private art galleries. Those who wish to work as professors, museum curators, or museum directors typically pursue graduate study in art history. Some graduates instead pursue advanced study in fields such as architecture, information science, museum studies, and law. Others may begin careers immediately, working in galleries and museums as arts administrators and catalogers, writing art criticism, or applying their skills in writing and visual analysis to disciplines beyond the arts.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: at least four courses in the major.

Before the seventh semester begins: at least four more courses in the major (total of eight) and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least three more courses in the major (total of 11).

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Art History, BA

- Art, Museums, and Museology [p. 107]
- Global and Interdisciplinary Connections Track [p. 108]
- Iowa Idea Track [p. 110]

Art, Museums, and Museology Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
Students may elect to do an Honors in the Art History major splitting 3sh over their final two semesters, if they have a minimum UI GPA of 3.33 and a minimum Art History GPA of 3.5. This needs to be done with the approval of the DUS of Art History and a faculty member who agrees to mentor the student.		
	Hours	**0**
First Year		
Fall		
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II [b]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences without Lab [c]		3
Elective course [d]		3
CCP:1301	Communication for the Workplace	1
CSI:1600	Success at Iowa	1
	Hours	**14-15**
Spring		
ARTH:1080	How to Write About Art	3
MUSM:3001	Introduction to Museum Studies	3

RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
Elective course [d]		3
	Hours	**15-16**
Second Year		
Fall		
Major: art history course [e]		3
Major: museum studies course [f]		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [g]		4 - 5
Elective course [d]		2
	Hours	**15-16**
Spring		
Major: art history course [e]		3
Major: museum studies course [f]		3
GE CLAS Core: Quantitative or Formal Reasoning [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [g]		4 - 5
Elective course [d]		3
	Hours	**16-17**
Third Year		
Fall		
CCP:1201	Academic Internship	3
Major: art history course [e]		3
Major: art history course [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [g]		4 - 5
Elective course [d]		3
	Hours	**16-17**
Spring		
Major: art history course [e]		3
Major: art history course [e]		3
GE CLAS Core: Values and Society [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [g]		4 - 5
Elective course [d]		3
	Hours	**16-17**
Fourth Year		
Fall		
ARTH:4999	Capstone Seminar in Art History	3
Major: museum studies course [f]		3
GE CLAS Core: Natural Sciences with Lab [c]		4
Elective course [d]		3
Elective course [d]		2 - 3
	Hours	**15-16**
Spring		
ARTH:3985	Honors Research in Art History [d, h]	3
GE CLAS Core: International and Global Issues or other remaining GE CLAS Core requirement [c]		3
Elective course [d, i]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**122-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Students take six art history courses. At least one course with the prefix ARTH numbered 2000-2999 and at least four courses with the prefix ARTH numbered 3000-4998.

f Students select from MUSM:3115, 3130, 3131, 3500, 3710, 4045, 4600.

g Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

h Students must meet GPA requirements in order to pursue honors in art history. See the School of Art, Art History, and Design website and your academic advisor for more information.

i Students may elect to do an Honors in the Art History major splitting 3sh over their final two semesters, if they have a minimum UI GPA of 3.33 and a minimum Art History GPA of 3.5. This needs to be done with the approval of the DUS of Art History and a faculty member who agrees to mentor the student.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Global and Interdisciplinary Connections Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II [b]	3

ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences without Lab [c]		3
CSI:1600	Success at Iowa	1
Elective course [d]		3
	Hours	**13-14**

Spring

ARTH:1030	Themes in Global Art [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
Major: art history elective [e]		3
GE CLAS Core: Understanding Cultural Perspectives [c]		3
Elective course [d]		3
	Hours	**15-16**

Second Year

Fall

Major: art history course (prefix ARTH) numbered 2000-2999	3
Major: art history course (prefix ARTH) numbered 2000-2999	3
GE CLAS Core: World Languages First Level Proficiency or elective course [f]	4 - 5
Elective course [d]	3
Elective course [d]	2 - 3
Hours	**15-17**

Spring

Major: art history course (prefix ARTH) numbered 3000-4998	3
Major: related disciplines course [g]	3
GE CLAS Core: Quantitative or Formal Reasoning [c]	3
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]	4 - 5
Elective course [d]	3
Hours	**16-17**

Third Year

Fall

Major: art history course (prefix ARTH) numbered 3000-4998	3
Major: art history course (prefix ARTH) numbered 3000-4998	3
Major: related disciplines course [g]	3
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]	4 - 5
Elective course [d]	3
Hours	**16-17**

Spring

Major: art history course (prefix ARTH) numbered 3000-4998	3
Major: related disciplines course [g]	3
GE CLAS Core: Social Sciences [c]	3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]	4 - 5
Elective course [d]	3
Hours	**16-17**

Fourth Year

Fall

ARTH:4999 Capstone Seminar in Art History	3
GE CLAS Core: Natural Sciences with Lab [c]	4
Elective course [d]	3
Elective course [d]	3
Elective course [d]	2 - 3
Hours	**15-16**

Spring

ARTH:3985 Honors Research in Art History [d, h]	3
GE CLAS Core: International and Global Issues or other remaining GE CLAS Core requirement [c]	3
GE CLAS Core: Literary, Visual, and Performing Arts or other remaining GE CLAS Core requirement [c]	3
Elective course [d]	3
Elective course [d]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]	
Hours	**15**
Total Hours	**121-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Select from ARTH:1040, ARTH:1050, ARTH:1070, ARTH:1080, or ARTH:1095.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g Students select three courses from one of eleven disciplines outside of art history. These courses may apply to a second major. See General Catalog for a list of approved courses.

h Students must meet GPA requirements in order to pursue honors in art history. See the School of Art, Art History, and Design website and your academic advisor for more information.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Iowa Idea Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
ARTH:1050	From Cave Paintings to Cathedrals: Survey of Western Art I [b]	3
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Natural Sciences without Lab [c]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
ARTH:1040	Arts of Africa [b, d]	3
ARTH:1080	How to Write About Art [e]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
Elective course [f]		3
	Hours	**15-16**
Second Year		
Fall		
ARTS:1510	Basic Drawing	3
Major: art history course (prefix ARTH) numbered 2000-2999 [g]		3
Major: art history course (prefix ARTH) numbered 2000-2999 [g]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Spring		
Major: art history course (prefix ARTH) numbered 3000-4998 [g]		3
Major: introductory-level studio art course [i]		3
GE CLAS Core: Quantitative or Formal Reasoning [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Third Year		
Fall		
Major: art history course (prefix ARTH) numbered 3000-4998 [g]		3
Major: art history course (prefix ARTH) numbered 3000-4998 [g]		3
GE CLAS Core: Values and Society [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Spring		
Major: art history course (prefix ARTH) numbered 3000-4998 [g]		3
GE CLAS Core: Social Sciences [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
Elective course [f]		3
Elective course [f]		3
	Hours	**16-17**
Fourth Year		
Fall		
ARTH:4999	Capstone Seminar in Art History	3
GE CLAS Core: Natural Sciences with Lab [c]		4
Elective course [f]		3
Elective course [f]		2
Elective course [f]		3
	Hours	**15**
Spring		
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**122-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d This course is recommended to fulfill both a major requirement (art history course in non-Western area) and the GE CLAS Core International and Global Issues requirement.

e This course should be taken after completing Rhetoric and before enrollment in courses ARTH:3000 and above.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Students complete at least two art history courses (6 s.h.) in non-Western areas (e.g. African, Asian, Islamic, Native American). See General Catalog for list of approved courses.

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement

exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i Students complete this requirement by choosing one of these courses: ARTS:1520, CERM:2010, DRAW:2310, DSGN:2500, INTM:2710, MTLS:2910, PHTO:2600, PNTG:2410, PRNT:2610, SCLP:2810, TDSN:2210.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Art, BFA

Learning Outcomes

Students will:

- develop an understanding of the formal traditions and contemporary practices in studio art through coursework in a variety of media;
- learn that art embodies historical, cultural, and social factors with global influences;
- acquire critical skills in visual analysis, research, and the production of original works of art;
- develop skills in oral and written communication regarding themes in studio art; and
- gain skills for professional practice and preparedness for real-world success beyond their degree process following graduation.

Requirements

The Bachelor of Fine Arts with a major in art requires a minimum of 120 s.h., including 62 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Bachelor of Fine Arts students majoring in art may count a maximum of 62 s.h. earned in art, art history, and design courses toward the degree; they must earn at least 58 s.h. of credit in courses outside the School of Art, Art History, and Design in order to graduate. BFA students who are graduating with a double major in the school (e.g., a major in art history and a major in studio art) or a major and a minor in the school (e.g., a major in studio art and a minor in art history) may apply more than 62 s.h. from the School of Art, Art History, and Design toward their degree, but they must earn at least 56 s.h. of credit in courses outside the School of Art, Art History, and Design in order to graduate.

The major provides a foundation in art history as well as an understanding of the formal traditions and contemporary practices in studio art. It also includes a concentration in a specific discipline in studio art.

Students select one studio art area, choosing from ceramics, drawing, graphic design, jewelry and metal arts, painting, photography, printmaking, sculpture and intermedia, and three-dimensional (3D) design. They may not select bookbinding, calligraphy, or papermaking as their studio art discipline. Although students may choose only one BFA area, they gain exposure to other areas through the BFA program of study.

Students majoring in art begin their study in the Bachelor of Arts program. They may apply to the Bachelor of Fine Arts program after consulting with the faculty in the studio discipline of their choice. Students are admitted to the BFA program through a process called "clearance," which is conducted once each semester; they must be admitted to the BFA program at least one semester before they graduate. Students who wish to enter the BFA program should consult the faculty in their major studio art discipline for information about the required portfolio review.

In order to sit for BFA clearance, students must have completed:

- the two studio art foundation courses ARTS:1510 Basic Drawing and ARTS:1520 Design Fundamentals;
- one introductory course in the BFA studio art discipline; and
- two upper-level courses in the BFA studio art discipline (students may be enrolled in the two upper-level courses when they sit for clearance).

BFA students complete all requirements for the BA major in art (required courses) plus additional required and elective studio art coursework. They must also present a show of their work through ARTS:4195 BFA Exhibition before they graduate.

For more information about teaching art in elementary and/or secondary schools, see the following section titled "Teacher Licensure."

The BFA with a major in art requires the following coursework.

Requirements	Hours
Required Courses	30
Additional Studio Arts Courses	15-20
Electives	12-17
BFA Exhibition	

Required Courses

The following coursework is required (30 s.h.).

Art History

Course #	Title	Hours
Two of these:		
ARTH:1040	Arts of Africa	3
ARTH:1050	From Cave Paintings to Cathedrals: Survey of Western Art I	3
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II	3
ARTH:1070	Asian Art and Culture	3
ARTH:1095	Native American Art	3
And:		
Two art history courses not on the above list, excluding ARTH:1000, ARTH:1080, ARTH:3985, ARTH:3995, and ARTH:4999		6

Foundational Studio Art

Students should complete ARTS:1510 Basic Drawing and ARTS:1520 Design Fundamentals prior to taking the foundational studio courses. It may be possible to take either ARTS:1510 or ARTS:1520 at the same time as a foundational studio art course; contact the art advisor for more information. Foundational studio art courses may also fulfill GE CLAS Core [p. 22] requirements.

CERM:2010 Ceramics I: Handbuilding, SCLP:2810 Undergraduate Sculpture I, and TDSN:2210 Introduction to 3D Design may be taken without completing either ARTS:1510 or ARTS:1520.

Course #	Title	Hours
Both of these:		
ARTS:1510	Basic Drawing	3
ARTS:1520	Design Fundamentals	3

Studio Art 3D Courses

Course #	Title	Hours
Two of these:		
CERM:2010	Ceramics I: Handbuilding	3
INTM:2710	Introduction to Intermedia	3
MTLS:2910	Introduction to Jewelry and Metal Arts	3
SCLP:2810	Undergraduate Sculpture I	3
TDSN:2210	Introduction to 3D Design	3

Studio Art 2D Courses

Course #	Title	Hours
Two of these:		
DRAW:2310	Life Drawing I	3
DSGN:2500	Graphic Design I	3
PHTO:2600	Photography I	3
PNTG:2410	Painting I	3
PRNT:2610	Introduction to Printmaking	3

Additional Studio Art Courses

Students take additional studio arts courses to equal 15–20 s.h. Some required courses may apply to the additional studio art courses requirement.

Course #	Title	Hours
All of these:		
One introductory course and three upper-level courses in the student's studio art discipline		
One introductory course and one upper-level course in a second studio art discipline		
One introductory course and one upper-level course in a third studio art discipline		

Required Electives

Students take 12–17 s.h. in School of Art, Art History, and Design courses to bring the total credit for the major to a minimum of 62 s.h.

BFA Exhibition

Students must present a show of their work in ARTS:4195 BFA Exhibition during the semester in which they graduate. Variations must be approved by the BFA faculty advisor and academic advisors. The show must be advertised using flyers and other media. Students planning to graduate with honors in the major also are required to participate in a separate honors in the major group show. Students must meet with faculty and academic advisors to complete the required documentation before they present their show.

Transfer Students

Transfer students should contact the undergraduate academic advisors in art for information about transfer portfolio review and specific coursework that satisfies the requirements for the major in art. Students may count a maximum of 21 s.h. of approved transfer credit toward their major.

Study Abroad

Students who wish to study abroad must meet with the undergraduate advisor before they depart in order to confirm approval of the courses they plan to take.

Students who take studio art courses abroad must bring their artwork back to campus and present it in a portfolio review, which determines whether the work satisfies a requirement for their major. The portfolio review is not required if the study abroad course was taught by a School of Art, Art History, and Design faculty member who gave the student a grade for the course.

Students who plan to take art history courses abroad must present the course syllabus to their advisor well in advance of their departure. The head of the art history program determines whether the study abroad course is equivalent to a course required for the major; if it is, the student is credited with fulfilling the requirement once the course is completed with a passing grade.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

The BA in art education [p. 1447] is offered by the Department of Teaching and Learning, and the degree is awarded by the College of Education. In order to earn the BA in art education, students also must complete the BFA in art. For more information, contact the College of Education Academic Advising Office.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Honors students must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.50 in their major. They should meet with their academic advisor at the start of their final semester to complete the steps needed to graduate with honors in the major.

Students must select a research project, find a faculty member whose expertise aligns with their research to act as the honors in the major advisor, enroll in ARTS:4190 Honors in Studio Art, write a one-page abstract at the conclusion of the research, and participate in an honors in the major group show and presentation.

University of Iowa Honors Program

In addition to honors in the major, undergraduate students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the art major.

Career Advancement

Many graduates pursue careers that match their degree specializations, for example, commercial or graphic designer, conservation or museum curator or administrator, art educator, public artist, or community art center coordinator or instructor. Others go on to graduate study in areas such as art history, art therapy, architecture, design, medical illustration, studio art, or disciplines outside of art.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The Four-Year Graduation Plan is not available for the BFA major in art. Students should work with their advisors to develop individual graduation plans.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Art, BFA

- Ceramics [p. 114]
- Drawing [p. 115]
- Graphic Design [p. 116]
- Jewelry and Metal Arts [p. 118]
- Painting [p. 119]
- Photography [p. 120]
- Printmaking [p. 121]
- Sculpture and Intermedia [p. 123]
- Three-Dimensional Design [p. 124]

Ceramics

Course	Title	Hours
Academic Career		
Any Semester		
Admission Application: Students apply to the BFA program through a selective process called "clearance." [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
ARTS:1510	Basic Drawing [c]	3
ARTS:1520	Design Fundamentals [c]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d, e]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
CERM:2010	Ceramics I: Handbuilding [f]	3
Major: art history survey course [g]		3
Major: introductory-level studio 2D course [h]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences without Lab [e]		3
	Hours	**15-16**
Second Year		
Fall		
CERM:2020	Ceramics II: Wheel Throwing	3
Major: art history survey course [g]		3
Major: introductory-level studio 3D course [f]		3
GE CLAS Core: Quantitative or Formal Reasoning [d, e]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [i]		4 - 5
	Hours	**16-17**
Spring		
Major: art history non-survey course [j]		3
Major: introductory-level studio 2D course [h]		3
Major: upper-level studio course in BFA discipline		3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective [i]		4 - 5
Elective course [k]		3
	Hours	**16-18**
Third Year		
Fall		
Major: art history non-survey course [j]		3
Major: elective art course [l]		3
Major: upper-level studio course in BFA discipline		3 - 4
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [i]		4 - 5
	Hours	**17-19**
Spring		
Major: elective art course [l]		3
Major: upper-level studio course in BFA discipline		3 - 4
Major: upper-level studio course outside of BFA discipline		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [d, e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [i]		4 - 5
	Hours	**16-19**
Fourth Year		
Fall		
Major: elective art course [l]		3 - 4
Major: elective art course [l]		3 - 4
Major: upper-level studio course outside of BFA discipline		3 - 4
GE CLAS Core: Historical Perspectives [d, e]		3
GE CLAS Core: Values and Society [d, e]		3
Gallery booking for BFA exhibition		
	Hours	**15-18**
Spring		
ARTS:4195	BFA Exhibition	0
Major: elective art course [l]		3 - 4
Major: elective art course [l]		1 - 4
Major: elective art course [l]		3 - 4

GE CLAS Core: International and Global Issues [d, e]	3
GE CLAS Core: Social Sciences [e]	3
Elective course [k]	2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]	
Hours	**15-20**
Total Hours	**123-141**

a Students majoring in art begin their study in the Bachelor of Arts program. They may apply to the Bachelor of Fine Arts program after consulting with the faculty in the studio discipline of their choice about the required portfolio review. Students are admitted to the BFA program through a process called "clearance," which is conducted once each semester; they must be admitted to the BFA program at least one semester before they graduate.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Studio art majors are required to complete ARTS:1510 and ARTS:1520 by the end of their first academic year.

d Students may fulfill this general education requirement while also fulfilling major requirements. Up to three major courses can be used to fulfill one GE CLAS Core area each. These areas could include: understanding cultural perspectives; historical perspectives; international and global issues; literary, visual, and performing arts; or values and society. Not all courses are available every semester. Students should consult with their advisor.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f For the two introductory-level studio 3D courses, students in the ceramics discipline complete CERM:2010. Select a second course from INTM:2710, MTLS:2910, SCLP:2810, or TDSN:2210.

g Select art history survey course from ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, and ARTH:1095. Some introductory-level art history courses will fulfill GE CLAS Core requirements; students should consult with their advisor.

h Select introductory-level studio 2D course from DRAW:2310, DSGN:2500, PHTO:2600, PNTG:2410, or PRNT:2610.

i Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

j Does not include ARTH:1000, ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, ARTH:1080, ARTH:1095, ARTH:3985, ARTH:3995, and ARTH:4999.

k Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

l Students may select an elective art course until they complete a maximum of 62 s.h. of art courses, or select a non-art elective course.

m Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Drawing

Course	Title	Hours
Academic Career		
Any Semester		
Admission Application: Students apply to the BFA program through a selective process called "clearance." [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
ARTS:1510	Basic Drawing [c]	3
ARTS:1520	Design Fundamentals [c]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d, e]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
DRAW:2310	Life Drawing I [f]	3
Major: art history survey course [g]		3
Major: introductory-level studio 3D course [h]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Natural Sciences without Lab [e]		3
	Hours	**15-16**
Second Year		
Fall		
DRAW:3310	Concepts in Drawing	3 - 4
Major: art history survey course [g]		3
Major: introductory-level studio 3D course [h]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [i]		4 - 5
Elective course [j]		3
	Hours	**16-18**
Spring		
DRAW:4310	Advanced Concepts in Drawing	3 - 4
Major: art history non-survey course [k]		3
Major: introductory-level studio 2D course [f]		3
GE CLAS Core: World Languages Second Level Proficiency or elective [i]		4 - 5
Elective course [j]		3
	Hours	**16-18**
Third Year		
Fall		
DRAW:4310	Advanced Concepts in Drawing	3 - 4

Major: art history non-survey course [k]	3
Major: elective art course [l]	3 - 4
GE CLAS Core: Natural Sciences with Lab [e]	4
GE CLAS Core: World Languages Third Level Proficiency or elective course [i]	4 - 5
Hours	**17-20**
Spring	
Major: upper-level studio course in BFA discipline	3 - 4
Major: upper-level studio course outside of BFA discipline	3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [d, e]	3
GE CLAS Core: Quantitative or Formal Reasoning [e]	3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [i]	4 - 5
Hours	**16-19**
Fourth Year	
Fall	
Major: elective art course [l]	3 - 4
Major: elective art course [l]	3 - 4
Major: upper-level studio course outside of BFA discipline	3 - 4
GE CLAS Core: Historical Perspectives [d, e]	3
GE CLAS Core: Values and Society [d, e]	3
Gallery booking for BFA exhibition	
Hours	**15-18**
Spring	
ARTS:4195 BFA Exhibition	0
Major: elective art course [l]	1 - 4
Major: elective art course [l]	3 - 4
GE CLAS Core: International and Global Issues [d, e]	3
GE CLAS Core: Social Sciences [e]	3
Elective course [j]	2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]	
Hours	**12-16**
Total Hours	**120-139**

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b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Studio art majors are required to complete ARTS:1510 and ARTS:1520 by the end of their first academic year.

d Students may fulfill this general education requirement while also fulfilling major requirements. Up to three major courses can be used to fulfill one GE CLAS Core area each. These areas could include: understanding cultural perspectives; historical perspectives; international and global issues; literary, visual, and performing arts; or values and society. Not all courses are available every semester. Students should consult with their advisor.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f For the two introductory-level studio 2D courses, students in the drawing discipline complete DRAW:2310. Select a second course from DSGN:2500, PHTO:2600, PNTG:2410, or PRNT:2610.

g Select art history survey course from ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, and ARTH:1095. Some introductory-level art history courses will fulfill GE CLAS Core requirements; students should consult with their advisor.

h Select introductory-level studio 3D course from CERM:2010, INTM:2710, MTLS:2910, SCLP:2810, or TDSN:2210.

i Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

j Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

k Does not include ARTH:1000, ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, ARTH:1080, ARTH:1095, ARTH:3985, ARTH:3995, and ARTH:4999.

l Students may select an elective art course until they complete a maximum of 62 s.h. of art courses, or select a non-art elective course.

m Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Graphic Design

Course	Title	Hours
Academic Career		
Any Semester		
Admission Application: Students apply to the BFA program through a selective process called "clearance." [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
ARTS:1510	Basic Drawing [c]	3
ARTS:1520	Design Fundamentals [c]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d, e]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**

Spring		
DSGN:2500	Graphic Design I [f]	3
Major: art history survey course [g]		3
Major: introductory-level studio 3D course [h]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Natural Sciences without Lab [e]		3
	Hours	**15-16**
Second Year		
Fall		
DSGN:2600	Graphic Design II	3
Major: art history survey course [g]		3
Major: introductory-level studio 3D course [h]		3
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [i]		4 - 5
	Hours	**16-17**
Spring		
DSGN:3500	Graphic Design III	4
DSGN:3600	Graphic Design IV	4
Major: art history non-survey course [j]		3
Major: introductory-level studio 2D course [f]		3
GE CLAS Core: World Languages Second Level Proficiency or elective [i]		4 - 5
	Hours	**18-19**
Third Year		
Fall		
DSGN:4000	Graphic Design V	4
Major: art history non-survey course [j]		3
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [i]		4 - 5
	Hours	**15-16**
Spring		
DSGN:4700	Graphic Design VI [k]	4
Major: elective art course [k]		3
Major: upper-level studio course outside of BFA discipline		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [d, e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [i]		4 - 5
	Hours	**17-19**
Fourth Year		
Fall		
Major: elective art course [k]		3 - 4
Major: elective art course [k]		3 - 4
Major: upper-level studio course outside of BFA discipline		3 - 4
GE CLAS Core: Historical Perspectives [d, e]		3
GE CLAS Core: Values and Society [d, e]		3
Gallery booking for BFA exhibition		
	Hours	**15-18**
Spring		
ARTS:4195	BFA Exhibition	0
Major: elective art course [k]		3 - 4
Major: elective art course [k]		1 - 4
Elective course [l]		3
GE CLAS Core: International and Global Issues [d, e]		3
GE CLAS Core: Social Sciences [e]		3
Elective course [l]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**15-19**
	Total Hours	**124-138**

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b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Studio art majors are required to complete ARTS:1510 and ARTS:1520 by the end of their first academic year.

d Students may fulfill this general education requirement while also fulfilling major requirements. Up to three major courses can be used to fulfill one GE CLAS Core area each. These areas could include: understanding cultural perspectives; historical perspectives; international and global issues; literary, visual, and performing arts; or values and society. Not all courses are available every semester. Students should consult with their advisor.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f For the two introductory-level studio 2D courses, students in the graphic design discipline complete DSGN:2500. Select a second course from DRAW:2310, PHTO:2600, PNTG:2410, or PRNT:2610.

g Select art history survey course from ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, and ARTH:1095. Some introductory-level art history courses will fulfill GE CLAS Core requirements; students should consult with their advisor.

h Select introductory-level studio 3D course from CERM:2010, INTM:2710, MTLS:2910, SCLP:2810, or TDSN:2210.

i Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

j Does not include ARTH:1000, ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, ARTH:1080, ARTH:1095, ARTH:3985, ARTH:3995, and ARTH:4999.

k Students may select an elective art course until they complete a maximum of 62 s.h. of art courses, or select a non-art elective course.

l Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

mPlease see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Jewelry and Metal Arts

Course	Title	Hours
Academic Career		
Any Semester		
Admission Application: Students apply to the BFA program through a selective process called "clearance." [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
ARTS:1510	Basic Drawing [c]	3
ARTS:1520	Design Fundamentals [c]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d, e]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
MTLS:2910	Introduction to Jewelry and Metal Arts [f]	3
Major: art history survey course [g]		3
Major: introductory-level studio 2D course [h]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences without Lab [e]		3
	Hours	**15-16**
Second Year		
Fall		
Major: art history survey course [g]		3
Major: introductory-level studio 3D course [f]		3
Major: upper-level studio course in BFA discipline		3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [i]		4 - 5
Elective course [j]		3
	Hours	**16-18**
Spring		
Major: art history non-survey course [k]		3
Major: introductory-level studio 2D course [h]		3
Major: upper-level studio course in BFA discipline		3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective [i]		4 - 5
Elective course [j]		3
	Hours	**16-18**
Third Year		
Fall		
Major: art history non-survey course [k]		3
Major: upper-level studio course in BFA discipline		3 - 4
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [i]		4 - 5
	Hours	**17-19**
Spring		
Major: elective art course [l]		3
Major: elective art course [l]		3
Major: upper-level studio course outside of BFA discipline		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [d, e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [i]		4 - 5
	Hours	**16-18**
Fourth Year		
Fall		
Major: elective art course [l]		3 - 4
Major: elective art course [l]		3 - 4
Major: upper-level studio course outside of BFA discipline		3 - 4
GE CLAS Core: Historical Perspectives [d, e]		3
GE CLAS Core: Values and Society [d, e]		3
Gallery booking for BFA exhibition		
	Hours	**15-18**
Spring		
ARTS:4195	BFA Exhibition	0
Major: elective art course [l]		3 - 4
Major: elective art course [l]		1 - 4
Major: elective art course [l]		3 - 4
GE CLAS Core: International and Global Issues [d, e]		3
GE CLAS Core: Social Sciences [e]		3
Elective course [j]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**15-20**
	Total Hours	**123-141**

a Students majoring in art begin their study in the Bachelor of Arts program. They may apply to the Bachelor of Fine Arts program after consulting with the faculty in the studio discipline of their choice about the required portfolio review. Students are admitted to the BFA program through a process called "clearance," which is conducted once each semester; they must be admitted to the BFA program at least one semester before they graduate.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Studio art majors are required to complete ARTS:1510 and ARTS:1520 by the end of their first academic year.
d Students may fulfill this general education requirement while also fulfilling major requirements. Up to three major courses can be used to fulfill one GE CLAS Core area each. These areas could include: understanding cultural perspectives; historical perspectives; international and global issues; literary, visual, and performing arts; or values and society. Not all courses are available every semester. Students should consult with their advisor.
e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
f For the two introductory-level studio 3D courses, students in the jewelry and metal arts discipline complete MTLS:2910. Select a second course from CERM:2010, INTM:2710, SCLP:2810, or TDSN:2210.
g Select art history survey course from ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, and ARTH:1095. Some introductory-level art history courses will fulfill GE CLAS Core requirements; students should consult with their advisor.
h Select introductory-level studio 2D course from DRAW:2310, DSGN:2500, PHTO:2600, PNTG:2410, or PRNT:2610.
i Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.
j Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.
k Does not include ARTH:1000, ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, ARTH:1080, ARTH:1095, ARTH:3985, ARTH:3995, and ARTH:4999.
l Students may select an elective art course until they complete a maximum of 62 s.h. of art courses, or select a non-art elective course.
mPlease see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Painting

Course	Title	Hours
Academic Career		
Any Semester		
Admission Application: Students apply to the BFA program through a selective process called "clearance." [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
ARTS:1510	Basic Drawing [c]	3
ARTS:1520	Design Fundamentals [c]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d, e]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
PNTG:2410	Painting I [f]	3
Major: art history survey course [g]		3
Major: introductory-level studio 3D course [h]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Natural Sciences without Lab [e]		3
	Hours	**15-16**
Second Year		
Fall		
PNTG:2420	Painting II	4
Major: art history survey course [g]		3
Major: introductory-level studio 3D course [h]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [i]		4 - 5
Elective course [j]		3
	Hours	**17-18**
Spring		
PNTG:4100	Advanced Painting	4
Major: art history non-survey course [k]		3
Major: introductory-level studio 2D course [f]		3
GE CLAS Core: World Languages Second Level Proficiency or elective [i]		4 - 5
	Hours	**14-15**
Third Year		
Fall		
PNTG:4100	Advanced Painting	4
Major: art history non-survey course [k]		3
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [i]		4 - 5
	Hours	**18-19**
Spring		
Major: elective art course [l]		3
Major: upper-level studio course outside of BFA discipline		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [d, e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [i]		4 - 5
	Hours	**13-15**
Fourth Year		
Fall		
Major: elective art course [l]		3 - 4
Major: elective art course [l]		3 - 4
Major: upper-level studio course outside of BFA discipline		3 - 4
GE CLAS Core: Historical Perspectives [d, e]		3

GE CLAS Core: Values and Society [d, e]		3
Gallery booking for BFA exhibition		
	Hours	**15-18**
Spring		
ARTS:4195	BFA Exhibition	0
Major: elective art course [l]		3 - 4
Major: elective art course [l]		1 - 4
Major: elective art course [l]		3 - 4
GE CLAS Core: International and Global Issues [d, e]		3
GE CLAS Core: Social Sciences [e]		3
Elective course [j]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**15-20**
	Total Hours	**120-135**

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b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Studio art majors are required to complete ARTS:1510 and ARTS:1520 by the end of their first academic year.

d Students may fulfill this general education requirement while also fulfilling major requirements. Up to three major courses can be used to fulfill one GE CLAS Core area each. These areas could include: understanding cultural perspectives; historical perspectives; international and global issues; literary, visual, and performing arts; or values and society. Not all courses are available every semester. Students should consult with their advisor.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f For the two introductory-level studio 2D courses, students in the painting discipline complete PNTG:2410. Select a second course from DRAW:2310, DSGN:2500, PHTO:2600, or PRNT:2610.

g Select art history survey course from ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, and ARTH:1095. Some introductory-level art history courses will fulfill GE CLAS Core requirements; students should consult with their advisor.

h Select introductory-level studio 3D course from CERM:2010, INTM:2710, MTLS:2910, SCLP:2810, or TDSN:2210.

i Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

j Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

k Does not include ARTH:1000, ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, ARTH:1080, ARTH:1095, ARTH:3985, ARTH:3995, and ARTH:4999.

l Students may select an elective art course until they complete a maximum of 62 s.h. of art courses, or select a non-art elective course.

m Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Photography

Course	Title	Hours
Academic Career		
Any Semester		
Admission Application: Students apply to the BFA program through a selective process called "clearance." [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
ARTS:1510	Basic Drawing [c]	3
ARTS:1520	Design Fundamentals [c]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d, e]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
PHTO:2600	Photography I [f]	3
Major: art history survey course [g]		3
Major: introductory-level studio 3D course [h]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences without Lab [e]		3
	Hours	**15-16**
Second Year		
Fall		
PHTO:3100	Photography II: Introduction to Darkroom Photography	4
Major: art history survey course [g]		3
Major: introductory-level studio 3D course [h]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [i]		4 - 5
Elective course [j]		3
	Hours	**17-18**
Spring		
PHTO:3110	Photography III: The Constructed Image	4

Major: art history non-survey course [k]	3
Major: introductory-level studio 2D course [f]	3
GE CLAS Core: World Languages Second Level Proficiency or elective [i]	4 - 5
Elective course [j]	3
Hours	**17-18**

Third Year

Fall

Major: art history non-survey course [k]	3
Major: upper-level studio course outside of BFA discipline	3 - 4
GE CLAS Core: Natural Sciences with Lab [e]	4
GE CLAS Core: Quantitative or Formal Reasoning [e]	3
GE CLAS Core: World Languages Third Level Proficiency or elective course [i]	4 - 5
Hours	**17-19**

Spring

Major: elective art course [l]	3
Major: upper-level studio course in BFA discipline	3 - 4
Major: upper-level studio course outside of BFA discipline	3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [d, e]	3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [i]	4 - 5
Hours	**16-19**

Fourth Year

Fall

Major: elective art course [l]	3 - 4
Major: elective art course [l]	3 - 4
Major: upper-level studio course outside of BFA discipline	3 - 4
GE CLAS Core: Historical Perspectives [d, e]	3
GE CLAS Core: Values and Society [d, e]	3
Gallery booking for BFA exhibition	
Hours	**15-18**

Spring

ARTS:4195	BFA Exhibition	0
Major: elective art course [l]		3 - 4
Major: elective art course [l]		1 - 4
Major: elective art course [l]		3 - 4
GE CLAS Core: International and Global Issues [d, e]		3
GE CLAS Core: Social Sciences [e]		3
Elective course [j]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
Hours		**15-20**
Total Hours		**125-142**

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c Studio art majors are required to complete ARTS:1510 and ARTS:1520 by the end of their first academic year.

d Students may fulfill this general education requirement while also fulfilling major requirements. Up to three major courses can be used to fulfill one GE CLAS Core area each. These areas could include: understanding cultural perspectives; historical perspectives; international and global issues; literary, visual, and performing arts; or values and society. Not all courses are available every semester. Students should consult with their advisor.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f For the two introductory-level studio 2D courses, students in the photography discipline complete PHTO:2600. Select a second course from DRAW:2310, DSGN:2500, PNTG:2410, or PRNT:2610.

g Select art history survey course from ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, and ARTH:1095. Some introductory-level art history courses will fulfill GE CLAS Core requirements; students should consult with their advisor.

h Select introductory-level studio 3D course from CERM:2010, INTM:2710, MTLS:2910, SCLP:2810, or TDSN:2210.

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l Students may select an elective art course until they complete a maximum of 62 s.h. of art courses, or select a non-art elective course.

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Printmaking

Course	Title	Hours
Academic Career		
Any Semester		
Admission Application: Students apply to the BFA program through a selective process called "clearance." [a]		
GE CLAS Core: Sustainability [b]		
Hours		**0**

First Year

Fall

ARTS:1510	Basic Drawing [c]	3
ARTS:1520	Design Fundamentals [c]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d, e]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**

Spring

PRNT:2610	Introduction to Printmaking [f]	3
Major: art history survey course [g]		3
Major: introductory-level studio 3D course [h]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences without Lab [e]		3
	Hours	**15-16**

Second Year

Fall

Major: art history survey course [g]	3
Major: introductory-level studio 3D course [h]	3
Major: upper-level studio course in BFA discipline	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [i]	4 - 5
Elective course [j]	3
Hours	**16-18**

Spring

Major: art history non-survey course [k]	3
Major: introductory-level studio 2D course [f]	3
Major: upper-level studio course in BFA discipline	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective [i]	4 - 5
Elective course [j]	3
Hours	**16-18**

Third Year

Fall

Major: art history non-survey course [k]	3
Major: upper-level studio course in BFA discipline	3 - 4
GE CLAS Core: Natural Sciences with Lab [e]	4
GE CLAS Core: Quantitative or Formal Reasoning [e]	3
GE CLAS Core: World Languages Third Level Proficiency or elective course [i]	4 - 5
Hours	**17-19**

Spring

Major: elective art course [l]	3
Major: elective art course [l]	3 - 4
Major: upper-level studio course outside of BFA discipline	3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [d, e]	3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [i]	4 - 5
Hours	**16-19**

Fourth Year

Fall

Major: elective art course [l]	3 - 4
Major: elective art course [l]	3 - 4
Major: upper-level studio course outside of BFA discipline	3 - 4
GE CLAS Core: Historical Perspectives [d, e]	3
GE CLAS Core: Values and Society [d, e]	3
Gallery booking for BFA exhibition	
Hours	**15-18**

Spring

ARTS:4195 BFA Exhibition	0
Major: elective art course [l]	3 - 4
Major: elective art course [l]	1 - 4
Major: elective art course [l]	3 - 4
GE CLAS Core: International and Global Issues [d, e]	3
GE CLAS Core: Social Sciences [e]	3
Elective course [j]	2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]	
Hours	**15-20**
Total Hours	**123-142**

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c Studio art majors are required to complete ARTS:1510 and ARTS:1520 by the end of their first academic year.

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e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f For the two introductory-level studio 2D courses, students in the printmaking discipline complete PRNT:2610. Select a second course from DRAW:2310, DSGN:2500, PHTO:2600, or PNTG:2410.

g Select art history survey course from ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, and ARTH:1095. Some introductory-level art history courses will fulfill GE CLAS Core requirements; students should consult with their advisor.

h Select introductory-level studio 3D course from CERM:2010, INTM:2710, MTLS:2910, SCLP:2810, or TDSN:2210.

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school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

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k Does not include ARTH:1000, ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, ARTH:1080, ARTH:1095, ARTH:3985, ARTH:3995, and ARTH:4999.

l Students may select an elective art course until they complete a maximum of 62 s.h. of art courses, or select a non-art elective course.

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Sculpture and Intermedia

Course	Title	Hours
Academic Career		
Any Semester		
Admission Application: Students apply to the BFA program through a selective process called "clearance." [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
ARTS:1510	Basic Drawing [c]	3
ARTS:1520	Design Fundamentals [c]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d, e]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
Major: art history survey course [f]		3
Major: introductory-level studio 3D course [g]		3
Major: introductory-level studio 2D course [h]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Natural Sciences without Lab [e]		3
	Hours	**15-16**
Second Year		
Fall		
Major: art history survey course [f]		3
Major: introductory-level studio 3D course [g]		3
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [i]		4 - 5
Elective course [j]		3
	Hours	**16-17**
Spring		
Major: art history non-survey course [k]		3
Major: introductory-level studio 2D course [h]		3
Major: upper-level studio course in BFA discipline		3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective [i]		4 - 5
Elective course [j]		3
	Hours	**16-18**
Third Year		
Fall		
Major: art history non-survey course [k]		3
Major: elective art course [l]		3
Major: upper-level studio course in BFA discipline		3 - 4
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [i]		4 - 5
	Hours	**17-19**
Spring		
Major: elective art course [l]		3
Major: upper-level studio course in BFA discipline		3 - 4
Major: upper-level studio course outside of BFA discipline		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [d, e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [i]		4 - 5
	Hours	**16-19**
Fourth Year		
Fall		
Major: elective art course [l]		3 - 4
Major: elective art course [l]		3 - 4
Major: upper-level studio course outside of BFA discipline		3 - 4
GE CLAS Core: Historical Perspectives [d, e]		3
GE CLAS Core: Values and Society [d, e]		3
Gallery booking for BFA exhibition		
	Hours	**15-18**
Spring		
ARTS:4195	BFA Exhibition	0
Major: elective art course [l]		3 - 4
Major: elective art course [l]		1 - 4
Major: elective art course [l]		3 - 4
GE CLAS Core: International and Global Issues [d, e]		3
GE CLAS Core: Social Sciences [e]		3
Elective course [j]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**15-20**
	Total Hours	**123-141**

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c Studio art majors are required to complete ARTS:1510 and ARTS:1520 by the end of their first academic year.

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e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Select art history survey course from ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, and ARTH:1095. Some introductory-level art history courses will fulfill GE CLAS Core requirements; students should consult with their advisor.

g For the two introductory-level studio 3D courses, students in the sculpture discipline complete SCLP:2810. Select a second course from CERM:2010, INTM:2710, MTLS:2910, or TDSN:2210.

h Select introductory-level studio 2D course from DRAW:2310, DSGN:2500, PHTO:2600, PNTG:2410, or PRNT:2610.

i Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

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l Students may select an elective art course until they complete a maximum of 62 s.h. of art courses, or select a non-art elective course.

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Three-Dimensional Design

Course	Title	Hours
Academic Career		
Any Semester		
Admission Application: Students apply to the BFA program through a selective process called "clearance." [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
ARTS:1510	Basic Drawing [c]	3
ARTS:1520	Design Fundamentals [c]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d, e]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
TDSN:2210	Introduction to 3D Design [f]	3
Major: art history survey course [g]		3
Major: introductory-level studio 2D course [h]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences without Lab [e]		3
	Hours	**15-16**
Second Year		
Fall		
TDSN:2240	Drafting and Modeling With AutoCAD and Rhino	3
TDSN:2280	Materials, Tools, and Fabrication: Wood, Metal, and Composites	3
Major: art history survey course [g]		3
Major: introductory-level studio 3D course [f]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [l]		4 - 5
	Hours	**16-17**
Spring		
TDSN:2250	Digital Prototyping	3
Major: art history non-survey course [j]		3
Major: elective art course [k]		3
Major: introductory-level studio 2D course [h]		3
GE CLAS Core: World Languages Second Level Proficiency or elective [l]		4 - 5
	Hours	**16-17**
Third Year		
Fall		
Major: art history non-survey course [j]		3
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [l]		4 - 5
Elective course [l]		3
	Hours	**17-18**

Spring	
Major: elective art course [k]	3
Major: upper-level studio course outside of BFA discipline	3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [d, e]	3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [l]	4 - 5
Elective course [l]	3
Hours	**16-18**
Fourth Year	
Fall	
Major: elective art course [k]	3 - 4
Major: elective art course [k]	3 - 4
Major: upper-level studio course outside of BFA discipline	3 - 4
GE CLAS Core: Historical Perspectives [d, e]	3
GE CLAS Core: Values and Society [d, e]	3
Gallery booking for BFA exhibition	
Hours	**15-18**
Spring	
ARTS:4195 BFA Exhibition	0
Major: elective art course [k]	1 - 3
Major: elective art course [k]	1 - 4
Major: elective art course [k]	3 - 4
GE CLAS Core: International and Global Issues [d, e]	3
GE CLAS Core: Social Sciences [e]	3
Elective course [l]	2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]	
Hours	**13-19**
Total Hours	**121-137**

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c Studio art majors are required to complete ARTS:1510 and ARTS:1520 by the end of their first academic year.

d Students may fulfill this general education requirement while also fulfilling major requirements. Up to three major courses can be used to fulfill one GE CLAS Core area each. These areas could include: understanding cultural perspectives; historical perspectives; international and global issues; literary, visual, and performing arts; or values and society. Not all courses are available every semester. Students should consult with their advisor.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f For the two introductory-level studio 3D courses, students in the three-dimensional design discipline complete TDSN:2210. Select a second course from CERM:2010, INTM:2710, MTLS:2910, or SCLP:2810.

g Select art history survey course from ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, and ARTH:1095. Some introductory-level art history courses will fulfill GE CLAS Core requirements; students should consult with their advisor.

h Select introductory-level studio 2D course from DRAW:2310, DSGN:2500, PHTO:2600, PNTG:2410, or PRNT:2610.

i Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

j Does not include ARTH:1000, ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, ARTH:1080, ARTH:1095, ARTH:3985, ARTH:3995, and ARTH:4999.

k Students may select an elective art course until they complete a maximum of 62 s.h. of art courses, or select a non-art elective course.

l Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

mPlease see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Art, Minor

Requirements

The undergraduate minor in art requires a minimum of 18 s.h. in art courses, including at least 15 s.h. earned in courses taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. Students may not count coursework for the minor in art toward requirements for the major in art history, except ARTS:1510 Basic Drawing.

Art courses that may be taken include ceramics, drawing, jewelry and metal arts, painting, photography, printmaking, sculpture and intermedia, and three-dimensional (3D) design. Graphic design courses do not count for the minor.

The minor in art requires the following coursework.

Course #	Title	Hours
ARTS:1510	Basic Drawing	3
ARTS:1520	Design Fundamentals	3
At least one introductory studio art 3D course		
At least one introductory studio art 2D course, except DSGN:2500		
Additional introductory studio art courses or upper-level courses in the same studio art discipline(s) as the introductory 3D and/or 2D courses required for the minor		
May select one art history course from these: ARTH:1040, ARTH:1050, ARTH:1060, ARTH:1070, ARTH:1095, or a course numbered ARTH:2000 or above		

Before registering for a course, students must complete all of the course's prerequisites.

Contact an undergraduate advisor in the School of Art, Art History, and Design for more information about how to meet the requirements for the minor.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Art, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in art requires a minimum of 18 s.h. in art courses, including at least 15 s.h. earned in courses taken at the University of Iowa.		
Coursework in the minor may not be taken pass/nonpass.		
Students may be able to complete the 18 s.h. for the minor more quickly than in the three years shown on this plan, but they should plan to allot three years in case they have problems fitting in the required coursework.		
The introductory-level graphic design course (DSGN:2500 Graphic Design I) is not allowed to fulfill a requirement of the minor.		
Only 3 s.h. of approved art or art history coursework taken outside of the University of Iowa can be used for the minor.		
	Hours	**0**
First Year		
Fall		
ARTS:1510	Basic Drawing	3
ARTS:1520	Design Fundamentals	3
	Hours	**6**
Second Year		
Fall		
Minor: introductory-level studio 2D course [a]		3
	Hours	**3**
Spring		
Minor: introductory-level studio 3D course [b]		3
	Hours	**3**
Third Year		
Fall		
Minor: art minor elective [c]		3
	Hours	**3**
Spring		
Minor: art minor elective [c]		3
	Hours	**3**
	Total Hours	**18**

a Choose from DRAW:2310, PHTO:2600, PNTG:2410, or PRNT:2610.
b Choose from CERM:2010, INTM:2710, MTLS:2910, SCLP:2810, or TDSN:2210.
c Students may choose an art minor elective from the introductory-level courses, or an upper-level course in the same studio art discipline as an introductory-level course that has already been completed. Students may select one art history course (prefix ARTH) for an art minor elective, instead of one of the elective art courses.

Art History, Minor

Requirements

The undergraduate minor in art history requires a minimum of 15 s.h. in art history courses, including 12 s.h. earned in advanced courses taken at the University of Iowa. Art history courses (prefix ARTH) numbered 2000 or above are considered advanced for the minor. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Students earning a major in art and a minor in art history may count one art history course required for the art major toward the requirements for the art history minor. Students must consult with their advisors.

The minor in art history must include one survey course chosen from the following list.

Course #	Title	Hours
One of these:		
ARTH:1040	Arts of Africa	3
ARTH:1050	From Cave Paintings to Cathedrals: Survey of Western Art I	3
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II	3
ARTH:1070	Asian Art and Culture	3
ARTH:1095	Native American Art	3

Before registering for a course, students must complete all of the course's prerequisites.

Contact an undergraduate advisor in the School of Art, Art History, and Design for more information about how to meet the requirements for the minor.

Art, MA

Learning Outcomes

Students will:

- demonstrate proficiency in critical thinking and conceptual problem solving within the particular focus and practice of their field;
- demonstrate a personal vocabulary, approach, and vision in creative work;
- demonstrate knowledge of historical, social, and cultural perspectives in relation to visual art and design;
- demonstrate technical proficiency in relation to the tools, techniques, and materials used in their field; and
- develop a professional package that includes a curriculum vitae/résumé, statement about their work, images of their work, and prepare materials (i.e., teaching and research statement, online portfolio, etc.) for specific careers as a professional emerging artist/designer or in teaching, art, or design-related positions.

Requirements

The Master of Arts in art requires a minimum of 38 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average of at least 3.00. Students complete the degree with a subprogram in one of the following studio art disciplines: ceramics, drawing, graphic design, intermedia and video art, jewelry and metal arts, painting, photography, printmaking, sculpture, or three-dimensional (3D) design.

MA students must hold a BA or BFA in art equivalent to that offered by the University of Iowa. Undergraduate deficiencies, if any, may be made up concurrently with graduate study but do not count toward the graduate degree requirements.

The MA in art requires the following coursework.

Requirements	Hours
Primary Studio Art Discipline	16
Secondary Studio Art Discipline	8
Art History and Theory	6
Electives	8
Thesis	
Additional Requirements	

Primary Studio Art Discipline

Students complete 16 s.h. of coursework in their primary studio art discipline, which is the same as their subprogram.

Course #	Title	Hours
Ceramics		
Ceramics courses (prefix CERM) numbered 3000 and above		
Drawing		
Drawing courses (prefix DRAW) numbered 3000 and above		
Graphic Design		
Graphic design courses (prefix DSGN) numbered 3000 and above		
Intermedia and Visual Art		
Intermedia and visual art courses (prefix INTM) numbered 3000 and above		
Jewelry and Metal Art		
Jewelry and metal art courses (prefix MTLS) numbered 3000 and above		
Painting		
Painting courses (prefix PNTG) numbered 3000 and above		
Photography		
Photography courses (prefix PHTO) numbered 3000 and above		
Printmaking		
Printmaking courses (prefix PRNT) numbered 3000 and above		
Sculpture		
Sculpture courses (SCLP) numbered 3000 and above		
Three-Dimensional Design		
Three-dimensional design courses (prefix TDSN) numbered 3000 and above		

Secondary Studio Art Discipline

Students complete 8 s.h. in one secondary studio art discipline; this cannot be the same as the subprogram in which they are enrolled. The secondary discipline may be one of those listed above, or one of the following.

Course #	Title	Hours
Book Arts		
Papermaking courses (prefix BKAT) numbered 3000 and above		
UICB:3140-UICB:6520, excluding UICB:3900 and UICB:5550		
Other		
Courses outside of the studio arts disciplines taken with program permission		

Art History and Theory

Students complete 6 s.h. of coursework from ARTH:3000–6999, excluding ARTH:3985, ARTH:3995, ARTH:6020, and ARTH:6040.

Electives

In consultation with an advisor, students complete 8 s.h. of UI coursework numbered 3000 or above, excluding ARTS:7000.

Thesis

MA students with a subprogram in three-dimensional design are required to write a thesis and enroll in ARTS:6000 MA Written Thesis. MA students in other studio art disciplines choose to complete the MA with or without a thesis in consultation with their discipline advisor. Students may earn 1 s.h. of elective credit for writing a technical or substantial thesis by registering for ARTS:6000 with approval of the thesis supervisor, but they are not required to enroll in the course.

Thesis credit earned in an MA program is not applicable to MFA requirement.

Additional Requirements

Students provide five images of their MA work for the Grad Archive.

Students undergo a division-wide review for MA candidacy by the faculty during their third semester in residence. All those

except painting and drawing students must submit a written artist's statement or thesis.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education. The College of Education offers an MA program in art education; see the MA in teaching and learning [p. 1486] in the catalog.

Admission

Application materials should be uploaded onto a student's admissions profile. All applicants must meet the admission requirements of the Graduate College and the School of Art, Art History, and Design.

The deadline to submit materials to Graduate Admissions is Feb. 1 for studio art programs. Admission is for the following fall.

School of Art, Art History, and Design Requirements

Prospective graduate students must meet the School of Art, Art History, and Design's admission requirements for the specific degree program they plan to enter. They must submit application materials to Graduate Admissions and to the specific program.

All applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Application Procedures

Prospective students may apply online through the Admissions website. After submitting an application, applicants will receive email instructions on how to access their admissions profile on MyUI. Applicants then upload the required supplemental documents through a secure portal.

Required documents include transcripts from all colleges and universities an applicant has attended, contact information for three individuals who are able to assess an applicant's potential for graduate study designated to provide letters of recommendation, and a statement of purpose.

Applicants should consult the Studio Art Graduate Bulletin on the School of Art, Art History, and Design website. No separate application is necessary for scholarships or teaching/research assistantships for studio art applicants.

Studio art applicants' portfolio requirements are listed below. Images in the portfolio should be uploaded as PDF files no larger than 72 dpi and 1240 by 1240 pixels. File size must not exceed 18 MB. Images must be numbered according to the order they are to be presented to the admissions committee, beginning with 01. Applicants must include an inventory list that includes each image's name, title, medium, size, and approximate date of work, as well as their name and emphasis. They may supply a link to their personal website.

Portfolio contents and submission requirements for each program are as follows.

- Ceramics: 10 to 20 images.
- Three-dimensional (3D) design and jewelry and metal arts: eight images in the primary studio art discipline and two in a second discipline.
- Graphic design: documentation of 15 to 20 projects. Applicants should include a brief description of each work, illustrated with embedded still images and supplemented by links to online media. The precise number of images varies according to the nature of the work. Contact the School of Art, Art History, and Design with questions.
- Painting and drawing: eight images in the primary studio art medium (either painting or drawing) and two in a second medium.
- Photography: 15 to 20 images.
- Printmaking: 10 to 20 images.
- Sculpture and intermedia: applicants submit the following depending on their preferred area of emphasis.
  - Sculpture: Twenty images in sculpture, including details, and two or three images in a second medium. Video links may be included.
  - Intermedia: documentation of five to ten projects, including a brief description of each work illustrated with embedded still images and supplemented by links to online media. The precise number of images varies according to the nature of the work; contact the School of Art, Art History, and Design with questions.

Graduate Admissions notifies all applicants by mail of admission decisions.

Career Advancement

Many graduates pursue careers that match their degree specializations, for example, commercial or graphic designer, conservation or museum curator or administrator, art educator, public artist, or community art center coordinator or instructor.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Art, MA

Course	Title	Hours
Academic Career		
Any Semester		
38 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
Students complete the degree with a subprogram in one of the following studio art disciplines: ceramics, drawing, graphic design, intermedia and video arts, jewelry and metal arts, painting, photography, printmaking, sculpture, or three-dimensional (3D) design. [d]		
	Hours	**0**
First Year		
Fall		
Primary studio art discipline course [e]		4
Art history and theory course [f]		3

Elective course [g]	2
Hours	**9**
Spring	
Primary studio art discipline course [e]	4
Secondary studio art discipline course [h]	4
Elective course [g]	2
Hours	**10**
Second Year	
Fall	
Primary studio art discipline course [e]	4
Secondary studio art discipline course [h]	4
Art history and theory course [f]	3
Division-Wide Review [i]	
Hours	**11**
Spring	
Primary studio art discipline course [e]	4
Elective course [g]	2
Elective course [g]	2
Exam: Master's Final Exam [j]	
Hours	**8**
Total Hours	**38**

a Students provide five images of their MA work for the Grad Archive.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d MA students with a subprogram in three-dimensional design are required to write a thesis and enroll in ARTS:6000. MA students in other studio art disciplines choose to complete the MA with or without a thesis in consultation with their discipline advisor.

e Students complete 16 s.h. of coursework in their primary studio art discipline, which is the same as their subprogram. See the General Catalog for list of approved courses.

f Students complete 6 s.h. of coursework from ARTH:3000-6999, excluding ARTH:3985, ARTH:3995, ARTH:6020, and ARTH:6040.

g In consultation with an advisor, students complete 8 s.h. of UI coursework numbered 3000 or above, excluding ARTS:7000.

h Students complete 8 s.h. in one secondary studio art discipline; this cannot be the same as the subprogram in which they are enrolled. See the General Catalog for list of approved courses.

i Students undergo a division-wide review for MA candidacy by the faculty during their third semester in residence. All those except painting and drawing students must submit a written artist's statement or thesis.

j Provide preliminary artist's statement followed by artist's statement in the semester of degree completion.

Art History, MA

The master’s degree program in art history is intended for students who wish to acquire a broad knowledge of art history, as well as of the field's theoretical and historical foundations. The MA is intended to prepare students who plan to continue for a PhD in art history as well as for students interested in careers in museums, galleries, and nonprofit organizations.

Learning Outcomes

Students are expected to demonstrate:

- basic understanding of the development of the history and methodology of art history;
- basic understanding of primary source material in five of the following distribution fields: African, architecture, Asian, ancient, medieval, Renaissance and Baroque, 18th- and 19th-century European, American, and modern/contemporary;
- reading proficiency in either French or German;
- skill in visual analysis;
- skill in contextual analysis based on relevant research;
- sustained critical thinking, writing, and speaking abilities; and
- knowledge and skills necessary to be effective teaching assistants for courses numbered 1000–1999.

Requirements

The Master of Arts program in art history requires a minimum of 30 s.h. of graduate-level coursework and is offered without a thesis. Students are expected to acquire a broad knowledge of art history and to become familiar with major periods and monuments of world art. They also become proficient scholars, receiving training in research methods and theory necessary for subsequent scholarship at the PhD level.

Students must maintain a cumulative grade-point average of at least 3.50. Only one semester of academic probation is allowed. All MA candidates, including transfer students, must complete at least 24 s.h. in residence at the University of Iowa.

Students must earn a grade of B or higher in semester-long courses (numbered 3000 or above) in five of the following distribution fields: African, Asian, ancient Mediterranean, medieval, Renaissance and Baroque, 18th- and 19th-century European, American, and modern/contemporary. These courses must be taken after completion of the BA degree.

Students must complete a qualifying paper that demonstrates their ability to conduct scholarly research and convey ideas in writing appropriately for the discipline and the student's specialization field.

The College of Education offers an MA program in art education; see Teaching and Learning [p. 1431] in the catalog.

Required Courses

Students must satisfactorily complete ARTH:4999 Capstone Seminar in Art History during their first fall semester of enrollment and must register for an art history seminar in their first, second, third, and fourth semesters of enrollment.

They must also satisfactorily complete ARTH:6020 Art History Colloquium every semester that they are enrolled for 9 s.h. or more or are serving as teaching or research assistants. Students who are not employed as teaching or research assistants or are registered for less than 9 s.h. are strongly encouraged to attend the colloquium.

Students must attend at least six public lectures by visiting scholars in art history over the course of their enrollment as MA graduate students. Proof of attendance is provided by short written responses (150–250 words) turned in to the director of graduate studies within two weeks of the lecture. Students should register for an art history seminar each semester during their first four semesters.

Courses outside the curriculum of the School of Art, Art History, and Design's art history division do not carry art history credit. Cross-referenced courses not taught by art history faculty members also do not carry art history credit.

Directed Studies

Directed Studies (ARTH:6040) is designed for graduate students who already have taken one or more advanced courses in a specific art history field. It provides students with an opportunity to work one-on-one with a professor to continue specific research interests developed in lecture courses or seminars, or on topics that eventually may be the subject of a thesis or dissertation. ARTH:6040 cannot be substituted for a lecture course already offered in the program. Students must discuss their decision to take this course with the professor involved and obtain the professor's approval. The topic must be within the professor's range of expertise.

Students meet with their professor once a week. The hours of work and written assignments required for the course must be equal to a comparable regularly scheduled course. This course is not available through Distance and Online Education.

Language Requirement

Students must demonstrate proficiency in French or German by the end of their third semester. Students may demonstrate proficiency by:

- two years of university-level coursework;
- earning a grade of B or higher in an advanced language course numbered 3000 or above;
- achieving at least an 80% proficiency score on the level 5 milestone of the relevant Rosetta Stone language program; or
- scoring 500 or above on the University of Iowa World Languages Placement Test.

In exceptional circumstances, a student could make a direct petition to the faculty upon receiving a recommendation from their advisor. Language courses do not carry degree credit.

MA Committee

The MA committee consists of a student's advisor and two additional tenured or tenure-track faculty members in art history.

MA Qualifying Paper

Prior to graduation, each candidate must complete a qualifying paper on a topic that stems from a term paper written for an art history graduate seminar or a course numbered 3000 or above. The paper should be between 5,000 and 7,500 words in length (20 to 30 pages excluding bibliography and illustrations). A student chooses an advisor who specializes in the student’s field of concentration.

In cases where a student wants to focus on a topic that involves more than one field, the art history faculty strongly recommends that the student work closely with faculty members in both fields.

Final Examination

The final examination constitutes an oral defense of the qualifying paper. The final examination meeting with the MA committee normally takes place toward the end of a student's last semester of coursework.

Admission

Application materials should be uploaded onto a student's admissions profile (see instructions under "Application Procedures"). All applicants must meet the admission requirements of the Graduate College and the School of Art, Art History, and Design.

The deadline for submission of materials is Dec. 15 for the art history program; admission is for the following fall.

School of Art, Art History, and Design Requirements

Prospective graduate students must meet the School of Art, Art History, and Design's admission requirements for the specific degree program they plan to enter. They must submit application materials to Graduate Admissions and to the specific program they wish to enter.

All applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Although exceptions may be made when other components of the application are strong, applicants should have an undergraduate grade-point average of at least 3.25 on a 4.00 scale.

Application Procedures

Prospective students may apply online through the Admissions website. After submitting their application, applicants will receive email instructions on how to access their admissions profile on MyUI. Applicants then upload the required supplemental documents through a secure portal.

Required documents include transcripts from all colleges and universities an applicant has attended, contact information for three individuals who are able to assess the applicant's potential for graduate study designated to provide letters of recommendation, a statement of purpose, and the Supplemental Graduate Application Information form.

Art history applicants should also supply a research paper (preferably from an art history course) or thesis that demonstrates potential to undertake graduate-level research in art history, and a personal statement of 1,000 words describing their intellectual development, academic interests, and career goals. The statement must name the University of Iowa faculty member under whose guidance the applicant hopes to work and indicate how that faculty member's area of expertise, or how the art history program is especially suited to the applicant's interests and goals.

Applicants should consult the Art History Graduate Bulletin on the School of Art, Art History, and Design website. No separate application is necessary for scholarships or teaching/research assistantships for applicants.

Graduate Admissions notifies all applicants by mail of admission decisions.

Career Advancement

Many art and art history graduates pursue careers that match their degree specializations, such as commercial or graphic designer, conservation or museum curator or administrator, art educator, public artist, gallery and museum administration, art appraiser and restorer, or community art center coordinator or instructor.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Art History, MA

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.50 is required. [b]		
Students work with their faculty advisor in a field of concentration and to determine appropriate coursework and sequence; when a student wants to focus on a topic that involves more than one field, the art history faculty strongly recommends that they work closely with faculty members in both fields.		
Students must earn a grade of B or above in semester-long courses (numbered 3000 or above) in five of the following distribution fields: African, Asian, ancient Mediterranean, medieval, Renaissance and Baroque, 18th- and 19th-century European, American, and modern/contemporary. These courses must be taken after completion of the BA degree.		
Students must attend at least six public lectures by visiting scholars in art history over the course of their enrollment as MA graduate students. Proof of attendance is provided by short (150-250 word) written responses turned in to the director of graduate studies within two weeks of the lecture.		
	Hours	**0**
First Year		
Fall		
ARTH:4999	Capstone Seminar in Art History	3
ARTH:6020	Art History Colloquium [c]	1
ARTH:6XXX	Graduate Art Seminar [d]	3
Elective course [e]		3
	Hours	**10**

Spring		
ARTH:6020	Art History Colloquium [c]	1
ARTH:6XXX	Graduate Art Seminar [d]	3
Elective course [e]		3
	Hours	**7**
Second Year		
Fall		
ARTH:6020	Art History Colloquium [c]	1
ARTH:6XXX	Graduate Art Seminar [d]	3
Elective course [e]		3
Language Proficiency Exam [f]		
	Hours	**7**
Spring		
Qualifying Paper [g]		
ARTH:6020	Art History Colloquium [c]	1
ARTH:6XXX	Graduate Art Seminar [d]	3
Elective course [e]		2
Exam: Master's Final Exam [h]		
	Hours	**6**
	Total Hours	**30**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Take each semester when enrolled in 9 s.h. or more or have a research or teaching assistant appointment; all students are encouraged to attend the colloquium.

d Students should register for an art history seminar each semester during their first four semesters. Credit for graduate seminars may be applied toward the five distribution fields requirement.

e Work with faculty advisor to determine appropriate graduate elective coursework and sequence.

f Proficiency in languages is a prerequisite for engaging in archival and field research within the discipline of art history, and the faculty is committed to assisting students in their preparation for such specialized research. Each student is encouraged to collaborate with their faculty advisor to create a personalized strategy for acquiring language skills that will help them further their research agendas.

g Students must complete a qualifying paper that demonstrates their ability to conduct scholarly research and convey ideas in writing appropriately for the discipline and the student's specialization field; preliminary qualifying paper due to the faculty advisor early in the final semester of the program.

h Oral defense of the qualifying paper.

Art, MFA

Learning Outcomes

Students will:

- demonstrate proficiency in critical thinking and conceptual problem solving within the particular focus and practice of their field;
- demonstrate a personal vocabulary, approach, and vision in creative work;
- demonstrate knowledge of historical, social, and cultural perspectives in relation to visual art and design;
- demonstrate technical proficiency in relation to the tools, techniques, and materials used in their field; and
- develop a professional package that includes a curriculum vitae/résumé, statement about their work, images of their work, and prepare materials (i.e., teaching and research statement, online portfolio, etc.) for specific careers as a professional emerging artist/designer or in teaching, art, or design-related positions.

Requirements

The Master of Fine Arts in art requires a minimum of 60 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average of at least 3.00. A thesis is required. Students complete the degree with a subprogram in one of the following studio art disciplines: ceramics, drawing, graphic design, intermedia and video art, jewelry and metal arts, painting, photography, printmaking, sculpture, or three-dimensional (3D) design.

MFA students must hold an MA in art equivalent to that offered by the University of Iowa. Transfer credit is decided by faculty review. Following completion of the MA, students may be invited into the MFA program. Students must earn at least 24 s.h. of credit for the MFA degree at the University of Iowa, which may include approved credit earned for the MA in art.

The MFA in art requires the following coursework.

Requirements	Hours
Primary Studio Art Discipline	24
Secondary Studio Art Discipline	12
Art History and Theory	6
Electives	18
Thesis	

Primary Studio Art Discipline

Students complete 24 s.h. of coursework in their primary studio art discipline, which is the same as their subprogram.

Course #	Title	Hours
Ceramics		
Ceramics courses (prefix CERM) numbered 3000 and above		
Drawing		
Drawing courses (prefix DRAW) numbered 3000 and above		
Graphic Design		
Graphic design courses (prefix DSGN) numbered 3000 and above		
Intermedia and Visual Art		
Intermedia and visual art courses (prefix INTM) numbered 3000 and above		
Jewelry and Metal Art		
Jewelry and metal art courses (prefix MTLS) numbered 3000 and above		
Painting		
Painting courses (prefix PNTG) numbered 3000 and above		
Photography		
Photography courses (prefix PHTO) numbered 3000 and above		
Printmaking		
Printmaking courses (prefixc PRNT) numbered 3000 and above		
Sculpture		
Sculpture courses (prefix SCLP) numbered 3000 and above		
Three-Dimensional Design		
Three-dimensional design courses (prefix TDSN) numbered 3000 and above		

Secondary Studio Art Discipline

Students complete 12 s.h. in one secondary studio arts discipline; this cannot be the same as the subprogram in which they are enrolled. The secondary discipline may be one of those listed above or one of the following.

Course #	Title	Hours
Book Arts		
Papermaking courses (prefix BKAT) numbered 3000 and above		
UICB:3140-UICB:6520, excluding UICB:3900 and UICB:5550		
Other		
Courses outside of the studio arts disciplines taken with program permission		

Art History and Theory

Students complete 6 s.h. of coursework from ARTH:3000–6999, excluding ARTH:3985, ARTH:3995, ARTH:6020, and ARTH:6040.

Electives

In consultation with an advisor, students complete 18 s.h. of coursework numbered 3000 or above, excluding ARTS:6000.

Committee Review

Students must undergo an MFA committee review. Students are reviewed by their committees at the end of the semester prior to the semester they intend to graduate.

Students are responsible for identifying a degree chair by the semester prior to the semester they intend to graduate. Committee members are selected in consultation with the degree chair by Sept. 15 for spring or summer graduation and Feb. 15 for fall graduation. The committee is comprised of the degree committee chair and three members of the graduate faculty at the assistant professor rank or above (two graduate faculty members from a student's primary studio discipline, one graduate faculty member from a student's secondary studio discipline, and an additional member). Adjunct faculty, lecturers, and visiting professors may serve on degree committees with approval of the degree committee

chair and a Graduate College petition request (renewable every three years).

MFA students sign up for review through the graduate program coordinator. They obtain a form to be signed by both the degree committee members and a faculty member in the second emphasis studio discipline. These forms must be returned to the office no later than the university's official midterm day by 4:30 p.m.

Thesis

MFA students in all subprograms are required to write a thesis. They may earn 1 s.h. of elective credit for writing a technical or substantial thesis by registering for ARTS:7000 MFA Written Thesis with approval of the thesis supervisor, but they are not required to enroll in this course. Thesis credit earned in an MFA program is not applicable to MA requirements.

A thesis abstract is given to all degree committee members and is due by Sept. 15 for spring or summer graduation and by Feb. 15 for fall graduation. The thesis chair is responsible for meeting with the student immediately thereafter to direct thesis content and to coordinate meeting with the full committee.

The complete thesis in final form must be given to all committee members at least four weeks prior to the MFA exhibition week. Graduate College regulations covering the specific requirements of the written thesis are found on the Graduate College Thesis and Dissertation website. The thesis must be as complete as possible, including images (may be black and white or color photocopies) of approved figures that are part of the final thesis. The graduate program coordinator provides a student with complete thesis/artist statement procedures, including the Graduate College calendar.

A thesis defense of the MFA work must be scheduled with the candidate's committee during the final semester in residence. The MFA exhibition is considered the final examination and is where the degree committee reviews the thesis and artwork.

Following the defense, the thesis must be submitted by the Graduate College deadline. Committee members receive an email that provides a link to the finalized (post-format review) thesis and prompts them to verify the manuscript electronically; committee verification happens after the Graduate College format review. Any corrections to the thesis required by the graduate examiner or the degree committee should be completed immediately.

Additional Requirements

Students provide five images of their MFA work for the Grad Archive.

Admission

Application materials should be uploaded onto a student's admissions profile. All applicants must meet the admission requirements of the Graduate College and the School of Art, Art History, and Design.

The deadline to submit materials to Graduate Admissions is Feb. 1 for studio art programs. Admission is for the following fall.

School of Art, Art History, and Design Requirements

Prospective graduate students must meet the School of Art, Art History, and Design's admission requirements for the specific degree program they plan to enter. They must submit application materials to Graduate Admissions and to the specific program.

All applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Application Procedures

Prospective students may apply online through the Admissions website. After submitting an application, applicants will receive email instructions on how to access their admissions profile on MyUI. Applicants then upload the required supplemental documents through a secure portal.

Required documents include transcripts from all colleges and universities an applicant has attended, contact information for three individuals who are able to assess an applicant's potential for graduate study designated to provide letters of recommendation, and a statement of purpose.

Applicants should consult the Studio Art Graduate Bulletin on the School of Art, Art History, and Design website. No separate application is necessary for scholarships or teaching/research assistantships for studio art applicants.

Studio art applicants' portfolio requirements are in the following list. Images in the portfolio should be uploaded as PDF files no larger than 72 dpi and 1240 by 1240 pixels. File size must not exceed 18 MB. Images must be numbered according to the order they are to be presented to the admissions committee, beginning with 01. Applicants must include an inventory list that includes each image's name, title, medium, size, and approximate date of work, as well as their name and emphasis. They may supply a link to their personal website.

Portfolio contents and submission requirements for each program are as follows.

- Ceramics: 10 to 20 images.
- Three-dimensional (3D) design, and jewelry and metal arts: eight images in the primary studio art discipline and two in a second discipline.
- Graphic design: documentation of 15 to 20 projects. Applicant should include a brief description of each work, illustrated with embedded still images and supplemented by links to online media. The precise number of images varies according to the nature of the work. Contact the School of Art, Art History, and Design with questions.
- Painting and drawing: eight images in the primary studio art medium (either painting or drawing) and two in a second medium.
- Photography: 15 to 20 images.
- Printmaking: 10 to 20 images.
- Sculpture and intermedia: applicants submit the following depending on their preferred area of emphasis.
  - Sculpture: 20 images in sculpture, including details, and two or three images in a second medium. Video links may be included.
  - Intermedia: documentation of 5 to 10 projects, including a brief description of each work illustrated with embedded still images and supplemented by links

to online media. The precise number of images varies according to the nature of the work; contact the School of Art, Art History, and Design with questions.

Graduate Admissions notifies all applicants by mail of admission decisions.

Career Advancement

Many graduates pursue careers that match their degree specializations, for example, commercial or graphic designer, conservation or museum curator or administrator, art educator, public artist, or community art center coordinator or instructor.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Art, MFA

Course	Title	Hours
Academic Career		
Any Semester		
60 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
Students complete the degree with a subprogram in one of the following studio art disciplines: ceramics, drawing, graphic design, intermedia and video arts, jewelry and metal arts, painting, photography, printmaking, sculpture, or three-dimensional (3D) design.		
An MA in Art may optionally be earned en passant to the MFA. [d]		
	Hours	**0**
First Year		
Fall		
Primary studio art discipline course [e]		4
Art history and theory course [f]		3
Elective course [g]		3
	Hours	**10**
Spring		
Primary studio art discipline course [e]		4
Secondary studio art discipline course [h]		4
Elective course [g]		2
	Hours	**10**
Second Year		
Fall		
Primary studio art discipline course [e]		4
Secondary studio art discipline course [h]		4
Art history and theory course [f]		3
	Hours	**11**
Spring		
Primary studio art discipline course [e]		4
Elective course [g]		3
Elective course [g]		2
	Hours	**9**
Third Year		
Fall		
Primary studio art discipline course [e]		4
Secondary studio art discipline course [h]		4
Elective course [g]		3
MFA Committee Review [i]		
	Hours	**11**
Spring		
ARTS:7000	MFA Written Thesis [j]	1
Primary studio art discipline course [e]		4
Elective course [g]		4
Exam: Master's Final Exam [k]		
	Hours	**9**
	Total Hours	**60**

a Students provide five images of their MFA work for the Grad Archive.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Students must earn at least 24 s.h. at the University of Iowa after admission to the MFA.

e Students complete 24 s.h. of coursework in their primary studio art discipline, which is the same as their subprogram. See the General Catalog for list of approved courses.

f Students complete 6 s.h. of coursework from ARTH:3000-6999, excluding ARTH:3985, ARTH:3995, ARTH:6020, and ARTH:6040.

g In consultation with an advisor, students complete 18 s.h. of UI coursework numbered 3000 or above, excluding ARTS:7000.

h Students complete 12 s.h. in one secondary studio art discipline; this cannot be the same as the subprogram in which they are enrolled. See the General Catalog for list of approved courses.

i Students are reviewed by their committees at the end of the semester prior to the semester they intend to graduate.

j MFA students in all subprograms are required to write a thesis. They may earn 1 s.h. of elective credit for writing a technical or substantial thesis by registering for ARTS:7000 with approval of the thesis supervisor, but they are not required to enroll in this course. Thesis credit earned in an MFA program is not applicable to MA requirements.

k Thesis defense.

Art History, PhD

The PhD program is intended for students who wish to pursue original research in art history. Students should acquire a deep knowledge of art history, as well as the field's theoretical and historical foundations. PhD students are prepared to pursue careers in academia as well as to become museum curators and directors.

Learning Outcomes

Students are expected to demonstrate many, if not all, of the following:

- understanding of the development of the history and methodology of art history;
- skill in the visual analysis of primary source material;
- skill in contextual analysis and secondary source interpretations;
- productive engagement in the broad and ever-shifting philosophical, scholarly, and institutional debates that determine the structure and content of art history;
- ability to engage in sustained critical thinking;
- ability to write clearly and compellingly;
- deep knowledge of three of the following distribution fields: African, architecture, Asian, ancient, medieval, Renaissance and Baroque, 18th- and 19th-century European, American, and modern/contemporary;
- reading proficiency in French or German as well as a second language of particular relevance to their field of study;
- ability to conduct independent research in museums, archives, and/or libraries;
- knowledge and skills necessary to be effective teaching assistants for courses numbered 1000–1999;
- grant-writing skills;
- public speaking skills necessary to present research in professional academic settings;
- capacity to teach as an instructor of record in their area of expertise; and
- critical research and writing skills necessary to publish peer-reviewed articles.

Requirements

The Doctor of Philosophy program in art history requires a minimum of 72 s.h. of graduate credit. Of the 72 s.h., at least 39 s.h. must be earned while registered in the UI Graduate College, after formal program admission. For details, see the Graduate College Manual of Rules and Regulations Section XII C. Students must maintain a cumulative grade-point average of at least 3.50. They may count a maximum of 38 s.h. of work completed for the MA toward the PhD, excluding credit earned in language courses. Students are allowed only one semester of academic probation.

Students are expected to acquire great breadth and depth of knowledge in the discipline of art history, achieve a high level of expertise in a specialized field, and demonstrate professional speaking and writing skills. The program provides them with scholarly challenges, research skills, and mentoring necessary for professional development and successful careers.

Students major in one of the following distribution fields: Asian, ancient Mediterranean, medieval, Renaissance and Baroque, 18th- and 19th-century European, American, and modern/contemporary. In addition, candidates minor in two fields: any in the preceding list plus African. One minor must be in an art history distribution field that is non-contiguous with the major field. The second minor may be in any art history distribution field, or it may be in a relevant discipline outside of art history, subject to approval from the art history faculty.

For more detailed information, consult the Art History Graduate Bulletin on the School of Art, Art History, and Design website.

Required Courses

Students must satisfactorily complete ARTH:4999 Capstone Seminar in Art History, even if they have completed a similar course at another institution (students who have completed the course for a master's degree or other previous work at the University of Iowa are exempt). They must register for an art history seminar in their first three semesters of PhD coursework (or in their fifth, sixth, and seventh semesters of graduate study), before ARTH:7010 PhD Readings and the comprehensive exam.

Students must register for and satisfactorily complete ARTH:6020 Art History Colloquium for 1 s.h. each semester that they are enrolled for 9 s.h. or more or have an RA/TA appointment. Students who register for fewer than 9 s.h. are strongly encouraged to attend. Art history colloquium is a monthly series of lectures, panel discussions, or field experience focusing on professional development. Planned in conjunction with the graduate Art History Society, this requirement is integral to the degree program and is an important avenue toward professionalism in the field. Attendance is required (any absence needs to be approved by the head of art history before the missed meeting).

Students must attend at least six lectures by visiting scholars in art history during the course of their enrollment as PhD graduate students (proof of attendance is provided by short written responses of 150–250 words turned in to the director of graduate studies within two weeks of the lecture) and must register for an art history seminar in each of the first three semesters of their PhD coursework and prior to both the PhD readings course and comprehensive examinations.

Students may count up to 6 s.h. of credit earned for dissertation research toward the 72 s.h. required for the degree. Courses outside the curriculum of the School of Art, Art History, and Design's art history division do not carry art history credit.

Directed Studies

Normally, a maximum of 6 s.h. earned in ARTH:6040 Directed Studies may be applied toward the semester-hour requirement for the PhD, although doctoral students may petition the art history faculty for permission to apply up to 9 s.h.

Language Requirement

PhD students must demonstrate proficiency in French or German for admission to the PhD program in art history. They must demonstrate proficiency in a second non-English language, generally one relevant to the chosen area of research, by the end of the third semester in the PhD program. Students may demonstrate proficiency by:

- two years of university-level coursework;
- earning a grade of B or above in an advanced language course numbered 3000 or above;
- achieving at least an 80% proficiency score on the level 5 milestone of the relevant Rosetta Stone language program; or
- scoring 500 or above in the University of Iowa World Languages Placement Test.

In exceptional circumstances, a student may make a direct petition to the faculty upon receiving a recommendation from their advisor. Language courses do not carry degree credit.

PhD Committee

The PhD committee consists of the student's dissertation advisor, who is responsible for the major field; two members responsible for the two minor fields; and at least two additional members. Of these five, four must be tenured or tenure-track faculty members from the art history division. One must be from outside the division and must be a member of the Graduate College faculty. When appropriate, committees may include additional members.

Comprehensive Examination

Upon completion of course requirements, the PhD candidate takes three written comprehensive examinations. The major exam consists of six questions and lasts six hours; the two minor exams each consist of three questions and last three hours. The exams are taken on any three days within one week (Monday through Friday).

The scope of the comprehensive exams is determined in consultation with the candidate's degree committee supervisor and the committee members responsible for the two minor fields.

Oral Comprehensive Examination

Within approximately two weeks of completing the three written exams, the candidate meets with the degree committee for the oral comprehensive examination, which concentrates on questions that arise from the written comprehensive exams.

Dissertation Proposal

Each student must complete a publishable dissertation that makes an original contribution to the art history discipline and demonstrates evidence of superior understanding of critical issues in the candidate's chosen specialization field. As soon as possible after completing the comprehensive examinations, the candidate submits a dissertation proposal to the degree committee supervisor and subsequently to the degree committee. See the Art History Graduate Bulletin for complete instructions.

The committee meets as a group with the candidate to discuss the dissertation proposal and to offer comments and suggestions. The proposal must be submitted to the committee at least two weeks before the approval meeting. The proposal includes a 1–2 page abstract, a 10–15 page précis that includes a review of the state of the field, and a bibliography.

After the proposal has been approved by the committee, the candidate circulates an abstract to the entire art history faculty. The candidate must give a public presentation on the dissertation topic no later than the end of the semester following the degree committee's approval. The presentation is scheduled with the head of art history.

Final Examination

Upon completing a dissertation, the candidate meets with the PhD committee for an oral defense of the dissertation. The oral defense constitutes the final examination for the PhD. The successful completion of this examination normally marks the last stage in the candidate's fulfillment of requirements.

Admission

Application materials should be uploaded onto a student's admissions profile (see instructions below under "Application Procedures"). All applicants must meet the admission requirements of the Graduate College and the School of Art, Art History, and Design1Q.

The deadline to submit materials to Graduate Admissions is Dec. 15 for the art history program; admission is for the following fall.

School of Art, Art History, and Design Requirements

Prospective graduate students must meet the School of Art, Art History, and Design's admission requirements for the specific degree program they plan to enter. They must submit application materials to Graduate Admissions and to the specific program they wish to enter.

All applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants must hold an MA in art history or a related graduate degree and be able to demonstrate proficiency in French or German. Proficiency in a second non-English language relevant to the student's research area is required by the end of the third semester of PhD work.

Application Procedures

Prospective students may apply online through the Admissions website. After submitting an application, applicants will receive email instructions on how to access their admissions profile on MyUI. Applicants then upload the required supplemental documents through a secure portal.

Required documents include transcripts from all colleges and universities an applicant has attended, contact information for three individuals who are able to assess the applicant's potential for graduate study designated to provide letters of recommendation, a statement of purpose, and the Supplemental Graduate Application Information form.

Art history applicants should also supply a research paper (preferably from an art history course) or thesis that demonstrates potential to undertake graduate-level research in art history, and a personal statement of 1,000 words describing their intellectual development, academic interests, and career goals. The statement must name the University of Iowa faculty member under whose guidance the applicant hopes to work and indicate how that faculty member's area of expertise, or how the art history program, is especially suited to the applicant's interests and goals.

Students who completed an MA at the University of Iowa and who wish to apply to the PhD program in art history must make a formal application for a change of status through the

graduate program coordinator. Applications are evaluated in the context of the entire applicant pool.

Applicants should consult the Art History Graduate Bulletin on the School of Art, Art History, and Design website. No separate application is necessary for scholarships or teaching/research assistantships for applicants.

Graduate Admissions notifies all applicants by mail of admission decisions.

Career Advancement

Many graduates pursue careers that match their degree specializations, such as commercial or graphic designer, conservation or museum curator or administrator, art educator, public artist, gallery and museum administration, art appraiser and restorer, or community art center coordinator or instructor.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Art History, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; typically 30 s.h. (but up to a maximum of 33 s.h.) of graduate transfer credits taken for the master's from an accredited institution allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
Maintain a cumulative program GPA of at least 3.50.		
Students major in one of the following distribution fields: Asian, ancient Mediterranean, medieval, Renaissance and Baroque, 18th- and 19th-century European, American, and modern/contemporary. In addition, candidates minor in two fields: any of the above plus African. [d]		
Students must attend at least six public lectures by visiting scholars in art history during the course of enrollment as PhD graduate students; proof of attendance is provided by short (150-250 word) written responses turned in to the director of graduate studies within two weeks of the lecture.		
	Hours	**0**
First Year		
Fall		
ARTH:4999	Capstone Seminar in Art History [e, f]	3
ARTH:6020	Art History Colloquium [g]	1
ARTH:6XXX Graduate Art Seminar [h]		3
Elective course [e]		3
	Hours	**10**
Spring		
ARTH:6020	Art History Colloquium [g]	1
ARTH:6XXX Graduate Art Seminar [h]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**10**
Second Year		
Fall		
Language Proficiency Exam [i]		
ARTH:6020	Art History Colloquium [g]	1
ARTH:6XXX Graduate Art Seminar [h]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**10**
Spring		
ARTH:6020	Art History Colloquium [g]	1
ARTH:7010	PhD Readings [j]	3
Elective course [e]		3
Elective course [e]		3
	Hours	**10**
Third Year		
Fall		
Exam: Doctoral Comprehensive Exam [k]		
Dissertation Prospectus [l]		
ARTH:7010	PhD Readings [j]	1
	Hours	**1**
Spring		
ARTH:7020	PhD Thesis [m]	1
	Hours	**1**
Fourth Year		
Fall		
ARTH:7020	PhD Thesis [m]	0
	Hours	**0**
Spring		
ARTH:7020	PhD Thesis [m]	0
	Hours	**0**
Fifth Year		
Fall		
ARTH:7020	PhD Thesis [m]	0
	Hours	**0**
Spring		
ARTH:7020	PhD Thesis [m]	0
Exam: Doctoral Final Exam [n]		
	Hours	**0**
	Total Hours	**42**

a Students must submit an annual progress to degree report by January 15th of each year.

b Students entering with fewer than 30 s.h. of coursework from the master's degree must work with their faculty advisor to complete the needed appropriate graduate coursework.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d One minor must be in an art history distribution field that is non-contiguous with the major field. The second minor may be in any art history distribution field, or it may be in a relevant discipline outside of art history, subject to approval from the art history faculty.

e Work with faculty advisor to determine appropriate graduate elective coursework and sequence.
f Students must register for and satisfactorily complete ARTH:4999 even if they have enrolled in a similar course at another institution; students who have already taken this course at The University of Iowa are exempt from this requirement and should work with faculty advisor to select an alternate course.
g Take each semester when enrolled in 9 s.h. or more or have a research or teaching assistant appointment; all students are encouraged to attend the colloquium.
h Must register for an art history seminar in first, second, and third semesters of enrollment; credit for graduate seminars may be applied toward the five distribution fields requirement.
i Students must demonstrate proficiency in two research languages in addition to English chosen in consultation with the faculty advisor by the end of the fourth semester. Students may demonstrate proficiency by a) two years of university-level coursework, b) earning a grade of B or better in a 3000-level advanced language course, c) achieving at least an 80% proficiency score on the level 5 milestone of the relevant Rosetta Stone language program, or d) placing out of the second year of the language in the University of Iowa World Languages Placement Test. In exceptional circumstances, making a direct petition to the faculty after receiving the recommendation of their advisor. Language courses do not carry degree credit.
j Students preparing for the Comprehensive Exam will work with faculty advisor to determine appropriate PhD Readings coursework and sequence.
k Taken upon completion of course requirements; consists of three written exams and an oral exam. See the General Catalog and department website for specifics.
l Submitted after completing the Comprehensive Exam; see the General Catalog and department website for specifics.
m Up to 6 s.h. of dissertation credit may count towards degree requirements.
n Dissertation defense.

Biology

Chair

- Tina L. Tootle

Undergraduate major: biology (BA, BS)

Undergraduate minor: biology

Graduate degrees: MS in integrated biology; PhD in integrated biology

Faculty: https://biology.uiowa.edu/people/faculty

Website: https://biology.uiowa.edu/

The Department of Biology offers undergraduate and graduate programs that prepare students for careers in a wide variety of fields such as health science or biological research, technology, and education. It also offers several courses that undergraduate students in all majors may use to satisfy the GE CLAS Core [p. 22] Natural Sciences requirement and other courses on topics of general interest for undergraduate non-biology majors, including a First-Year Seminar course, BIOL:1000 First-Year Seminar, designed for entering students. The department also administers the interdisciplinary biomedical sciences [p. 173] major and the neuroscience [p. 875] major, both leading to a Bachelor of Science degree.

Programs

Undergraduate Programs of Study

Majors

- Major in Biology (Bachelor of Arts) [p. 147]
- Major in Biology (Bachelor of Science) [p. 152]

Minor

- Minor in Biology [p. 163]

Graduate Programs of Study

- Master of Science in Integrated Biology [p. 164]
- Doctor of Philosophy in Integrated Biology [p. 168]

Facilities

The department is housed in two contiguous buildings, with modern facilities and equipment for state-of-the-art research.

The Roy J. Carver Center for Genomics houses the department's DNA sequencing, oligo synthesis, quantitative PCR, functional genomics facilities, and informatics facilities. The Roy J. Carver Center for Imaging is a microscopy and imaging facility; its confocal microscopes are available for teaching and research.

A large greenhouse is used in plant research and education. The department also houses animal-care facilities suitable for mice, rats, rabbits, *Xenopus laevis,* and zebra fish. These facilities are managed by the university's animal care unit, which is accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC). A central university facility provides assistance in the preparation of transgenic mice.

The department is home to the Developmental Studies Hybridoma Bank, which is affiliated with the National Institutes of Health. The hybridoma bank collects and distributes monoclonal antibodies that originate in laboratories all over the world. Its collection now contains more than 3,500 monoclonal antibodies that are distributed to users internationally for a modest fee.

In addition to department facilities, the university offers a genomic sequencing service, a DNA oligonucleotide synthesis and enzyme lab, oligopeptide synthesis and sequencing equipment, and mass- and NMR spectroscopy facilities. The Center for Biocatalysis and Bioprocessing is available for growing large amounts of microorganisms (e.g., 100 liters) for use in protein isolation.

Iowa Lakeside Laboratory

The Iowa Lakeside Laboratory is a field station run cooperatively by the University of Iowa, Iowa State University, and the University of Northern Iowa. Located on West Lake Okoboji, in northwestern Iowa, the laboratory affords excellent conditions for summer study in field biology, limnology, phycology, aquatic ecology, pollination biology, and plant taxonomy. It offers a wide variety of summer courses at the undergraduate and graduate levels. Students should check with their advisors to determine whether specific courses may be counted toward requirements for graduation. See Iowa Lakeside Laboratory [p. 2196] (University College) in the catalog or visit the Lakeside Laboratory website.

Courses

Biology Courses

Many courses include laboratory, discussion, and/or field components.

The following courses are not open to graduate students and do not provide credit toward a biology major: BIOL:1060 Big Ideas: Origins of the Universe, Earth, and Life; BIOL:1140 Human Biology: Nonmajors; BIOL:1141 Human Biology: Health Professions; BIOL:1251 How the Brain Works (and Why it Doesn't); BIOL:1261 Introduction to Botany; BIOL:1370 Understanding Evolution; and BIOL:2211 Genes, Genomes, and the Human Condition.

BIOL:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first- or second-semester standing.

BIOL:1060 Big Ideas: Origins of the Universe, Earth, and Life 3 s.h.
Origin of the universe, the biochemistry of life, and the origin of life on Earth; for non-science majors. Recommendations: first-year or sophomore standing. GE: Natural Sciences without Lab. Same as ASTR:1060, SEES:1060.

BIOL:1140 Human Biology: Nonmajors 4 s.h.
Overview of molecular and cellular basis of human life; structure, function of human tissues, organs, organ systems; evolution, reproduction, genetics, impact of molecular biology and genetic engineering; integration of humans and the biosphere; lecture, laboratory. GE: Natural Sciences with Lab.

BIOL:1141 Human Biology: Health Professions 4 s.h.
Molecular and cellular basis of human life; structure, function of human tissues, organs, organ systems; evolution, reproduction, genetics, impact of molecular biology and genetic engineering; integration of humans and the biosphere; lecture, laboratory. Requirements: one year of high school chemistry. Recommendations: CHEM:1070. GE: Natural Sciences with Lab.

BIOL:1251 How the Brain Works (and Why it Doesn't) 3-4 s.h.
Introductory survey of neuroscience; structure and function of the brain; nature of consciousness; brain function in mental illness and degenerative disorders; genes and the mind; perception, sensation, memory, and emotions. Requirements: non-biology major. GE: Natural Sciences without Lab.

BIOL:1261 Introduction to Botany 4 s.h.
Biology of plant life; emphasis on structure, function, reproduction, inheritance, diversity, evolution. Requirements: one year of high school chemistry. GE: Natural Sciences with Lab.

BIOL:1295 Career Preparation and Life Design for Biology Majors 1 s.h.
Exploration of career paths, employers, graduate programs; preparation for life after college; development of practical skills in job searching, writing, interviewing, and networking; for students who are unsure what they can do after graduation with a bachelor's degree in biology. Requirements: junior or senior standing.

BIOL:1370 Understanding Evolution 3 s.h.
Evolution and diversity of living things, their patterns on Earth, their organization in ecological systems; dynamics of evolutionary processes. GE: Natural Sciences without Lab.

BIOL:1411 Foundations of Biology 4 s.h.
Unifying concepts of living systems; emphasis on common properties and processes; chemical and cellular basis of life, genetics, and evolution. Prerequisites: CHEM:1110 with a minimum grade of C or CHEM:1120 with a minimum grade of C or CHEM:1070 with a minimum grade of A-. GE: Natural Sciences with Lab.

BIOL:1412 Diversity of Form and Function 4 s.h.
Underlying unifying concepts of life; emphasis on diversity of living systems; the tree of life, cellular evolution, prokaryotic and eukaryotic diversity, plant and animal form and function; interactions among diverse forms of life and their environment. Prerequisites: BIOL:1411 with a minimum grade of C-. GE: Natural Sciences with Lab.

BIOL:1808 Ways of Knowing Science 1 s.h.
Science as a powerful way of knowing based on experimentation and observation of natural world; introduction to subdisciplines of scientific research; scope and methods of scientific research; questions that scientific research seek answers for; methods that scientists use to obtain answers to their questions; how science affects us personally and how it affects the rest of society; research seminars, discussion, and exploration.

BIOL:2120 Good Genes Gone Bad: Genetic Disorders of Notable Celebrities 3 s.h.
Introduction to a wide range of genetic disorders affecting notable celebrities; relevant genetic pathways in easy-to-understand language; exploration of mechanisms of disease and treatments. GE: Natural Sciences without Lab.

BIOL:2211 Genes, Genomes, and the Human Condition 3 s.h.
Organization, expression, and evolution of genes in context of genomes; focus on human genome; distribution and transmission of variation in human population. Prerequisites: BIOL:1411. Recommendations: BIOL:1412.

BIOL:2246 Entomology Lab 4 s.h.
Insects are the most species-rich and diverse of all animals; introduction to insect biology; emphasis on evolution, diversity, ecology, and morphology with some additional focus on physiology and behavior; students work in lab and field settings; memorization of entomological terms required; hands-on learning including how to employ various tools, techniques, and approaches used by professional entomologists, insect collecting and preservation, DNA extraction and sequencing, and analysis of evolutionary and ecological data. Prerequisites: BIOL:1412.

BIOL:2254 Endocrinology 3 s.h.
Production and effect of hormonal chemical messengers of secretory glands; emphasis on cell signaling in vertebrate systems; actions of hormones in regulating growth, physiology, and reproduction; organ to molecular levels. Prerequisites: BIOL:1411 and (BIOL:1412 or HHP:2400 or HHP:3500 or PSY:2701). Recommendations: CHEM:2210.

BIOL:2374 Biogeography 3 s.h.
Introduction to processes that lead to the patterns of plant and animal distributions we see across the globe; processes of focus include plate tectonics, climate, and human-ecological interactions; species management and conservation in relationship to climate and change in human patterns of environment. Prerequisites: SEES:1020 or BIOL:1412 or BIOL:1261 or BIOL:1370 or BIOL:1141. Same as SEES:2374.

BIOL:2512 Fundamental Genetics 4 s.h.
Nature, function of genetic material: classical, molecular, developmental aspects. Prerequisites: BIOL:1411 with a minimum grade of C- and CHEM:1110. Recommendations: CHEM:2210.

BIOL:2663 Plant Response to the Environment 3 s.h.
Mechanisms of plant responses to environmental factors (biotic and abiotic) at organismal and molecular levels. Prerequisites: BIOL:1411 and BIOL:1412.

BIOL:2673 Ecology 3 s.h.
Adaptations of organisms to their physical and biological environments; organism-environment interactions; population biology; interactions between species; ecology of communities, ecosystems; human impact on ecosystems. Recommendations: a basic statistics or calculus course. Same as SEES:2673.

BIOL:2723 Cell Biology 3 s.h.
Structures of cells and organelles in relation to their functions at molecular, cellular levels; emphasis on higher eukaryotic cells. Prerequisites: BIOL:1411 and (BIOL:1412 or HHP:2400 or HHP:3500 or PSY:2701) and CHEM:1120.

BIOL:2753 Introduction to Neurobiology 3 s.h.
Techniques of molecular biology, genomics, neuropharmacology, and functional brain imaging applied to understanding how the brain works. Prerequisites: (BIOL:1412 or HHP:2400 or HHP:3500) and BIOL:1411.

BIOL:3172 Evolution 4 s.h.
Nature, evidence, analysis, implications, molecular/genetic basis; historical record, phylogeny, speciation, adaptation, investigative methods. Prerequisites: BIOL:1412 with a minimum grade of C- and BIOL:2512 with a minimum grade of C- and (STAT:2010 or STAT:3510 or MATH:1550 or MATH:1850 or MATH:1460).

BIOL:3212 Bioinformatics for Beginners 3 s.h.
Overview of bioinformatics topics including access to sequence data, pairwise and multiple sequence alignment algorithms, molecular phylogeny, microarray data analysis, protein analysis, proteomics, and protein structure analysis; emphasis on each topic includes biological motivation, computational approach (practical and theoretical), and interpretation of output. Prerequisites: BIOL:2512 or BIOL:2211 or BMB:3120 or MICR:3170. Same as IGPI:3212.

BIOL:3233 Introduction to Developmental Biology 3 s.h.
Fundamental mechanisms in differentiation, organogenesis, morphogenesis; and pattern formation; mechanistic approach at molecular, cellular, tissue levels of organizations. Prerequisites: BIOL:1411 and CHEM:1120 and (BIOL:1412 with a minimum grade of C- or HHP:2400 with a minimum grade of C- or HHP:3500 with a minimum grade of C-). Recommendations: BIOL:2512.

BIOL:3244 Animal Behavior 3 s.h.
Genetics, sensory physiology, migration, development of behavior, circadian rhythms, foraging strategies, aggression, sexual and parental behavior, group selection, social behavior. Prerequisites: BIOL:1411 and (BIOL:1412 or HHP:2400 or PSY:2701).

BIOL:3245 Animal Behavior Laboratory 4 s.h.
Behavioral aspects of vertebrate and invertebrate animals under pressure of different genetic background, aggression and competition for a mate, food or security, social behavior. Prerequisites: BIOL:1411 and (BIOL:1412 or PSY:2701).

BIOL:3253 Neurobiology I 4 s.h.
Neurobiology from molecular/cellular to systems levels including cell biology of the neuron; membrane electrophysiology; synaptic transmission and plasticity; functional neuroanatomy; sensory, motor, and autonomic systems; emotion, memory, sleep, language, attention and cognition, neuronal development; focus on systems and developmental neurobiology; first in a two-semester sequence. Prerequisites: BIOL:1411 and (PSY:2701 or BIOL:2753).

BIOL:3254 Neurobiology II 4 s.h.
Neurobiology from molecular/cellular to systems levels including cell biology of the neuron; membrane electrophysiology; synaptic transmission and plasticity; functional neuroanatomy; sensory, motor, and autonomic systems; emotion, memory, sleep, language, attention and cognition, neuronal development; focus on molecular/cellular neurobiology and neurophysiology; second in a two-semester sequence. Prerequisites: BIOL:3253 and (PHYS:1512 or PHYS:1612).

BIOL:3314 Genomics 3 s.h.
Major areas of genomics including genome sequencing, assembly, and annotation; evolutionary genomics, metagenomics, functional genomics, and computational genomics; synthetic biology and genome engineering. Prerequisites: BIOL:1412 and (BIOL:2211 or BIOL:2512 or BIOL:2723 or MICR:3170). Same as IGPI:3314.

BIOL:3343 Animal Physiology 3 s.h.
Principles of cellular and systems physiology; emphasis on quantitative and experimental aspects. Prerequisites: BIOL:1411 and CHEM:1110 and CHEM:1120 and (MATH:1460 or MATH:1550 or MATH:1850). Recommendations: (PHYS:1511 and PHYS:1512) or (PHYS:1611 and PHYS:1612).

BIOL:3363 Plant Developmental Biology 3 s.h.
Developmental processes throughout life cycle of vascular plants; current knowledge of mechanisms, control; emphasis on molecular and genetic approaches to studying development. Prerequisites: BIOL:1412 and BIOL:2512.

BIOL:3373 Human Population Genetics and Variation 3 s.h.
Principles of evolutionary change of genes and genomes applied to human populations and to comparisons between humans and their closest primate relatives; emphasis on consequences of mutation, natural selection, and demographic changes. Prerequisites: BIOL:2512 with a minimum grade of C- or BIOL:2211 with a minimum grade of C-.

BIOL:3603 Mechanisms of Aging 3 s.h.
Evolutionary theories of aging, cellular and genetic basis of aging and repair, disruption of homeostasis in aging; focus on studies of biological and environmental causes of age-related diseases. Prerequisites: BIOL:1411 and (BIOL:1412 or HHP:2400 or HHP:3500 or PSY:2701). Recommendations: BIOL:2723.

BIOL:3626 Cell Biology Laboratory 4 s.h.
Conceptual understanding and technical skills in fluorescence microscopy and digital imaging, mammalian cell culture, tissue fractionation, centrifugation, electrophoresis, and expression of recombinant proteins. Prerequisites: BIOL:2723.

BIOL:3655 Neurogenetics Laboratory 4 s.h.
Emphasis on project-oriented training to develop fundamental hands-on experimental manipulations and techniques, problem-solving skills, and data analysis methodology; students utilize modern genetic, behavioral, and electrophysiological methods to explore how gene and environment influence nervous system function and behavioral expression using genetic model organisms. Prerequisites: BIOL:2512 or BIOL:2753 or PSY:2701.

BIOL:3656 Neurobiology Laboratory 4 s.h.
Principles and practice of neurobiology research, including microscopy and imaging, cellular and molecular neurobiology, and electrophysiology. Prerequisites: (BIOL:1411 and PSY:2701) or BIOL:2753.

BIOL:3663 Plant Response to the Environment 3 s.h.
Mechanisms of plant responses to environmental factors (biotic and abiotic) at organismal and molecular levels. Prerequisites: BIOL:1412 and (BIOL:2512 or BIOL:2723 or BIOL:3716 or BMB:3120).

BIOL:3676 Evolution Lab 4 s.h.
Methods of sampling and describing variation in natural populations; application of molecular genetic, bioinformatic, and computational techniques to describe genetic variation through sequence analysis; use of controlled laboratory experiments and computer simulations to illustrate evolutionary principles. Prerequisites: BIOL:2512 or BIOL:2211. Corequisites: BIOL:3172 or BIOL:3373, if not taken as a prerequisite. Recommendations: grade of C or higher in BIOL:3172.

BIOL:3713 Molecular Genetics 4 s.h.
Mechanism, regulation of RNA, DNA, protein biosynthesis, with emphasis on methods of genetic analysis; application of modern recombinant DNA techniques to basic problems. Prerequisites: BIOL:2512 or BMB:3120 or BMB:3110.

BIOL:3716 Genetics and Biotechnology Lab 4 s.h.
Expansion of genetic concepts introduced in BIOL:2512; introduction to genetic/molecular techniques currently used in genetic analysis and biotechnology. Prerequisites: BIOL:1411. Corequisites: BIOL:2512 or BIOL:2211, if not taken as a prerequisite. Recommendations: grade of C or higher in BIOL:2512.

BIOL:3736 Developmental Biology Lab 4 s.h.
Experimental manipulation of embryos to examine mechanisms of early development, including gametogenesis and fertilization, cleavage, gastrulation, pattern formation and organogenesis; in vivo imaging of development, methods to visualize gene expression and independent research; model organisms including sea urchin, fish, frog, chick, mouse. Prerequisites: BIOL:3233.

BIOL:3994 Introduction to Research 1-3 s.h.
Independent scientific research related to the field of biology.

BIOL:3999 Independent Research in Neuroscience 2-3 s.h.
Independent scientific research related to the field of neuroscience. Same as PSY:3999.

BIOL:4123 Cell Biology of the Nervous System 3 s.h.
Cell biology of each participant in the nervous system. Topics include how failures in cell function lead to neurological conditions such as Alzheimer's disease or Amyotrophic Lateral Sclerosis. Enhance critical thinking skills while building foundational knowledge of cell biology. Prerequisites: BIOL:1411 and (BIOL:1412 or HHP:2400 or HHP:3500 or PSY:2701).

BIOL:4213 Bioinformatics 2,4 s.h.
Overview of bioinformatics topics, including access to sequence data, pairwise and multiple sequence alignment algorithms, molecular phylogeny, microarray data analysis, protein analysis, proteomics and protein structure analysis; emphasis on each topic includes biological motivation, computational approach (practical and theoretical), and interpretation of output. Prerequisites: BMB:3120 or MICR:3170 or BIOL:2512 or BMB:3110. Recommendations: grade of B-plus or higher in BIOL:2512 or graduate standing. Same as GENE:4213, IGPI:4213.

BIOL:4314 Introduction to Synthetic Biology in the Lab 4 s.h.
Introduction to theory and practice of large-scale design goals of synthetic biology in which various types of DNA instructions, known from decades of research and discovery on specific biological systems, are taken out of context and used to execute various novel tasks designed to solve real-world problems; basic laboratory instruction in standardized construction techniques for stringing together off-the-shelf DNA components that are then introduced into organisms capable of executing the instructional set; controlled experiments to investigate the degree of variability exhibited by engineered genetic constructs. Prerequisites: BIOL:1411. Same as BME:4314.

BIOL:4333 Genes and Development 3 s.h.
Mechanisms by which genes control development of multicellular animals; methodology of scientific research applied to developmental genetics. Prerequisites: BIOL:1412 with a minimum grade of C- and BIOL:2512 with a minimum grade of C-. Recommendations: BIOL:3233.

BIOL:4355 Neuroimmunology 3 s.h.
Interactions of neuroscience and immunology during development, homeostasis, injury, and disease. Prerequisites: BIOL:3253.

BIOL:4373 Molecular Evolution: Genes, Genomes, and Organisms 3 s.h.
Theory underlying phylogenetic analysis with application of these methods to molecular data sets; analysis of multigene data, organellar, and nuclear genome sequences to reconstruct the history of cells. Prerequisites: BIOL:3172 with a minimum grade of C-. Same as IGPI:4373.

BIOL:4386 Introduction to Scientific Computing for Biologists 3 s.h.
In modern biological research, computational tools are no longer a luxury but a necessity; introduction to a set of computational tools and best practices in data analysis to prepare for data-intensive research in the field of biomedical sciences; topics include reproducibility in computational projects, version control, command-line interface, remote computing, and general and statistical programming. Prerequisites: BIOL:2512 or BMB:3110 or BMB:3120 or MICR:3170. Recommendations: CS:2110.

BIOL:4897 Teaching Internship in Biology 1-3 s.h.
Training and practical experiences in the teaching of biology; includes a weekly training session with a PhD instructor or course supervisor, active assistance of the primary instructor in one or more class meetings each week, and/or providing constructive written feedback on laboratory or classroom exercises; additional experiences may include leading a training session, co-teaching or lead-teaching one or more lab or classroom exercises, and assisting with the development of classroom activities or resources; specific experiences will vary depending on the course and supervisor needs. Prerequisites: BIOL:1411 with a minimum grade of B and BIOL:1412 with a minimum grade of B. Requirements: third- or fourth-year standing and interview with instructor.

BIOL:4898 Communicating Research 2 s.h.
Independent, investigative research experience; research process and communication—establishing goals and expectations with a mentor, developing and framing a research hypothesis or question, communicating results in written and oral form to scientist and nonscientist audiences; supportive learning environment to share research experiences and develop identities as scientists, learn skills to become effective independent researchers and science communicators. Requirements: concurrent enrollment in BIOL:4999 or BIOL:3994 or HONR:3994 or URES:3994; or working in a research laboratory as a volunteer or paid research assistant for the semester enrolled.

BIOL:4995 Honors Research in Neuroscience arr.
Independent scientific research related to the field of neuroscience. Requirements: honors standing in neuroscience, UI GPA of at least 3.33, and neuroscience GPA of at least 3.33. Same as PSY:4995.

BIOL:4998 Honors Seminar in Biology 2 s.h.
Prerequisites: BIOL:1411. Requirements: honors standing.

BIOL:4999 Honors Research in Biology arr.
Independent scientific research related to the field of biology. Requirements: honors standing in biology, UI GPA of at least 3.33, and biology GPA of at least 3.33.

BIOL:5110 Practicum: College Teaching for Biology Teaching Assistants 2 s.h.
Practical pedagogical concerns including how to structure a course, devise learning outcomes, development of syllabus and calendar of assignments, evaluation of student work, and creation of a student-centered classroom with collaborative learning experiences; for biology TAs teaching in introductory courses BIOL:1411 and BIOL:1412.

BIOL:5172 Evolution - Graduate Lecture 3 s.h.
Nature, evidence, analysis, implications, molecular/genetic basis; historical record, phylogeny, speciation, adaptation, investigative methods.

BIOL:5199 Critical Readings in Biology arr.

BIOL:5211 Genes, Genomes, and the Human Condition Graduate Lecture 3 s.h.
Organization, expression, and evolution of genes in context of genomes; focus on human genome; distribution and transmission of variation in human population. Recommendations: BIOL:1411 highly recommended. Same as IGPI:5211.

BIOL:5218 Microscopy for Biomedical Research arr.
Basic microscopy methods for research including optics, preparation, and analysis of biomedical specimens; light, fluorescence, confocal, transmitting electron, scanning electron, atomic force microscopes, elemental analysis; immunochemistry and stereology techniques; individualized laboratory instruction. Prerequisites: BIOL:2723. Same as ACB:5218, MICR:5218.

BIOL:5312 Critical Analysis of Biological Research: Concepts, Methods, and Interpretation 2 s.h.
Develop fundamental skills in reading, summarizing, critiquing, and extrapolating from the primary literature; gain facility in reading and understanding topics in various disciplines across the field of biology.

BIOL:5412 Fundamental Genetics: Graduate Lecture 3 s.h.
Nature and function of genetic material; classical, molecular, and developmental aspects. Corequisites: BIOL:5512.

BIOL:5472 Foundations of Evolutionary Theory 3 s.h.
Advanced study of the underpinnings of modern evolutionary theory through readings, lectures, and discussions. Topics begin with pre-Darwinian conceptions of evolution and the transformative idea of evolution by natural selection. From there, topics may include the modern synthesis of genetics with evolution, evolutionary development, the evolution of sex, and/or evolutionary genomics. For all topics, there is a dual focus both on reinforcing conceptual knowledge of evolutionary topics and learning the important history of the field.

BIOL:5512 Readings in Genetics 2 s.h.
Critical evaluation of classic genetics papers. Requirements: biology graduate standing.

BIOL:5653 Fundamental Neurobiology I 3 s.h.
Neurobiology from molecular/cellular to systems levels, including cell biology of the neuron; membrane electrophysiology; synaptic transmission and plasticity, functional neuroanatomy, sensory, motor and autonomic systems; emotion, memory, sleep, language, attention and cognition, neuronal development; focus on systems and developmental neurobiology; first in a two-semester sequence. Same as NSCI:5653, PSY:5203.

BIOL:5654 Fundamental Neurobiology II 3 s.h.
Neurobiology from molecular/cellular to systems levels, including cell biology of the neuron; membrane electrophysiology; synaptic transmission and plasticity; functional neuroanatomy, sensory, motor and autonomic systems; emotion, memory, sleep, language, attention and cognition, neuronal development; focus on molecular/cellular neurobiology and neurophysiology; second in a two-semester sequence. Prerequisites: BIOL:5653 or NSCI:5653 or PSY:5203. Same as NSCI:5654, PSY:5205.

BIOL:5658 Fundamental Neurobiology I Discussion 2 s.h.
Discussion of selected papers, including classics from neurobiology literature; coordinated with BIOL:5653 lecture material. Same as NSCI:5658, PSY:5204.

BIOL:5659 Fundamental Neurobiology II Discussion 2 s.h.
Discussion of selected papers, including classics from neurobiology literature; coordinated with BIOL:5654 lecture material. Same as NSCI:5659, PSY:5206.

BIOL:6188 Seminar: Writing in Natural Sciences 2 s.h.
Writing and critiquing skills in the natural sciences.

BIOL:6199 Research: Biology arr.

BIOL:6265 Neuroscience Seminar 0-1 s.h.
Research presentations. Same as ACB:6265, MPB:6265, NSCI:6265, PSY:6265.

BIOL:6298 Concepts, Models, and Systems in Biology (COSMOS) Seminar I 1 s.h.
Analysis and presentation of primary research on central biological questions utilizing a full array of model and non-model organisms and analytical approaches; development of effective skills in public speaking, presentation, and scientific writing.

BIOL:6299 Concepts, Models, and Systems in Biology (COSMOS) Seminar II 2 s.h.
Student presentation of thesis research on an array of model and non-model organisms and analytical approaches; development of effective skills in public speaking and presentation.

BIOL:6899 Independent Study in Biology arr.

BIOL:7270 Principles of Scholarly Integrity 1 s.h.
Training in responsible conduct of research; student/mentor responsibilities; authorship and reviewing; plagiarism/falsification/fabrication of data; intellectual property; conflict of interest; fiscal, institutional, societal; treatment of human and animal subjects; data handling. Requirements: enrollment in graduate psychology or biology program. Same as PSY:7270.

BIOL:7604 Principles of Scholarly Integrity 0 s.h.
Training in responsible conduct of research and scholarly activities; student/mentor responsibilities; authorship; plagiarism/falsification/fabrication of data; intellectual property; conflict of interest; fiscal, institutional, societal; treatment of human and animal subjects; data handling. Requirements: postdoctoral standing in psychology or biology. Same as PSY:7604.

Biology, BA

All biology majors complete a chemistry/mathematics foundation and the biology core. In addition, BA students choose courses from several breadth menus and have a wide selection of elective courses, while BS students complete physics foundation courses and choose one of four tracks.

The department acquaints undergraduate students with the nature of practicing scientists' work by offering BIOL:3994 Introduction to Research (requires a Department of Biology faculty sponsor), BIOL:4898 Communicating Research (a course supporting students involved in research), and BIOL:4999 Honors Research in Biology (requires membership in the Biology Honors Program). Students associate with one of the department's research groups for experiments, discuss current research, study specialized topics, and attend research seminars.

Students interested in field biology, zoology, or botany may take varied courses in those subjects offered during the summer at Iowa Lakeside Laboratory [p. 2196].

Learning Outcomes

Graduates with a bachelor's degree in biology will be able to demonstrate the following.

Foundational Knowledge

Comprehension of fundamental principles and concepts of biology.

Graduates will be able to:

- explain fundamental biological principles within and across levels of organization, from molecules to ecosystem;
- apply foundational knowledge and conceptual frameworks to new situations;
- recognize the consequences of evolutionary history in contrasts between living organisms;
- appreciate the historical sequence and diversity of people who have contributed to the achievements of biological discovery; and
- evaluate new information reported in the news and/or in scientific publications against prior knowledge.

New Discovery

Scientific reasoning and experimental process in biology.

Graduates will be able to:

- perform basic laboratory procedures, including correct operation of devices;
- formulate questions about biological processes based on current knowledge;
- construct a hypothesis to guide experimental inquiry;
- design experiments, identifying variables of analysis and controls for error;
- consider appropriate strategies or technologies applicable to investigate a novel problem;
- collect, organize, summarize, and interpret biological data;
- analyze and evaluate experimental results to inform a hypothesis; and
- distinguish between necessary and sufficient causes.

Quantitative Skills

Mathematical reasoning and basic numeracy applied to biology.

Graduates will be able to:

- perform essential mathematical operations such as unit conversions, dilutions, and molarity calculations;
- apply mathematical concepts and rules of probability to make predictions;
- select and apply appropriate statistical tests to determine the significance of experimental results; and
- use mathematical and/or statistical expressions to evaluate hypotheses with experimental data.

Information Literacy

Acquisition, analysis, and summary of published biological information.

Graduates will be able to:

- locate and evaluate the relevance and credibility of information from electronic and print sources;
- navigate and obtain relevant information from public databases;
- recognize and appropriately cite sources of information;
- identify questions addressed and methodologies used; and
- assess findings reported and conclusions drawn in published scientific articles.

Communication Proficiency

Written and oral presentation of biological information.

Graduates will be able to:

- write concise scientific reports based on findings or literature searches;
- construct visual presentations of results or findings from the scientific literature; and
- orally present findings or results from the literature with appropriate media.

Requirements

The Bachelor of Arts with a major in biology requires a minimum of 120 s.h., including at least 65–70 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students who wish to apply transfer credit toward the biology major should consult their biology advisor. Students who earn a degree in biology may not earn a degree in biomedical sciences.

The major for the Bachelor of Arts prepares students for graduate study in the biological sciences and is especially appropriate for those interested in careers in biological science education at all levels. It also provides suitable preparation for professional positions in industry, laboratory, field research, or for professional study in medicine and other health-related fields.

The BA program is broadly based. It introduces students to key concepts in important areas of biology and, compared to the BS program, provides more flexibility in choosing elective courses. Students working toward a Bachelor of Arts degree must complete the chemistry/math foundation; the biology

core; three courses from the breadth menus; one course with a laboratory; and five or six elective courses, which may include one course in the history or philosophy of science.

The BA with a major in biology requires the following coursework.

Requirements	Hours
Chemistry/Mathematics Foundation Courses	15
Biology Core Courses	19
Breadth Menus	9-11
Course With a Laboratory	4-6
Electives	18-19

Chemistry/Mathematics Foundation

Course #	Title	Hours
This sequence:		
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
One of these:		
MATH:1460	Calculus for the Biological Sciences	4
MATH:1850	Calculus I	4
One of these:		
STAT:2010	Statistical Methods and Computing	3
STAT:3510	Biostatistics	3

Biology Core

Course #	Title	Hours
All of these:		
BIOL:1411 & BIOL:1412	Foundations of Biology and Diversity of Form and Function	8
BIOL:2512	Fundamental Genetics	4
BIOL:2723	Cell Biology	3
BIOL:3172	Evolution	4

Breadth Menus

Genes and Genomes

Course #	Title	Hours
One of these:		
BIOL:3212	Bioinformatics for Beginners	3
BIOL:3314	Genomics	3
BIOL:3373	Human Population Genetics and Variation	3
BIOL:3713	Molecular Genetics	4
BIOL:4333	Genes and Development (if not taken for a biological systems course)	3
BIOL:4373	Molecular Evolution: Genes, Genomes, and Organisms	3
BIOL:4386	Introduction to Scientific Computing for Biologists	3

Biological Systems

Course #	Title	Hours
Two of these:		
BIOL:2254	Endocrinology	3
BIOL:2673	Ecology	3
BIOL:2753	Introduction to Neurobiology	3
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3244	Animal Behavior	3
BIOL:3253	Neurobiology I	4
BIOL:3343	Animal Physiology	3
BIOL:3363	Plant Developmental Biology	3
BIOL:4333	Genes and Development (if not taken as a genes and genomes course)	3
May include one of these:		
BIOL:2663	Plant Response to the Environment	3
BIOL:3663	Plant Response to the Environment	3

Course With a Laboratory

Course #	Title	Hours
One of these (must not have been used as a breadth menu course):		
BIOL:2246	Entomology Lab	4
BIOL:3245	Animal Behavior Laboratory	4
BIOL:3626	Cell Biology Laboratory	4
BIOL:3655	Neurogenetics Laboratory	4
BIOL:3656	Neurobiology Laboratory	4
BIOL:3676	Evolution Lab	4
BIOL:3716	Genetics and Biotechnology Lab	4
BIOL:3736	Developmental Biology Lab	4
BIOL:4314	Introduction to Synthetic Biology in the Lab	4
BIOL:4999	Honors Research in Biology	6
MICR:2157 & MICR:2158	General Microbiology and General Microbiology Laboratory	5
Iowa Lakeside Laboratory courses (consult advisor)		4-5

Electives

Students complete at least one biology elective course (prefix BIOL) for 3–4 s.h. plus 15 s.h. of coursework outside the Department of Biology from the list below.

Biology courses may include courses chosen from the "Breadth Menus" list or the "Course With a Laboratory" list that have not been used to satisfy those requirements; other 3–4 s.h. courses numbered 2000 or above offered by the Department of Biology except for BIOL:2120 Good Genes Gone Bad: Genetic Disorders of Notable Celebrities and BIOL:2211 Genes, Genomes, and the Human Condition; and advanced biology courses taught at Iowa Lakeside Laboratory [p. 2196] with approval from the advisor.

Course #	Title	Hours
Four to five courses from these (15 s.h.):		
ANTH:2320	Origins of Human Infectious Disease	3
ANTH:3307	Modern Human Origins	3
ANTH:3328	Molecular Genetics of Human Disease	3
BMB:3110	Biochemistry	3
CBE:2040	Environment, Energy, and Climate Change	3
CHEM:2210	Organic Chemistry I	3
CHEM:2220	Organic Chemistry II	3
CPH:2230	Finding Patient Zero: The Exploration of Infectious Disease Transmission and Pandemic Threats	3
CPH:3400	Health, Work, and the Environment	3
CPH:4200	Agriculture, Food Systems, and Sustainability	3
CS:1110	Introduction to Computer Science	3
CS:2110	Programming for Informatics	4
GHS:2415	Bioethics	3
GHS:3110	Colonialism and Indigenous Health Equity	3
GHS:3325	Global Epidemics	3
GHS:3500	Global Public Health	3
HIST:3133	Science, Technology, and Society in the Modern World	3
HHP:2100	Human Anatomy	3
HHP:2110	Human Anatomy Laboratory	1
HHP:3115	Anatomy for Human Physiology With Lab	5
MATH:4750	Introduction to Mathematical Biology	3
MICR:2157	General Microbiology	3
MICR:2158	General Microbiology Laboratory	2
MICR:3147	Immunology and Human Disease	3
MICR:3168	Viruses and Human Disease	3
PHIL:3604	Introduction to Philosophy of Science	3
SEES:2374	Biogeography	3
SEES:2950	Environmental Conservation	4
SEES:3070	Marine Ecosystems and Conservation	3
SEES:3095	Field Ecology	4
SEES:3096	Winter Ecology	2
SEES:3097	Introduction to Bird Study	2
SEES:3110	Geography of Health	3
SEES:3210	Principles of Paleontology	3
SEES:3220	Evolution of the Vertebrates	4
SEES:3350	Urban Ecology	3
SEES:4470	Ecological Climatology	3
SEES:4600	Biogeography, Ecology, and Conservation of Mammals	4

From the physics courses, students may choose from the following (maximum of two courses); if they select PHYS:1511, they could take PHYS:1512; if they select PHYS:1611, they could take PHYS:1612:

PHYS:1400	Basic Physics	3-4
or		
PHYS:1511	College Physics I	4
or PHYS:1611	Introductory Physics I	
PHYS:1512	College Physics II	4
or PHYS:1612	Introductory Physics II	

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Combined Programs

BA/MAT (Science Education Subprogram)

Students interested in pursuing a graduate degree in teaching may apply to the combined Bachelor of Arts/Master of Arts in Teaching with a science education subprogram offered by the College of Liberal Arts and Sciences and the College of Education. The combined program enables students to earn a BA in biology and an MAT in five years by beginning to earn graduate credit during their fourth year of undergraduate study and by counting up to 19 s.h. of qualifying credit toward both degrees. For more information, see Science Education [p. 1497] in the Master of Arts in Teaching (College of Education) section of the catalog. Interested students should consult an advisor.

Honors

Honors in the Major

Students majoring in biology have the opportunity to graduate with honors in the major. The biology honors program introduces students to the pursuits of practicing scientists. Honors students associate with one of the department's research groups and participate in an independent research project guided by a faculty member (the research supervisor).

Biology honors students write a thesis based on an interesting biological problem, which is usually identified by the research supervisor. The thesis should clearly document that a student has acquired the necessary experimental skills to address specific questions and test specific hypotheses related to the research problem. Throughout undergraduate residence, departmental honors students may also enroll in courses with honors sections offered by the Department of Biology and other departments and programs.

To graduate with honors in the biology major, students must fulfill the following requirements:

- complete the requirements for a major in biology with a grade-point average (GPA) of at least 3.33 in all coursework in the major taken at the University of Iowa (including all biology courses and cognates in chemistry, biochemistry, mathematics, and statistics) and a cumulative University of Iowa GPA of at least 3.33;
- complete 2 s.h. in either BIOL:4898 Communicating Research or a related approved course;
- complete a minimum of 6 s.h. (taken over two or more semesters) of BIOL:4999 Honors Research in Biology;
- write a brief research proposal summarizing the background and goals of their proposed honors research;
- upon completion of their research, submit an acceptable honors thesis; and
- give a brief oral presentation of their research findings to other biology honors students.

Students may apply 6 s.h. of BIOL:4999 Honors Research in Biology toward the required course with a laboratory and count the 2 s.h. earned in BIOL:4998 Honors Seminar in Biology toward the elective requirement.

Biology majors interested in graduating with honors in the major should contact the biology advisor as early as possible, preferably during their sophomore or junior year, so that they may be matched with an appropriate lab. Visit Biology Honors Program to learn more about honors study in the department.

Students who are interested in the University of Iowa Honors Program satisfy the level two requirements when they satisfy the biology honors requirements; see "University of Iowa Honors Program" below.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Students who satisfy the requirements for honors in the biology major also satisfy the experiential learning requirement of the university honors curriculum.

Membership in the UI Honors Program is not required to earn honors in the biology major.

Career Advancement

The major in biology prepares students to enter research or service careers associated with private industry or government programs and for primary and secondary school teaching. It also prepares them to enter advanced degree programs leading to careers in higher education and to independent research in a variety of biological fields, or for practice in health professions such as medicine, dentistry, pharmacy, nursing, veterinary medicine, medical technology, and physical therapy.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: MATH:1460 Calculus for the Biological Sciences or MATH:1850 Calculus I, CHEM:1110 Principles of Chemistry I, CHEM:1120 Principles of Chemistry II, and BIOL:1411 Foundations of Biology.

Before the fifth semester begins: BIOL:1412 Diversity of Form and Function, STAT:2010 Statistical Methods and Computing or STAT:3510 Biostatistics, and four other courses in the major.

Before the seventh semester begins: BIOL:2512 Fundamental Genetics, BIOL:2723 Cell Biology, BIOL:3172 Evolution, five or six more courses in the major, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two or three more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biology, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
Research: Iowa Lakeside Laboratory summer field courses [b]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [c]	4
MATH:1460	Calculus for the Biological Sciences [d]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Social Sciences [e]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
	Hours	**14-15**
Second Year		
Fall		
BIOL:1412	Diversity of Form and Function	4

STAT:2010 or STAT:3510	Statistical Methods and Computing or Biostatistics	3
Major: elective outside biology [f]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [g]		4 - 5
	Hours	**14-15**
Spring		
BIOL:2723	Cell Biology	3
Major: elective outside biology [f]		3
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [g]		4 - 5
Elective course [h]		3
	Hours	**16-17**
Third Year		
Fall		
BIOL:2512	Fundamental Genetics	4
Major: elective outside biology [f]		3
Major: elective outside biology [f]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [g]		4 - 5
Elective course [h]		3
	Hours	**17-18**
Spring		
BIOL:3172	Evolution	4
Major: biological systems requirement I [i]		3
Major: elective outside biology [f]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [g]		4 - 5
	Hours	**14-15**
Fourth Year		
Fall		
Major: biological systems requirement II [i]		3
Major: biology elective		3
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
GE CLAS Core: International and Global Issues [e]		3
Elective course [h]		3
	Hours	**15**
Spring		
Major: course with a laboratory requirement [i]		4 - 6
Major: genes and genomes requirement [i]		3
GE CLAS Core: Values and Society [e]		3
Elective course [h]		3
Elective course [h]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**16-18**
	Total Hours	**121-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b After completing BIOL:1412 Diversity of Form & Function, students are eligible to enroll in Lakeside Laboratory summer field courses. Registration for these courses is in winter of each year.

c Enrollment in chemistry courses requires completion of a placement exam.

d Enrollment in math courses requires completion of a placement exam.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students complete 15 s.h. of coursework outside the Department of Biology by choosing courses from an approved list.

g Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

h Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

i See General Catalog for list of approved courses.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Biology, BS

All biology majors complete the chemistry/mathematics foundation and the biology core. In addition, BS students complete physics foundation courses and choose one of four tracks, while BA students choose courses from several breadth menus and have a wider selection of elective courses.

The department acquaints undergraduate students with the nature of practicing scientists' work by offering BIOL:3994 Introduction to Research (requires a Department of Biology faculty sponsor), BIOL:4898 Communicating Research (a course supporting students involved in research), and BIOL:4999 Honors Research in Biology (requires membership in the Biology Honors Program). Students associate with one of the department's research groups for experiments, discuss current research, study specialized topics, and attend research seminars.

Students interested in field biology, zoology, or botany may take varied courses in those subjects offered during the summer at Iowa Lakeside Laboratory [p. 2196].

Learning Outcomes

Graduates with a bachelor's degree in biology will be able to demonstrate the following.

Foundational Knowledge

Comprehension of fundamental principles and concepts of biology.

Graduates will be able to:

- explain fundamental biological principles within and across levels of organization, from molecules to ecosystem;
- apply foundational knowledge and conceptual frameworks to new situations;
- recognize the consequences of evolutionary history in contrasts between living organisms;
- appreciate the historical sequence and diversity of people who have contributed to the achievements of biological discovery; and
- evaluate new information reported in the news and/or in scientific publications against prior knowledge.

New Discovery

Scientific reasoning and experimental process in biology.

Graduates will be able to:

- perform basic laboratory procedures, including correct operation of devices;
- formulate questions about biological processes based on current knowledge;
- construct a hypothesis to guide experimental inquiry;
- design experiments, identifying variables of analysis and controls for error;
- consider appropriate strategies or technologies applicable to investigate a novel problem;
- collect, organize, summarize, and interpret biological data;
- analyze and evaluate experimental results to inform a hypothesis; and
- distinguish between necessary and sufficient causes.

Quantitative Skills

Mathematical reasoning and basic numeracy applied to biology.

Graduates will be able to:

- perform essential mathematical operations such as unit conversions, dilutions, and molarity calculations;
- apply mathematical concepts and rules of probability to make predictions;
- select and apply appropriate statistical tests to determine the significance of experimental results; and
- use mathematical and/or statistical expressions to evaluate hypotheses with experimental data.

Information Literacy

Acquisition, analysis, and summary of published biological information.

Graduates will be able to:

- locate and evaluate the relevance and credibility of information from electronic and print sources;
- navigate and obtain relevant information from public databases;
- recognize and appropriately cite sources of information;
- identify questions addressed and methodologies used; and
- assess findings reported and conclusions drawn in published scientific articles.

Communication Proficiency

Written and oral presentation of biological information.

Graduates will be able to:

- write concise scientific reports based on findings or literature searches;
- construct visual presentations of results or findings from the scientific literature; and
- orally present findings or results from the literature with appropriate media.

Requirements

The Bachelor of Science with a major in biology requires a minimum of 120 s.h., including at least 67–75 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students who wish to apply transfer credit toward graduation with a major in biology should consult their biology advisor. Students who earn a degree in biology may not earn a degree in biomedical sciences.

Students must complete the chemistry/mathematics/physics foundation, the biology core, and one of four tracks. The four tracks emphasize dynamic and active areas in the biological sciences. Three of the tracks—cell and developmental biology, genetics and biotechnology, and neurobiology—emphasize distinct areas. The fourth track—integrative biology—provides highly diverse content.

The BS with a major in biology requires the following coursework.

Requirements	Hours
Chemistry/Mathematics/Physics Foundation	29
Biology Core Courses	15
Track Courses	23-31

Chemistry/Mathematics/Physics Foundation

Course #	Title	Hours
All of these:		
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
CHEM:2210	Organic Chemistry I	3
One of these:		
BMB:3110	Biochemistry	3
BMB:3120	Biochemistry and Molecular Biology I (students who take BMB:3120 must also take BMB:3130 as one of their track courses)	3
One of these sequences:		
PHYS:1511 & PHYS:1512	College Physics I and College Physics II	8
PHYS:1611 & PHYS:1612	Introductory Physics I and Introductory Physics II	8
One of these:		
MATH:1460	Calculus for the Biological Sciences	4
MATH:1850	Calculus I	4
One of these:		
STAT:2010	Statistical Methods and Computing (preferred for evolution track)	3
STAT:3510	Biostatistics	3

Biology Core

Course #	Title	Hours
All of these:		
BIOL:1411 & BIOL:1412	Foundations of Biology and Diversity of Form and Function	8
BIOL:2512	Fundamental Genetics	4
BIOL:2723	Cell Biology	3

Tracks

Bachelor of Science students must select a single track. The experiential elective requirement may be satisfied by taking an appropriate investigative lab for the track, or through several other options. Students who use BIOL:4999 Honors Research in Biology or BIOL:3994 Introduction to Research must complete a minimum of 6 s.h. in those courses. Students who use BIOL:4897 Teaching Internship in Biology must complete a minimum of 4 s.h. in that course.

Additionally, students may satisfy the experiential elective requirement by completing at least 4 s.h. in two different courses from a combination of these courses: BIOL:3994 Introduction to Research, BIOL:4898 Communicating Research, BIOL:4897 Teaching Internship in Biology, BIOL:4999 Honors Research in Biology, LATH:3001 Latham Fellows: Science Outreach Project, and an approved biology-related internship.

- Cell and Developmental Biology Track [p. 153]
- Genetics and Biotechnology Track [p. 154]
- Integrative Biology Track [p. 155]
- Neurobiology Track [p. 156]

Cell and Developmental Biology Track

The cell and developmental biology track provides education in the structure and function of cells and in the principles of development as they apply to animals and plants. This track is appropriate for students who wish to pursue graduate study in cellular and developmental biology, to prepare for professional study in medicine and other health-related fields, or to take positions in laboratories and companies engaged in cancer research and related fields.

Cell and Developmental Biology Track Courses

Course #	Title	Hours
Two of these:		
BIOL:3172	Evolution	4
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3363	Plant Developmental Biology	3
One of these:		
BIOL:3626	Cell Biology Laboratory	4
BIOL:3736	Developmental Biology Lab	4
One of these:		
BIOL:3212	Bioinformatics for Beginners	3
BMB:3130	Biochemistry and Molecular Biology II (students who take BMB:3120 as a chemistry/mathematics/physics foundation course must take this course)	3
CHEM:2220	Organic Chemistry II	3
MICR:2157 & MICR:2158	General Microbiology and General Microbiology Laboratory	5

Cell and Developmental Biology Track Experiential Elective

Course #	Title	Hours
One of these:		
BIOL:3245	Animal Behavior Laboratory	4
BIOL:3626	Cell Biology Laboratory (if not taken as a track course)	4
BIOL:3655	Neurogenetics Laboratory	4
BIOL:3656	Neurobiology Laboratory	4
BIOL:3676	Evolution Lab	4
BIOL:3716	Genetics and Biotechnology Lab	4
BIOL:3736	Developmental Biology Lab (if not taken as a track course)	4
BIOL:3994	Introduction to Research (taken twice for 3 s.h. each or three times for 2 s.h. each)	6

BIOL:4314	Introduction to Synthetic Biology in the Lab	4
BIOL:4897	Teaching Internship in Biology (taken twice for 2 s.h. each)	4
BIOL:4999	Honors Research in Biology	6
or		
A combination of at least two different courses for a total of 4 s.h. from these:		
BIOL:3994	Introduction to Research	1-3
BIOL:4897	Teaching Internship in Biology	1-3
BIOL:4898	Communicating Research	2
BIOL:4999	Honors Research in Biology	arr.
LATH:3001	Latham Fellows: Science Outreach Project	2
An approved biology-related internship		

Cell and Developmental Biology Track Electives

Course #	Title	Hours
At least two of these, with a minimum of one course numbered 3000 or above:		
BIOL:2254	Endocrinology	3
BIOL:2753	Introduction to Neurobiology	3
BIOL:3172	Evolution (if not taken as a track course)	4
BIOL:3233	Introduction to Developmental Biology (if not taken as a track course)	3
BIOL:3244	Animal Behavior	3
BIOL:3253	Neurobiology I	4
BIOL:3314	Genomics	3
BIOL:3343	Animal Physiology	3
BIOL:3363	Plant Developmental Biology (if not taken as a track course)	3
BIOL:3713	Molecular Genetics	4
BIOL:4333	Genes and Development	3
May include one of these:		
BIOL:2663	Plant Response to the Environment	3
BIOL:3663	Plant Response to the Environment	3

Genetics and Biotechnology Track

The genetics and biotechnology track provides education in the key principles of transmission, maintenance, regulation, and manipulation of genes. This track is appropriate for students who wish to pursue graduate study in fields related to genetics or to enter the modern biotechnology industry. It also provides excellent preparation for professional study in medicine and other health-related fields.

Genetics and Biotechnology Track Courses

Course #	Title	Hours
Two of these:		
BIOL:3172	Evolution	4
BIOL:3314	Genomics	3
BIOL:3713	Molecular Genetics	4
This course:		
BIOL:3716	Genetics and Biotechnology Lab	4
One of these:		
BIOL:3212	Bioinformatics for Beginners	3
BMB:3130	Biochemistry and Molecular Biology II (students who take BMB:3120 as a chemistry/mathematics/physics foundation course must take this course)	3
CHEM:2220	Organic Chemistry II	3
MICR:2157 & MICR:2158	General Microbiology and General Microbiology Laboratory	5

Genetics and Biotechnology Track Experiential Elective

Course #	Title	Hours
One of these:		
BIOL:3245	Animal Behavior Laboratory	4
BIOL:3626	Cell Biology Laboratory	4
BIOL:3655	Neurogenetics Laboratory	4
BIOL:3676	Evolution Lab	4
BIOL:3736	Developmental Biology Lab	4
BIOL:3994	Introduction to Research (taken twice for 3 s.h. each or three times for 2 s.h. each)	6
BIOL:4314	Introduction to Synthetic Biology in the Lab	4
BIOL:4897	Teaching Internship in Biology (taken twice for 2 s.h. each)	4
BIOL:4999	Honors Research in Biology	6
or		
A combination of at least two different courses for a total of 4 s.h. from these:		
BIOL:3994	Introduction to Research	1-3
BIOL:4897	Teaching Internship in Biology	1-3
BIOL:4898	Communicating Research	2
BIOL:4999	Honors Research in Biology	arr.
LATH:3001	Latham Fellows: Science Outreach Project	2
An approved biology-related internship		

Genetics and Biotechnology Track Electives

Course #	Title	Hours
At least two of these (if not taken to fulfill a track requirement), with a minimum of one course numbered 3000 or above:		
BIOL:2254	Endocrinology	3
BIOL:2673	Ecology	3
BIOL:2753	Introduction to Neurobiology	3
BIOL:3172	Evolution	4
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3244	Animal Behavior	3
BIOL:3253	Neurobiology I	4

BIOL:3314	Genomics	3
BIOL:3343	Animal Physiology	3
BIOL:3363	Plant Developmental Biology	3
BIOL:3373	Human Population Genetics and Variation	3
BIOL:3713	Molecular Genetics	4
BIOL:4333	Genes and Development	3
BIOL:4373	Molecular Evolution: Genes, Genomes, and Organisms	3
BIOL:4386	Introduction to Scientific Computing for Biologists	3
May include one of these:		
BIOL:2663	Plant Response to the Environment	3
BIOL:3663	Plant Response to the Environment	3

Integrative Biology Track

The integrative biology track offers a diverse, well-balanced introduction to the major fields of biology. This track prepares students for graduate study in the biological sciences, in science education, and for work in laboratories that engage in research and applications in many fields of biology. It also provides broadly based preparation for professional study in medicine and other health-related fields.

Integrative Biology Track Courses

Course #	Title	Hours
Both of these:		
BIOL:2673	Ecology	3
BIOL:3172	Evolution	4
One of these:		
BIOL:2374	Biogeography	3
BIOL:3212	Bioinformatics for Beginners	3
BMB:3130	Biochemistry and Molecular Biology II (students who take BMB:3120 as a chemistry/mathematics/physics foundation course must take this course)	3
CHEM:2220	Organic Chemistry II	3
MICR:2157 & MICR:2158	General Microbiology and General Microbiology Laboratory	5

Integrative Biology Track Breadth Menus

Genes and Genomes

Course #	Title	Hours
One of these:		
BIOL:3314	Genomics	3
BIOL:3373	Human Population Genetics and Variation	3
BIOL:3713	Molecular Genetics	4
BIOL:4333	Genes and Development	3
BIOL:4373	Molecular Evolution: Genes, Genomes, and Organisms	3
BIOL:4386	Introduction to Scientific Computing for Biologists	3

Biological Systems

Course #	Title	Hours
One of these:		
BIOL:2254	Endocrinology	3
BIOL:2753	Introduction to Neurobiology	3
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3244	Animal Behavior	3
BIOL:3343	Animal Physiology	3
BIOL:3363	Plant Developmental Biology	3
May include one of these:		
BIOL:2663	Plant Response to the Environment	3
BIOL:3663	Plant Response to the Environment	3

Investigative Lab

Course #	Title	Hours
One of these:		
BIOL:2246	Entomology Lab	4
BIOL:3245	Animal Behavior Laboratory	4
BIOL:3626	Cell Biology Laboratory	4
BIOL:3655	Neurogenetics Laboratory	4
BIOL:3656	Neurobiology Laboratory	4
BIOL:3676	Evolution Lab	4
BIOL:3716	Genetics and Biotechnology Lab	4
BIOL:3736	Developmental Biology Lab	4

Integrative Biology Track Experiential Elective

Course #	Title	Hours
One of these:		
BIOL:2246	Entomology Lab (if not used for investigative lab course)	4
BIOL:3245	Animal Behavior Laboratory (if not used for investigative lab course)	4
BIOL:3626	Cell Biology Laboratory (if not used for investigative lab course)	4
BIOL:3655	Neurogenetics Laboratory (if not used for investigative lab course)	4
BIOL:3656	Neurobiology Laboratory (if not used for investigative lab course)	4
BIOL:3676	Evolution Lab (if not used for investigative lab course)	4
BIOL:3716	Genetics and Biotechnology Lab (if not used for investigative lab course)	4
BIOL:3736	Developmental Biology Lab (if not used for investigative lab course)	4
BIOL:3994	Introduction to Research (taken twice for 3 s.h. each or three times for 2 s.h. each)	6

BIOL:4897	Teaching Internship in Biology (taken twice for 2 s.h. each)	4
BIOL:4999	Honors Research in Biology	6
An approved Iowa Lakeside Laboratory course		4
or		
A combination of at least two different courses for a total of 4 s.h. from these:		
BIOL:3994	Introduction to Research	1-3
BIOL:4897	Teaching Internship in Biology	1-3
BIOL:4898	Communicating Research	2
BIOL:4999	Honors Research in Biology	arr.
LATH:3001	Latham Fellows: Science Outreach Project	2
An approved biology-related internship		

Neurobiology Track

The neurobiology track provides education in nervous system function at all levels, from molecular to systems biology. This track is appropriate for students who wish to pursue graduate study in neurobiology and related areas, including psychology and the social sciences; to enter laboratories that study the therapeutic basis of neurological disorders; or to work in pharmaceutical companies. It also provides good preparation for professional study in medicine and other health-related fields.

Neurobiology Track Courses

Course #	Title	Hours
All of these:		
BIOL:2753	Introduction to Neurobiology	3
BIOL:3253	Neurobiology I	4
BIOL:3254	Neurobiology II	4
One of these:		
BIOL:3245	Animal Behavior Laboratory	4
BIOL:3655	Neurogenetics Laboratory	4
BIOL:3656	Neurobiology Laboratory	4
One of these:		
BIOL:3212	Bioinformatics for Beginners	3
BMB:3130	Biochemistry and Molecular Biology II (students who take BMB:3120 as a chemistry/mathematics/physics foundation course must take this course)	3
CHEM:2220	Organic Chemistry II	3
MICR:2157 & MICR:2158	General Microbiology and General Microbiology Laboratory	5
PSY:3055	Interdisciplinary Science of Sound and Hearing	3
PSY:3250	Neuroscience of Learning and Memory	3

Neurobiology Experiential Elective

Course #	Title	Hours
One of these:		
BIOL:3245	Animal Behavior Laboratory (if not used as a track course)	4
BIOL:3626	Cell Biology Laboratory	4
BIOL:3655	Neurogenetics Laboratory (if not used as a track course)	4
BIOL:3676	Evolution Lab	4
BIOL:3716	Genetics and Biotechnology Lab	4
BIOL:3736	Developmental Biology Lab	4
BIOL:3994	Introduction to Research (taken twice for 3 s.h. each or three times for 2 s.h. each)	6
BIOL:4314	Introduction to Synthetic Biology in the Lab	4
BIOL:4897	Teaching Internship in Biology (taken twice for 2 s.h. each)	4
BIOL:4999	Honors Research in Biology	6
or		
A combination of at least two different courses for a total of 4 s.h. from these:		
BIOL:3994	Introduction to Research	1-3
BIOL:4897	Teaching Internship in Biology	1-3
BIOL:4898	Communicating Research	2
BIOL:4999	Honors Research in Biology	arr.
LATH:3001	Latham Fellows: Science Outreach Project	2
An approved biology-related internship		

Neurobiology Electives

Course #	Title	Hours
One of these:		
BIOL:2254	Endocrinology	3
BIOL:3172	Evolution	4
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3244	Animal Behavior	3
BIOL:3343	Animal Physiology	3
BIOL:4333	Genes and Development	3
BIOL:4386	Introduction to Scientific Computing for Biologists	3

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Combined Programs

BS/MAT (Science Education Subprogram)

Students interested in pursuing a graduate degree in teaching may apply to the combined Bachelor of Science/Master of Arts in Teaching with a science education subprogram offered by

the College of Liberal Arts and Sciences and the College of Education. The combined program enables students to earn a BS in biology and an MAT in five years by beginning to earn graduate credit during their fourth year of undergraduate study and by counting qualifying credit toward both degrees. For more information, see Science Education [p. 1497] in the Master of Arts in Teaching (College of Education) section of the catalog. Interested students should consult an advisor.

Honors

Honors in the Major

Students majoring in biology have the opportunity to graduate with honors in the major. The biology honors program introduces students to the pursuits of practicing scientists. Honors students associate with one of the department's research groups and participate in an independent research project guided by a faculty member (the research supervisor).

Biology honors students write a thesis based on an interesting biological problem, which is usually identified by the research supervisor. The thesis should clearly document that the student has acquired the necessary experimental skills to address specific questions and test specific hypotheses related to the research problem. Throughout undergraduate residence, departmental honors students may also enroll in courses with honors sections offered by the Department of Biology and other departments and programs.

To graduate with honors in the biology major, students must fulfill the following requirements:

- complete the requirements for a major in biology with a grade-point average (GPA) of at least 3.33 in all coursework in the major taken at the University of Iowa (including all biology courses and cognates in chemistry, physics, biochemistry, mathematics, and statistics) and a cumulative University of Iowa GPA of at least 3.33;
- complete 2 s.h. in BIOL:4898 Communicating Research or a related approved course;
- complete a minimum of 6 s.h. (taken over two or more semesters) of BIOL:4999 Honors Research in Biology;
- write a brief research proposal summarizing the background and goals of their proposed honors research;
- upon completion of their research, submit an acceptable honors thesis; and
- give a brief oral presentation of their research findings to other biology honors students.

Students pursuing a BS in biology may apply 6 s.h. of BIOL:4999 toward the experiential elective requirement in an appropriate track.

Biology majors interested in graduating with honors in the major should contact the biology advisor as early as possible, preferably during their sophomore or junior year, so that they may be matched with an appropriate lab. Visit Biology Honors Program to learn more about honors study in the department.

Students who are interested in the University of Iowa Honors Program satisfy the level two requirements when they satisfy the biology honors requirements.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Students who satisfy the requirements for honors in the biology major also satisfy the experiential learning requirement of the university honors curriculum.

Membership in the UI Honors Program is not required to earn honors in the biology major.

Career Advancement

The major in biology prepares students to enter research or service careers associated with private industry or government programs and for primary and secondary school teaching. It also prepares them to enter advanced degree programs leading to careers in higher education and to independent research in a variety of biological fields, or for practice in health professions such as medicine, dentistry, pharmacy, nursing, veterinary medicine, medical technology, and physical therapy.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: MATH:1460 Calculus for the Biological Sciences or MATH:1850 Calculus I, CHEM:1110 Principles of Chemistry I, CHEM:1120 Principles of Chemistry II, and BIOL:1411 Foundations of Biology.

Before the fifth semester begins: BIOL:1412 Diversity of Form and Function, CHEM:2210 Organic Chemistry I, STAT:2010 Statistical Methods and Computing or STAT:3510 Biostatistics, and two other courses in the major.

Before the seventh semester begins: BIOL:2512 Fundamental Genetics; PHYS:1511 College Physics I and PHYS:1512 College Physics II, or equivalents; six or seven more courses in the major; and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two or three more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biology, BS

- Cell and Developmental Biology Track [p. 158]
- Genetics and Biotechnology Track [p. 159]
- Integrative Biology Track [p. 160]
- Neurobiology Track [p. 161]

Cell and Developmental Biology Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
MATH:1460	Calculus for the Biological Sciences [c]	4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Social Sciences [d]		3
	Hours	**14-15**
Second Year		
Any Semester		
Research: students interested in research should begin the placement search process in the second year.		
	Hours	**0**
Fall		
BIOL:1412	Diversity of Form and Function	4
CHEM:2210	Organic Chemistry I	3
STAT:3510 or STAT:2010	Biostatistics or Statistical Methods and Computing	3
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
	Hours	**14-15**
Spring		
BIOL:2723	Cell Biology	3
GE CLAS Core: Historical Perspectives [d]		3
Major: foundation track course [f]		3 - 5
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
Elective course [g]		3
	Hours	**16-19**
Third Year		
Fall		
BIOL:2512	Fundamental Genetics	4
Major: foundation track course - BMB:3110 Biochemistry or BMB:3120 Biochemistry and Molecular Biology I [h]		3
PHYS:1511	College Physics I	4
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
	Hours	**15-16**
Spring		
BIOL:3363 or BIOL:3233 or BIOL:3172	Plant Developmental Biology or Introduction to Developmental Biology or Evolution	3 - 4
PHYS:1512	College Physics II	4
Major: cell and developmental biology elective I [i]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
	Hours	**14-16**
Fourth Year		
Fall		
BIOL:3626 or BIOL:3736	Cell Biology Laboratory or Developmental Biology Lab	4
BIOL:3233 or BIOL:3172 or BIOL:3363	Introduction to Developmental Biology or Evolution or Plant Developmental Biology	3 - 4
GE CLAS Core: International and Global Issues [d]		3
Elective course [g]		3
Elective course [g]		3
	Hours	**16-17**
Spring		
Major: cell and developmental biology elective II [i]		3
Major: experiential requirement [j]		4
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: Values and Society [d]		3
Elective course [g]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**16**
	Total Hours	**120-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c Enrollment in math courses requires completion of a placement exam.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate

Programs Office with questions concerning the World Languages requirement.

f See General Catalog for list of approved courses. Students who took BMB:3120 must take BMB:3130.

g Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

h Students who take BMB:3120 also must take BMB:3130 as one of their track courses.

i At least one elective in the major must be numbered 3000 or above.

j See General Catalog for list of approved options; some may require more than one semester.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Genetics and Biotechnology Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
MATH:1460	Calculus for the Biological Sciences [c]	4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Values and Society [d]		3
	Hours	**14-15**
Second Year		
Any Semester		
Research: students interested in research should begin the placement search process in the second year.		
	Hours	**0**
Fall		
BIOL:1412	Diversity of Form and Function	4
CHEM:2210	Organic Chemistry I	3
STAT:2010 or STAT:3510	Statistical Methods and Computing or Biostatistics	3
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
	Hours	**14-15**
Spring		
BIOL:2512	Fundamental Genetics	4
BIOL:2723	Cell Biology	3
GE CLAS Core: Social Sciences [d]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
Elective course [f]		3
	Hours	**17-18**
Third Year		
Fall		
BIOL:3713 or BIOL:3172	Molecular Genetics [g] or Evolution	4
Major: foundation track course - BMB:3110 Biochemistry or BMB:3120 Biochemistry and Molecular Biology I [h]		3 - 5
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
	Hours	**14-17**
Spring		
BIOL:3172 or BIOL:3314	Evolution [g] or Genomics	3 - 4
PHYS:1511	College Physics I	4
Major: Foundation track course [i]		3 - 5
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
	Hours	**14-18**
Fourth Year		
Fall		
PHYS:1512	College Physics II	4
Major: genetics elective I [j]		3
Major: experiential elective [k]		4
GE CLAS Core: International and Global Issues [d]		3
Elective course [f]		3
	Hours	**17**
Spring		
BIOL:3716	Genetics and Biotechnology Lab	4
Major: genetics elective II [j]		3
GE CLAS Core: Historical Perspectives [d]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**16**
	Total Hours	**121-132**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c Enrollment in math courses requires completion of a placement exam.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students

should consult with an advisor about the best sequencing of courses.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Two of the three courses need to be taken for this track: BIOL:3172, BIOL:3314, or BIOL:3713. BIOL:3314 is typically only offered during spring semesters.

h Students who take BMB:3120 also must take BMB:3130 as one of their track courses.

i See General Catalog for list of approved courses. Students who took BMB:3120 must take BMB:3130.

j At least one elective must be numbered 3000 or above.

k See General Catalog for list of approved options; some may require more than one semester.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Integrative Biology Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
Research: Iowa Lakeside Laboratory summer field courses [b]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [c]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
MATH:1460	Calculus for the Biological Sciences [d]	4
GE CLAS Core: Social Sciences [e]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
	Hours	**14-15**
Second Year		
Any Semester		
Research: students interested in research should begin the placement search process in the second year.		
	Hours	**0**
Fall		
BIOL:1412	Diversity of Form and Function	4
CHEM:2210	Organic Chemistry I	3
STAT:3510 or STAT:2010	Biostatistics or Statistical Methods and Computing	3
GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
	Hours	**14-15**
Spring		
BIOL:2512	Fundamental Genetics	4
BIOL:2673	Ecology	3
PHYS:1511	College Physics I	4
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
	Hours	**15-16**
Third Year		
Fall		
BIOL:2723	Cell Biology	3
PHYS:1512	College Physics II	4
Major: foundation track course - BMB:3110 Biochemistry or BMB:3120 Biochemistry and Molecular Biology I [g]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]		4 - 5
Elective course [h]		3
	Hours	**17-18**
Spring		
BIOL:3172	Evolution	4
Major: foundation track course [i]		3 - 5
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]		4 - 5
	Hours	**14-17**
Fourth Year		
Fall		
Major: investigative lab		4
Major: biological systems course		3
GE CLAS Core: International and Global Issues [e]		3
Elective course [h]		3
Elective course [h]		3
	Hours	**16**
Spring		
Major: genes and genomes course		3
Major: experiential elective [j]		4
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
GE CLAS Core: Values and Society [e]		3
Elective course		3

Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]	
Hours	**16**
Total Hours	**121-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b After completing BIOL:1412 Diversity of Form & Function, students are eligible to enroll in Lakeside Laboratory summer field courses. Registration for these courses is in winter of each year.

c Enrollment in chemistry courses requires completion of a placement exam.

d Enrollment in math courses requires completion of a placement exam.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g Students who take BMB:3120 also must take BMB:3130 as one of their track courses.

h Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

i See General Catalog for list of approved courses. Students who took BMB:3120 must take BMB:3130.

j See General Catalog for list of approved options; some may require more than one semester.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Neurobiology Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
MATH:1460	Calculus for the Biological Sciences [c]	4
GE CLAS Core: Social Sciences [d]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
	Hours	**14-15**
Second Year		
Any Semester		
Research: Students interested in research should begin the placement search process in the second or third year.		
	Hours	**0**
Fall		
BIOL:1412	Diversity of Form and Function	4
CHEM:2210	Organic Chemistry I	3
STAT:3510 or STAT:2010	Biostatistics or Statistical Methods and Computing	3
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
	Hours	**14-15**
Spring		
BIOL:2512	Fundamental Genetics	4
BIOL:2753	Introduction to Neurobiology	3
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
Elective course [f]		3
	Hours	**17-18**
Third Year		
Fall		
BIOL:2723	Cell Biology	3
BMB:3110 or BMB:3120	Biochemistry [g] or Biochemistry and Molecular Biology I	3
PHYS:1511	College Physics I	4
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
Elective course [f]		3
	Hours	**17-18**
Spring		
BMB:3130	Biochemistry and Molecular Biology II [h]	3
PHYS:1512	College Physics II	4
Major: neurobiology elective I [i]		3 - 4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
	Hours	**14-16**

Fourth Year

Fall

BIOL:3253	Neurobiology I	4
BIOL:3656 or BIOL:3245 or BIOL:3655	Neurobiology Laboratory or Animal Behavior Laboratory or Neurogenetics Laboratory	4
GE CLAS Core: Values and Society [d]		3
GE CLAS Core: International and Global Issues [d]		3
Elective course [f]		3
	Hours	**17**

Spring

BIOL:3254	Neurobiology II	4
Major: experiential elective [j]		4
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
Major: Elective course [i]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**14**
	Total Hours	**122-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c Enrollment in math courses requires completion of a placement exam.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Students who take BMB:3120 also must take BMB:3130.

h See General Catalog for list of approved courses. Students who took BMB:3120 must take BMB:3130.

i Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

j See General Catalog for list of approved options; some may require more than one semester.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Biology, Minor

Requirements

The undergraduate minor in biology requires a minimum of 15 s.h. in biology coursework, including 12 s.h. in courses numbered 2000 or above offered by the Department of Biology at the University of Iowa or in approved Iowa Lakeside Laboratory [p. 2196] courses. Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. Students may not use transfer coursework to count as courses numbered 2000 or above.

Either BIOL:2512 Fundamental Genetics or BIOL:2211 Genes, Genomes, and the Human Condition will count toward the minor, but not both. BIOL:2120 Good Genes Gone Bad: Genetic Disorders of Notable Celebrities, BIOL:3999 Independent Research in Neuroscience, BIOL:4995 Honors Research in Neuroscience, and BIOL:4999 Honors Research in Biology do not count toward the minor.

Students may count BIOL:3994 Introduction to Research (maximum of 3 s.h.) and BIOL:4897 Teaching Internship in Biology (maximum of 3 s.h.) only once toward the minor.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biology, Minor

Course	Title	Hours
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [a, b]	4
	Hours	**4**
Spring		
CHEM:1120	Principles of Chemistry II [a]	4
	Hours	**4**
Second Year		
Fall		
BIOL:1411	Foundations of Biology [c]	4
	Hours	**4**
Spring		
BIOL:1412	Diversity of Form and Function [c]	4
	Hours	**4**
Third Year		
Fall		
Minor: biology course (prefix BIOL) [d]		3
	Hours	**3**
Spring		
Minor: biology course (prefix BIOL) [d]		3
	Hours	**3**
Fourth Year		
Fall		
Minor: biology course (prefix BIOL) [d]		3
	Hours	**3**
Spring		
Minor: biology course (prefix BIOL) [d]		3
	Hours	**3**
	Total Hours	**28**

a Chemistry does not count toward the biology minor, but CHEM:1110 is a prerequisite to the first biology course and is required for most other biology courses. CHEM:1120 will be required for some but not all upper-level biology courses.

b Enrollment in chemistry courses requires completion of a placement exam.

c BIOL:1411 and BIOL:1412 are both required before taking upper-level biology courses.

d Any biology course numbered 2000 and above except BIOL:2120, BIOL:3999, BIOL:4995 and BIOL:4999. Either BIOL:2512 or BIOL:2211 will count toward the minor, but not both. Students may count BIOL:3994 (maximum of 3 s.h.) and BIOL:4897 (maximum of 3 s.h.) only once toward the minor. Consult an advisor for approved Lakeside laboratory courses toward the minor.

Integrated Biology, MS

The Department of Biology's graduate programs in integrated biology (iBio) emphasize original research and developing the skills essential for publishing and communicating research findings to the scientific community. Research programs in the department cover many areas of the biological sciences: cell biology, developmental biology, ecology, evolution, genetics, and neurobiology. Graduate study in the department provides students with a broad understanding of these basic areas.

Newly admitted graduate students choose a faculty research advisor and together they discuss the student's educational background to formulate a first-semester study plan before registration. The programs allow each student to tailor coursework to their own research interests. Students may be advised to take specific coursework in order to enhance their background in certain areas.

During the first year, students whose preparation in chemistry, genetics, mathematics, or physics is insufficient may need to remedy deficiencies by taking appropriate coursework.

Entering students typically will have taken the following courses: organic chemistry, biochemistry, calculus or physics, and 20 s.h. of coursework in biology including a fundamental genetics course.

Students with bachelor's degrees outside the biological sciences may request modification of certain area requirements. The Graduate Affairs Committee decides whether portions of the requirements may be waived.

Learning Outcomes

Graduates will:

- master the skill of reading, understanding, and summarizing primary literature across a variety of biology subdisciplines, demonstrating effective scholarly communication in the process;
- explain in writing the experimental rationale, articulate the central hypothesis, and outline the major investigative steps that will be undertaken in a student's primary area of research;
- orally communicate established scientific concepts as well as ongoing research hypotheses, experimental design, and results to a wide array of audiences using established scientific communication norms;
- master in-depth pedagogical concepts through advanced lecture courses and engage in a vertically integrated critical analysis of a single topic over many levels of basic biology;
- learn and implement field-specific experimental processes, techniques, and data analyses in a responsible manner consistent with current bioethical protocols; and
- establish networking connections within the scientific profession, from peers to established, independent researchers.

Requirements

The Master of Science in integrated biology requires 30 s.h. of graduate credit with thesis or 34 s.h. of graduate credit without thesis. Students completing the MS with thesis must maintain a graduate college program grade-point average of at least 3.00. Entering students are typically admitted only to the thesis program; however, students who decide not to continue their studies may opt for the nonthesis program.

The MS in integrated biology requires the following coursework.

Requirements	Hours
Concepts, Models, and Systems Seminars	6
Core Courses	7
Data Informatics and Advanced Lectures	12-15
Electives	2-9

Concepts, Models, and Systems Seminars

Students take BIOL:6299 Concepts, Models, and Systems in Biology (COSMOS) Seminar II on an A–F graded basis. They may substitute another 2 s.h. seminar for BIOL:6299 Concepts, Models, and Systems in Biology (COSMOS) Seminar II with approval of the director of graduate studies.

Course #	Title	Hours
All of these (6 s.h.):		
BIOL:6298	Concepts, Models, and Systems in Biology (COSMOS) Seminar I (taken two fall semesters for 1 s.h. each)	2
BIOL:6299	Concepts, Models, and Systems in Biology (COSMOS) Seminar II (taken two spring semesters for 2 s.h. each)	4

Students enrolled longer than the typical two years to complete the degree apply additional enrollments of these courses toward electives. Should a student complete the degree in less than two years, another elective course would be substituted to reach the overall credit hours for the degree.

Core Courses

Students must earn a B-minus or above in both BIOL:5312 Critical Analysis of Biological Research: Concepts, Methods, and Interpretation and BIOL:5512 Readings in Genetics; students who earn a lower grade in either will be required to retake the course. A grade lower than B-minus in two attempts of either course will result in dismissal from the program.

Students must take BIOL:6188 Seminar: Writing in Natural Sciences on an A–F graded basis.

Students must take BIOL:7270 Principles of Scholarly Integrity every four years. Additional enrollments may be applied to elective credits.

Course #	Title	Hours
All of these (7 s.h.):		
BIOL:5312	Critical Analysis of Biological Research: Concepts, Methods, and Interpretation (taken in the first year, fall semester)	2
BIOL:5512	Readings in Genetics (taken in the second year, fall semester)	2
BIOL:6188	Seminar: Writing in Natural Sciences	2

BIOL:7270/ PSY:7270	Principles of Scholarly Integrity	1

Data Informatics and Advanced Lectures

Students must take one data informatics course and two advanced lecture courses. Students take a fourth course in either category.

Data Informatics Courses

Course #	Title	Hours
At least one of these:		
BIOL:3212/ IGPI:3212	Bioinformatics for Beginners	3
BIOL:4213/ GENE:4213/ IGPI:4213	Bioinformatics	4
BIOL:4386	Introduction to Scientific Computing for Biologists	3
BIOS:4120	Introduction to Biostatistics	3
BIOS:5710/ IGPI:5710	Biostatistical Methods I	4
BIOS:5720/ IGPI:5720	Biostatistical Methods II	4
BIOS:5730/ IGPI:5730	Biostatistical Methods in Categorical Data	3
BIOS:6810	Bayesian Methods and Design	3
BMB:4310/ BME:4310	Computational Biochemistry	3
BME:5335	Computational Bioinformatics	3
ISE:4172	Big Data Analytics	3
IGPI:4200/ STAT:4200	Statistical Methods and Computing	3
IGPI:5110/CS:5110	Introduction to Informatics	3

Advanced Lecture Courses

Students must complete BIOL:5412 Fundamental Genetics: Graduate Lecture unless they completed an equivalent course during their undergraduate studies, in which case they select an additional course from this list.

Course #	Title	Hours
This course:		
BIOL:5412	Fundamental Genetics: Graduate Lecture	3
At least one of these:		
BIOL:3212/ IGPI:3212	Bioinformatics for Beginners	3
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3244	Animal Behavior	3
BIOL:3245	Animal Behavior Laboratory	4
BIOL:3314/ IGPI:3314	Genomics	3
BIOL:3343	Animal Physiology	3
BIOL:3363	Plant Developmental Biology	3
BIOL:3713	Molecular Genetics	4
BIOL:4333	Genes and Development	3
BIOL:4373/ IGPI:4373	Molecular Evolution: Genes, Genomes, and Organisms	3
BIOL:4386	Introduction to Scientific Computing for Biologists	3
BIOL:5172	Evolution - Graduate Lecture	3
BIOL:5472	Foundations of Evolutionary Theory	3
BIOL:5653/ NSCI:5653/ PSY:5203	Fundamental Neurobiology I	3
BIOL:5654/ NSCI:5654/ PSY:5205	Fundamental Neurobiology II	3
BMED:5207	Principles of Molecular and Cellular Biology	3
EPID:4400	Epidemiology I: Principles	3
FRRB:7001/ CBIO:7001/ PATH:7001	Molecular and Cellular Biology of Cancer	3
GENE:7191	Human Molecular Genetics	3
IMMU:6247/ MICR:6247	Graduate Immunology and Human Disease	4
PATH:5270/ IGPI:5270/ MMED:5270	Pathogenesis of Major Human Diseases	3

Alternative Advanced Lecture Courses

Students may substitute one advanced lecture course with three of the following 1 s.h. courses; they may substitute two advanced lecture courses with six of the following courses.

Course #	Title	Hours
ACB:5224	Graduate Seminar in Cell and Developmental Biology	1
ACB:6200/ GENE:6200	Current Topics in Genetics	1
ACB:6227/ MMED:6227/ MPB:6227	Cell Fate Decisions	1
ACB:6239	Critical Thinking in Cell Biology	1
ACB:6249	Critical Thinking in Cellular Physiology	1
BMB:5244/ PHAR:5542	Molecular Recognition	1
BMB:5875/ CBE:5875/ CEE:5875/ CHEM:5875/ MICR:5875/ PHAR:5875	Perspectives in Biotechnology	1
BMB:7254	Metabolism I	1
BMB:7255	Metabolism II	1
BMB:7256	Molecular Biology	1
PCOL:5204	Basic Biostatistics and Experimental Design	1

Electives

Elective courses must bring the total credit for the degree to a minimum of 30 s.h. for students completing a thesis or a minimum of 34 s.h. for students who are not completing a thesis. The remaining coursework is tailored to a student's background and career goals and is selected in consultation

with the student's advisory committee. Research may be counted toward elective credits; see the following section titled "Research."

Elective courses may include additional courses from the preceding data informatics or advanced lecture categories; biology coursework (prefix BIOL) numbered 3000 or above, excluding BIOL:3172, BIOL:3245, BIOL:3626, BIOL:3655, BIOL:3656, BIOL:3676, BIOL:3716, BIOL:3736, and BIOL:4314; biostatistics coursework (prefix BIOS) numbered 3000 or above; or courses from the following list. Additional courses not listed here may be considered for approval by the student's advisor.

Students may count BIOL:5110 Practicum: College Teaching for Biology Teaching Assistants a maximum of twice toward this elective requirement.

Course #	Title	Hours
BAIS:6480/ IGPI:6480	Knowledge Discovery	3
CS:3010	Software Engineering Fundamentals in Java	3
CS:3210	Programming Languages and Tools	arr.
CS:3980	Topics in Computer Science I	3
CS:4400	Database Systems	3
CS:4500	Research Methods in Human-Computer Interaction	3
CS:4510	Human-Computer Interaction for Computer Science	3
CS:5110/IGPI:5110	Introduction to Informatics	3
CS:5980	Topics in Computer Science III	arr.
EALL:7475	ePortfolio in College Teaching	3
GRAD:7400	Practicum in College Teaching	arr.
PSQF:4143/ STAT:4143	Introduction to Statistical Methods	3
PSQF:6203	Tools and External Representations in Individual and Social Learning	3
PSQF:6205	Design of Instruction	3
PSQF:6211	Universal Design and Accessibility for Online Instruction	3
PSQF:6214	Design of Learning Environments: Theory, Practice, and Method	3
PSQF:6215	Online Instruction: Design and Facilitation	3
PSQF:6216	Tools and Utilities for Online Teaching	3
PSQF:6217/ GRAD:6217	Seminar in College Teaching	1-3
RHET:5352	Seminar: Topics in Teaching and Professional Development	3
RHET:7940	Public Speaking for Academics	3
SEES:4580/ IGPI:4581	Introduction to Geographic Databases	3
STAT:4540/ BAIS:4540/ DATA:4540/ IGPI:4540	Statistical Learning	3

Research

Students completing a thesis must first have the thesis accepted by the student's supervisor and advisory committee. Next, the student must pass an oral examination based on the thesis research and related subjects. Students completing a thesis are permitted, but not required, to apply a maximum of 5 s.h. of BIOL:6199 Research: Biology toward elective requirements.

Students not completing a thesis are instead required to write a library research report. These students are permitted, but not required, to apply a combined maximum of 4 s.h. of BIOL:6199 Research: Biology and BIOL:6899 Independent Study in Biology toward elective requirements.

Admission

Individuals who wish to pursue graduate study in integrated biology may apply to the Master of Science with thesis program. The MS without thesis is an exit program and does not admit entering graduate students.

Application materials for the graduate program must be uploaded to the university's Admissions website. These are reviewed by the Department of Biology Graduate Recruitment and Admissions Committee. For detailed instructions, visit Graduate Admissions Process on the integrated biology graduate program website.

Applicants must hold a valid BA or BS from an accredited institution. They must supply official transcripts from each undergraduate and graduate institution they have attended. The Graduate Record Examination (GRE) General Test is not required for admission, but if students wish to have their results considered they must include their verbal, quantitative, and analytical writing scores.

Successful applicants for graduate admission typically have a grade-point average of at least 3.00 on a 4.00 scale. The admissions committee also considers letters of recommendation, a personal statement, and other appropriate criteria, especially prior research experience.

Although most applicants will have completed undergraduate programs in biology, the department also considers applicants with backgrounds in related sciences, provided they have taken the required coursework.

Students applying for admission to the MS with thesis program should have a bachelor's degree in one of the biological sciences. Students with bachelor's degrees in other areas may need to register as nondegree students and complete the equivalent of the department's bachelor's degree program prior to consideration for admission. Nondegree students must complete chemistry, physics, and calculus requirements in addition to the biology courses listed in the undergraduate program. Nondegree students should consult the department's graduate program administrator before applying for admission.

Applications are reviewed on a rolling basis during the spring semester; visit the iBio Graduate Program website for updated deadline information.

Applicants must meet the minimum admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

The graduate program in integrated biology prepares students for careers in academic research, science education, industry, government, and a variety of other careers in which their scientific expertise can be used.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Integrated Biology, MS

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
BIOL:5312	Critical Analysis of Biological Research: Concepts, Methods, and Interpretation [c]	2
BIOL:5412	Fundamental Genetics: Graduate Lecture [d, e]	3
BIOL:6199	Research: Biology [f, g]	2
BIOL:6298	Concepts, Models, and Systems in Biology (COSMOS) Seminar I [h]	1
BIOL:7270	Principles of Scholarly Integrity	1
	Hours	**9**
Spring		
BIOL:5512	Readings in Genetics [c]	2
BIOL:6199	Research: Biology [f, g]	1
BIOL:6299	Concepts, Models, and Systems in Biology (COSMOS) Seminar II [i, j]	2
Data informatics course [f]		3 - 4
	Hours	**8-9**
Second Year		
Fall		
BIOL:6199	Research: Biology [f, g]	1
BIOL:6298	Concepts, Models, and Systems in Biology (COSMOS) Seminar I [h]	1
Advanced lecture course [e, f]		3 - 4
Elective course [f]		3
	Hours	**8-9**
Spring		
BIOL:6188	Seminar: Writing in Natural Sciences [k]	2
BIOL:6199	Research: Biology [g]	1
BIOL:6299	Concepts, Models, and Systems in Biology (COSMOS) Seminar II [i, j]	2
Exam: Master's Final Exam [l]		
	Hours	**5**
	Total Hours	**30-32**

a Students who take coursework to make up for undergraduate deficiencies (e.g., physics, biochemistry, or fundamental genetics) may not count that coursework towards the degree requirements.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c Students must earn a B-minus or above in both BIOL:5312 and BIOL:5512; students who earn a lower grade in either will be required to retake the course.
d Students who completed an equivalent course during their undergraduate studies may select another advanced lecture course; see the General Catalog for list of approved courses.
e Students may substitute one advanced lecture course with three 1 s.h. alternative advanced lecture courses; six of the 1 s.h. courses may be substituted for the two advanced lecture courses. See the General Catalog for list of approved courses.
f See the General Catalog for list of approved courses.
g Students are permitted to apply a maximum of 5 s.h. of BIOL:6199 toward elective requirements.
h Taken two fall semesters for 1 s.h. each.
i Students must take BIOL:6299 on an A-F graded basis. They may substitute another 2 s.h. seminar with approval of the director of graduate studies.
j Taken two spring semesters for 2 s.h. each.
k Students must take BIOL:6188 on an A-F graded basis.
l Thesis defense.

Integrated Biology, PhD

The Department of Biology's graduate programs in integrated biology (iBio) emphasize original research and developing the skills essential for publishing and communicating research findings to the scientific community. Research programs in the department cover many areas of the biological sciences: cell biology, developmental biology, ecology, evolution, genetics, and neurobiology. Graduate study in the department provides students with a broad understanding of these basic areas.

Newly admitted graduate students are assigned a temporary advisor and together they discuss the student's educational background to formulate a first-semester study plan before registration. The programs allow each student to tailor coursework to their own research interests. Students may be advised to take specific coursework in order to enhance their background in certain areas.

During the first year, students whose preparation in chemistry, genetics, mathematics, or physics is insufficient may need to remedy deficiencies by taking appropriate coursework.

Entering students typically will have taken the following courses: two semesters of organic chemistry or one semester of organic chemistry and one semester of biochemistry; one semester of calculus; two semesters of college physics; and 20 s.h. of coursework in biology, including genetics.

Students with bachelor's degrees outside the biological sciences may request modification of certain area requirements. The Graduate Affairs Committee decides whether portions of the requirements may be waived.

Learning Outcomes

Graduates will:

- master the skill of reading, understanding, and summarizing primary literature across a variety of biology subdisciplines, demonstrating effective scholarly communication in the process;
- explain in writing the experimental rationale, articulate the central hypothesis, and outline the major investigative steps that will be undertaken in a student's primary area of research;
- orally communicate established scientific concepts as well as ongoing research hypotheses, experimental design, and results to a wide array of audiences using established scientific communication norms;
- master in-depth pedagogical concepts through advanced lecture courses and engage in a vertically integrated critical analysis of a single topic over many levels of basic biology;
- learn and implement field-specific experimental processes, techniques, and data analyses in a responsible manner consistent with current bioethical protocols;
- establish networking connections within the scientific profession, from peers to established, independent researchers; and
- become a research subproject leader (evidenced by publication/meeting presentation/grant submittal) within the context of a research group.

Requirements

The Doctor of Philosophy in integrated biology requires a minimum of 72 s.h. of graduate credit. Students must maintain a graduate college program grade-point average of at least 3.00.

New PhD students typically go through three laboratory rotations with different faculty during their first semester (August–December). Students with existing mentors in the Department of Biology may also seek to directly affiliate with that laboratory. Students consult with their temporary advisor and prospective faculty research sponsors before identifying their preferences for research rotations. Based on their rotations, they choose a laboratory affiliation for their thesis late in the first semester.

The PhD in integrated biology requires the following coursework.

Requirements	Hours
Concepts, Models, and Systems Seminars	11
Core Courses	7
Data Informatics and Advanced Lectures	12-15
Research	6
Electives	33-36
Additional Requirements	

Concepts, Models, and Systems Seminars

Students must take BIOL:6299 Concepts, Models, and Systems in Biology (COSMOS) Seminar II on an A–F graded basis. They may substitute another 2 s.h. seminar for BIOL:6299 with approval of the director of graduate studies.

Course #	Title	Hours
All of these (11 s.h.):		
BIOL:6298	Concepts, Models, and Systems in Biology (COSMOS) Seminar I (taken five fall semesters for 1 s.h. each)	5
BIOL:6299	Concepts, Models, and Systems in Biology (COSMOS) Seminar II (taken three spring semesters for 2 s.h. each)	6

Students enrolled longer than the typical five years to complete the degree apply additional enrollments of these courses toward electives. Should a student complete the degree in less than five years, another elective course would be substituted to reach the overall credit hours for the degree.

Core Courses

Students must earn a B-minus or above in both BIOL:5312 Critical Analysis of Biological Research: Concepts, Methods, and Interpretation and BIOL:5512 Readings in Genetics; students who earn a lower grade in either will be required to retake the course. A grade lower than B-minus in two attempts of either course will result in dismissal from the program.

Students must take BIOL:6188 Seminar: Writing in Natural Sciences on an A–F graded basis.

Students must take BIOL:7270 Principles of Scholarly Integrity every four years. Additional enrollments may apply to elective credits.

Course #	Title	Hours
All of these (7 s.h.):		
BIOL:5312	Critical Analysis of Biological Research: Concepts, Methods, and Interpretation	2
BIOL:5512	Readings in Genetics (taken in the second year, fall semester)	2
BIOL:6188	Seminar: Writing in Natural Sciences	2
BIOL:7270/ PSY:7270	Principles of Scholarly Integrity	1

Data Informatics and Advanced Lectures

Students must take one data informatics course and two advanced lecture courses. Students take a fourth class in either category.

Data Informatics Courses

Course #	Title	Hours
At least one of these:		
BIOL:3212/ IGPI:3212	Bioinformatics for Beginners	3
BIOL:4213/ GENE:4213/ IGPI:4213	Bioinformatics	4
BIOL:4386	Introduction to Scientific Computing for Biologists	3
BIOS:4120	Introduction to Biostatistics	3
BIOS:5710/ IGPI:5710	Biostatistical Methods I	4
BIOS:5720/ IGPI:5720	Biostatistical Methods II	4
BIOS:5730/ IGPI:5730	Biostatistical Methods in Categorical Data	3
BIOS:6810	Bayesian Methods and Design	3
BMB:4310/ BME:4310	Computational Biochemistry	3
BME:5335	Computational Bioinformatics	3
ISE:4172	Big Data Analytics	3
IGPI:4200/ STAT:4200	Statistical Methods and Computing	3
IGPI:5110/CS:5110	Introduction to Informatics	3

Advanced Lecture Courses

Students must complete BIOL:5412 Fundamental Genetics: Graduate Lecture unless they completed an equivalent course during their undergraduate studies, in which case they select an additional course from this list.

Course #	Title	Hours
This course:		
BIOL:5412	Fundamental Genetics: Graduate Lecture	3
At least one of these:		
BIOL:3212/ IGPI:3212	Bioinformatics for Beginners	3
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3244	Animal Behavior	3
BIOL:3245	Animal Behavior Laboratory	4
BIOL:3314/ IGPI:3314	Genomics	3
BIOL:3343	Animal Physiology	3
BIOL:3363	Plant Developmental Biology	3
BIOL:3713	Molecular Genetics	4
BIOL:4333	Genes and Development	3
BIOL:4373/ IGPI:4373	Molecular Evolution: Genes, Genomes, and Organisms	3
BIOL:4386	Introduction to Scientific Computing for Biologists	3
BIOL:5172	Evolution - Graduate Lecture	3
BIOL:5472	Foundations of Evolutionary Theory	3
BIOL:5653/ NSCI:5653/ PSY:5203	Fundamental Neurobiology I	3
BIOL:5654/ NSCI:5654/ PSY:5205	Fundamental Neurobiology II	3
BMED:5207	Principles of Molecular and Cellular Biology	3
EPID:4400	Epidemiology I: Principles	3
FRRB:7001/ CBIO:7001/ PATH:7001	Molecular and Cellular Biology of Cancer	3
GENE:7191	Human Molecular Genetics	3
IMMU:6247/ MICR:6247	Graduate Immunology and Human Disease	4
PATH:5270/ IGPI:5270/ MMED:5270	Pathogenesis of Major Human Diseases	3

Alternative Advanced Lecture Courses

Students may substitute one advanced lecture course with three of the following 1 s.h. courses; they may substitute two advanced lecture courses with six of the following courses.

Course #	Title	Hours
ACB:5224	Graduate Seminar in Cell and Developmental Biology	1
ACB:6200/ GENE:6200	Current Topics in Genetics	1
ACB:6227/ MMED:6227/ MPB:6227	Cell Fate Decisions	1
ACB:6239	Critical Thinking in Cell Biology	1
ACB:6249	Critical Thinking in Cellular Physiology	1
BMB:5244/ PHAR:5542	Molecular Recognition	1
BMB:5875/ CBE:5875/ CEE:5875/ CHEM:5875/ MICR:5875/ PHAR:5875	Perspectives in Biotechnology	1

BMB:7254	Metabolism I	1
BMB:7255	Metabolism II	1
BMB:7256	Molecular Biology	1
PCOL:5204	Basic Biostatistics and Experimental Design	1

Research

Students are required to complete a minimum of 6 s.h. in BIOL:6199 Research: Biology. Additional enrollments beyond the 6 s.h. minimum can be applied toward the electives requirement.

Electives

Elective courses must bring the total credit for the degree to a minimum of 72 s.h. The remaining coursework is tailored to a student's background and career goals and is selected in consultation with the student's advisory committee; research may be counted toward elective credits as described in the preceding section titled "Research."

Elective courses may include additional courses from the preceding data informatics and advanced lecture categories; biology coursework (prefix BIOL) numbered 3000 or above, excluding BIOL:3172, BIOL:3245, BIOL:3626, BIOL:3655, BIOL:3656, BIOL:3676, BIOL:3716, BIOL:3736, BIOL:4314, and BIOL:6899; biostatistics coursework (prefix BIOS) numbered 3000 or above; or courses from the following list. Additional courses not listed here may be considered for approval by the student’s advisor.

Students may count BIOL:5110 Practicum: College Teaching for Biology Teaching Assistants a maximum of twice toward this elective requirement.

Course #	Title	Hours
BAIS:6480/ IGPI:6480	Knowledge Discovery	3
CS:3010	Software Engineering Fundamentals in Java	3
CS:3210	Programming Languages and Tools	arr.
CS:3980	Topics in Computer Science I	3
CS:4400	Database Systems	3
CS:4500	Research Methods in Human-Computer Interaction	3
CS:4510	Human-Computer Interaction for Computer Science	3
CS:5110/IGPI:5110	Introduction to Informatics	3
CS:5980	Topics in Computer Science III	arr.
EALL:7475	ePortfolio in College Teaching	3
GRAD:7400	Practicum in College Teaching	arr.
PSQF:4143/ STAT:4143	Introduction to Statistical Methods	3
PSQF:6203	Tools and External Representations in Individual and Social Learning	3
PSQF:6205	Design of Instruction	3
PSQF:6211	Universal Design and Accessibility for Online Instruction	3
PSQF:6214	Design of Learning Environments: Theory, Practice, and Method	3
PSQF:6215	Online Instruction: Design and Facilitation	3
PSQF:6216	Tools and Utilities for Online Teaching	3
PSQF:6217/ GRAD:6217	Seminar in College Teaching	1-3
RHET:5352	Seminar: Topics in Teaching and Professional Development	3
RHET:7940	Public Speaking for Academics	3
SEES:4580/ IGPI:4581	Introduction to Geographic Databases	3
STAT:4540/ BAIS:4540/ DATA:4540/ IGPI:4540	Statistical Learning	3

Additional PhD Requirements

The comprehensive examination is taken in the summer of the second year in residence. Students prepare a National Institutes of Health/National Science Foundation-style grant application on their planned thesis work and orally defend this work in front of a review committee. They must demonstrate knowledge of biology fundamentals and the analytic and synthetic skills necessary to become creative, independent scientists. Once they complete the coursework and proficiency requirements and pass the comprehensive examination, students may be admitted to full candidacy for the PhD.

Students must serve as teaching assistants for at least two semesters in order to develop and demonstrate teaching proficiency. The first teaching semester takes place during the spring of a student's first year and is preceded by extensive departmental training in effective teaching skills (BIOL:5110).

The department also offers career seminars that explore types of employment outside of academic research, including teaching careers and other topics.

The program culminates in students' preparation of a dissertation based on original independent research. Students must pass a final examination that covers the thesis and its specialized field before the PhD is awarded.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in integrated biology in a combined degree program offered by the Carver College of Medicine and the Graduate College. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

Application materials for the graduate program must be uploaded to the university's Admissions website. These are

reviewed by the Department of Biology Graduate Recruitment and Admissions Committee. For detailed instructions, visit Graduate Admissions Process on the integrated biology graduate program website.

Applicants must hold a valid BA or BS from an accredited institution. They should supply official transcripts from each undergraduate and graduate institution they have attended. The Graduate Record Examination (GRE) General Test is not required for admission, but if students wish to have their results considered they must include their verbal, quantitative, and analytical writing scores.

Successful applicants for graduate admission typically have a grade-point average of at least 3.00 on a 4.00 scale. The admissions committee also considers letters of recommendation, a personal statement, and other appropriate criteria, especially prior research experience.

Although most applicants will have completed undergraduate programs in biology, the department also considers applicants with backgrounds in related sciences, provided they have taken the required coursework. Students with bachelor's degrees in other areas may need to register as nondegree students and complete the equivalent of the department's bachelor's degree program prior to consideration for admission. Nondegree students may be asked to complete chemistry, physics, and calculus in addition to the biology courses listed in the undergraduate program. Nondegree students should consult the department's graduate program administrator before applying.

Review of applications typically begins by Dec. 1; visit the iBio Graduate Program website for updated application information and instructions. Applications are reviewed on a rolling basis until available slots for the interview weekend (typically held in late February) are filled.

Applicants must meet the minimum admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

The graduate program in integrated biology prepares students for careers in academic research, science education, industry, government, and a variety of other careers in which their scientific expertise can be used.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Integrated Biology, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
BIOL:5312	Critical Analysis of Biological Research: Concepts, Methods, and Interpretation [c]	2
BIOL:5412	Fundamental Genetics: Graduate Lecture [d, e]	3
BIOL:6199	Research: Biology [f]	8
BIOL:6298	Concepts, Models, and Systems in Biology (COSMOS) Seminar I [g]	1
BIOL:7270	Principles of Scholarly Integrity [h]	1
	Hours	**15**
Spring		
BIOL:5110	Practicum: College Teaching for Biology Teaching Assistants	2
BIOL:6199	Research: Biology [f]	7 - 8
BIOL:6299	Concepts, Models, and Systems in Biology (COSMOS) Seminar II [i, j]	2
Data informatics course [k]		3 - 4
	Hours	**14-16**
Second Year		
Fall		
BIOL:5512	Readings in Genetics [c]	2
BIOL:6199	Research: Biology [f]	9
BIOL:6298	Concepts, Models, and Systems in Biology (COSMOS) Seminar I [g]	1
Advanced lecture course [e, k]		3 - 4
	Hours	**15-16**
Spring		
BIOL:6188	Seminar: Writing in Natural Sciences [l]	2
BIOL:6199	Research: Biology [f]	11
BIOL:6299	Concepts, Models, and Systems in Biology (COSMOS) Seminar II [i, j]	2
	Hours	**15**
Summer		
Exam: Doctoral Comprehensive Exam [m]		
	Hours	**0**
Third Year		
Fall		
BIOL:6298	Concepts, Models, and Systems in Biology (COSMOS) Seminar I [g]	1
Data informatics/advanced lecture course [e, k]		3 - 4
	Hours	**4-5**
Spring		
BIOL:6299	Concepts, Models, and Systems in Biology (COSMOS) Seminar II [i, j]	2
	Hours	**2**

Fourth Year		
Fall		
BIOL:6298	Concepts, Models, and Systems in Biology (COSMOS) Seminar I [g]	1
	Hours	**1**
Spring		
BIOL:6199	Research: Biology [f]	2
	Hours	**2**
Fifth Year		
Fall		
BIOL:6298	Concepts, Models, and Systems in Biology (COSMOS) Seminar I [g]	1
BIOL:7270	Principles of Scholarly Integrity	1
	Hours	**2**
Spring		
BIOL:6199	Research: Biology [f]	2
Exam: Doctoral Final Exam [n]		
	Hours	**2**
	Total Hours	**72-76**

a Students who take coursework to make up for undergraduate deficiencies (e.g., physics, biochemistry, or fundamental genetics) may not count that coursework towards the degree requirements.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Students must earn a B-minus or above in both BIOL:5312 and BIOL:5512; students who earn a lower grade in either will be required to retake the course.

d Students who completed an equivalent course during their undergraduate studies may select another advanced lecture course; see the General Catalog for list of approved courses.

e Students may substitute one advanced lecture course with three 1 s.h. alternative advanced lecture courses; six of the 1 s.h. courses may be substituted for the two advanced lecture courses. See the General Catalog for list of approved courses.

f Students are required to complete a minimum of 6 s.h. in BIOL:6199. Additional enrollments beyond the 6 s.h. minimum can be applied toward the electives requirement.

g Taken five fall semesters for 1 s.h. each.

h Students must take BIOL:7270 every four years. Additional enrollments may apply to elective credits.

i Taken three spring semesters for 2 s.h. each.

j Students must take BIOL:6299 on an A-F graded basis. They may substitute another 2 s.h. seminar with approval of the director of graduate studies.

k Students must take one data informatics course, two advanced lecture courses, and an additional course from either category. See the General Catalog for lists of approved courses.

l Students must take BIOL:6188 on an A-F graded basis.

m The comprehensive exam requires current session enrollment.

n Dissertation defense.

Biomedical Sciences

Chair, Department of Biology

- Tina L. Tootle

Director, Biomedical Sciences

- Jan S. Fassler (Biology)

Undergraduate major: biomedical sciences (BS)

Website: https://biology.uiowa.edu/

Biomedical sciences is an interdisciplinary major designed for students who plan to attend medical school or conduct biomedical research in graduate school and beyond. The curriculum stretches broadly across scientific and mathematical fields. The major is selective, with a limited number of students admitted, and the curriculum is challenging, requiring dedication by its students, who are mentored by faculty members from the participating disciplines.

The departments of Biology and Chemistry (College of Liberal Arts and Sciences), Biochemistry and Molecular Biology, and Microbiology and Immunology (Carver College of Medicine) collaborate to offer the major in biomedical sciences; the major is administered by the Department of Biology [p. 141].

Programs

Undergraduate Program of Study

Major

- Major in Biomedical Sciences (Bachelor of Science) [p. 174]

Biomedical Sciences, BS

Learning Outcomes

Graduates of the biomedical sciences program will achieve the following.

Foundational Knowledge

Comprehension of fundamental principles and concepts in the natural and social sciences.

Graduates will be able to:

- integrate across the natural and social sciences;
- apply foundational knowledge and conceptual frameworks to biomedicine;
- recognize the consequences of evolutionary history in the understanding of human biology and disease; and
- evaluate new information reported in the news and/or in scientific publications against prior knowledge.

New Discovery

Scientific reasoning and experimental process in biomedicine.

Graduates will be able to:

- perform basic laboratory procedures, including correct operation of devices;
- formulate questions about natural processes based on current knowledge;
- construct a hypothesis to guide experimental inquiry;
- design experiments, identifying variables of analysis and controls for error;
- consider appropriate strategies or technologies applicable to investigate a novel problem;
- collect, organize, summarize, and interpret data;
- analyze and evaluate experimental results to inform a hypothesis; and
- distinguish between necessary and sufficient causes.

Quantitative Skills

Mathematical reasoning and basic numeracy applied to biomedicine.

Graduates will be able to:

- perform essential mathematical operations such as unit conversions, dilutions, and molarity calculations;
- apply mathematical concepts and rules of probability to make predictions;
- select and apply appropriate statistical tests to determine the significance of experimental results; and
- use mathematical and/or statistical expressions to evaluate hypotheses with experimental data.

Information Literacy

Acquisition, analysis, and summary of published biomedical information.

Graduates will be able to:

- locate and evaluate the relevance and credibility of information from electronic and print sources;
- navigate and obtain relevant information from public databases;
- recognize and appropriately cite sources of information;
- identify questions addressed and methodologies used; and
- assess findings reported and conclusions drawn in published scientific articles.

Communication Proficiency

Written and oral presentation of biomedical information.

Graduates will be able to:

- write concise scientific reports based on findings or literature searches;
- construct visual presentations of results or findings from the scientific literature; and
- present findings or results from the literature orally with appropriate media.

Requirements

The Bachelor of Science with a major in biomedical sciences requires a minimum of 120 s.h., including at least 79–81 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The interdisciplinary major provides an excellent foundation for medical training and research and/or practice in the chemical, genetic, cellular, and physiological bases of human disease. The curriculum includes required and elective coursework in biochemistry and molecular biology, biology, chemistry, health, sport, and human physiology, mathematics, microbiology and immunology, physics, psychology, sociology, and statistics. Students who wish to apply transfer credit toward the major should consult their departmental advisor.

Students who earn a major in biomedical sciences may not earn a major in biology (BA or BS).

The BS with a major in biomedical sciences requires the following coursework.

Requirements	Hours
Required Courses	66-67
Elective Courses	13-14

Required Courses

Students complete the following coursework (66–67 s.h.).

Chemistry

Course #	Title	Hours
All of these:		
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3
CHEM:1110	Principles of Chemistry I	4
CHEM:1120	Principles of Chemistry II	4
CHEM:2210	Organic Chemistry I	3
CHEM:2220	Organic Chemistry II	3
CHEM:2410	Organic Chemistry Laboratory	3

Life Sciences

Course #	Title	Hours
All of these:		
BIOL:1411	Foundations of Biology	4

BIOL:2512	Fundamental Genetics	4
BIOL:3373	Human Population Genetics and Variation	3
HHP:2400	Fundamentals of Human Physiology	3
MICR:2157 & MICR:2158	General Microbiology and General Microbiology Laboratory (both courses should be taken in the same semester)	5

Mathematics

Course #	Title	Hours
One of these:		
MATH:1460	Calculus for the Biological Sciences	4
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4

Statistics

Course #	Title	Hours
This course:		
STAT:3510	Biostatistics	3

Physics

Course #	Title	Hours
One of these sequences:		
PHYS:1511 & PHYS:1512	College Physics I and College Physics II	8
PHYS:1611 & PHYS:1612	Introductory Physics I and Introductory Physics II	8

Social Sciences

Course #	Title	Hours
Both of these:		
PSY:1001	Elementary Psychology	3
SOC:1010	Introduction to Sociology	3-4
One of these:		
CPH:1800	Social and Psychological Determinants of Health: Changing Behavior, Improving Health	3
PSY:2130	Advanced Psychology for Pre-Medical Track	3
PSY:2930	Abnormal Psychology: Health Professions	3

Elective Courses

Students complete a total of 13–14 s.h. of elective coursework chosen from the following lists.

Lecture Courses

Course #	Title	Hours
Two of these:		
BIOL:2254	Endocrinology	3
BIOL:2723	Cell Biology	3
BIOL:2753	Introduction to Neurobiology	3
BIOL:3212	Bioinformatics for Beginners	3
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3244	Animal Behavior	3
BIOL:3314	Genomics	3
BIOL:3343	Animal Physiology	3
MICR:3147	Immunology and Human Disease	3
MICR:3159	Bacteria and Human Disease	3
MICR:3168	Viruses and Human Disease	3

Investigative Lab

Course #	Title	Hours
One of these:		
BIOL:3245	Animal Behavior Laboratory	4
BIOL:3626	Cell Biology Laboratory	4
BIOL:3656	Neurobiology Laboratory	4
BIOL:3676	Evolution Lab	4
BIOL:3716	Genetics and Biotechnology Lab	4
BIOL:3736	Developmental Biology Lab	4
MICR:3165	Genetics of Bacterial Pathogens Lab and Discussion	3

Experiential Learning

The objective of this requirement is to enrich the curriculum through efforts on a research project or other academic experience where a student pursues activities in the biomedical sciences.

Course #	Title	Hours
Choose from the following:		
BIOL:3994	Introduction to Research (taken twice for 2 s.h. each)	4
BIOL:4999	Honors Research in Biology (taken twice for 2 s.h. each)	4
An approved research course equivalent, such as HONR:4990.		4
Approved internships, paid hourly research work, or similar experiences conducted over at least two semesters		0-4

Approved internships, paid hourly research work, and similar experiences may be used to satisfy the experiential learning requirement. They may also be used to fulfill the experiential learning requirement for the University of Iowa Honors Program. Students should discuss potential activities with academic advisors and, if necessary, obtain approval from the program director for a personalized plan to satisfy the requirement. A final summary of completed and in-progress experiential learning activities, including courses taken, fellowships received, appointments, presentations, and publications, among others, is required to evaluate completion.

Honors

Honors in the Major

Students majoring in biomedical sciences are encouraged to graduate with honors in the major.

Honors students in the major may enroll in courses with honors sections offered by the Department of Biology and by other departments and programs. They also are advised to

participate in the Office of Undergraduate Research (OUR) and to apply for research scholarships.

Students who earn honors in the major must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33, as required by the College of Liberal Arts and Sciences.

To graduate with honors, students additionally must fulfill the following requirements:

- complete the requirements for a major in biomedical sciences with a GPA of at least 3.33 in all University of Iowa coursework in the major;
- complete 2 s.h. in BIOL:4898 Communicating Research;
- complete a minimum of 6 s.h. (taken over two or more semesters) in BIOL:4999 Honors Research in Biology or equivalent research credit approved by the program director;
- write a brief research proposal summarizing the background and goals of their proposed honors research;
- upon completion of their research, submit an acceptable honors thesis; and
- give an oral presentation of their research findings.

Biomedical sciences majors interested in graduating with honors in the major should contact the biology honors program advisor as early as possible, preferably during their sophomore or junior year, so that they may be matched with an appropriate lab. Contact the Department of Biology to learn more about honors in the major.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the biomedical sciences major.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: CHEM:1110 Principles of Chemistry I, CHEM:1120 Principles of Chemistry II, BIOL:1411 Foundations of Biology, PSY:1001 Elementary Psychology, SOC:1010 Introduction to Sociology, MATH:1460 Calculus for the Biological Sciences or MATH:1550 Engineering Calculus I or MATH:1850 Calculus I, CHEM:2210 Organic Chemistry I, CHEM:2220 Organic Chemistry II, MICR:2157 General Microbiology, MICR:2158 General Microbiology Laboratory, PHYS:1511 College Physics I, PHYS:1512 College Physics II, and HHP:2400 Fundamentals of Human Physiology.

Before the seventh semester begins: BMB:3120 Biochemistry and Molecular Biology I, BMB:3130 Biochemistry and Molecular Biology II, CHEM:2410 Organic Chemistry Laboratory, BIOL:2512 Fundamental Genetics, and STAT:3510 Biostatistics.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biomedical Sciences, BS

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
Students who earn a major in biomedical sciences may not earn a major in Biology (BA or BS).		
	Hours	**0**
First Year		
Any Semester		
Begin volunteering at a hospital or other healthcare facility in the first year or as early as possible.		
	Hours	**0**
Fall		
CHEM:1110	Principles of Chemistry I [b]	4
MATH:1460	Calculus for the Biological Sciences [c]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
SOC:1010	Introduction to Sociology	3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
PSY:1001	Elementary Psychology	3
	Hours	**14-15**
Second Year		
Any Semester		
Shadow a professional and learn more about the field of medicine in the second or third year.		
Start the search process for a research lab in the second or third year.		
	Hours	**0**
Fall		
BIOL:2512	Fundamental Genetics	4
CHEM:2210	Organic Chemistry I	3
PHYS:1511	College Physics I	4

GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
	Hours	**15-16**
Spring		
CHEM:2220	Organic Chemistry II	3
MICR:2157	General Microbiology [e]	3
MICR:2158	General Microbiology Laboratory [e]	2
PHYS:1512	College Physics II	4
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
	Hours	**16-17**
Third Year		
Any Semester		
Students should start the search process for letters of recommendation in the third or fourth year.		
	Hours	**0**
Fall		
BMB:3120	Biochemistry and Molecular Biology I	3
CHEM:2410	Organic Chemistry Laboratory	3
HHP:2400	Fundamentals of Human Physiology	3
STAT:3510	Biostatistics	3
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
	Hours	**16-17**
Spring		
BIOL:3373	Human Population Genetics and Variation	3
BMB:3130	Biochemistry and Molecular Biology II	3
CPH:1800 or PSY:2930 or PSY:2130	Social and Psychological Determinants of Health: Changing Behavior, Improving Health or Abnormal Psychology: Health Professions or Advanced Psychology for Pre-Medical Track	3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [f]		3
Exam: Take MCAT in spring or summer		
	Hours	**16-17**
Summer		
Admission Application: Apply to medical school		
	Hours	**0**
Fourth Year		
Fall		
Major: elective lecture I [g]		3
Major: research experience [g]		4
GE CLAS Core: Understanding Cultural Perspectives [h]		3
GE CLAS Core: Historical Perspectives [h]		3
GE CLAS Core: International and Global Issues [h]		3
	Hours	**16**
Spring		
Major: elective lecture II [g]		3 - 4
Major: investigative lab [g]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [h]		3
GE CLAS Core: Values and Society [h]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**12-14**
	Total Hours	**120-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c Enrollment in math courses requires completion of a placement exam.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e MICR:2157 and MICR:2158 should be taken in the same semester.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Students complete a total of 13-14 s.h. of elective coursework from approved lists of courses; see General Catalog.

h GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Chemistry

Chair

- Renee S. Cole

Undergraduate major: chemistry (BA, BS)

Undergraduate minor: chemistry

Graduate degrees: MS in chemistry; PhD in chemistry

Graduate certificate: radiochemistry

Faculty: https://chem.uiowa.edu/people

Website: https://chem.uiowa.edu/

The Department of Chemistry is committed to providing its undergraduate students with the skills needed to comprehend and confront the scientific challenges of the new century. The department's strong and vibrant undergraduate chemistry program is an environment where students can develop and ultimately find success in their chosen career paths.

The graduate programs in chemistry train scholars to lead efforts in chemistry research and teaching. One of the primary goals is to train students to become independent scientists. The department offers coursework to provide the foundational knowledge that enhances student efforts in the laboratory.

Student Organizations

A number of organizations are open to undergraduate students for support and enrichment.

Students may join the University of Iowa undergraduate student chapter of the American Chemical Society (ACS). Chapter activities include dinner meetings with guest speakers, field trips to local industries, participation in local and national meetings of the ACS, and participation in chemistry outreach programs. Students in the ACS student chapter develop valuable leadership, organization, and speaking skills during their college experience and throughout their careers.

The department has a chapter of Alpha Chi Sigma, a coed chemistry fraternity. The Alpha Theta Chapter is open to students in chemistry, biochemistry, chemical engineering, and related fields. Alpha Chi Sigma sponsors many social and professional events throughout the year.

The department endorses the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE), which is committed to discovery, transmittal, and application of knowledge in science and engineering and to increasing the participation of underrepresented populations in these fields. NOBCChE sponsors diverse programs designed to foster professional development and to encourage students to pursue careers in science and technical fields.

The department also supports the activities of Women in STEM Ambassadors (WiSA), whose aim is to increase women's participation and advancement as students, faculty members, and professional staff; promote a supportive study and work environment for women; integrate women's ideas, strengths, and approaches into research, teaching, and service; and inform the public of educational and career opportunities for women in scientific and technical fields. WiSA sponsors the Student-to-Student Support in Science mentoring program, a service learning program, and the WiSA Discourse and Dining series.

Programs

Undergraduate Programs of Study

Majors

- Major in Chemistry (Bachelor of Arts) [p. 184]
- Major in Chemistry (Bachelor of Science) [p. 189]

Minor

- Minor in Chemistry [p. 193]

Graduate Programs of Study

- Master of Science in Chemistry [p. 194]
- Doctor of Philosophy in Chemistry [p. 195]
- Certificate in Radiochemistry [p. 197]

Facilities

The Department of Chemistry's main office, support facilities, and faculty offices are located in the Chemistry Building, as is laboratory and classroom space dedicated to teaching and research activities. Several faculty members have offices and laboratories in the Iowa Advanced Technology Laboratories across the street from the Chemistry Building. Extensive resources are readily accessible such as nuclear magnetic resonance (NMR), mass spectrometry, and X-ray analysis facilities, advanced computational resources, and complete machine, electronics, and glass shops. See the Department of Chemistry website for information about facilities and advanced instrumentation available for instruction and research.

The Chemistry Center serves all students who take chemistry courses as well as the department's instructors. The center offers assistance with registration, returns examinations and homework assignments, schedules alternative exams, and provides information about all lower-level chemistry courses. Information about student organizations and departmental scholarships and awards is also available at the Chemistry Center.

Courses

Chemistry Courses

Students planning to take more than one year of chemistry should take CHEM:1110 Principles of Chemistry I and CHEM:1120 Principles of Chemistry II.

Students who require only one year of chemistry with no laboratory component may take CHEM:1070 General Chemistry I and CHEM:1080 General Chemistry II.

Students who have not had high school chemistry or do not have strong math and/or chemistry preparation should consider taking CHEM:1070 General Chemistry I before CHEM:1110 Principles of Chemistry I; academic advisors and the Chemistry Diagnostic Test can help students determine which of these courses to take first.

CHEM:0500 Review of Chemistry Fundamentals 0 s.h.
Self-paced course to prepare for and improve success in CHEM:1110; students acquire an appropriate mathematics background and a sound understanding of some fundamentals of chemistry; use of ALEKS to test individual chemistry knowledge and then computerized adaptive learning software to fill gaps in knowledge.

CHEM:1000 First-Year Seminar 1-2 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

CHEM:1050 Chemistry of Our World 3 s.h.
Nonmathematical exploration of selected areas of technology; basic science background, current technological applications, implications for society; for non-science majors. GE: Sustainability. GE: Natural Sciences without Lab; Sustainability.

CHEM:1060 Technology and Society Laboratory 1 s.h.
Laboratory for CHEM:1050; demonstrations, student experiments. GE: Natural Sciences Lab only.

CHEM:1070 General Chemistry I 3 s.h.
Atomic structure, chemical bonds, mole relations, stoichiometry, states of matter, acids and bases, reaction rates, electrochemistry, nuclear chemistry. GE: Natural Sciences without Lab.

CHEM:1080 General Chemistry II 3 s.h.
Organic chemistry and biochemistry. GE: Natural Sciences without Lab.

CHEM:1090 Supplemental Chemistry Lab 1 s.h.
Lab techniques, elementary synthesis, measurement, analysis, case-study lectures and experiments; safety glasses, appropriate dress, compliance with laboratory safety protocols required.

CHEM:1100 Chemistry in Industry and the Economy 3 s.h.
Atomic structure, chemical bonding, acid and bases, polymers, pharmaceutics, DNA, proteins, and basic economics. GE: Natural Sciences without Lab.

CHEM:1110 Principles of Chemistry I 4 s.h.
Chemical bonding and chemical reactions; atomic and molecular structure, chemical equations, stoichiometry, gases, liquids, thermodynamics of phase changes, solutions, equilibrium, acids, bases, pH, elementary organic chemistry; the solid state, including modern materials; lecture, discussion, laboratory. Prerequisites: ALEKS score of 55 or higher or MPT Level 3 score of 9 or higher or MATH:1005 with a minimum grade of C- or MATH:1010 with a minimum grade of C- or MATH:1020 with a minimum grade of C- or MATH:1340 with a minimum grade of C- or MATH:1440 with a minimum grade of C- or MATH:1460 with a minimum grade of C- or MATH:1550 with a minimum grade of C- or MATH:1850 with a minimum grade of C-. Recommendations: Chemistry Diagnostic Test score of 16. GE: Natural Sciences with Lab.

CHEM:1120 Principles of Chemistry II 4 s.h.
Continuation of CHEM:1110; colligative properties of solutions, chemical thermodynamics, electrochemistry, chemical kinetics, chemical bonding, aspects of industrial chemistry, nuclear chemistry; lecture, discussion, laboratory. Prerequisites: CHEM:1110 with a minimum grade of C-. GE: Natural Sciences with Lab.

CHEM:1160 Principles of Chemistry Lab 2 s.h.
Laboratory techniques. GE: Natural Sciences Lab only.

CHEM:2021 Fundamentals of Chemical Measurements 3 s.h.
Introduction to experimental and data analysis techniques used in performing quantitative chemical measurements; topics include titrations, spectrophotometry, potentiometry, chromatography, and statistical techniques for use in data processing and interpretation; laboratory. Prerequisites: CHEM:1120 with a minimum grade of C-. Requirements: chemistry major.

CHEM:2210 Organic Chemistry I 3 s.h.
Carbon-containing compounds; structure, stereochemistry, physical properties, reactivity, reaction mechanisms, synthesis; emphasis on alkanes, alkenes, alkynes, ethers, alcohols, and alkyl halides. Prerequisites: CHEM:1120 with a minimum grade of C-.

CHEM:2220 Organic Chemistry II 3 s.h.
Continuation of CHEM:2210; use of spectroscopic techniques to determine chemical structures; chemistry of carbonyl compounds, amines, aromatics, amino acids, carbohydrates, nucleosides. Prerequisites: CHEM:2210 with a minimum grade of C- or CHEM:2230 with a minimum grade of C-.

CHEM:2230 Organic Chemistry I for Majors 3 s.h.
Carbon-containing compounds; structure, stereochemistry, physical properties, reactivity, reaction mechanisms, synthesis; emphasis on alkanes, alkenes, alkynes, alcohols, alkyl halides, aromatics. Prerequisites: CHEM:1120 with a minimum grade of C-. Recommendations: chemistry, biochemistry, or chemical engineering major.

CHEM:2240 Organic Chemistry II for Majors 3 s.h.
Continuation of CHEM:2230; use of spectroscopic techniques to determine chemical structures; chemistry of carbonyl compounds, amines, ethers, amino acids, carbohydrates, and nucleosides. Prerequisites: CHEM:2210 with a minimum grade of C- or CHEM:2230 with a minimum grade of C-. Recommendations: chemistry, biochemistry, or chemical engineering major.

CHEM:2410 Organic Chemistry Laboratory 3 s.h.
Preparation, purification, identification, analysis of chemical compounds, principally organic compounds. Prerequisites: CHEM:1120 with a minimum grade of C- and (CHEM:2210 with a minimum grade of C- or CHEM:2230 with a minimum grade of C-). Corequisites: CHEM:2220 or CHEM:2240.

CHEM:2420 Organic Chemistry Laboratory for Majors 3 s.h.
Preparation, purification, identification, analysis of chemical compounds, principally organic compounds. Prerequisites: CHEM:1120 with a minimum grade of C- and (CHEM:2210 with a minimum grade of C- or CHEM:2230 with a minimum grade of C-). Corequisites: CHEM:2220 or CHEM:2240. Recommendations: chemistry, biochemistry, or chemical engineering major.

CHEM:3110 Equilibria and Electrochemistry 3 s.h.
Modern theory and practice; emphasis on chemical equilibria (acid-base chemistry, solubility, complexation) and electroanalytical chemistry (potentiometry, voltammetry, coulometry). Prerequisites: CHEM:1120 with a minimum grade of C-.

CHEM:3120 Spectroscopy and Separations 3 s.h.
Modern theory and practice; emphasis on atomic and molecular spectroscopy, mass spectrometry, chemical separations. Prerequisites: CHEM:1120 with a minimum grade of C-.

CHEM:3250 Inorganic Chemistry 3 s.h.
Modern principles; emphasis on descriptive chemistry of the main group and transition elements, ionic and covalent chemical bonding theories, symmetry, inorganic stereochemistry. Prerequisites: CHEM:2210 with a minimum grade of C- or CHEM:2230 with a minimum grade of C-. Corequisites: CHEM:2220 or CHEM:2240.

CHEM:3430 Analytical Measurements 3 s.h.
Modern theory and practice of laboratory methods; emphasis on experimental techniques and data analysis in spectroscopy, chromatography, electrochemistry. Prerequisites: CHEM:2021 with a minimum grade of C- and (CHEM:3110 with a minimum grade of C- or CHEM:3120 with a minimum grade of C-). Recommendations: (PHYS:1511 or PHYS:1611) and (PHYS:1512 or PHYS:1612).

CHEM:3440 Physical Measurements 3 s.h.
Laboratory experience using advanced instrumental and computational methods to generate and analyze data relevant to modern physical chemistry. Prerequisites: CHEM:2021 with a minimum grade of C- and (CHEM:4431 with a minimum grade of C- or CHEM:4432 with a minimum grade of C-).

CHEM:3530 Inorganic Chemistry Laboratory 3 s.h.
Preparation and characterization of a variety of inorganic, organometallic, and coordination compounds of the main group and transition elements; emphasis on synthetic techniques, methods for characterization of inorganic species. Prerequisites: CHEM:3250 with a minimum grade of C- and (CHEM:2410 with a minimum grade of C- or CHEM:2420 with a minimum grade of C-) and CHEM:2021 with a minimum grade of C-.

CHEM:3994 Undergraduate Research 1-4 s.h.

CHEM:4270 Advanced Inorganic Chemistry 3 s.h.
Modern principles, including crystal field/ligand field/molecular orbital theory, inorganic reaction mechanisms, coordination chemistry, bioinorganic chemistry, main group and transition metal organometallic chemistry, solid-state inorganic chemistry. Prerequisites: CHEM:3250 with a minimum grade of C-.

CHEM:4372 Advanced Organic Chemistry 3 s.h.
Basic concepts from perspectives of structure, mechanism, synthesis, stereochemistry. Prerequisites: CHEM:2220 with a minimum grade of C- or CHEM:2240 with a minimum grade of C-.

CHEM:4430 Principles of Physical Chemistry 3 s.h.
Kinetics, transport properties, elementary thermodynamics, and selected topics in quantum mechanics and spectroscopy; emphasis on application of chemistry to areas of science including health and biosciences, environmental sciences, and related areas. Prerequisites: CHEM:1120 with a minimum grade of C- and (MATH:1460 with a minimum grade of C- or MATH:1550 with a minimum grade of C- or MATH:1850 with a minimum grade of C-). Recommendations: (PHYS:1511 or PHYS:1611) and (PHYS:1512 or PHYS:1612).

CHEM:4431 Chemical Thermodynamics 3 s.h.
Chemical thermodynamics and its application to chemical equilibrium, phase changes and chemical equilibria; ideal and real gases; kinetic theory; surface absorption and electrochemistry; thermodynamics. Prerequisites: CHEM:1120 with a minimum grade of C- and (MATH:1560 with a minimum grade of C- or MATH:1860 with a minimum grade of C-).

CHEM:4432 Quantum Mechanics and Chemical Kinetics 3 s.h.
Quantum mechanics and its application to atomic and molecular structure; determination of structure and bonding by various spectroscopic methods; chemical kinetics. Prerequisites: CHEM:1120 with a minimum grade of C- and (MATH:1560 with a minimum grade of C- or MATH:1860 with a minimum grade of C-). Recommendations: PHYS:1512 or PHYS:1612.

CHEM:4450 Synthesis and Measurement 3 s.h.
Laboratory investigations integrating synthesis and measurement techniques from inorganic, analytical, and physical chemistry; emphasis on modern applications of chemistry in biology, medicine, environmental science, catalysis, and materials science. Prerequisites: (CHEM:4432 with a minimum grade of C- or CHEM:4430 with a minimum grade of C- or CHEM:4431 with a minimum grade of C-) and (CHEM:2420 with a minimum grade of C- or CHEM:2410 with a minimum grade of C-) and (CHEM:3120 with a minimum grade of C- or CHEM:3110 with a minimum grade of C-) and CHEM:3250 with a minimum grade of C- and CHEM:2021 with a minimum grade of C-.

CHEM:4480 Introduction to Molecular Modeling 3 s.h.
Theory and application of *ab initio* quantum mechanics, semiempirical molecular orbital theory, and molecular mechanics force fields to chemical research problems; underlying theory of these methods (with emphasis on *ab initio* theory) and their practical application to chemical problems; computational chemistry projects using modeling software. Prerequisites: CHEM:2220 with a minimum grade of C- or CHEM:2240 with a minimum grade of C-. Recommendations: CHEM:4432.

CHEM:4760 Radiochemistry: Energy, Medicine, and the Environment 3 s.h.
Fundamental theoretical concepts of radiochemistry and their application in energy, medicine, and environmental sectors. Prerequisites: CHEM:2210 with a minimum grade of C- or CHEM:2230 with a minimum grade of C-.

CHEM:4850 Upstream Biotechnology Processes 2 s.h.
Introduction to fermentation, fermenter preparation, cell growth and medium requirements, inoculation, sampling, process termination, separation of cells, fermentation case study, enzyme activity, and biocatalysis. Same as PHAR:4850.

CHEM:4873 Atmospheric and Environmental Chemistry 3 s.h.
Fundamental chemical processes of importance in the atmosphere, soil, and water, with emphasis on kinetics and photochemistry of homogeneous and heterogeneous reactions, atmospheric structure and dynamics, global geochemical cycling, chemistry-climate relationships, environmental remediation strategies; experimental methods in field and laboratory studies.

CHEM:5013 Science Writing in Chemistry 1 s.h.
How to providing clear, simple, and direct scientific documents; formulating good scientific questions; developing scientific context; process of writing, critiquing, and rewriting scientific documents; accepting constructive criticism; creating constructive criticism for others; student-created independent scientific proposal suitable as a funding application. Prerequisites: CHEM:5091 and CHEM:7270. Corequisites: CHEM:7999. Requirements: all comprehensive exams completed and passed.

CHEM:5090 Graduate Program Preparation 0 s.h.
Equips incoming graduate students with essential knowledge about resources in the Chemistry Department and other areas pertinent to their studies; offers a streamlined process for administering proctored proficiency exams, ensuring that students can demonstrate their competency in key subject areas; provides a solid foundation to navigate the academic journey effectively and maximize the potential for success in students' respective fields.

CHEM:5091 Graduate Chemistry Orientation 2-3 s.h.
Pedagogy, safety, and research issues relevant to advanced chemistry careers.

CHEM:5107 Electrochemistry 2-3 s.h.
Fundamental aspects, including mass transport and electron transfer, electrochemical methodology (e.g., voltammetry and potentiometry), determination of homogeneous and heterogeneous reaction mechanisms. Recommendations: CHEM:3110 and CHEM:3120.

CHEM:5108 Spectroscopy 3 s.h.
Principles of atomic and molecular absorption and emission spectroscopy in ultraviolet, visible, and infrared regions of the spectrum, including fluorescence, phosphorescence, Raman spectroscopy; applications to analytical problems, with emphasis on modern instrumentation and methodology. Recommendations: CHEM:3110 and CHEM:3120.

CHEM:5109 Separations 3 s.h.
Analytical separations; basic theory, practical applications, instrumentation, modern techniques (extractions, gas and liquid chromatography, capillary electrophoresis), and detection (mass spectrometry). Recommendations: CHEM:3110 and CHEM:3120.

CHEM:5114 Chemical Systems Modeling 3 s.h.
Basic processes and techniques; these methods applied to systems relevant to students' own research. Recommendations: CHEM:3110 or CHEM:3120.

CHEM:5115 Biophotonics 3 s.h.
Structure, dynamics of biomolecules and their optical spectroscopy; ultrasensitive fluorescence spectroscopy, vibrational spectroscopy, optical activity and circular dichroism, time-resolved spectroscopy. Recommendations: CHEM:3110 and CHEM:3120.

CHEM:5118 Nanomaterials 3 s.h.
Basic principles associated with nanoscience and nanotechnology; fabrication and synthesis, size dependent properties, characterization, applications of materials at nanometer length scales, recent technological breakthroughs in the field. Requirements: graduate standing or advanced undergraduate standing in engineering and science. Recommendations: knowledge of basic chemistry.

CHEM:5121 Nuclear Physics Concepts 1 s.h.
Introduction to fundamental concepts describing the behavior of unstable nuclei, including radioactive emissions, radionuclide generation, and interaction with the physical world; the production and modes of decay of radionuclides, the concepts of radioactive decay and equilibrium, and radiation's interactions with matter; and the occurrence and importance of natural and anthropogenic radionuclides relative to their use and importance to the environment and human health.

CHEM:5122 Radiochemistry Separation Concepts I 1 s.h.
Chemical and physical manipulation samples that enable the identification and measurement of radionuclides. These concepts focus strongly on practical inorganic and analytical chemistry techniques, including sample handling, sample dissolution/destruction, oxidation state manipulation, equilibrium reactions, and analyte preconcentration. Addresses the analytical implications of various sample types, including matrix and radionuclides interferences, and various techniques for addressing these issues.

CHEM:5123 Radiochemistry Separation Concepts II 1 s.h.
Chemical and physical manipulation samples that enable the identification and measurement of radionuclides. These concepts focus strongly on practical inorganic and analytical chemistry techniques, including sample handling, sample dissolution/destruction, oxidation state manipulation, equilibrium reactions, and analyte preconcentration. Addresses the analytical implications of various sample types, including matrix and radionuclides interferences, and various techniques for addressing these issues.

CHEM:5124 Radiochemistry Instrumental Analysis I 1 s.h.
Theory, operation, calibration, and maintenance of instrumentation used for the identification and measurement of radiation. Instrumentation covered includes gas-flow proportional counters, Geiger-Müller counters, ionization chambers, liquid scintillation counters, semiconductor detectors, and solid scintillation detectors. For each technology introduced, students learn the fundamental concepts of detection, operation, calibration, troubleshooting, maintenance, and sample measurement.

CHEM:5125 Radiochemistry Instrumental Analysis II 1 s.h.
Theory, operation, calibration, and maintenance of instrumentation used for the identification and measurement of radiation. Instrumentation includes gas-flow proportional counters, Geiger-Müller counters, ionization chambers, liquid scintillation counters, semiconductor detectors, and solid scintillation detectors. For each technology introduced, students learn the fundamental concepts of detection, operation, calibration, troubleshooting, maintenance, and sample measurement.

CHEM:5126 Radiochemistry Data Analysis and Statistics 1 s.h.
Introduction to mathematical concepts and calculations used in radiochemistry to calculate analytical results and assess data, including radioactivity calculations, counting statistics, detection limit decisions, and uncertainty estimations used in the generation of analytical results, and the optimization and evaluation of analytical systems to meet data and measurement quality objectives using the previously listed concepts.

CHEM:5127 Radiochemistry Quality Assurance 1 s.h.
Various components of quality assurance that govern radiochemical analysis, including the traceability of measurements, the standardization of measurement systems, the process of obtaining and maintaining laboratory accreditation, the various quality control procedures used to ensure defensible data, and the regulatory standards impacting radiochemical measurements; best practices for method 9 and instrument validation, and the statistical concepts and tests for evaluating radiochemical data.

CHEM:5128 Radiation Safety and Health Physics 1 s.h.
Radiation safety and health physics concepts used to both minimize human exposure to radiation and evaluate its potential effect, including processes for minimizing and evaluating exposure, radioactive materials handling and exposure, licensure considerations, and dosimetry. Discussion of the biological effects of radiation, including both acute and chronic exposure outcomes, and the regulatory limits meant to minimize these effects.

CHEM:5129 Radiochemistry Separation Laboratory 2 s.h.
Introduces students to the radiochemistry laboratory environment and covers commonly used radiochemical separation techniques; fundamental laboratory safety and techniques including exposure and contamination control, waste disposal, sample preparation and preservation, and standard preparation and verification; perform radiochemical separation methods for gross alpha radium, tritium, and uranium using a variety of techniques including co-precipitation, distillation, extraction chromatography, and ion exchange.

CHEM:5130 Radiochemistry Instrumental Analysis Laboratory 2 s.h.
Introduces students to radiation measurement instruments and data analysis software; set-up, calibration, maintenance, and use of alpha scintillation counters, gamma spectrophotometers, gas-flow proportional counters, and liquid scintillation counters; perform setup, calibration, and analysis with each of the listed instruments and their associated software packages.

CHEM:5150 Chemometrics 3 s.h.
Mathematical, statistical, and signal processing methods for analytical chemistry; hypothesis testing, experimental design, model building, optimization, digital filtering.

CHEM:5190 Seminar: Analytical Chemistry 0-1 s.h.

CHEM:5199 Special Topics in Analytical Chemistry arr.
Content varies.

CHEM:5203 Organometallic Chemistry 3 s.h.
Emphasis on organometallic compounds of transition metal elements. Corequisites: CHEM:4270.

CHEM:5204 Physical Methods in Inorganic Chemistry 3 s.h.
Application of physical methods to problems; recent developments; emphasis on magnetic resonance spectroscopy. Recommendations: CHEM:4270.

CHEM:5205 Bioinorganic Chemistry 2-3 s.h.
The role of metal ions in biology from an inorganic chemical perspective; emphasis on structure and mechanism for transition metal-containing metallo-enzymes.

CHEM:5206 Solid-State and Materials Chemistry 3 s.h.
Introduction to the chemical concepts of solid-state chemistry; focus on synthesis and characterization of various inorganic materials; structure/property relationships, real-world examples. Recommendations: CHEM:4270.

CHEM:5212 Mass Spectrometry 3 s.h.
Examination of mass spectrometry in terms of basic theory, instrumentation, qualitative and quantitative analysis, and its application to the environmental and biological sciences. Recommendations: CHEM:3110 or CHEM:3120.

CHEM:5290 Seminar: Inorganic and Chemical Education Research 0-1 s.h.

CHEM:5299 Special Topics in Inorganic Chemistry 1-3 s.h.
Recommendations: CHEM:4270.

CHEM:5321 Spectroscopic Methods in Organic Chemistry 3-4 s.h.
Methods and techniques of structure determination for organic compounds.

CHEM:5326 Organic Reactions 3 s.h.
Survey of organic reactions used in contemporary organic synthesis; emphasis on C-C bond forming reactions, functional group interconversions, oxidations and reductions; mechanistic details of reaction types; innovations in catalytic and asymmetric organic reactions. Recommendations: CHEM:4372.

CHEM:5328 Mechanisms of Organic Reactions 3 s.h.
Application of basic mechanistic concepts.

CHEM:5329 Advanced Organic Synthesis 1-3 s.h.
Preparation of complex organic compounds. Recommendations: CHEM:4372.

CHEM:5390 Seminar: Organic Chemistry 0-1 s.h.

CHEM:5399 Organic Chemistry Special Topics 1-3 s.h.
Recommendations: CHEM:4372.

CHEM:5431 Statistical Thermodynamics I 3 s.h.
Fundamentals of classical thermodynamics and equilibria; ensembles; noninteracting systems; theory of phase transitions; Monte-Carlo methods; classical fluids; nonequilibrium systems. Recommendations: CHEM:4431.

CHEM:5433 Quantum and Computational Chemistry 3 s.h.
Fundamental principles of quantum chemistry; angular momentum; approximation methods; theory of atomic and molecular electronic structure; applications of computational quantum mechanics to chemical systems. Corequisites: CHEM:4432, if not taken as a prerequisite.

CHEM:5434 Molecular Spectroscopy 3 s.h.
Quantum mechanical models of atoms, molecules, and chemical oscillators; electrostatics and magnetism; electromagnetic waves; refractive index and polarization; matter waves; symmetry and orbitals; vibronic and spin-orbit coupling; electron correlation and exchange; selection rules. Recommendations: CHEM:5433.

CHEM:5435 Chemical Kinetics 3 s.h.
Potential energy surfaces, transition state theory, diffusion limited rates, linear free energy relationships, isotope effects, solvent effects, RRKM theory; connection between experiment and various theories in the gas and solution phases; emphasis on assignment of experimental error to derived quantities. Recommendations: CHEM:4432.

CHEM:5438 Surface Chemistry and Heterogeneous Processes 3 s.h.
Fundamental and applied aspects of surface chemical processes; theories of molecular adsorption/desorption and surface complexation; kinetics; surface analysis and instrumentation; applications of surface chemistry in heterogeneous catalysis, heterogeneous environmental/atmospheric processes, and materials chemistry. Recommendations: CHEM:4431.

CHEM:5490 Seminar: Physical and Environmental Chemistry 0-1 s.h.

CHEM:5499 Physical Chemistry Topics 1-3 s.h.
Advanced topics relevant to modern physical chemistry. Recommendations: CHEM:4432 and MATH:1860.

CHEM:5599 Special Topics in Chemistry Education 3 s.h.
Special topics related to chemistry education; topics vary.

CHEM:5875 Perspectives in Biotechnology 1 s.h.
Topics related to careers in biotechnology with an emphasis on preparing graduate students for careers outside of academia; discussions led by a series of guest speakers from leading biotech industries; understanding the societal impact of basic research; participation in round-table discussions; and presentation of student research findings. Requirements: graduate standing and good academic standing in a participating department supported by the Predoctoral Training Program in Biotechnology. Same as BMB:5875, CBE:5875, CEE:5875, MICR:5875, PHAR:5875.

CHEM:5990 Chemistry Colloquium 0-1 s.h.
Presentation and discussion of research by invited presenters.

CHEM:6990 Research Seminar 0-1 s.h.
Presentation and discussion of thesis research for advanced degrees.

CHEM:7270 Ethics in Chemical Sciences 1 s.h.
Scholarly integrity for being a responsible chemist on graduate-level research; introduction to infrastructure of scientific scholarship with emphasis on interacting with peers, funding agencies, industrial entities; responsible conduct in research in the context of creation of knowledge, dissemination of scientific findings, intellectual property, and conflict of interest; workshops to study cases in chemical research to illustrate the principles of scholarly integrity.

CHEM:7604 Ethics in Chemical Sciences for Postdocs 0 s.h.
Introduction to infrastructure of scientific scholarship; emphasis on interacting with peers, funding agencies, industrial entities; scholarly integrity for being a responsible chemist on graduate-level research; responsible conduct in research in context of creation of knowledge, dissemination of scientific findings, intellectual property, conflict of interest; workshop cases in chemical research that illustrate principles of scholarly integrity.

CHEM:7999 Research in Chemistry arr.
Thesis work for advanced degrees.

Chemistry, BA

Learning Outcomes

The Department of Chemistry is committed to maintaining excellence in teaching and mentoring, and to providing the maximum educational benefit to each chemistry graduate. The desired outcomes will prepare students for success in graduate or professional school, industry or government employment, and a wide variety of career choices.

The graduate with a bachelor's degree in chemistry will be able to use the knowledge and skills obtained in the program to demonstrate the following.

Knowledge and Understanding of Chemistry

Graduates will be able to demonstrate:

- mastery of major concepts, theoretical principles, and experimental findings in chemistry;
- an understanding of the relationship between molecular structure and physical/chemical properties;
- an understanding of the relationship between the microscopic, macroscopic, and symbolic descriptions of matter and the changes it undergoes; and
- an understanding of the conditions that affect stability and factors that control rates of change.

Laboratory Skills

Graduates will be able to:

- assess chemical and procedural hazards involved in laboratory work;
- use strategies to minimize the risks associated with laboratory work;
- maintain a clearly organized laboratory notebook;
- use a variety of synthetic techniques;
- use instrumentation and laboratory techniques to separate, purify, identify, quantify, and characterize chemical species; and
- use computers as tools for data acquisition, management, and analysis.

Scientific Thinking

Graduates will be able to:

- pose scientific questions with a clear hypothesis;
- plan and carry out scientific investigations;
- analyze data in order to make inferences about chemical and physical behavior and properties, and construct scientific arguments to support conclusions;
- use scientific theory and/or interpretations of experimental results to explain chemical phenomena;
- use mathematics and computational thinking to understand and predict chemical behavior;
- identify and quantify uncertainties in measurements and limitations in methods; and
- use graphs, diagrams, and other models to communicate chemical information.

Chemical Information Skills

Graduates will be able to:

- use modern library search tools to locate and retrieve chemical information;
- read, analyze, and critically evaluate journal articles; and
- reference and cite chemical literature appropriately using designated citation styles.

Professional Skills

Graduates will be able to:

- report scientific findings in oral presentations in a clear and organized fashion using appropriate visual tools;
- report on experimental work and scientific findings in written reports;
- communicate results of scientific work to nontechnical audiences;
- work collaboratively with peers to plan and conduct experiments, interpret chemical information, and solve problems; and
- engage in responsible and ethical scientific conduct.

Requirements

The Bachelor of Arts with a major in chemistry requires a minimum of 120 s.h., including 53–54 s.h. of work for the major (20 s.h. in foundation chemistry courses, 12 s.h. in advanced chemistry, and 21–22 s.h. in supporting coursework). Students must earn at least 11 s.h. in advanced chemistry courses at the University of Iowa. They must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. Students also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The BA degree is a good choice for students interested in medical or other professional schools, or those interested in a teaching career (see "Teacher Licensure" below). The program provides students with the flexibility to earn a degree in chemistry while they also complete related courses required for medical school, such as biology and biochemistry. Compared to the BS degree, the BA has modified mathematics requirements that include a one-semester physical chemistry course, an analytical chemistry course, and a single, integrated capstone laboratory that incorporates analytical, inorganic, and physical chemistry experiments.

Courses in the chemistry major have prerequisites, so they must be taken in the correct order. Advanced chemistry courses are built on the chemistry foundation courses. Most advanced courses are taught only once a year. Students should consult their academic advisors and plan their course schedules carefully. They should take CHEM:2021 Fundamentals of Chemical Measurements during the first semester of the second year.

Students may not use a course to fulfill more than one requirement.

The BA with a major in chemistry requires the following coursework.

Requirements	Hours
Chemistry Foundation Courses	20
Advanced Chemistry Courses	12
Mathematics Courses	7-8
Introductory Physics Courses	8
Science Electives	6

Chemistry Foundation Courses

Students complete the following foundation courses.

Course #	Title	Hours
All of these:		
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
CHEM:2021	Fundamentals of Chemical Measurements	3
One of these sequences:		
CHEM:2210 & CHEM:2220	Organic Chemistry I and Organic Chemistry II	6
CHEM:2230 & CHEM:2240	Organic Chemistry I for Majors and Organic Chemistry II for Majors (preferred)	6
One of these:		
CHEM:2410	Organic Chemistry Laboratory	3
CHEM:2420	Organic Chemistry Laboratory for Majors (preferred)	3

Advanced Chemistry Courses

Course #	Title	Hours
One of these:		
CHEM:3110	Equilibria and Electrochemistry	3
CHEM:3120	Spectroscopy and Separations (preferred)	3
All of these:		
CHEM:3250	Inorganic Chemistry	3
CHEM:4430	Principles of Physical Chemistry	3
CHEM:4450	Synthesis and Measurement	3

Mathematics Courses

Course #	Title	Hours
One of these:		
MATH:1460	Calculus for the Biological Sciences (preferred)	4
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4
One of these:		
MATH:1560	Engineering Calculus II	4
MATH:1860	Calculus II	4
STAT:2010	Statistical Methods and Computing	3
STAT:3510/ IGPI:3510	Biostatistics (preferred)	3

Introductory Physics Courses

Course #	Title	Hours
One of these sequences:		
PHYS:1511 & PHYS:1512	College Physics I and College Physics II (preferred)	8
PHYS:1611 & PHYS:1612	Introductory Physics I and Introductory Physics II	8

Science Electives

Some of these courses may be used to fulfill other requirements for the major; students who have used a course from this list to fulfill another requirement for the major may not use that course as an elective. Students should consult their advisor to gain approval for a course that is not on the list. Undergraduate Research (CHEM:3994) may not be used to satisfy the science electives requirement.

Course #	Title	Hours
A total of 6 s.h. from these:		
CHEM:3110	Equilibria and Electrochemistry	3
CHEM:3120	Spectroscopy and Separations	3
CHEM:3430	Analytical Measurements	3
CHEM:3440	Physical Measurements	3
CHEM:3530	Inorganic Chemistry Laboratory	3
CHEM:4270	Advanced Inorganic Chemistry	3
CHEM:4372	Advanced Organic Chemistry	3
CHEM:4431	Chemical Thermodynamics	3
CHEM:4432	Quantum Mechanics and Chemical Kinetics	3
CHEM:4480	Introduction to Molecular Modeling	3
CHEM:4760	Radiochemistry: Energy, Medicine, and the Environment	3
CHEM:4873	Atmospheric and Environmental Chemistry	3
BMB:3110	Biochemistry	3
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3
CEE:4150/CBE:4420	Environmental Chemistry	3
SEES:4490	Elements of Geochemistry	3
SEES:4540	Isotope Geochemistry	3

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Combined Programs

BA/MAT (Science Education Subprogram)

Students who are interested in pursuing a graduate degree in teaching may apply to the combined Bachelor of Arts/Master of Arts in Teaching with a science education subprogram offered by the College of Liberal Arts and Sciences and the College of Education. Designed for undergraduates majoring in biology, chemistry, environmental sciences, or physics, the combined program enables students to earn a BA and MAT in five years by beginning to earn graduate credit during their fourth year of undergraduate study and by counting up to 19 s.h. of qualifying credit toward both degrees. For more information, see "Combined Program" under Science Education [p. 1497] in the Master of Arts in Teaching (College of Education) section of the catalog. Interested students should consult an advisor.

Honors

Honors in the Major

Majors are able to graduate with departmental honors. Students must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33, as required by the College of Liberal Arts and Sciences; additionally, students must maintain a 3.33 cumulative GPA in the major, a GPA set by the Department of Chemistry.

Students must also complete an undergraduate research project acceptable to their research advisor and write an honors thesis based on their research. Students should register for CHEM:3994 Undergraduate Research or HONR:3994 Honors Research Practicum to earn credit for their research. They are encouraged but not required to present their research at local and regional meetings and to publish their results in professional journals.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the chemistry major.

Financial Support

Scholarships and Awards

A number of awards and scholarships are available to chemistry majors, including the American Institute of Chemists Award, the Undergraduate Award in Analytical Chemistry, the Chemistry Alumni Awards (one each for a sophomore, a junior, and a senior), the Merck Index Award, and the Viksnins, Harris & Padys PLLP Award.

Chemistry majors may also apply for the Donald J. and Margaret Burton Scholarship, E. David Cater Scholarship, and Russell K. Simms Scholarship.

For more information, visit Undergraduate Scholarships and Awards on the Department of Chemistry website.

Career Advancement

The undergraduate major in chemistry provides a strong foundation for success in graduate and professional study and for positions in academic or industrial chemistry.

Students with a chemistry degree can pursue careers or graduate study in a wide range of fields. Learn more about career options for chemistry majors on the American Chemical Society website.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Courses in the chemistry major have prerequisites, so they must be taken in the correct order. Most advanced courses are taught only once a year. Students should consult their academic advisors and plan their course schedules carefully. They should take CHEM:2021 Fundamentals of Chemical Measurements during the first semester of the second year. Typical chemistry course schedules and a regression list are available at Undergraduate Program in Chemistry on the Department of Chemistry website.

Before the third semester begins: math through MATH:1460 Calculus for the Biological Sciences, MATH:1550 Engineering Calculus I, or MATH:1850 Calculus I; CHEM:1110 Principles of Chemistry I and CHEM:1120 Principles of Chemistry II, or equivalent coursework.

Before the fifth semester begins: CHEM:2021 Fundamentals of Chemical Measurements; CHEM:2210 Organic Chemistry I, CHEM:2220 Organic Chemistry II, and CHEM:2410 Organic Chemistry Laboratory, or CHEM:2230 Organic Chemistry I for Majors, CHEM:2240 Organic Chemistry II for Majors, and CHEM:2420 Organic Chemistry Laboratory for Majors; and STAT:2010 Statistical Methods and Computing, STAT:3510 Biostatistics, MATH:1560 Engineering Calculus II, or MATH:1860 Calculus II.

Before the seventh semester begins: two more courses in the major; PHYS:1511 College Physics I–PHYS:1512 College Physics II or PHYS:1611 Introductory Physics I–PHYS:1612 Introductory Physics II; and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: CHEM:4430 Principles of Physical Chemistry and one more course in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Chemistry, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
MATH:1440	Mathematics for the Biological Sciences [c]	4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
CHEM:1120	Principles of Chemistry II	4
MATH:1460	Calculus for the Biological Sciences	4
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
Elective course [f]		3
	Hours	**15-16**
Second Year		
Fall		
CHEM:2021	Fundamentals of Chemical Measurements	3
CHEM:2230	Organic Chemistry I for Majors [g]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
Elective course [f]		3
	Hours	**16-18**
Spring		
CHEM:2240	Organic Chemistry II for Majors [h]	3
CHEM:2420	Organic Chemistry Laboratory for Majors [h]	3
STAT:3510	Biostatistics	3
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
	Hours	**16-17**
Third Year		
Fall		
CHEM:3110 or CHEM:3120	Equilibria and Electrochemistry [i] or Spectroscopy and Separations	3
PHYS:1511	College Physics I	4
GE CLAS Core: Values and Society [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
Elective course [f]		3
	Hours	**17-18**
Spring		
CHEM:3250	Inorganic Chemistry [h]	3
PHYS:1512	College Physics II	4
Major: science elective course [j]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
Elective course [f]		3
	Hours	**16**
Fourth Year		
Fall		
CHEM:4430	Principles of Physical Chemistry [k]	3
Major: science elective course [j]		3
GE CLAS Core: International and Global Issues [d]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Spring		
CHEM:4450	Synthesis and Measurement [h]	3
GE CLAS Core: Social Sciences [d]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**15**
	Total Hours	**125-131**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c Enrollment in math courses requires completion of a placement exam.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

h Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

i Typically CHEM:3110 is offered in fall semesters only and CHEM:3120 is offered spring semesters only. Check MyUI for course availability since offerings are subject to change.

j Students are required to complete 6 s.h. of science electives chosen from a list of approved courses. Students who have used a course to fulfill another requirement for the major may not use that course as a science elective.

k This course is offered in both fall and spring semesters and is a prerequisite for CHEM:4450. If taken in spring, it should be planned for the spring semester of the third year.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Chemistry, BS

Learning Outcomes

The Department of Chemistry is committed to maintaining excellence in teaching and mentoring, and to providing the maximum educational benefit to each chemistry graduate. The desired outcomes will prepare students for success in graduate or professional school, industry or government employment, and a wide variety of career choices.

The graduate with a bachelor's degree in chemistry will be able to use the knowledge and skills obtained in the program to demonstrate the following.

Knowledge and Understanding of Chemistry

Graduates will be able to demonstrate:

- mastery of major concepts, theoretical principles, and experimental findings in chemistry;
- an understanding of the relationship between molecular structure and physical/chemical properties;
- an understanding of the relationship between the microscopic, macroscopic, and symbolic descriptions of matter and the changes it undergoes; and
- an understanding of the conditions that affect stability and factors that control rates of change.

Laboratory Skills

Graduates will be able to:

- assess chemical and procedural hazards involved in laboratory work;
- use strategies to minimize the risks associated with laboratory work;
- maintain a clearly organized laboratory notebook;
- use a variety of synthetic techniques;
- use instrumentation and laboratory techniques to separate, purify, identify, quantify, and characterize chemical species; and
- use computers as tools for data acquisition, management, and analysis.

Scientific Thinking

Graduates will be able to:

- pose scientific questions with a clear hypothesis;
- plan and carry out scientific investigations;
- analyze data in order to make inferences about chemical and physical behavior and properties, and construct scientific arguments to support conclusions;
- use scientific theory and/or interpretations of experimental results to explain chemical phenomena;
- use mathematics and computational thinking to understand and predict chemical behavior;
- identify and quantify uncertainties in measurements and limitations in methods; and
- use graphs, diagrams, and other models to communicate chemical information.

Chemical Information Skills

Graduates will be able to:

- use modern library search tools to locate and retrieve chemical information;
- read, analyze, and critically evaluate journal articles; and
- reference and cite chemical literature appropriately using designated citation styles.

Professional Skills

Graduates will be able to:

- report scientific findings in oral presentations in a clear and organized fashion using appropriate visual tools;
- report on experimental work and scientific findings in written reports;
- communicate results of scientific work to nontechnical audiences;
- work collaboratively with peers to plan and conduct experiments, interpret chemical information, and solve problems; and
- engage in responsible and ethical scientific conduct.

Requirements

The Bachelor of Science with a major in chemistry requires a minimum of 120 s.h., including 66 s.h. of work for the major (20 s.h. in foundation chemistry courses, 24 s.h. in advanced chemistry, and 22 s.h. in supporting coursework). Students must earn at least 20 s.h. in advanced chemistry courses at the University of Iowa. They must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. Students must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The BS degree with a major in chemistry is certified by the American Chemical Society (ACS) when a biochemistry course is included. An ACS-approved program offers a broad-based and rigorous chemistry education that provides students with the intellectual, experimental, and communication skills to become effective scientific professionals in chemical and other related fields. The program also provides all the prerequisites for graduate work in chemistry or biochemistry and in other biomedical areas with a molecular focus.

Courses in the chemistry major have prerequisites, so they must be taken in the correct order. Advanced chemistry courses are built on the chemistry foundation courses. Most advanced courses are taught only once a year. Students should consult their academic advisors and plan their course schedules carefully. They should take CHEM:2021 Fundamentals of Chemical Measurements during the first semester of the second year.

Students may not use a course to fulfill more than one requirement.

The BS with a major in chemistry requires the following coursework.

Requirements	Hours
Chemistry Foundation Courses	20
Advanced Chemistry Courses	24
Mathematics Courses	8
Introductory Physics Courses	8
Science Electives and Research Courses	6

Chemistry Foundation Courses

Students complete the following foundation courses.

Course #	Title	Hours
All of these:		
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
CHEM:2021	Fundamentals of Chemical Measurements	3
One of these sequences:		
CHEM:2210 & CHEM:2220	Organic Chemistry I and Organic Chemistry II	6
CHEM:2230 & CHEM:2240	Organic Chemistry I for Majors and Organic Chemistry II for Majors (preferred)	6
One of these:		
CHEM:2410	Organic Chemistry Laboratory	3
CHEM:2420	Organic Chemistry Laboratory for Majors (preferred)	3

Advanced Chemistry Courses

Course #	Title	Hours
All of these:		
CHEM:3110 & CHEM:3120	Equilibria and Electrochemistry and Spectroscopy and Separations	6
CHEM:3250	Inorganic Chemistry	3
CHEM:4270	Advanced Inorganic Chemistry	3
CHEM:4431 & CHEM:4432	Chemical Thermodynamics and Quantum Mechanics and Chemical Kinetics	6
Two of these:		
CHEM:3430	Analytical Measurements	3
CHEM:3440	Physical Measurements	3
CHEM:3530	Inorganic Chemistry Laboratory	3

Mathematics Courses

Course #	Title	Hours
One of these sequences:		
MATH:1550 & MATH:1560	Engineering Calculus I and Engineering Calculus II	8
MATH:1850 & MATH:1860	Calculus I and Calculus II (preferred)	8

Introductory Physics Courses

Course #	Title	Hours
One of these sequences:		
PHYS:1511 & PHYS:1512	College Physics I and College Physics II	8
PHYS:1611 & PHYS:1612	Introductory Physics I and Introductory Physics II (preferred)	8

Science Electives and Research Courses

Course #	Title	Hours
A total of 6 s.h. from these:		
CHEM:3994	Undergraduate Research	1-4
BMB:3110	Biochemistry	3
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3

Advanced science elective courses

ACS Certification Requirement

Students who want an ACS-certified degree complete one of these optional courses (also in the "Science Electives and Research Courses" list).

Course #	Title	Hours
BMB:3110	Biochemistry	3
BMB:3120	Biochemistry and Molecular Biology I	3

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Majors are able to graduate with departmental honors. Students must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33, as required by the College of Liberal Arts and Sciences; additionally, students must maintain a 3.33 cumulative GPA in the major, a GPA set by the Department of Chemistry.

Students must also complete an undergraduate research project acceptable to their research advisor and write an honors thesis based on their research. Students should register for CHEM:3994 Undergraduate Research or HONR:3994 Honors Research Practicum to earn credit for their research. They are encouraged but not required to present their research at local and regional meetings and to publish their results in professional journals.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the chemistry major.

Financial Support

Scholarships and Awards

A number of awards and scholarships are available to chemistry majors, including the American Institute of Chemists Award, the Undergraduate Award in Analytical Chemistry, the Chemistry Alumni Awards (one each for a sophomore, a junior, and a senior), the Merck Index Award, and the Viksnins, Harris & Padys PLLP Award.

Chemistry majors may also apply for the Donald J. and Margaret Burton Scholarship, E. David Cater Scholarship, and Russell K. Simms Scholarship.

For more information, visit Undergraduate Scholarships and Awards on the Department of Chemistry website.

Career Advancement

The undergraduate major in chemistry provides a strong foundation for success in graduate and professional study and for positions in academic or industrial chemistry.

Students with a chemistry degree can pursue careers or graduate study in a wide range of fields. Learn more about career options for chemistry majors on the American Chemical Society website.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Courses in the chemistry major have prerequisites, so they must be taken in the correct order. Most advanced courses are taught only once a year. Students should consult their academic advisors and plan their course schedules carefully. They should take CHEM:2021 Fundamentals of Chemical Measurements during the first semester of the second year. Typical chemistry course schedules and a regression list are available at Undergraduate Program in Chemistry on the Department of Chemistry website.

Before the third semester begins: math through MATH:1550 Engineering Calculus I or MATH:1850 Calculus I; CHEM:1110 Principles of Chemistry I and CHEM:1120 Principles of Chemistry II, or equivalent coursework.

Before the fifth semester begins: CHEM:2021 Fundamentals of Chemical Measurements; CHEM:3250 Inorganic Chemistry; CHEM:2210 Organic Chemistry I, CHEM:2220 Organic Chemistry II, and CHEM:2410 Organic Chemistry Laboratory, or CHEM:2230 Organic Chemistry I for Majors, CHEM:2240 Organic Chemistry II for Majors, and CHEM:2420 Organic Chemistry Laboratory for Majors; MATH:1560 Engineering Calculus II or MATH:1860 Calculus II; and PHYS:1511–PHYS:1512 or PHYS:1611–PHYS:1612.

Before the seventh semester begins: six more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: three more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Chemistry, BS

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b]	4
MATH:1850	Calculus I [c]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
CHEM:1120	Principles of Chemistry II	4
MATH:1860	Calculus II	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
	Hours	**15-17**
Second Year		
Fall		
CHEM:2021	Fundamentals of Chemical Measurements [f]	3
CHEM:2230	Organic Chemistry I for Majors [g]	3
PHYS:1611	Introductory Physics I	4
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
	Hours	**14-15**
Spring		
CHEM:2240	Organic Chemistry II for Majors [h]	3
CHEM:2420	Organic Chemistry Laboratory for Majors [h]	3
CHEM:3250	Inorganic Chemistry [h]	3
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
	Hours	**16-17**

Third Year

Any Semester

Students are strongly encouraged to be active participants in research within the Department of Chemistry. It is recommended that students begin research by their third year.		
	Hours	**0**

Fall

CHEM:4270	Advanced Inorganic Chemistry [g]	3
CHEM:4431	Chemical Thermodynamics [g]	3
Major: advanced chemistry lab [i]		3
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
	Hours	**16-17**

Spring

CHEM:4432	Quantum Mechanics and Chemical Kinetics [h]	3
PHYS:1612	Introductory Physics II	4
Major: science elective or research [j]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
Elective course [k]		3
	Hours	**16**

Fourth Year

Fall

CHEM:3110	Equilibria and Electrochemistry [g]	3
BMB:3110	Biochemistry [j, l]	3
GE CLAS Core: Social Sciences [d]		3
Elective course [k]		2 - 3
Elective course [k]		3
	Hours	**14-15**

Spring

CHEM:3120	Spectroscopy and Separations [h]	3
Major: advanced chemistry lab [i]		3
GE CLAS Core: Values and Society [d]		3
Elective course [k]		3
Elective course [k]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**15**
	Total Hours	**121-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c Enrollment in math courses requires completion of a placement exam.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Students should take CHEM:2021 during the first semester of the second year.

g Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

h Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

i Students are required to take two of the three following courses: CHEM:3430, CHEM:3440, or CHEM:3530.

j Students are required to complete 6 s.h. in science electives and research toward the major; refer to the General Catalog for list of approved courses.

k Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

l Students who want an ACS certified degree must complete one of these optional courses: BMB:3110 or BMB:3120.

m Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Chemistry, Minor

Requirements

The undergraduate minor in chemistry requires a minimum of 15 s.h. in chemistry courses (prefix CHEM), including 12 s.h. in courses numbered 2210 or above taken in the Department of Chemistry at the University of Iowa. Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

CHEM:3994 Undergraduate Research does not count toward the minor.

Chemistry, MS

Learning Outcomes

Students will:

- independently learn new chemical principles and techniques beyond those typical of undergraduate academic training;
- identify original and worthwhile chemical problems stated as research questions and hypotheses;
- design and execute experiments as part of independent chemistry research investigations;
- critically evaluate their data, results, and conclusions and those of others in the chemistry community;
- identify potential problems in the responsible conduct of research and identify strategies for managing those problems;
- articulate standards for laboratory safety in chemical research, assess potential hazards they may encounter in novel chemistry research, and develop effective strategies to mitigate those risks; and
- communicate chemical knowledge, new models, and research results both orally and in writing for both technical and nontechnical audiences.

Requirements

The Master of Science program in chemistry requires a minimum of 30 s.h. of graduate credit. The degree is offered with or without thesis. MS requirements include proficiency examinations and core courses as necessary in biochemistry; analytical, inorganic, organic, and/or physical chemistry; and additional advanced coursework. Students must have a cumulative grade-point average of at least 2.75 or higher to complete the MS.

Admission

Applicants for graduate admission should have a bachelor's degree with a major in chemistry or a related field, preferably with a grade-point average of 3.00 or higher. For application information, contact the Department of Chemistry or visit its website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Students with a chemistry degree can pursue careers in a wide range of fields. Learn more about career options for chemistry majors on the American Chemical Society website.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Chemistry, PhD

Learning Outcomes

Students will:

- independently learn new chemical principles and techniques beyond those typical of undergraduate academic training;
- identify original and worthwhile chemical problems stated as research questions and hypotheses;
- design and execute experiments as part of independent chemistry research investigations;
- critically evaluate their data, results, and conclusions and those of others in the chemistry community;
- identify potential problems in the responsible conduct of research and identify strategies for managing those problems;
- articulate standards for laboratory safety in chemical research, assess potential hazards they may encounter in novel chemistry research, and develop effective strategies to mitigate those risks; and
- communicate chemical knowledge, new models, and research results both orally and in writing for both technical and nontechnical audiences.

Requirements

The Doctor of Philosophy program in chemistry requires a minimum of 72 s.h. of graduate credit. Degree requirements include demonstrating proficiency in core areas of chemistry; completing a minimum of 11 s.h. of advanced coursework, a 1 s.h. ethics course, and a 1 s.h. chemistry proposal writing course; passing a comprehensive examination; giving two public seminars; and producing at least one published or accepted paper in a peer-reviewed journal based on a student's dissertation research.

Students who meet proficiency and advanced course requirements with a cumulative grade-point average of 3.00 or higher are admitted to the comprehensive examination. The examination is based on a research progress report and an oral examination with the student's graduate academic committee. Students must take the comprehensive examination no later than the end of their second year of enrollment.

Near the end of the PhD, candidates prepare the dissertation and present it to their graduate committee for review. The final examination consists of an oral defense of the dissertation, which may include the published or accepted paper(s) previously mentioned.

For more information and details, please visit the Graduate Program in Chemistry page on the Department of Chemistry website.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in chemistry in a combined degree program offered by the Carver College of Medicine and the Graduate College. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

Applicants for graduate admission should have a bachelor's degree with a major in chemistry or a related field, preferably with a grade-point average of 3.00 or higher. Most admitted graduate students receive financial support. For application information, contact the Department of Chemistry or visit its website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Students with a chemistry degree can pursue careers in a wide range of fields. Learn more about career options for chemistry majors on the American Chemical Society website.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Chemistry, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credit will be given consideration for a maximum of 6 s.h. of the 11 s.h. of required advanced coursework. More information is included in the General Catalog and on the department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
	Hours	**0**
First Year		
Any Semester		
Complete proficiency requirement [a]		
	Hours	**0**
Fall		
CHEM:5091	Graduate Chemistry Orientation	3
CHEM:5990	Chemistry Colloquium	0
CHEM:7999	Research in Chemistry	3
Divisional seminar		0
Proficiency course [d]		3
Proficiency course [d]		3
	Hours	**12**
Spring		
CHEM:5990	Chemistry Colloquium	0
CHEM:6990	Research Seminar [e]	1
CHEM:7999	Research in Chemistry	2

Advanced course [f]		3
Advanced course [f]		3
Divisional seminar		0
Proficiency course [d]		3
	Hours	**12**
Second Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [g]		
	Hours	**0**
Fall		
CHEM:5990	Chemistry Colloquium	0
CHEM:6990	Research Seminar	1
CHEM:7999	Research in Chemistry	5
Advanced course [f]		3
Advanced course [f]		2
Divisional seminar [h, i]		1
	Hours	**12**
Spring		
CHEM:5990	Chemistry Colloquium	0
CHEM:6990	Research Seminar	1
CHEM:7270	Ethics in Chemical Sciences	1
CHEM:7999	Research in Chemistry	7
Advanced or elective course [f]		3
Divisional seminar		0
	Hours	**12**
Third Year		
Fall		
CHEM:5013	Science Writing in Chemistry [j]	1
CHEM:6990	Research Seminar	1
CHEM:7999	Research in Chemistry	6
	Hours	**8**
Spring		
CHEM:6990	Research Seminar	1
CHEM:7999	Research in Chemistry	7
	Hours	**8**
Fourth Year		
Fall		
CHEM:6990	Research Seminar	1
CHEM:7999	Research in Chemistry	1
	Hours	**2**
Spring		
CHEM:6990	Research Seminar	1
CHEM:7999	Research in Chemistry	1
	Hours	**2**
Fifth Year		
Fall		
CHEM:6990	Research Seminar	1
CHEM:7999	Research in Chemistry	1
	Hours	**2**
Spring		
CHEM:6990	Research Seminar	1
CHEM:7999	Research in Chemistry	1
Exam: Doctoral Final Exam [k]		
	Hours	**2**
	Total Hours	**72**

a Students must demonstrate basic proficiency in three chosen sub-disciplines of chemistry(analytical, biochemistry, inorganic, organic, physical). Proficiency is established in one of the following ways: 1) scoring at the 50th percentile level on the proficiency exam; 2) completing a one-semester review course with a grade of C or better; or 3) completing a one-semester graduate-level/advanced course in that sub-discipline of chemistry with a grade of B or better. The proficiency requirement must be fulfilled before the beginning of the student's third semester in the graduate program.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d May take another course if proficiency requirement has been satisfied; work with faculty advisor to determine appropriate graduate coursework and sequence.

e Students should begin taking research seminar after joining a research group.

f Includes research; work with faculty advisor to determine appropriate graduate coursework and sequence.

g Students must complete the oral comprehensive examination not later than the end of their second year of enrollment.

h Students are expected to give a minimum of two acceptable seminars. One seminar must cover the student's research; the other may also deal with the student's research or can be an extensive literature report.

i First required seminar.

j Can be taken any fall semester after the Doctoral Comprehensive Exam.

k Dissertation defense at which time candidates present at least one published or accepted paper in a peer-reviewed journal based on the publishable portion of the thesis.

Radiochemistry, Graduate Certificate

Requirements

The graduate Certificate in Radiochemistry requires 12 s.h. of credit, including 8 s.h. of online coursework and 4 s.h. of hands-on, in-person laboratory instruction. The certificate is open to students enrolled in University of Iowa graduate degree programs and to individuals who are enrolled in the Graduate College as nondegree students.

The certificate curriculum addresses fundamental concepts, instrumentation, and techniques utilized in radiochemistry, with an analytical chemistry focus. The certificate is designed to serve both working professionals and University of Iowa students; courses are divided into smaller modules offering flexibility in both instruction and student course load.

The graduate Certificate in Radiochemistry requires the following coursework.

Required Online Courses

Course #	Title	Hours
All of these:		
CHEM:5121	Nuclear Physics Concepts	1
CHEM:5122	Radiochemistry Separation Concepts I	1
CHEM:5123	Radiochemistry Separation Concepts II	1
CHEM:5124	Radiochemistry Instrumental Analysis I	1
CHEM:5125	Radiochemistry Instrumental Analysis II	1
CHEM:5126	Radiochemistry Data Analysis and Statistics	1
CHEM:5127	Radiochemistry Quality Assurance	1
CHEM:5128	Radiation Safety and Health Physics	1

Required Laboratory Courses

Course #	Title	Hours
Both of these:		
CHEM:5129	Radiochemistry Separation Laboratory	2
CHEM:5130	Radiochemistry Instrumental Analysis Laboratory	2

For questions about the Certificate in Radiochemistry, please contact the Department of Chemistry.

Admission

Admission requirements include:

- a bachelor’s degree in a STEM field;
- an undergraduate grade-point average greater than 2.50; and
- two semesters of undergraduate chemistry coursework.

For more information, and how to apply, visit Radiochemistry Graduate Certificate on the Department of Chemistry website.

Cinematic Arts

Chair

- Michael J. Cowan

Undergraduate majors: cinema (BA); screenwriting arts (BA)

Undergraduate minor: cinema

Graduate degrees: MA in film studies; MFA in film and video production; PhD in film studies

Faculty: https://cinematicarts.uiowa.edu/people

Website: https://cinematicarts.uiowa.edu/

The Department of Cinematic Arts provides students with opportunities to explore and gain insight into cinema as a subject of international and interdisciplinary study as well as creative practice. The curriculum emphasizes film and related media in their historical and cultural contexts as well as film and video production in a variety of modes.

The screenwriting arts major instructs students in the practical skills and knowledge needed to become successful members of the screenwriting industry, in addition to the history and theories related to screenwriting.

The department's faculty offers expertise in film and video production; film history and theory, with emphasis on international film cultures; and the history, theory, and production of documentary media. Students conduct projects using state-of-the-art equipment and software that is updated regularly.

The department offers two majors awarded with a BA degree, an undergraduate minor, and three graduate degree programs (MA, MFA, and PhD). It also offers courses for all interested students in the Literary, Visual, and Performing Arts and Understanding Cultural Perspectives areas of the GE CLAS Core [p. 22].

Resources

The Department of Cinematic Arts maintains up-to-date film and video equipment and facilities that allow students to acquire professional skills in a range of technical and creative areas, including cinematography, editing, sound design, screenwriting, and animation. The program also draws upon the extensive media holdings, and scholarly and archival resources relevant to the study of cinema held by the University of Iowa Libraries. The department regularly sponsors events, including film screenings, festivals, symposia, and presentations by notable visiting scholars and artists, that extend the study of film beyond the classroom and regular curriculum. Collaborations with FilmScene, Iowa City’s independent cinema, and the Bijou, the University of Iowa's long-running student film society, also enhance local opportunities for students to view films outside of the classroom and mainstream venues.

Programs

Undergraduate Programs of Study

Majors

- Major in Cinema (Bachelor of Arts) [p. 202]
- Major in Screenwriting Arts (Bachelor of Arts) [p. 206]

Minor

- Minor in Cinema [p. 210]

Graduate Programs of Study

- Master of Arts in Film Studies [p. 211]
- Master of Fine Arts in Film and Video Production [p. 213]
- Doctor of Philosophy in Film Studies [p. 215]

Courses

Cinematic Arts Courses

CINE:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first- or second-semester standing.

CINE:1100 The Art of Smartphone Filmmaking 3 s.h.
Introduction to filmmaking principles; how to shoot and edit short videos utilizing smartphone technology; methods to produce high-quality work without professional equipment. GE: Engineering Be Creative; Literary, Visual, and Performing Arts.

CINE:1150 Introduction to Screenwriting for Nonmajors 3 s.h.
Introduction to basic storytelling strategies and principles, writing film treatments, adapting prose to professional screenplay format, story structure for features and short films, workshop original screenplays, critique student work, and analyze professional screenplays. GE: Engineering Be Creative.

CINE:1185 Internship 1-3 s.h.
Opportunity to apply skills; faculty supervision, on or off campus. Requirements: cinema major.

CINE:1195 Video Games and Identity 3 s.h.
Structural and historical problems of representation and inclusion in video games (as text, industry, and culture) along lines of race, gender, sexuality, age, class, and ability; introduction to game studies as a discipline; guidance in learning college-level reading and writing. GE: Understanding Cultural Perspectives.

CINE:1300 Foundations of Screenwriting 3 s.h.
Ideation and creative research, foundational elements of stories, creation and development of characters and story lines, dialogue writing, screenplay format, analysis of storytelling in professional screenplays, writing and workshopping student's work.

CINE:1560 Cinematic Arts Ambassador Seminar 1 s.h.
Ambassadors provide information about the Department of Cinematic Arts to incoming and visiting students, university community, and broader community; conduct tours; meet with students and parents; review curriculum; provide information on opportunities; coordinate events; and update materials for prospective and incoming students. Requirements: cinema major.

CINE:1601 Introduction to Film Analysis 3 s.h.
Formal analysis of film; narrative cinema and approaches to narrative structure; authorship and genre issues, other major topics.

CINE:1602 Introduction to Film Studies 3 s.h.
Film history, theory, criticism; issues of form, technologies, and cultural functions of cinema; screenings of narrative, documentary, experimental films from varied periods and nations. GE: Literary, Visual, and Performing Arts.

CINE:1610 Contemporary Cinema 3 s.h.
Current cinema; key genres, movements, filmmakers, technological changes; recent cultural contexts, industrial and economic factors, changes in the film viewing experience. GE: Literary, Visual, and Performing Arts.

CINE:1625 Race, Gender, and Sexuality on Screen 3 s.h.
Introduction to key issues and debates regarding the representation of gender, race, and sexuality in cinema. GE: Understanding Cultural Perspectives.

CINE:1834 Modes of Film and Video Production 4 s.h.
Introduction to filmmaking; how to shoot and edit short works of cinematic art; exposure to various working methods including nonfiction, fiction, and experimental modes of video production. GE: Engineering Be Creative. Same as THTR:1834.

CINE:2195 Individual Study arr.

CINE:2600 Writing Film Reviews and Criticism 3 s.h.
Evaluation and analysis of film, from journalistic reviews to academic scholarship; principles and theoretical positions.

CINE:2615 Introduction to Film Theory 3 s.h.
Classical film theory—formalist and realist theories, authorship, genre; contemporary film theory—semiotics, feminism, psychoanalysis, ideological criticism, postmodernism, queer theory. Prerequisites: CINE:1834 with a minimum grade of C and (CINE:1601 with a minimum grade of C or CINE:1602 with a minimum grade of C).

CINE:2620 U.S. Film 3 s.h.
American film industry; social and artistic perspectives.

CINE:2623 Introduction to Documentary Film 3 s.h.
Introduction to key issues and topics in the history and practice of nonfiction filmmaking.

CINE:2626 History of Animation 3 s.h.
Introduction to key issues and topics in the history and practice of animation. GE: Literary, Visual, and Performing Arts.

CINE:2627 Film Club 1 s.h.
Theme-based film program comprising a weekly film screening followed by a guided group discussion intended to inspire debate and film literacy.

CINE:2655 Paris on Film 3 s.h.
Overview of major milestones in French cinema through the lens of diverse cinematic representations of Paris and the evolving cultural and social relationship between the city and cinema.

CINE:2800 Digital Arts: An Introduction 3 s.h.
Introduction to potential of integrating art with technology to provide a foundation of skills and concepts through hands-on experimentation; lectures and demonstrations introduce key concepts and ideas as well as the history of digital arts; students develop skills that form a foundation for future investigation through labs; work may include using an Arduino, programming, and developing an interface to control a software project; final project is shared with the public in some way; critical discourse in the form of writing assignments allows for reflection and evaluation. GE: Engineering Be Creative. Same as ARTS:2800, CS:2800, DANC:2800, DIGA:2800, MUS:2800, THTR:2800.

CINE:2850 Introduction to Editing 3 s.h.
Overview of film post-production; theory and practice of various styles and forms; how stories are constructed in the editing stage; editing techniques; and principles of color correction and sound mixing. Prerequisites: CINE:1834 with a minimum grade of C.

CINE:2863 Film/Video Production: Film Festival 3 s.h.
How to run a film festival; management and orchestration of annual Iowa City International Documentary Festival. Prerequisites: CINE:1834 with a minimum grade of C.

CINE:2864 Film/Video Production: Alternative Forms 3 s.h.
Alternative or innovative video/film practices and technologies; varied topics. Prerequisites: CINE:1834 with a minimum grade of C.

CINE:2866 Film/Video Production: Nonfiction 3 s.h.
Individual and small group work to create video projects using nonfiction filmmaking techniques, from camera and lighting to postproduction. Prerequisites: CINE:1834 with a minimum grade of C.

CINE:2868 Film/Video Production: Fiction 3 s.h.
Individual and small group work to create video projects using fiction filmmaking techniques, from camera and lighting to postproduction. Prerequisites: CINE:1834 with a minimum grade of C.

CINE:2869 Introduction to Intermedia 3 s.h.
Interdisciplinary focus; emphasis on conceptual, installation, video, time-based media, performance art. Prerequisites: (ARTS:1510 and ARTS:1520) or CINE:1834. Requirements: for CINE:2869—grade of C or higher in CINE:1834. Same as INTM:2710.

CINE:3050 Practicum: Teaching Assistant 1 s.h.
Training in a range of skills crucial to media education and teaching while expanding breadth and depth of student's film knowledge; practice-based practicum. Recommendations: junior or senior standing, and cinema BA major.

CINE:3080 Film/Video Production: The Business of Filmmaking 3 s.h.
Introduction to business-related arts production techniques and strategies; budgeting and basic accounting skills, grant writing, project conceptualization and planning, film producing and location scouting, distribution models, film festival submission, project summation. Prerequisites: CINE:1834 with a minimum grade of C and (CINE:1601 with a minimum grade of C or CINE:1602 with a minimum grade of C).

CINE:3195 Undergraduate Seminar 3 s.h.
Focus on a significant text or critical problem. Prerequisites: CINE:1834 with a minimum grade of C and (CINE:1601 with a minimum grade of C or CINE:1602 with a minimum grade of C). Requirements: cinema major, and junior or senior standing.

CINE:3310 Screenwriting Studies 3 s.h.
Readings and research projects in history, theory, and analysis of screenwriting; preparation to complete screenplays in other courses; topics may include study of storytelling in sample scripts, literary adaptation, screenwriting in early and classical Hollywood, independent and global art cinema. Prerequisites: CINE:1300 with a minimum grade of C and CINE:1834 with a minimum grade of C and (CINE:1601 with a minimum grade of C or CINE:1602 with a minimum grade of C).

CINE:3315 Topics in Screenwriting 3 s.h.
Diverse specialized topics related to the art, craft, history, and business of screenwriting for film, television, and new media platforms. Prerequisites: CINE:1300 with a minimum grade of C and CINE:1834 with a minimum grade of C and (CINE:1601 with a minimum grade of C or CINE:1602 with a minimum grade of C).

CINE:3361 Screenwriting: Short Form 3 s.h.
Introduction to basic principles of screenwriting; develop, write, and workshop screenplays for short film/video projects including fiction, nonfiction, and experimental work. Prerequisites: CINE:1300 with a minimum grade of C and CINE:1834 with a minimum grade of C and (CINE:1601 with a minimum grade of C or CINE:1602 with a minimum grade of C).

CINE:3367 Screenwriting: Long Form 3 s.h.
Introduction to basic principles of screenwriting; develop, write, and workshop screenplays for longer form film/video projects including fiction, nonfiction, and experimental work. Prerequisites: CINE:3361 with a minimum grade of C.

CINE:3750 Topics in Cinema and Culture 3 s.h.
One or more national cinemas in relation to social, historical, and cultural contexts. Prerequisites: CINE:1601 with a minimum grade of C or CINE:1602 with a minimum grade of C.

CINE:3860 Film and Video Production Studio 3 s.h.
Group production work in a collaborative setting to create film and media projects; advanced on-set or in-studio production workflow. Prerequisites: CINE:1602 and CINE:1834 and (CINE:2864 or CINE:2866 or CINE:2868 or CINE:2869). Recommendations: intermediate to advanced experience in cinema.

CINE:3865 Film/Video Production: Material of 16mm Filmmaking 3 s.h.
Individual work to create projects using 16mm filmmaking techniques including camera operation, editing, lighting for film, found footage, and camera-less filmmaking; introduction to hand processing; production course. Prerequisites: CINE:1834 with a minimum grade of C.

CINE:3876 Projection Design 3 s.h.
Introduction to the aesthetics and practical applications of projection design for live performance, including content creation, system design, media servers, projectors, cameras, and related professional equipment. Students learn how to create digital artwork with professional content/animation/effects software Adobe After Effects, Illustrator, Photoshop, Premiere Pro, Audition, etc. Through the media server QLab students learn how to integrate digital artwork and live video cameras into live performance via projectors and digital displays. GE: Engineering Be Creative. Same as DANC:3876, DIGA:3876, INTM:3876, THTR:3876.

CINE:3878 Film and Media Practicum 1 s.h.
Research and production-oriented film and media practicum; individual and small-group work on a single film, video, or media production as determined by instructor; independent library and web-based research, group presentations, readings. Requirements: junior or senior standing.

CINE:3888 Visual Effects 4 s.h.
Theory and practice of visual effects. Develop original visually-driven narrative sequences through the illusionary imaging enhancements of visual effects techniques using digital imaging tools. Examine contextual import and narrativity of these processes as they extend into historical and contemporary moving image practices. Prerequisites: CINE:1834 and CINE:2864. Recommendations: basic knowledge of animation techniques and knowledge of Adobe Photoshop, Premiere, AfterEffects, and Media Encoder.

CINE:4198 Honors Project I 3 s.h.
Requirements: standards met for honors in the major for the BA in cinema.

CINE:4199 Honors Project II 3 s.h.
Completion of honors project, working with a designated cinematic arts faculty member; content varies depending on specific projects proposed by the student, approved by the faculty member, in consultation with the director of undergraduate studies and any additional cinematic arts faculty members relevant to the project. Prerequisites: CINE:4198. Requirements: standards met for honors in the major for the BA in cinema.

CINE:4377 Advanced Screenwriting I 4 s.h.
Developing, writing, and workshopping screenplays for short film/video projects including fiction, nonfiction, and experimental work; introduction to preproduction activities; exercises and journal assignments. Prerequisites: CINE:3367 with a minimum grade of C.

CINE:4378 Advanced Screenwriting II 4 s.h.
Students write a feature screenplay (105-115 pages) within the industry standard contract guidelines for independent and studio projects; completion of outline, beat sheet, treatment, and first draft; one rewrite. Prerequisites: CINE:4377 with a minimum grade of C.

CINE:4610 Studies in Film and Music 3 s.h.
Critical approaches to historical and contemporary interrelationships between film and music; soundtracks and film scores; popular song and cinema. Prerequisites: CINE:1601 with a minimum grade of C or CINE:1602 with a minimum grade of C. Same as MUS:4610.

CINE:4618 Topics in World Cinemas 3 s.h.
Issues in international film history and film theory. Prerequisites: CINE:1601 with a minimum grade of C or CINE:1602 with a minimum grade of C.

CINE:4620 Topics in Film Form, Style, and Theory 3 s.h.
Special issues and topics relevant to film form, style, and/or theory. Prerequisites: CINE:1601 with a minimum grade of C or CINE:1602 with a minimum grade of C.

CINE:4705 Chicano Cinema 3 s.h.
History of Chicano independent and industry film and television production since the Chicano political and cultural movement began in the 1960s. Taught in English. Requirements: one Spanish literature or culture course numbered SPAN:3200 or above, or one film studies course numbered above CINE:2100. Same as LATS:4805, SPAN:4805.

CINE:4821 Film/Video Production: Selected Topics 4 s.h.
Exploration of a particular genre, issue, or process; varied topics; individual work on several video projects. Prerequisites: CINE:2864 with a minimum grade of C or CINE:2866 with a minimum grade of C or CINE:2868 with a minimum grade of C or CINE:3865 with a minimum grade of C or CINE:4841 with a minimum grade of C or CINE:4843 with a minimum grade of C or CINE:4845 with a minimum grade of C or CINE:4862 with a minimum grade of C.

CINE:4825 Digital Production: Animation 4 s.h.
Intermediate 3D modeling, motion graphics; student projects culminating in CDR or video presentation. Prerequisites: CINE:1834 with a minimum grade of C.

CINE:4841 Film/Video Production: Sound Design 4 s.h.
Exploration of sound design for film and video, from recording to editing and mixing; individual work on several audio and video projects. Prerequisites: CINE:2864 with a minimum grade of C or CINE:2866 with a minimum grade of C or CINE:2868 with a minimum grade of C or CINE:3865 with a minimum grade of C or CINE:4821 with a minimum grade of C or CINE:4841 with a minimum grade of C or CINE:4843 with a minimum grade of C or CINE:4845 with a minimum grade of C or CINE:4862 with a minimum grade of C or CINE:4864 with a minimum grade of C.

CINE:4843 Film/Video Production: Image Design 4 s.h.
Lighting strategies and techniques, camera work, composition, and postproduction; individual work on several video projects. Prerequisites: CINE:2863 with a minimum grade of C or CINE:2864 with a minimum grade of C or CINE:2866 with a minimum grade of C or CINE:2868 with a minimum grade of C or CINE:3865 with a minimum grade of C or CINE:3876 with a minimum grade of C.

CINE:4845 Film/Video Production: Advanced Editing 4 s.h.
Development of editing techniques and strategies; editing for impact, mood, story; individual work on several video projects. Prerequisites: CINE:2864 with a minimum grade of C or CINE:2866 with a minimum grade of C or CINE:2868 with a minimum grade of C or CINE:3865 with a minimum grade of C or CINE:3876 with a minimum grade of C or CINE:4841 with a minimum grade of C or CINE:4843 with a minimum grade of C or CINE:4862 with a minimum grade of C.

CINE:4862 Film/Video Production: Advanced Video4 s.h.
Expanded narrative or nonfiction/documentary topics; individual work on several video projects. Prerequisites: CINE:2864 with a minimum grade of C or CINE:2866 with a minimum grade of C or CINE:2868 with a minimum grade of C or THTR:3876 with a minimum grade of C or CINE:4821 with a minimum grade of C or CINE:4841 with a minimum grade of C or CINE:4843 with a minimum grade of C or CINE:4845 with a minimum grade of C.

CINE:4864 Film Production: Advanced 16mm 4 s.h.
Processes and approaches to short 16mm film; advanced cameras; sync-sound techniques; optical printing; individual work on a single project or several short projects. Prerequisites: CINE:3865 with a minimum grade of C. Requirements: for graduate students—CINE:3865 or recently shot film. Recommendations: for graduate students—CINE:3865 strongly encouraged.

CINE:4890 Media Production Workshop 4 s.h.
Development, production, and realization of a self-directed project; methods and projects may include film, video, screenwriting, or hybrid forms. Prerequisites: THTR:3876 with a minimum grade of B- or CINE:4821 with a minimum grade of B- or CINE:4841 with a minimum grade of B- or CINE:4843 with a minimum grade of B- or CINE:4845 with a minimum grade of B- or CINE:4862 with a minimum grade of B- or CINE:4864 with a minimum grade of B-.

CINE:5500 Success in Graduate Studies 1-3 s.h.
Introduction to graduate studies in film and media-related areas to maximize student success through a series of workshops devoted to research and writing, professionalization, and information sessions with key graduate-related offices and resources on campus.

CINE:5673 Advanced Film Theory 3 s.h.
A major figure, issue, or approach in film theory.

CINE:5675 Advanced Film History 3 s.h.
A major period or topic in film history; issues in film historiography, research.

CINE:5890 Colloquium in Film and Video Production 4 s.h.
Projects and critical studies; focus on varied topics including process and theoretical issues; workshop, readings, production. Recommendations: previous experience with video production; prior cinema courses or filmmaking experience helpful, but not required.

CINE:5900 MA Thesis in Film Studies 3 s.h.
Students research and write their MA thesis essay under close supervision of an advisor; for MA in film studies students in third and fourth semesters.

CINE:6992 Individual Study arr.
Opportunity for prearranged independent study with faculty. Requirements: MA, MFA, or PhD candidate in cinematic arts.

CINE:7615 Film Studies Seminar 3 s.h.
A major figure, issue, or approach in film theory.

CINE:7700 PhD Comprehensive Exam Preparation 3 s.h.
Students plan and study for their fourth semester comprehensive exams under close supervision of an advisor; for PhD in film studies students in their third semester.

CINE:7992 Thesis arr.

Cinema, BA

The major in cinema prepares students as engaged participants in the ever-changing media environment by offering them conceptual and practical tools for analyzing and creating films informed by a dialogue between film studies and film production. Students build a comprehensive knowledge of motion pictures through film studies courses focused on topics such as major film movements, directors, and critical debates in the history and theory of cinema, as well as production courses focused on narrative, documentary, and experimental films, using 16mm and digital technologies.

The major in cinema is an individualized, interdisciplinary study of film and the production of creative work in film, video, and interactive multimedia. It is designed to promote cultural and artistic awareness, increase speaking and writing skills, and develop capacities for systematic reasoning and effective production in cinema arts.

All students are expected to gain a perspective on the study and the production of film, video, or digital media while becoming acquainted with the historical, critical, and theoretical issues of the area. In conjunction with an appropriate overall curriculum, the major in cinema can offer effective preparation for continuing study or creative work in the humanities, arts, and cinema; provide a solid foundation for careers in film, video, television, and digital production; and lead to careers in arts administration, advertising, and business.

Learning Outcomes

Cinema graduates will be able to:

- develop a broad proficiency in cinematic creativity in areas such as editing, cinematography, screenwriting, sound design, and animation as well as the business of filmmaking, while emphasizing their own expressive vision;
- display an understanding of preproduction, production, and postproduction in the filmmaking process; succinctly describe, pitch, and reflect on their own filmmaking practice; benefit from having assessed and evaluated their own and their peers' films in workshops that emphasize constructive critique;
- speak confidently, read critically, and research and write persuasively about the history and theory of cinema as a multifaceted medium with artistic, educational, and cultural implications;
- recognize and critically evaluate the variety of film styles and practices from historical and contemporary, as well as international, perspectives;
- demonstrate the mutually beneficial skills developed across film production and film studies courses by making films informed by film studies and by writing essays informed by filmmaking;
- display critical thinking about the relationship between form and content in moving images;
- apply this knowledge and these skills to a range of 21st-century careers permeated by media production, whether in the film and culture industries; media, arts, and marketing professions; or higher education and other related areas; and
- understand and use cinema as a powerful tool for learning about the world and creating positive change as an engaged global citizen.

Requirements

The Bachelor of Arts with a major in cinema requires a minimum of 120 s.h., including 33 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Students may count a maximum of 56 s.h. of Department of Cinematic Arts coursework (prefix CINE) toward the 120 s.h. required for the Bachelor of Arts degree. A maximum of 9 s.h. of transfer credit may be counted toward the cinema major.

Cinema students may earn a screenwriting arts major if the requirements for each major are met. Both majors require CINE:1602 Introduction to Film Studies and CINE:1834 Modes of Film and Video Production. These two courses are required for both majors and are prerequisites for other key courses in the majors. Students must earn a grade of C or higher in each of these courses to advance in both majors. Students completing both the cinema and screenwriting arts majors may only double count CINE:1602 (3 s.h.) and CINE:1834 (4 s.h.) for a total of 7 s.h. A cinema and screenwriting arts double major requires at least 68 s.h. of coursework in the majors. Students earning a double major in the Department of Cinematic Arts (cinema and screenwriting) may apply more than 56 s.h. from cinematic arts courses (prefix CINE) toward their degree, but they must earn at least 56 s.h. of credit outside the department in order to graduate.

The course CINE:1834 Modes of Film and Video Production is the only production course required for the cinema major. Students may use more advanced production courses to complete the major, but admission to these courses is limited and depends on the student's achievement in prerequisite production courses.

The BA with a major in cinema requires the following coursework.

Requirements	Hours
Required Courses	13
Electives Courses	20

Required Courses

Course #	Title	Hours
All of these:		
CINE:1602	Introduction to Film Studies (with a grade of C or higher)	3
CINE:1834	Modes of Film and Video Production (with a grade of C or higher)	4
CINE:2615	Introduction to Film Theory	3
CINE:3195	Undergraduate Seminar	3

Elective Courses

An additional 20 s.h. in elective cinematic arts coursework (prefix CINE) is required. From the 20 s.h., students must select at least 6 s.h. in advanced film studies courses. CINE:1100 The Art of Smartphone Filmmaking will not count toward the 20 s.h. of required elective credit.

Advanced Film Studies Courses

Advanced film studies courses may be selected from the following.

Course #	Title	Hours
At least 6 s.h. from these:		
CINE:3195	Undergraduate Seminar (students receive advanced film studies credit only if they take this course a second time)	3
CINE:3750	Topics in Cinema and Culture	3
CINE:4610	Studies in Film and Music	3
CINE:4618	Topics in World Cinemas	3
CINE:4620	Topics in Film Form, Style, and Theory	3
CINE:4705	Chicano Cinema	3

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must maintain a cumulative grade-point average (GPA) of at least 3.33 in all UI coursework and a cumulative GPA of at least 3.50 in all cinematic arts coursework.

Once a student has earned 75 s.h., the student submits a written proposal for an honors thesis, screenwriting, or production project. The proposal must be approved by the faculty member who heads the student's honors thesis/project committee; the committee must be composed of at least two faculty members from the Department of Cinematic Arts. For more specific honors thesis/project requirements in the cinema major, including required courses, contact the Department of Cinematic Arts or visit the department's Honors in Cinematic Arts website.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the cinema major.

Career Advancement

Because the film and TV industries include a wide array of jobs, the cinema degree is not a direct track to any one specific career, but it does provide a solid foundation for entry into this field.

University of Iowa graduates have found work on sets in Hollywood and New York as location managers, editors, camera assistants, writers, producer’s assistants, location managers, casting agents, and more. Graduates also have found work in San Francisco, Chicago, Milwaukee, Seattle, and many other cities, with jobs in distribution, programming, documentary research, and education, among others. The U.S. Bureau of Labor Statistics notes in the Occupational Outlook Handbook that occupations for film and video editors and camera operators are expected to grow by 18% over the next decade, which is much higher than average job growth. Related jobs in broadcast and sound engineering are expected to grow by 9%, and film archivist and curator positions are expected to grow by 11%, both much higher than average.

In addition to student-run clubs and professional experiences, students have the opportunity to work with Student Video Production (SVP); the Bijou Film Board; Cinematic Arts Student Organization (CASO); panels with faculty members, current students, and alumni now in the industry; internships; and study abroad. Cinema students also have the option to enroll in CINE:3080 Film/Video Production: The Business of Filmmaking, a course devoted to careers in cinema as well as CINE:2863 Film/Video Production: Film Festival, where students run an internationally recognized documentary film festival.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

CINE:1100 The Art of Smartphone Filmmaking will not count toward the 20 s.h. of required elective cinematic arts credit.

Students must take CINE:1602 Introduction to Film Studies before or with CINE:1834 Modes of Film and Video Production; both courses require grades of C or higher.

Before the fifth semester begins: at least two courses in the major, including CINE:1602 Introduction to Film Studies and CINE:1834 Modes of Film and Video Production; students must earn grades of C or higher in both courses.

Before the seventh semester begins: at least five more courses in the major (total of seven), including CINE:2615 Introduction to Film Theory, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least three more courses in the major, preferably including CINE:3195 Undergraduate Seminar.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Cinema, BA

Course	Title	Hours
Academic Career		
Any Semester		
Students may count a maximum of 56 s.h. of Department of Cinematic Arts coursework (prefix CINE) toward the 120 s.h. total required for the Bachelor of Arts degree.		

GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CINE:1602	Introduction to Film Studies [b]	3
Major: cinematic arts (prefix CINE) elective course [c]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d, e]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
CINE:1834	Modes of Film and Video Production [b]	4
Major: cinematic arts (prefix CINE) elective course [c]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [e, f]		3
Elective course [g]		3
	Hours	**16-17**
Second Year		
Fall		
Major: cinematic arts (prefix CINE) elective course [c]		3
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
Elective course [g]		3
Elective course [g]		2
	Hours	**16-17**
Spring		
CINE:2615	Introduction to Film Theory	3
Major: cinematic arts (prefix CINE) elective course [c]		3
GE CLAS Core: Natural Sciences without Lab [e]		3
GE CLAS Core: Social Sciences [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
	Hours	**16-17**
Third Year		
Fall		
Major: cinematic arts (prefix CINE) elective course [c]		2
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
Elective course [g]		3
Elective course [g]		3
	Hours	**15-16**
Spring		
CINE:3195	Undergraduate Seminar	3
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
Elective course [g]		3
Elective course [g]		3
	Hours	**16-17**
Fourth Year		
Fall		
Major: advanced film studies course [i]		3
GE CLAS Core: International and Global Issues [e]		3
Elective course [g]		3
Elective course [g]		3
Elective course [g]		3
	Hours	**15**
Spring		
Major: advanced film studies course [i]		3
GE CLAS Core: Values and Society [e]		3
Elective course [g]		3
Elective course [g]		3
Elective course [g]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**122-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b CINE:1602 and CINE:1834 can be taken in any order but should be completed during the first year.

c CINE:1100 will not count toward the 20 s.h. of required elective cinematic arts credit.

d CINE:1625 fulfills the GE CLAS Core Understanding Cultural Perspectives requirement and also counts as semester hours toward the major requirements.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Options include CINE:1610.

g Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i Students must select at least 6 s.h. in advanced film studies courses from CINE:3195, CINE:3750, CINE:4610, CINE:4618, CINE:4620, CINE:4705. Note: students receive advanced film studies credit for CINE:3195 only if they take the course a second time.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all

requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Screenwriting Arts, BA

The major in screenwriting arts draws on the long and historic creative writing tradition at the University of Iowa by expanding undergraduate offerings to include a program in screenwriting. Students are instructed on practical skills and knowledge needed to become successful members of the screenwriting industry, but they also learn about the history and theories related to screenwriting, encouraging the writing and production of cinema to rise to the level of art.

Learning Outcomes

Screenwriting arts students achieve nine learning outcomes within three major areas.

Obtaining Foundational Understanding and Skills

Students will:

- find and form ideas;
- learn research methods to enhance creativity;
- understand the history and genres of narrative forms and styles; and
- learn the history of world cinema and film language.

Executing, Developing, and Completing Screenplay Projects

Students will:

- engage with step-by-step screenwriting models; and
- edit, workshop, and revise screenwriting drafts.

Practical Skills and Screen Industry Knowledge

Students will learn:

- oral communication skills;
- filmmaking processes including sound, cinematography, editing, and directing; and
- business and industrial dimensions through networking and building communities.

Requirements

The Bachelor of Arts with a major in screenwriting arts requires a minimum of 120 s.h., including 42 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. They must earn a minimum of 30 s.h. for the major at the University of Iowa, with at least 15 s.h. in cinematic arts courses (prefix CINE) taken at the University of Iowa. Students may count a maximum of 56 s.h. of cinematic arts coursework toward the 120 s.h. required for the Bachelor of Arts degree.

Screenwriting arts students may earn a minor in cinema. The cinema minor requires 15 s.h., and a maximum of 3 s.h. may count for both the cinema minor and the screenwriting arts major. Students earning a major in screenwriting arts and a minor in cinema must complete at least 12 s.h. in courses offered by the Department of Cinematic Arts that are not required for the screenwriting arts major.

Screenwriting arts students may earn a cinema major if the requirements for each major are met. Both majors require CINE:1602 Introduction to Film Studies and CINE:1834 Modes of Film and Video Production. These two courses are required for both majors and are prerequisites for other key courses in the majors. Students must earn a grade of C or higher in each of these courses to advance in both majors. Students completing both the screenwriting arts and cinema majors may only double count CINE:1602 Introduction to Film Studies(3 s.h.) and CINE:1834 (4 s.h.) for a total of 7 s.h. A screenwriting arts and cinema double major requires at least 68 s.h. of coursework in the majors. Students earning a double major in the Department of Cinematic Arts (screenwriting and cinema), or a major and minor in the department (screenwriting major and cinema minor) may apply more than 56 s.h. from cinematic arts courses (prefix CINE) toward their degree, but they must earn at least 56 s.h. of credit outside the Department of Cinematic Arts in order to graduate.

The BA with a major in screenwriting arts requires the following coursework.

Requirements	Hours
Foundation Courses	13
Core Courses	20
Elective Courses	9

Foundation Courses

Course #	Title	Hours
All of these:		
CINE:1300	Foundations of Screenwriting (with a grade of C or higher)	3
CINE:1602	Introduction to Film Studies (with a grade of C or higher)	3
CINE:1834	Modes of Film and Video Production (with a grade of C or higher)	4
One of these:		
CW:2870	Fiction Writing	3
THTR:2301	Playwriting I	3

Core Courses

Course #	Title	Hours
All of these:		
CINE:3315	Topics in Screenwriting	3
CINE:3361	Screenwriting: Short Form	3
CINE:3367	Screenwriting: Long Form	3
CINE:4377	Advanced Screenwriting I	4
CINE:4378	Advanced Screenwriting II	4
One of these:		
CINE:2600	Writing Film Reviews and Criticism	3
CINE:2615	Introduction to Film Theory	3
CINE:2868	Film/Video Production: Fiction	3

Elective Courses

Students must complete a minimum of 9 s.h. from the following list of electives that includes related courses on writing fiction, nonfiction, poetry, or other genres, and on production, acting, and directing. Many of these courses are repeatable for credit, allowing students to focus on a single

genre or production experience if they choose to. Some of these courses have additional requirements and prerequisites; students must complete all of a course's prerequisites before they may register for that course. Students should confer with their advisor before they choose elective coursework.

Course #	Title	Hours
Cinematic Arts		
CINE:1185	Internship	1-3
CINE:2615	Introduction to Film Theory	3
CINE:2620	U.S. Film	3
CINE:2623	Introduction to Documentary Film	3
CINE:2626	History of Animation	3
CINE:2655	Paris on Film	3
CINE:2868	Film/Video Production: Fiction	3
CINE:3080	Film/Video Production: The Business of Filmmaking	3
CINE:3195	Undergraduate Seminar	3
CINE:3310	Screenwriting Studies	3
CINE:3750	Topics in Cinema and Culture	3
CINE:4198	Honors Project I	3
CINE:4199	Honors Project II	3
CINE:4618	Topics in World Cinemas	3
CINE:4620	Topics in Film Form, Style, and Theory	3
CINE:4845	Film/Video Production: Advanced Editing	4
CINE:4890	Media Production Workshop	4
Classics		
CLSA:3742/ WRIT:3742	Word Power: Building English Vocabulary	3
Communication Studies		
COMM:2065	Television Criticism	3
COMM:2069/ AFAM:2070	Black Television Culture	3
COMM:2077	Writing and Producing Sitcoms	3
Creative Writing (Iowa Writers' Workshop)		
CW:2100	Creative Writing	3
CW:2870	Fiction Writing (if not used as a foundation course)	3
CW:2875	Poetry Writing	3
CW:3003	Writing and Reading Science Fiction	3
CW:3215/ INTD:3300	Creative Writing and Popular Culture	3
CW:3870	Advanced Fiction Writing	3
CW:3875	Advanced Poetry Writing	3
English		
ENGL:4720	Advanced Creative Writing: Special Topic	3
ENGL:4721	Advanced Writers' Seminar: Fiction	3
ENGL:4722	Advanced Writers' Seminar: Poetry	3
ENGL:4723	Advanced Writers' Seminar: Nonfiction	3
Theatre Arts		
THTR:2301	Playwriting I (if not used as a foundation course)	3
THTR:3301	Playwriting II	3
THTR:3310	Undergraduate Playwriting Workshop	3
THTR:3320	Writing for Film	3
THTR:4180	Directing I	3
THTR:6310	Special Topics in Playwriting	3
Languages, Linguistics, Literatures, and Cultures		
WLLC:3208/ ASIA:3208/ TRNS:3208	Classical Chinese Literature Through Translation	3

Experiential Learning Opportunities

The department offers the following experiential learning courses: CINE:1185 Internship, CINE:1560 Cinematic Arts Ambassador Seminar, and/or CINE:3050 Practicum: Teaching Assistant. Only CINE:1185 counts toward the major.

The major does not require an internship, but an internship (CINE:1185) is an elective course option (see "Elective Courses"). The Department of Cinematic Arts strongly encourages students to participate in internships and related activities.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must maintain a cumulative grade-point average (GPA) of at least 3.33 in all UI coursework and a cumulative GPA of at least 3.50 in all cinematic arts coursework.

Once a student has earned 75 s.h., the student submits a written proposal for an honors thesis, screenwriting, or production project. The proposal must be approved by the faculty member who heads the student's honors thesis/project committee; the committee must be composed of at least two faculty members from the Department of Cinematic Arts. For more specific honors thesis/project requirements in the screenwriting arts major, including required courses, contact the Department of Cinematic Arts or visit the department's Honors in Cinematic Arts website.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the screenwriting arts major.

Career Advancement

Screenwriting arts majors find employment as writers in the entertainment field, including filmmaking as well as TV, marketing, advertising, public relations, and other related areas that specialize in communication through words and images. The U.S. Bureau of Labor Statistics notes in the

Occupational Outlook Handbook that occupations for writers are expected to grow by 8% over the next decade. Related occupations such as public relations will grow at around 10% as well as positions in advertising, promotions, and marketing. Students who study screenwriting will possess the knowledge and skills needed for entry into these related positions.

Screenwriting arts students benefit from the University of Iowa's status as a renowned writing university. The Department of Cinematic Arts organizes panels with faculty members, current students, and alumni working in the industry. In addition to the wealth of internship opportunities at the University of Iowa and surrounding areas, students enroll in CINE:3310 Screenwriting Studies, which addresses career opportunities for screenwriters (e.g., labs, workshops, fellowships) and have the option to enroll in CINE:3080 Film/Video Production: The Business of Filmmaking, a course devoted to careers in cinema.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: at least five courses in the major, including CINE:1300 Foundations of Screenwriting (with a grade of C or higher), CINE:1602 Introduction to Film Studies (with a grade of C or higher), CINE:1834 Modes of Film and Video Production (with a grade of C or higher), CW:2870 Fiction Writing or THTR:2301 Playwriting I, and one required elective course.

Before the seventh semester begins: at least four more courses in the major (total of nine), including CINE:2600 Writing Film Reviews and Criticism or CINE:2615 Introduction to Film Theory or CINE:2868 Film/Video Production: Fiction, CINE:3315 Topics in Screenwriting, CINE:3361 Screenwriting: Short Form, and CINE:3367 Screenwriting: Long Form.

Before the eighth semester begins: at least three more courses in the major, including CINE:4377 Advanced Screenwriting I and one required elective course.

During the eighth semester: enrollment in all remaining coursework in the major, including CINE:4378 Advanced Screenwriting II, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Screenwriting Arts, BA

Course	Title	Hours
Academic Career		
Any Semester		
Maximum of 56 s.h. from Department of Cinematic Arts courses (prefix CINE) may be counted toward the 120 s.h. total required for graduation.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CINE:1300	Foundations of Screenwriting [b]	3
CINE:1834	Modes of Film and Video Production [b, c]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d, e]		3
CSI:1600	Success at Iowa	1
	Hours	**14-15**
Spring		
CINE:1602	Introduction to Film Studies [b, c]	3
CW:2870 or THTR:2301	Fiction Writing [f] or Playwriting I	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [e, g]		3
Elective course [h]		3
	Hours	**15-16**
Second Year		
Fall		
CINE:2600 or CINE:2615 or CINE:2868	Writing Film Reviews and Criticism or Introduction to Film Theory or Film/Video Production: Fiction	3
CINE:3361	Screenwriting: Short Form	3
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: World Languages First Level Proficiency or elective course [i]		4 - 5
	Hours	**14-15**
Spring		
CINE:3315	Topics in Screenwriting	3
CINE:3367	Screenwriting: Long Form	3
GE CLAS Core: Natural Sciences without Lab [e]		3
GE CLAS Core: Social Sciences [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [i]		4 - 5
	Hours	**16-17**
Third Year		
Fall		
Major: elective course [j]		3
Major: elective course [j]		3
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [i]		4 - 5
Elective course [h]		2
	Hours	**15-16**
Spring		
Major: elective course [j]		3
GE CLAS Core: Historical Perspectives [e]		3

GE CLAS Core: World Languages Fourth Level Proficiency or elective course [i]		4 - 5
Elective course [h]		2
Elective course [h]		3
	Hours	**15-16**
Fourth Year		
Fall		
CINE:4377	Advanced Screenwriting I [k]	4
GE CLAS Core: International and Global Issues [e]		3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
	Hours	**16**
Spring		
CINE:4378	Advanced Screenwriting II [k]	4
GE CLAS Core: Values and Society [e]		3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**16**
	Total Hours	**121-127**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b CINE:1602, CINE:1834, and CINE:1300 should all be completed during the first year.

c CINE:1602 and CINE:1834 can be taken in any order. However, students should prioritize taking CINE:1834 because of seat availability.

d COMM:2069 fulfills the GE CLAS Core Understanding Cultural Perspectives requirement and also counts as semester hours toward the Screenwriting Arts requirements.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f THTR:2301 also satisfies the Literary, Visual, and Performing Arts GE requirement.

g Required if taking CW:2870 as the foundation course elective rather than THTR:2301.

h Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

i Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

j Students must complete at least 9 s.h. of related coursework on writing fiction, nonfiction, poetry, or other genres, and on production, acting, and directing; see the General Catalog for list of approved courses.

k Students should complete CINE:4377 and CINE:4378 in the same academic year in sequence. Honors students should take both courses during the third year.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Cinema, Minor

Requirements

The undergraduate minor in cinema requires a minimum of 15 s.h. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Students may count 3 s.h. in approved transfer credit toward the minor. Coursework in the minor may not be taken pass/nonpass.

A maximum of 3 s.h. may be counted toward both the cinema minor and the screenwriting arts major.

Required Courses

Course #	Title	Hours
All of these:		
CINE:1602	Introduction to Film Studies (with a grade of C or higher)	3
Additional cinema coursework (prefix CINE) numbered 1100 and above		12

Film Studies, MA

Learning Outcomes

Students will:

- build requisite skills for PhD-level study, including academic research and writing, public presentations, publishing, and grant applications;
- identify and apply concepts of film and media theory in scholarship as well as pedagogical practice;
- identify and apply methods of film historiography, including evaluating and working with archival materials;
- develop a broad understanding of the discipline's history, current status, and potential future;
- acquire knowledge of cinema's historical periods, global variations, and diverse forms; and
- acquire a diverse set of professionalization skills in order to explore film- and media-related career possibilities within and beyond academia.

Requirements

The Master of Arts program in film studies requires a minimum of 36 s.h. of graduate credit, of which 24 s.h. must be earned at the University of Iowa. Students must earn a minimum program grade-point average of 3.25.

The 36 s.h. are typically acquired by taking 12 graduate-level courses that span two years. The program's focus is on advanced film theory and film history in an international context.

Students meet formal degree requirements through coursework and a written MA thesis essay produced in the second year, followed by an oral examination.

The MA in film studies requires the following coursework.

Core Requirements

Course #	Title	Hours
All of these:		
CINE:5500	Success in Graduate Studies (consult advisor about semester hour enrollment)	1-3
CINE:5673	Advanced Film Theory	3
CINE:5675	Advanced Film History	3
CINE:5900	MA Thesis in Film Studies (taken twice for 3 s.h. each)	6

Language Study

Up to 6 s.h. in languages and literatures courses numbered 3000 or above in an area other than English may be counted toward the degree.

Electives

Students are required to enroll in the two graduate courses offered by the Department of Cinematic Arts each semester. This requirement of two per semester does not include the required CINE:5500 Success in Graduate Studies or CINE:5900 MA Thesis in Film Studies (third and fourth semesters). Remaining elective hours may be taken in courses selected from other departments; students should consult their advisor.

More information on the program is available on the Department of Cinematic Arts website.

Admission

A faculty committee chaired by the head of film studies evaluates applications to the MA program. Application materials should include undergraduate and/or graduate transcripts, a personal statement, a writing sample, three letters of recommendation, and samples of creative work when relevant. Admission decisions are based on the full range of an applicant's accomplishments and evidence that the applicant will fit the elements of the program and will thrive in the department.

Minimum admission requirements: Applicants should have a BA in film studies or a related discipline.

All applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Information about the application process is available on the Department of Cinematic Arts website and the Graduate Admissions website.

Career Advancement

The Master of Arts degree typically prepares students for continued, advanced graduate work in film studies at the University of Iowa or elsewhere. However, students have used their MA training in film theory and history to seek careers in other areas, including film criticism, positions at film archives or film festivals, or within various facets of the film industry.

The Graduate College is prepared to help graduates explore careers related to or that build upon their training. In conjunction with the Graduate College, the Department of Cinematic Arts is also committed to helping graduate students explore a range of alternative careers that take advantage of their specific training. In addition, the Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Film Studies, MA

Course	Title	Hours
Academic Career		
Any Semester		
36 s.h. must be graduate level coursework; maximum of 6 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on the department website. [a, b]		
Graduate College program GPA of at least 3.25 is required. [c]		
	Hours	**0**
First Year		
Fall		
CINE:5500	Success in Graduate Studies [d, e]	3

CINE:5673	Advanced Film Theory	3
CINE:5675	Advanced Film History	3
	Hours	**9**
Spring		
CINE:5673	Advanced Film Theory	3
CINE:5675	Advanced Film History	3
Elective course		3
Confirm Thesis Committee by April 15		
	Hours	**9**
Second Year		
Fall		
CINE:5673 or CINE:7615 or CINE:5675	Advanced Film Theory or Film Studies Seminar or Advanced Film History	3
CINE:7615 or CINE:5673 or CINE:5675	Film Studies Seminar or Advanced Film Theory or Advanced Film History	3
CINE:5900	MA Thesis in Film Studies [d]	3
	Hours	**9**
Spring		
CINE:7615 or CINE:5673 or CINE:5675	Film Studies Seminar or Advanced Film Theory or Advanced Film History	3
CINE:7615 or CINE:5673 or CINE:5675	Film Studies Seminar or Advanced Film Theory or Advanced Film History	3
CINE:5900	MA Thesis in Film Studies [d]	3
Thesis Defense [f]		
	Hours	**9**
	Total Hours	**36**

a Given the program's emphasis upon the study of film in an international context, world language acquisition is considered to be highly advantageous. Up to 6 s.h. in languages and literatures courses numbered 3000 or above in an area other than English may be counted toward the degree.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Does not count as one of the two Film Studies courses required each semester.

e Must be taken during first year fall semester.

f MA thesis must be submitted to the committee at least two weeks prior to the Graduate College defense deadline for spring.

Film and Video Production, MFA

Learning Outcomes

Students will:

- develop an artistic vision that will inform an emerging practice of film and video production, and begin to develop a portfolio;
- learn the advanced technical aspects of production from cinematography and editing to sound design;
- acquire a broad range of knowledge in film and media theories and histories;
- develop skills and experience in academic research and critical writing; and
- develop professionally, including showing work at festivals, applying for grants and residencies, acquiring requisite skills for academic employment, and learning the skills for successful job applications.

Requirements

The Master of Fine Arts program in film and video production requires 59 s.h. of graduate credit, 24 of which must be earned at the University of Iowa. Students must earn a minimum program grade-point average of 3.00.

Graduate credit is typically acquired through advanced production courses, graduate colloquia, and advising-centered thesis courses taken over three years. With a focus on expanded documentary, experimental, hybrid, and narrative media forms, the curriculum combines creative and scholarly coursework with the aim of producing a body of innovative, artistic work in film, digital media, multimedia installation, and/or animation. Degree requirements include advanced coursework in film/media theory or history, annual public presentations and critiques, the development of an artist statement, a thesis paper, and a creative thesis project.

Students may not enroll in cinematic arts courses (prefix CINE) numbered below 5000 with the exception of the following courses that count toward their degree: CINE:4821, CINE:4841, CINE:4843, CINE:4845, CINE:4862, CINE:4864, and CINE:4890. These courses also count toward the degree if they are taken as electives: CINE:3865 Film/Video Production: Material of 16mm Filmmaking, CINE:4377 Advanced Screenwriting I, and CINE:4378 Advanced Screenwriting II. Candidates may enroll in courses numbered below 5000 from areas outside of cinematic arts but those courses do not count toward their degree.

Students may take CINE:4890 Media Production Workshop and CINE:5890 Colloquium in Film and Video Production as electives in their third year while they complete their thesis requirement.

The MFA in film and video production requires the following coursework.

Required Courses

This coursework must be taken before thesis clearance.

Course #	Title	Hours
Both of these:		
CINE:4890	Media Production Workshop	4
CINE:5890	Colloquium in Film and Video Production (taken twice for 4 s.h. each)	8
12 s.h. in advanced production courses from these:		
CINE:4821	Film/Video Production: Selected Topics	4
CINE:4841	Film/Video Production: Sound Design	4
CINE:4843	Film/Video Production: Image Design	4
CINE:4845	Film/Video Production: Advanced Editing	4
CINE:4862	Film/Video Production: Advanced Video	4
CINE:4864	Film Production: Advanced 16mm	4
All of these:		
Two graduate courses in film theory/history		6
Two courses from related areas outside the Department of Cinematic Arts		6
Additional electives numbered 4000 and above		5

Required Courses After Thesis Clearance

Course #	Title	Hours
All of these:		
CINE:7992	Thesis	12
Additional electives numbered 4000 and above		6

Students should consult their advisor for specific information related to MFA requirements.

Admission

A faculty committee chaired by the head of film and video production evaluates applications to the MFA program. Application materials should include undergraduate and/or graduate transcripts, a personal statement, three letters of recommendation, samples of creative work, test scores, and writing samples when relevant. Admission decisions are based on the full range of an applicant's accomplishments and evidence that the applicant will thrive in the department's program. Previous academic experience in moving image production is desirable but not required.

All applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Information about the application process is available on the Department of Cinematic Arts website and the Graduate Admissions website.

Career Advancement

The film and video production program has a remarkable job placement record, with graduates located in faculty positions at major research universities and prestigious liberal arts colleges throughout the world. Graduates have shown their work at major festivals around the world, including Cannes, Slamdance, TIFF, Berlinale, Locarno, and SXSW. Through their creative work and published research, graduates are visible and productive contributors to film and video production and related disciplines.

Within the program, faculty mentor students toward professional careers by supervising their development as both innovative moving-image makers and scholars. Regular one-on-one advising sessions, group critiques, and workshops on topics such as film festival submissions, job interviews, and related topics prepare students for academic and artistic careers. Students are also regularly advised on applying for grants and awards to facilitate their advanced research, whether conducted in Iowa or elsewhere.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Film and Video Production, MFA

Course	Title	Hours
Academic Career		
Any Semester		
59 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Students must maintain a Graduate College program GPA of 3.00 or higher. [b]		
	Hours	**0**
First Year		
Fall		
CINE:5890	Colloquium in Film and Video Production [c, d]	4
Advanced production course [e]		4
Mid-level graduate course in film theory/history [e]		3
Elective course (CINE:5500 Success in Graduate Studies recommended) [e]		2
	Hours	**13**
Spring		
CINE:4890	Media Production Workshop [f]	4
Advanced production course [e]		4
Course from related area outside of Cinematic Arts [e]		3
	Hours	**11**
Second Year		
Fall		
CINE:5890	Colloquium in Film and Video Production [c, d]	4
Advanced production course [e]		4
Mid-level graduate course in film theory/history [e]		3
	Hours	**11**
Spring		
Course from related area outside of Cinematic Arts [e]		3
Elective course [e]		3
Independent study or elective course (optional) [e]		3
	Hours	**9**
Third Year		
Fall		
CINE:7992	Thesis	6
Elective course (after thesis clearance) [e]		3
	Hours	**9**
Spring		
CINE:7992	Thesis	6
Elective course (after thesis clearance) [e]		3
Final Exam [g]		
	Hours	**9**
	Total Hours	**62**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Take twice for total of 8 s.h.

d Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

e Work with faculty advisor to determine appropriate coursework and sequence.

f Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

g Completion of all degree requirements including MFA thesis project.

Film Studies, PhD

Learning Outcomes

Students will:

- solidify skills for work in the discipline, including researching and writing a book-length study, public presentations, publishing, grant applications, etc.;
- gain confidence and fluency working with concepts of film and media theory and learn to synthesize, adapt, contextualize, and critique theoretical approaches;
- acquire and mobilize advanced primary research skills and deepen their ability to work with models and methods of film historiography, and to articulate historical sources with theoretical approaches;
- acquire and mobilize an advanced understanding of the discipline's history and current status;
- acquire and mobilize advanced discipline-level knowledge in historical periods, global variations, and diverse forms, and learn to take a position in the future development of film and media studies;
- learn the fundamental skills for undergraduate-level teaching in film and media studies; and
- deepen professionalization skills in order to explore film and media-related career possibilities within and beyond academia (for example, in media and arts organizations, publishing, teaching, archives, film programming, and festivals).

Requirements

The Doctor of Philosophy program in film studies requires a minimum of 72 s.h. of graduate credit, of which 39 s.h. must be earned at the University of Iowa after a student has received their MA degree. Semester hours are earned through coursework and eventually work focused on the completion of a dissertation. Students must earn a minimum program grade-point average of 3.25.

The program's coursework is broadly concentrated in film history and film theory, with specific courses offered on a wide range of topics. With the regular consultation and guidance of a faculty advisor and committee, students formulate and pursue a plan of study during their first year in the program; prepare and conduct a written and oral comprehensive examination typically in their second or third year; write and present a dissertation prospectus to a carefully selected committee; and complete a dissertation in an area of advanced, original research that is defended orally in a meeting with the student's committee prior to final deposit. A detailed summary of the requirements for the PhD in film studies is available on the Department of Cinematic Arts website.

The PhD in film studies requires the following coursework.

Core Requirements

Course #	Title	Hours
All of these (must be taken at the University of Iowa):		
CINE:5500	Success in Graduate Studies (consult advisor about semester hour enrollment)	1-3
CINE:5673	Advanced Film Theory (taken twice for 3 s.h. each)	6
CINE:5675	Advanced Film History (taken twice for 3 s.h. each)	6
CINE:7615	Film Studies Seminar	3
CINE:7700	PhD Comprehensive Exam Preparation	3
CINE:7992	Thesis	4

Seminar course numbered 7000 or above

Electives

Students are required to enroll in the two graduate courses offered by the Department of Cinematic Arts each semester. This requirement of two per semester does not include the required CINE:5500 Success in Graduate Studies or CINE:7700 PhD Comprehensive Exam Preparation (typically taken in the fourth semester when the student does their comprehensive exams). Remaining elective hours may be taken in courses selected from other departments; students should consult their advisor.

More information on the program is available on the Department of Cinematic Arts website.

Admission

A faculty committee chaired by the head of film studies evaluates applications to the PhD program. Application materials should include undergraduate and/or graduate transcripts, a personal statement, a writing sample, three letters of recommendation, and samples of creative work when relevant. Admission decisions are based on the full range of an applicant's accomplishments and evidence that the applicant will fit the elements of the program and thrive in the department.

Minimum admission requirements: Applicants should have a BA in film studies or a related discipline and either an MA in film studies or a related discipline, or an MFA in film production with significant experience in film studies.

All applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Information about the application process is available on the Department of Cinematic Arts website and the Graduate Admissions website.

Career Advancement

The PhD program in film studies has an impressive job placement record, with graduates located in faculty positions at major research universities and prestigious liberal arts colleges throughout the world. Graduates are, through their published research, visible and productive contributors to film studies and related disciplines, and many have served in leadership positions within professional organizations such as the Society for Cinema and Media Studies.

Within the program, faculty mentor students toward professional careers by supervising their development as both effective teachers and scholars. Regular workshops offered on topics such as journal and conference submissions, job interviews, and related topics help prepare students for careers within and beyond academia. Students are also regularly advised on applying for grants and awards to facilitate their advanced research, whether conducted in Iowa or elsewhere.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Film Studies, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; maximum of 33 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on the department website. [a]		
Graduate College program GPA of at least 3.25 is required. [b]		
	Hours	**0**
First Year		
Fall		
CINE:5500	Success in Graduate Studies [c, d]	3
CINE:5673	Advanced Film Theory	3
CINE:5675	Advanced Film History	3
	Hours	**9**
Spring		
CINE:5673 or CINE:7615	Advanced Film Theory or Film Studies Seminar	3
CINE:5675	Advanced Film History	3
Elective course		3
Submit Plan of Study		
Complete Plan of Study Meeting		
	Hours	**9**
Second Year		
Fall		
CINE:5673	Advanced Film Theory	3
CINE:5675 or CINE:7615	Advanced Film History or Film Studies Seminar	3
Elective course		3
	Hours	**9**
Spring		
Exam: Doctoral Comprehensive Exam [e]		
CINE:5675	Advanced Film History	3
CINE:7615	Film Studies Seminar	3
CINE:7700	PhD Comprehensive Exam Preparation [d]	3
	Hours	**9**
Third Year		
Fall		
Dissertation Prospectus [f]		
CINE:7992	Thesis	3
Elective course [g]		3
Elective course [g]		3
	Hours	**9**
Spring		
CINE:7992	Thesis	3
Elective course [g]		3
Elective course [g]		3
	Hours	**9**
Fourth Year		
Fall		
CINE:7992	Thesis	3
Elective course [g]		3
Elective course [g]		3
	Hours	**9**
Spring		
CINE:7992	Thesis	3
Elective course [g]		3
Elective course [g]		3
Exam: Doctoral Final Exam [h]		
	Hours	**9**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Must be taken during first year fall semester.

d Does not count as one of the two Film Studies courses required each semester.

e Must pass four hour written exam on each of the three major plan of study areas.

f Must pass prospectus no later than the semester following successful completion of the comprehensive exam.

g Typically satisfied with master's graduate transfer credit.

h Dissertation submission and defense.

Classics

Interim Chair

- Robert R. Cargill

Undergraduate majors: ancient civilization (BA); classical languages (BA)

Undergraduate minors: ancient civilization; classical languages; Greek; health and the human condition; Latin

Postbaccalaureate certificate: classics

Graduate degrees: MA in classics; MA in Greek; MA in Latin; PhD in classics

Faculty: https://classics.uiowa.edu/people

Website: https://classics.uiowa.edu/

Classics is the study of ancient languages, literatures, and cultures of the Mediterranean basin from approximately 2000 B.C.E. to 800 C.E. It embraces three civilizations—the Minoan-Mycenaean, Greek, and Roman; many languages —Greek, Latin, Hebrew, Aramaic, Syriac, and Coptic; and a geographical area including Europe, North Africa, Egypt, the eastern Mediterranean, and Mesopotamia. The Department of Classics provides a basis for understanding and interpreting the contribution of the ancient world to life in the present and the future.

The department offers a substantial selection of courses taught in English at the undergraduate and graduate levels; several are approved for the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Undergraduates in all majors may satisfy the World Languages requirement of the GE CLAS Core with courses in Greek, Latin, or Biblical Hebrew; see "Language for GE CLAS Core." The department's First-Year Seminar introduces entering undergraduates to classics.

The Department of Classics also administers the interdisciplinary undergraduate minor in health and the human condition.

Language for GE CLAS Core

The Department of Classics offers course sequences in Greek, Latin, and Biblical Hebrew that students in all majors may use to fulfill the World Languages requirement of the GE CLAS Core. For more information regarding pathways to fulfill the World Language GE CLAS Core requirement, including options to take four levels of the same language, two levels each of two different languages, or three levels of a language plus a World Language and Cultural Exploration course, see GE CLAS Core in the catalog.

Students who have had previous coursework or other experience with Greek or Latin should take the appropriate language placement test, which helps determine the level at which a student should begin Greek or Latin language study at the University of Iowa.

Programs

Undergraduate Programs of Study

Majors

- Major in Ancient Civilization (Bachelor of Arts) [p. 224]
- Major in Classical Languages (Bachelor of Arts) [p. 229]

Minors

- Minor in Ancient Civilization [p. 232]
- Minor in Classical Languages [p. 233]
- Minor in Greek [p. 234]
- Minor in Health and the Human Condition [p. 236]
- Minor in Latin [p. 237]

Postbaccalaureate Program of Study

Certificate

- Certificate in Classics [p. 238]

Graduate Programs of Study

- Master of Arts in Classics [p. 239]
- Master of Arts in Greek [p. 240]
- Master of Arts in Latin [p. 241]
- Doctor of Philosophy in Classics [p. 242]

Facilities

University of Iowa Libraries' Main Library and the Art Library house extensive collections of classical texts and uninterrupted runs of classical periodicals from 1850 that facilitate research in the major areas of Greek and Roman civilization. The Department of Classics has a varied collection of slides on classical subjects and a small library of reference works, texts, and issues of classical and archaeological journals. The department's classical museum contains a small collection of coins, vases, and facsimiles in bronze from Mycenae, Pompeii, and Herculaneum.

The university is a supporting institution of the American School of Classical Studies at Athens. Consult the director of undergraduate studies for more information.

The department offers students the opportunity to participate in an archaeological dig during the summer. Contact the Department of Classics in mid-February for details.

Courses

- Classics: Ancient Civilizations Courses [p. 217]
- Greek Courses [p. 222]
- Latin Courses [p. 222]

Classics: Ancient Civilizations Courses

All readings for these courses are in English; previous knowledge of Greek or Latin is not required.

CLSA:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

CLSA:1010 Hero, God, Mortal: Literature of Greece 3 s.h.
Ancient Greek literature and culture as it responded to Homer; may include genre (e.g., epic to tragedy), religion, changing concept of hero, interaction with Mediterranean cultures, myth versus history. GE: Literary, Visual, and Performing Arts.

CLSA:1020 Love and Glory: The Literature of Rome 3 s.h.
Main themes and works of ancient Roman literature; works reflecting conflict of personal desire and public self in Rome. GE: Literary, Visual, and Performing Arts.

CLSA:1040 World Literature in Translation I 3 s.h.
Reading and analysis of major literary texts from writing's origins to 1700 in the Mediterranean, Asia, and Africa; interrelationship of literature and history. Taught in English. GE: Literary, Visual, and Performing Arts. Same as TRNS:1240.

CLSA:1181 Ancient Medicine 3 s.h.
Thematic examination of theories and practices of Greco-Roman physicians, which in turn became the medical tradition of medieval Islamic world and European medicine until mid-19th century; historical medical terms, theories, and practices. GE: Historical Perspectives. Same as GHS:1181.

CLSA:1200 Interpretation of Ancient Literature 3 s.h.
Development of skills in literary interpretation through study of ancient Greek, Roman, and non-Greco-Roman literature of the ancient Mediterranean in translation. Students read dramatic and nondramatic poetry, fictional and nonfictional prose, non-Greco-Roman literature of ancient Mediterranean, and classical reception; 8th century B.C.E. to 4th century C.E. GE: Interpretation of Literature.

CLSA:1340 Magic in the Ancient World 3 s.h.
Ancient Greek and Roman writings on magic, including ancient spells and charms. GE: Values and Society.

CLSA:1415 Ancient Origins of Religious Conflict 3 s.h.
Examination of ancient origins of the world's modern religions, their diversity, and religious conflict worldwide; ancient Mesopotamian and Mediterranean religions, Judaism, Christianity, and Islam; international events, fundamentalism, and protest movements. GE: Understanding Cultural Perspectives.

CLSA:1454 Hebrew Bible for Everyone 3 s.h.
Introduction to the Hebrew Bible/Old Testament; examination of the collected writings that comprise it within their historical and cultural contexts; analysis of how the literary contents of the Pentateuch, historical, prophetic, and poetic books reflect, reject, or otherwise interact with cultural and historical circumstances of their writing and reception. GE: Values and Society.

CLSA:1455 New Testament for Everyone 3 s.h.
Introduction to the Christian New Testament; examination of the collected writings that comprise it within their historical and cultural contexts; analysis of how the literary contents of the Gospels, Acts, Pauline letters, general epistles, and apocalyptic texts reflect, reject, or otherwise interact with cultural and historical circumstances of their writing and reception. GE: Values and Society.

CLSA:1740 Writing Strategies: Word Origins and Word Choice 3 s.h.
Study of words, their meanings, and their origins combined with writing; words and word histories; role of English language in the world. GE: Literary, Visual, and Performing Arts. Same as WRIT:1740.

CLSA:1805 Legends and Heroes of Ancient Rome 1 s.h.
Introduction to narratives of Roman heroes from Livy, Ovid, and Plutarch; background information for further study in classics.

CLSA:1809 Ancient World on the Modern Screen 3 s.h.
Cinematic depictions of the classical world compared with scholarly views; selected films and primary ancient sources of the same period. GE: Literary, Visual, and Performing Arts.

CLSA:1830 Greek Civilization 3 s.h.
History, literature, art, architecture, religion, social life ca. 3000 B.C.E. to second century B.C.E. GE: Historical Perspectives.

CLSA:1840 Roman Civilization 3 s.h.
History, literature, politics, religion, social structure from eighth century B.C.E. to second century C.E. GE: Historical Perspectives.

CLSA:1875 Ancient Sports and Leisure 3 s.h.
Sports, games, and hobbies in the ancient world, primarily Greece and Rome, 1500 B.C.E. to 500 C.E.; ancient Olympic games, Roman festival games; anthropology of sport. GE: Values and Society.

CLSA:1910 Ancient and Modern Worlds: Common Problems 3 s.h.
Exploration of how many modern world problems can profitably be compared to problems arising in the ancient Mediterranean world and from ancient peoples' responses to those problems. GE: Understanding Cultural Perspectives.

CLSA:2016 Classical Mythology 3 s.h.
Introduction to ancient Greek and Roman myths with focus on using these sources as interpretations of culture and human psyche; emphasis on flexibility of myth and its importance for understanding ancient history, art, literature, religion, and philosophy. GE: Literary, Visual, and Performing Arts; Values and Society.

CLSA:2048 The Invention of Writing: From Cuneiform to Computers 3 s.h.
Invention of writing as one of the most momentous events in the history of human civilizations; how the use of written sign systems, notations, maps, graphs, encryptions, and most recently, computer programs have consequences that reach deeply into all aspects of people's lives; how writing fascinates and delights, fosters reflexive thinking and facilitates development of complex societies, and gives rise to institutions of social power and control; students explore the invention of writing and its consequences in broad international and interdisciplinary context. Taught in English. Same as ANTH:2248, ASIA:2248, COMM:2248, GRMN:2248, HIST:2148, IS:2248, LING:2248, TRNS:2248, WLLC:2248.

CLSA:2127 Books of the Silk Roads 3 s.h.
Manuscripts and global manuscript cultures from a comparative, interdisciplinary perspective; history of the book in the East and West; diverse material supports, physical formats, and written layouts of manuscripts of the 1st to 19th centuries, including social and cultural contexts; manuscript traditions of particular cultural spheres (Europe, the Middle East and North Africa, India, East Asia) and historical processes of diffusion, remediation, and obsolescence. Taught in English. GE: World Language and Cultural Exploration. Same as ASIA:2127, JPNS:2127.

CLSA:2144 Engineering and Technology in the Ancient World 3 s.h.
Technologies developed and used in the ancient world—primarily in Greece and Rome, also in Egypt and the Ancient Near East; agriculture and food preparation; construction and architecture; technologies related to warfare. Same as HIST:2444.

CLSA:2151 Roman Law, Order, and Crime 3 s.h.
Case-based introduction to Roman law; principles of Roman law ranging from standards of evidence to trial procedures to various topics in civil and criminal law, including family law and the law of delict. Same as HIST:2431.

CLSA:2226 Ancient Art From the Great Pyramids of Egypt to the Colosseum in Rome 3 s.h.
Art and architecture of the Mediterranean world (ca. 3500 B.C.E.) to death of Constantine (337 C.E.); Egyptian, Cycladic, Minoan, Mycenaean, Greek, Etruscan, and Roman cultures; artistic responses to life and death; impact of breakthroughs in technology and engineering on visual culture; role of art in empire building; interrelationships of art, politics, religion. GE: Historical Perspectives. Same as ARTH:2320.

CLSA:2330 Ancient Egyptian, Mesopotamian, and Persian Art 3 s.h.
Art and architecture of Egypt and the Near East (ca. 3500 B.C.E.) to advent of Islam; Egyptian, Sumerian, Assyrian, Babylonian, and Persian cultures; artistic responses to life and death; impact of breakthroughs in technology and engineering on visual culture; role of art in empire building; interrelationships of art, politics, and religion. Same as ARTH:2330.

CLSA:2340 The Power of Art in Greece and Rome 3 s.h.
Art and architecture of Greece and Rome (ca. 3000 B.C.E.) to death of Constantine (337 C.E.); Cycladic, Minoan, Mycenaean, Greek, Etruscan, and Roman cultures; artistic responses to life and death; impact of breakthroughs in technology and engineering on visual culture; role of art in empire building; interrelationships of art, politics, and religion. Same as ARTH:2340.

CLSA:2444 Cities of the Bible 3 s.h.
Survey of the history and archaeology of key biblical cities and the contributions they made to the formation of the Bible. GE: Historical Perspectives. Same as RELS:2444.

CLSA:2461 Middle East and Mediterranean: Alexander to Suleiman 3 s.h.
GE: Historical Perspectives. Same as HIST:2461, RELS:2361.

CLSA:2482 Ancient Mediterranean Religions 3 s.h.
Introduction to major religious traditions of ancient Mediterranean world; Mesopotamia, the Levant (Hebrew Bible), Egypt, Greece, and Rome; central aspects of mythology, ritual, and archaeology, individually and in comparative perspective; ancient Judaism and Christianity considered in their various cultural contexts; basic concepts for understanding cultural exchange; fundamental theories in the study of religion. GE: Values and Society. Same as RELS:2182.

CLSA:2489 Jerusalem: The Holy City 3 s.h.
Religious, political, and cultural history of Jerusalem over three millennia as a symbolic focus of three faiths—Judaism, Christianity, and Islam; integration of several digital learning technologies, including digital reconstructions and Google Earth tours of Jerusalem. Same as RELS:2289.

CLSA:2620 Sex and the Bible 3 s.h.
Examination and analysis of the role of the Bible in contemporary culture; how different groups can read the exact same passages, yet reach different conclusions about how they and others should live. Recommendations: basic familiarity with the Bible or religion. GE: Understanding Cultural Perspectives. Same as RELS:2620.

CLSA:2651 Gender and Sexuality in the Ancient World 3 s.h.
Survey of gender and sexuality issues in the social, political, and religious life of ancient Greece and Rome; evidence from literature, the visual arts, archaeology. Requirements: completion of GE CLAS Core Rhetoric and sophomore standing. GE: Values and Society. Same as GWSS:2651.

CLSA:2800 Race and Ethnicity in the Ancient Mediterranean World 3 s.h.
Exploration of the history of race and ethnicity in the ancient world; how people were defined, stereotyped, and outcast by Greeks and Roman culture. GE: Understanding Cultural Perspectives.

CLSA:2910 Egyptian Hieroglyphs 3 s.h.
Introduction to study of Egyptian hieroglyphs and ancient Egyptian language and culture; basic signs and their sound equivalents; more than four hundred signs which constitute written Egyptian of the Middle Kingdom; students read and construe inscriptions that might be encountered in the Egyptian exhibits of museums.

CLSA:3016 Myth Makers of the Classical World 3 s.h.
Continuation of CLSA:2016; emphasis on minor Greek and Roman sources and understanding ancient authors' and artists' motivations for depicting myths; students adapt ancient myths to modern world through writing exercises. Prerequisites: CLSA:2016.

CLSA:3020 Mental Health in the Ancient World 3 s.h.
Exploration of approaches to mental health in ancient Mediterranean world including Mesopotamia, the Levant, Greece, and Rome; examination of nosology, etiology, therapy, and ethics of mental health from ancient medical, philosophical, religious, and literary perspectives; mental health in cultural contexts. Same as GHS:3021.

CLSA:3105 Contraception Across Time and Cultures 3 s.h.
Methods and history of contraception; issues of unwanted pregnancy and birth control in fiction, film, and media around the world. Same as GHS:3105, GWSS:3105, WLLC:3105.

CLSA:3143 Rome at War 3 s.h.
Addresses the development and conduct of war by the Roman state from circa 500 BCE through circa 400 CE. Topics include state priorities for use of the military, methods of conducting war, and military organization. Same as HIST:3443.

CLSA:3148 Barbarians and the Fall of Rome 3 s.h.
Did barbarian hordes cause the decline and fall of the Roman Empire? In the span of just a few hundred years, the Roman Empire of the Mediterranean world was transformed in terms of culture, religion, and the peoples that inhabited it, but we can't place all the blame for the so-called fall of Rome on the Huns, Visigoths, Vandals, and other migrating peoples; students explore textual, visual, and archaeological evidence for the spread of these “barbarian” cultures, the sacking of Rome, and the late antique transition to the Middle Ages from 200-800 C.E. Same as HIST:3448.

CLSA:3227 Classical Greek Art 3 s.h.
Art and architecture of classical Greece (ca. 480-323 B.C.); monuments of this period—from Parthenon in Athens to Aphrodite of Knidos—often viewed as embodiments of the highest achievements in Western art and culture; classical Greek art within social, political, religious, and historical contexts; role in ancient Greek society and its impact in the 21st century. Same as ARTH:3330.

CLSA:3232 Art of Early Rome: Patrons and Politics 3 s.h.
Examination of architecture, sculpture, and painting in central Italy from c. 800 B.C. to the end of the Roman Republic in 27 B.C.; art in the service of social ideology and political propaganda; funerary art and its relationship to the living; artistic interactions between Etruria, Greece, and Rome. Same as ARTH:3350.

CLSA:3233 Art of the Ancient Roman Empire 3 s.h.
Major developments in architecture, sculpture, and painting from the ascension of Augustus to sole ruler in 31 B.C. to the death of Constantine in A.D. 337; influence of individual emperors on the development of artistic forms; relationship between public and private art; interdependency of Rome and the provinces. Same as ARTH:3360.

CLSA:3234 Life and Death in Ancient Pompeii 3 s.h.
Art and architecture as documents of ancient life in Pompeii, a town that was destroyed during the eruption of Mount Vesuvius in 79 C.E.; topics include artistic choices and achievements of the city's inhabitants, roles played by men and women inside and outside the family, slavery, political organization and expression, and attitudes towards death. Same as ARTH:3370.

CLSA:3235 Greek Archaeology 3 s.h.
Archaeology and ethnology of the Greek world, from end of Bronze Age to late Roman Empire; sociocultural processes that influence development and persistence of Greek civilization. Same as ANTH:3276.

CLSA:3240 Roman Archaeology 3 s.h.
Archaeology and ethnology of Roman civilization from Iron Age eighth-century occupation of the Palatine Hill to the end of the Roman Empire in the West, A.D. 476. Same as ANTH:3277.

CLSA:3247 Banned From the Bible: Pseudepigrapha and Apocrypha 3 s.h.
Introduction to biblical Pseudepigrapha and Apocrypha; writings dating from third century B.C.E. to third century C.E. fictionally attributed to characters in the Hebrew Bible and New Testament, or written as though they originated in the First or Second Temple periods, not included in Jewish or major Christian canons of scripture; English translations of documents from this period; key themes and interpretative techniques common throughout biblical texts that provide tremendous insight into the worlds that produced the Hebrew Bible and New Testament. Same as RELS:3247.

CLSA:3250 Greek Vase Painting 3 s.h.
Greek ceramics as documents of religious beliefs, mythology, and daily life 1000-300 B.C.E. Same as ARTH:3340.

CLSA:3288 Shakespeare's Romans: The Ancient World Meets the Elizabethan Stage arr.
London was a distant outpost of the Roman Empire, but the Romans had an outsized influence on Shakespeare's plays and poems; students explore those works and their sources in classical authors, including Ovid and Plutarch. Same as ENGL:3288.

CLSA:3401 Ancient Egypt and the Ancient Near East 3 s.h.
Survey of political, economic, religious, and social change in ancient Egypt from ca. 3000 B.C.E. until its conquest by Persia, and of the ancient Near East from ca. 3000 B.C.E. until Alexander the Great's conquests. Same as HIST:3401.

CLSA:3404 The World of Ancient Greece 3 s.h.
Survey of Greece history from ca. 2000 B.C. to 300 B.C.; Minoan, Mycenaean, and Greek society and culture; contact between Greek mainland and eastern Mediterranean cultures; development of the polis; political developments throughout the period; readings include a variety of sources in translation as well as modern interpretations; methodological problems in studying ancient Greece including interpretation of ancient historiography and using evidence from art, archaeology, and literature; knowledge of ancient Greek not required. Same as HIST:3404.

CLSA:3416 Greek Religion and Society 3 s.h.
From Bronze Age to the Hellenistic period, in context of Mediterranean culture; evidence such as choral hymn, inscribed prayers, magical curses inscribed on lead, architecture, sculpted offerings to the gods. Same as RELS:3716.

CLSA:3443 Pagans and Christians: The Church From Jesus to Muhammad 3 s.h.
Introduction to history of early Christianity, from time of Jesus to rise of Islam; focus on major movements, intellectuals, institutions in this period; growth of Christianity in different geographical areas including the Middle East, Greece, Western Europe, Africa; Christian relations with Jews, pagans, Muslims; conversion; orthodoxy, heresy, making of biblical canon; martyrdom; women and gender roles; asceticism, monasticism, sexuality; church and state; theological controversy and schisms; cult of saints; the Holy Land and pilgrimage. Same as RELS:3243.

CLSA:3445 Mythology of Otherworldly Journeys 3 s.h.
Examination of mythology of otherworldly journeys from earliest religions to Hellenistic period; historical context; comparison for common themes in their evolution over time; directed readings of mythological texts dealing with otherworldly journeys; ways in which past cultures confronted larger mysteries of life and death. Same as RELS:3245.

CLSA:3514 Roman Religion and Society 3 s.h.
Roman religion of the Republic, from ca. 753 B.C.E. to 44 B.C.E.; highly organized priesthood of politically powerful men and women in religious colleges in Rome who moderated and interpreted city-wide religious practice; how Romans worshipped their gods; Roman theology—what Romans thought about the divine world—and their religious response to crises; evidence from festival calendar, temple architecture, religious art, poetry, inscriptions, plays, and various other texts.

CLSA:3596 Egyptian Archaeology 3 s.h.
Introduction to the archaeology of ancient Egypt from predynastic times to Roman Egypt, including monumental architecture; patterns of everyday life; social, economic, and demographic considerations; history of archaeology in Egypt. Same as ANTH:3275.

CLSA:3666 Angels and Demons 3 s.h.
History and development of angels, demons, and the devil in Jewish and Christian theology and literature.

CLSA:3742 Word Power: Building English Vocabulary 3 s.h.
Analysis of unfamiliar English words through knowledge of the history and meaning of word parts. Same as WRIT:3742.

CLSA:3750 Medical and Technical Terminology 2 s.h.
Memorization of word stems and basic medical terms, practice on computer terminal; no formal classes.

CLSA:3821 City of Athens: Bronze Age to Roman World 3 s.h.
Athens from Bronze Age to end of Roman period; topics include the city's role in development of political democracy and religion, as well as the art and archaeology of the city. Same as ANTH:3821, HIST:3403.

CLSA:3836 Food in Ancient Mediterranean Society 3 s.h.
Practices and values influenced by consumption and production of food in ancient Mediterranean societies; varied topics, including methods of food production and distribution, hierarchies of status as associated with food, food and ethnic identity, food and health, food and religion; focus on classical Greek and Roman society, Egypt, the ancient Near East, and Persia. Recommendations: familiarity with Greek and Roman civilization and history. Same as ANTH:3204, HIST:3436.

CLSA:3900 Special Topics in Classics 1-3 s.h.
Examination of a specific topic of interest related to classics.

CLSA:3920 Video Games and the Ancient World 3 s.h.
Examination of ancient society, culture, and sources through in-class game play and discussion of video games.

CLSA:3979 Undergraduate Translation Workshop 3 s.h.
Translation exercises, discussion of translation works in progress; alternative strategies for translation projects. Same as ENGL:3850, TRNS:3179.

CLSA:3980 Teaching in the Classics 1,3 s.h.
Instructional approaches and issues in teaching ancient language and civilization at secondary and college levels. Prerequisites: CLSG:1002 or CLSL:1002.

CLSA:3982 Graduation Portfolio 0 s.h.
Submission of final graduation portfolio required for classical languages and ancient civilization majors. Requirements: classical languages or ancient civilization major, and senior standing.

CLSA:4080 Undergraduate Teaching Assistantship 2-3 s.h.
Develop teaching skills by working as an undergraduate teaching assistant under the mentorship of a faculty supervisor.

CLSA:4085 Postbaccalaureate Seminar 1 s.h.
Current work of postbaccalaureate students; preparation of writing sample and portfolio. Requirements: postbaccalaureate certificate enrollment.

CLSA:4090 Private Assignments arr.
Readings in classical literature in translation.

CLSA:4095 Honors Readings arr.
Discussion, readings, research for a paper on ancient civilization. Requirements: ancient civilization major.

CLSA:4106 Warfare in Ancient Mediterranean Society 3 s.h.
Same as HIST:4406.

CLSA:4400 The Roman Empire 3 s.h.
History of Roman Empire from assassination of Julius Caesar through 5th century A.D.; political, economic, cultural, and social developments from the transition to imperial power to the shift of power from west to east. Same as HIST:4400.

CLSA:4403 Alexander the Great 3 s.h.
History of Alexander the Great and the generals who succeeded him in ruling the lands he conquered; military, political, and social history. Same as HIST:4403.

CLSA:4452 The Dead Sea Scrolls 3 s.h.
Introduction to the Dead Sea Scrolls; reading of the scrolls in English translation; examination of Qumran site archaeology; survey of broader sociopolitical context of Second Temple Judaism (586 B.C.E. to 135 C.E.) out of which the scrolls emerged. Same as RELS:4352.

CLSA:4901 Biblical Hebrew I 3-4 s.h.
Introduces students with no prior Hebrew experience to Biblical Hebrew, the language used to compose the bulk of the Hebrew Bible. Introduction to the Hebrew alphabet, vocabulary, and grammar, culminating with reading and comprehending passages from the Hebrew Bible. GE: World Languages First Level Proficiency. Same as RELS:4001.

CLSA:4902 Biblical Hebrew II 3 s.h.
Continues the language instruction sequence begun in CLSA:4901. Deepens understanding of Hebrew vocabulary and grammar, and the ability to read and comprehend passages from the Hebrew Bible. GE: World Languages Second Level Proficiency. Same as RELS:4002.

CLSA:4911 Coptic I 3 s.h.
Introduction to Coptic grammar and literature in several dialects, with introductory readings from the New Testament, monastic authors, and Gnostic and Manichaean texts.

CLSA:4912 Coptic II 3 s.h.
Continuation of CLSA:4911.

CLSA:5010 Proseminar in Classics 1 s.h.
Texts, techniques, and trends in classical scholarship; areas and subtopics of classical scholarship.

CLSA:5900 Advanced Special Topics in Classics 3 s.h.
Advanced examination of a specific topic of interest related to classics.

CLSA:5903 Biblical Aramaic 3 s.h.
This course introduces the basics of Biblical Aramaic grammar and syntax and provides an introduction to the Biblical lexicon. There will be extensive grammatical exercises, both in class and at home, as well as frequent opportunities to apply grammatical and lexical knowledge to the Biblical text. Recommendations: Biblical Hebrew recommended. Same as RELS:5001.

CLSA:5904 Targumic Aramaic 3 s.h.
Language used by Targums—Aramaic translations of the Hebrew Bible—for use in the study of interpretative traditions of later Jewish groups. Same as RELS:5002.

CLSA:6100 Seminar: Theory and Method 3 s.h.
Exploration of various theories and methods related to the field of classics.

CLSA:6200 Graduate Seminar in Ancient Art 3 s.h.
Key themes and issues in ancient art. Same as ARTH:6300.

CLSA:6910 Graduate Pedagogy 1 s.h.
Pedagogical theories on teaching classics in translation, practical application of those theories; classroom management, grading, syllabus development; university, college, and department regulations. Requirements: graduate standing, and teaching assistant or instructor in classics courses taught in English.

CLSA:7080 Ancient Language Thesis arr.
Thesis work in Hebrew, Aramaic, Coptic, or Syriac. Requirements: PhD enrollment.

CLSA:7090 Advanced Reading: Ancient Languages arr.
Readings in Hebrew, Aramaic, Coptic, or Syriac. Requirements: Classics graduate program enrollment.

CLSA:7114 Slavery and Social Death: 1200 B.C.E. to 1865 C.E. 3 s.h.
Exploration of various slave systems in antiquity, the middle ages, and modernity in terms of their motivations, utilization, and broader social, economic, and political implications; use of literary sources and archaeological remains to investigate slave cultures in ancient Near East and Egypt, Jewish exploitation of enslaved persons, and use of chattel slavery in Greek, Roman, early Christian, and Islamic societies; antebellum U.S. slavery. Same as ANTH:7414, HIST:7414.

Greek Courses

CLSG:1001 Classical and New Testament Greek I 5 s.h.
Focus on reading ancient Greek and developing a deeper understanding of ancient Greek civilization. GE: World Languages First Level Proficiency.

CLSG:1002 Classical and New Testament Greek II 5 s.h.
Continuation of CLSG:1001; focus on reading ancient Greek and developing a deeper understanding of ancient Greek civilization. Prerequisites: CLSG:1001. GE: World Languages Second Level Proficiency.

CLSG:2001 Second-Year Greek I 3 s.h.
Focus on reading Greek prose authors, such as Xenophon and Plato. Prerequisites: CLSG:1002. GE: World Languages Third Level Proficiency.

CLSG:2002 Second-Year Greek II 3 s.h.
Continuation of CLSG:2001; focus on reading and interpretation of Greek poetry. Prerequisites: CLSG:2001. GE: World Languages Fourth Level Proficiency.

CLSG:3001 Archaic and Classical Periods I 3 s.h.
Readings in major Greek authors of the Archaic and Classical periods. Prerequisites: CLSG:2002.

CLSG:3002 Archaic and Classical Periods II 1-3 s.h.
Continuation of CLSG:3001. Prerequisites: CLSG:2002.

CLSG:3003 Classical and Hellenistic Periods I 3 s.h.
Readings in Greek literature of the Classical and Hellenistic periods. Prerequisites: CLSG:2002. Same as RELS:3003.

CLSG:3004 Classical and Hellenistic Periods II 3 s.h.
Continuation of CLSG:3003. Prerequisites: CLSG:2002.

CLSG:3200 Literary Translation Workshop in Ancient Greek and Latin 3 s.h.
Translation from Greek/Latin to English with emphasis on literary translation; issues in theory and practice of translation in the discipline; special features of ancient languages as a source language for translation. Taught in English. Same as CLSL:3200, TRNS:3205.

CLSG:4076 Greek Composition 2-3 s.h.
Review of Greek morphology, syntax, sentence structure; composition of sentences, short passages in Greek. Prerequisites: CLSG:2002 or CLSG:3001 or CLSG:3002 or CLSG:3003 or CLSG:3004 or CLSG:5001.

CLSG:4090 Private Assignments 1-3 s.h.
Directed reading and study with faculty member.

CLSG:4095 Honors Readings arr.
Discussion, readings, research for a paper on Greek literature, history, or civilization. Requirements: classical languages major.

CLSG:5001 Greek Survey I: Archaic to Classical Literature 3 s.h.
Introductory survey of Greek literature and language from Homer to end of the fifth century.

CLSG:5002 Greek Survey II: Hellenistic to Late Antique Literature 3 s.h.
Introductory survey of Greek literature and language in and after the fourth century B.C.E.

CLSG:6000 Advanced Greek Seminar arr.
Specific Greek authors, genres, and topics from the beginnings of Greek literature through fifth century C.E.

CLSG:6011 Archaic Greece arr.
Topics chosen from Homer, Hesiod, Homeric hymns or lyric poetry.

CLSG:6012 Classical Greece arr.
Authors, genres, and topics from the fifth and fourth centuries B.C.E.

CLSG:6013 Hellenistic Greece arr.
Authors, genres, and topics from the death of Alexander to the accession of Augustus.

CLSG:7080 Greek Thesis arr.
For PhD students writing a dissertation. Requirements: PhD candidacy.

CLSG:7090 Advanced Reading arr.
Requirements: classics graduate standing.

Latin Courses

CLSL:1001 Elementary Latin I 5 s.h.
Focus on reading Latin and on Roman culture. GE: World Languages First Level Proficiency.

CLSL:1002 Elementary Latin II 5 s.h.
Continuation of CLSL:1001. Prerequisites: CLSL:1001. GE: World Languages Second Level Proficiency.

CLSL:2001 World of Cicero 3 s.h.
Focus on reading Latin prose authors, such as Caesar and Cicero. Prerequisites: CLSL:1002. GE: World Languages Third Level Proficiency.

CLSL:2002 Golden Age of Roman Poetry 3 s.h.
Focus on reading and interpretation of Roman poets, such as Vergil and Catullus. Prerequisites: CLSL:1002. GE: World Languages Third Level Proficiency.

CLSL:3001 Latin Literature of the Republic I 3 s.h.
Prose or poetry by major authors of the republic. Prerequisites: CLSL:2001 and CLSL:2002.

CLSL:3002 Latin Literature of the Republic II 3 s.h.
Continuation of CLSL:3001. Prerequisites: CLSL:2001 and CLSL:2002.

CLSL:3003 Latin Literature of the Empire I 3 s.h.
Prose or poetry by major authors of the empire. Prerequisites: CLSL:2001 and CLSL:2002.

CLSL:3004 Latin Literature of the Empire II 3 s.h.
Continuation of CLSL:3003. Prerequisites: CLSL:2001 and CLSL:2002.

CLSL:3200 Literary Translation Workshop in Ancient Greek and Latin 3 s.h.
Translation from Greek/Latin to English with emphasis on literary translation; issues in theory and practice of translation in the discipline; special features of ancient languages as a source language for translation. Taught in English. Same as CLSG:3200, TRNS:3205.

CLSL:4076 Latin Composition 2-3 s.h.
Review of Latin morphology, syntax, sentence structure; composition of sentences, short passages in Latin. Prerequisites: CLSL:2002 or CLSL:3001 or CLSL:3002 or CLSL:3003 or CLSL:3004 or CLSL:5001.

CLSL:4080 Undergraduate Teaching Assistantship 2-3 s.h.
Develop teaching skills by working as an undergraduate teaching assistant under the mentorship of a faculty supervisor.

CLSL:4090 Private Assignments 1-3 s.h.
Directed reading and study with faculty member for advanced students.

CLSL:4095 Honors Readings 3 s.h.
Discussions, readings, research for a paper on Roman literature, history, or civilization. Requirements: classical languages major.

CLSL:5001 Latin Survey I: Republican Literature 3 s.h.
Introductory survey of Latin literature and language from the early Republic to the end of the first century B.C.E.

CLSL:5002 Latin Survey II: Imperial to Late Antique Literature 3 s.h.
Introductory survey of Latin literature and language from the Augustan age through the second century C.E.

CLSL:6000 Advanced Latin Seminar arr.
Specific Latin authors, genres, and topics from the beginnings of Roman literature through fifth century C.E.

CLSL:6011 Republican Rome arr.
Authors and topics from the beginnings of Roman literature to the death of Julius Caesar.

CLSL:6013 Tiberius to Trajan arr.
Authors and topics from the first and second centuries C.E. Same as RELS:6040.

CLSL:6014 Later Empire arr.
Authors and topics from the third through fifth centuries C.E.

CLSL:6910 Graduate Pedagogy 1 s.h.
Pedagogical theories on teaching classical languages, practical application of those theories; classroom management, grading, syllabus development; university, college, and department regulations. Requirements: teaching assistant or instructor in Latin.

CLSL:7080 Latin Thesis arr.
For PhD students writing a dissertation. Requirements: PhD candidacy.

CLSL:7090 Advanced Reading arr.
Requirements: classics graduate standing.

Ancient Civilization, BA

The Bachelor of Arts in ancient civilization is a flexible program that allows students to study ancient Greece, Rome, the eastern Mediterranean, Mesopotamia, and Egypt from 3000 B.C.E. to 800 C.E. Ancient civilization majors work primarily in the English language, with their studies distributed among the areas of literature, history, religion, philosophy, art, and archaeology.

Learning Outcomes

Students are expected to demonstrate:

- knowledge of major literary works and written sources from the ancient Mediterranean world (either in translation or their original language);
- familiarity with the physical world (both public and private) in which ancient Mediterranean people lived through the study of their art and archaeology;
- appreciation of the religious and ethical mindset of ancient peoples through a broad understanding of mythology, religion, and philosophy; and
- understanding of the impact that the political, intellectual, and social environments of the people from the ancient Mediterranean have on modern cultures.

Requirements

The Bachelor of Arts with a major in ancient civilization requires a minimum of 120 s.h., including at least 30 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The major concentrates on the ancient civilization of the Mediterranean world and draws on courses offered by various university departments. This is a flexible major that allows students to concentrate their study in areas such as religion, history, archaeology, Egypt, or the eastern Mediterranean.

The major is sponsored by the School of Art, Art History, and Design and the departments of Classics, History, and Religious Studies (College of Liberal Arts and Sciences).

Students choose courses in consultation with their advisors. They must earn at least 9 s.h. in advanced courses, which may include classics in English courses numbered 3000 or above, Greek language courses numbered 2000 or above, and Latin language courses numbered 2000 and above. Transfer credit is evaluated individually.

In addition to completing required coursework, students maintain a required portfolio detailing their progress toward the major, which they must complete before graduation; see "Major Portfolio" below.

A maximum of 9 s.h. of coursework used to satisfy requirements for the BA in classical languages may be applied toward this major. A maximum of 3 s.h. of coursework used to satisfy requirements for another minor in the Department of Classics (classical languages, Latin, and/or Greek) may be applied toward this major.

Students majoring only in ancient civilization may count a maximum of 56 s.h. earned in classics courses toward the degree. BA students who are graduating with a double major in the department (ancient civilization and classical languages) may apply more than 56 s.h. from the Department of Classics toward their degree, but they must earn at least 56 s.h. of credit in courses outside the Department of Classics in order to graduate.

A course used to satisfy a requirement in one area cannot be used to satisfy a requirement in another area.

The BA with a major in ancient civilization requires the following coursework.

Requirements	Hours
Ancient Art and Archaeology Courses	3
Ancient History and Society Courses	3
Ancient Language and Literature Courses	3
Ancient Philosophy and Religion Courses	3
Additional Courses	18
Major Portfolio	

Ancient Art and Archaeology

More than half of each course is devoted to the study of ancient art or archaeology from the geographical limits identified as relevant by the Department of Classics. Sculpture, pottery, architecture, and/or physical remains of an ancient culture are covered in these courses.

Course #	Title	Hours
At least 3 s.h. from these:		
CLSA:2127/ ASIA:2127/ JPNS:2127	Books of the Silk Roads	3
CLSA:2144/ HIST:2444	Engineering and Technology in the Ancient World	3
CLSA:2226/ ARTH:2320	Ancient Art From the Great Pyramids of Egypt to the Colosseum in Rome	3
CLSA:2330/ ARTH:2330	Ancient Egyptian, Mesopotamian, and Persian Art	3
CLSA:2340/ ARTH:2340	The Power of Art in Greece and Rome	3
CLSA:2444/ RELS:2444	Cities of the Bible	3
CLSA:2489/ RELS:2289	Jerusalem: The Holy City	3
CLSA:3232/ ARTH:3350	Art of Early Rome: Patrons and Politics	3
CLSA:3235/ ANTH:3276	Greek Archaeology	3
CLSA:3227/ ARTH:3330	Classical Greek Art	3
CLSA:3233/ ARTH:3360	Art of the Ancient Roman Empire	3
CLSA:3234/ ARTH:3370	Life and Death in Ancient Pompeii	3
CLSA:3240/ ANTH:3277	Roman Archaeology	3
CLSA:3250/ ARTH:3340	Greek Vase Painting	3
CLSA:3596/ ANTH:3275	Egyptian Archaeology	3
CLSA:3821/ ANTH:3821/ HIST:3403	City of Athens: Bronze Age to Roman World	3

ABRD:3165	Archaeological Field Work Abroad	arr.
ANTH:1201	World Archaeology	3
ANTH:3237/ HIST:3137/ MUSM:3237	Politics of the Archaeological Past	3
ANTH:3239	The Archaeology of the First Europeans	3
ANTH:3278	Archaeology of Ancient Cities	3
ARTH:1030	Themes in Global Art	3
ARTH:1050	From Cave Paintings to Cathedrals: Survey of Western Art I	3
ARTH:3010/ MUSM:3010	Fakes, Frauds, and Forgeries: The Dark Side of Art History	3
ARTH:3320/ RELS:3704	Egyptian Art	3
ARTH:3325	Kings, Gods, and Heroes: Art of Ancient Mesopotamia and Persia	3
ARTH:3375/ RELS:3375	The Great Collision	3

Ancient History and Society

More than half of each course is devoted to the chronological changes of a topic (not one that is purely art historical in nature, like sculpture or pottery) in the geographical limits identified as relevant by the Department of Classics. Each course places the topic in its proper historical context.

Course #	Title	Hours
At least 3 s.h. from these:		
CLSA:1181/ GHS:1181	Ancient Medicine	3
CLSA:1830	Greek Civilization	3
CLSA:1840	Roman Civilization	3
CLSA:1875	Ancient Sports and Leisure	3
CLSA:2144/ HIST:2444	Engineering and Technology in the Ancient World	3
CLSA:2151/ HIST:2431	Roman Law, Order, and Crime	3
CLSA:2461/ HIST:2461/ RELS:2361	Middle East and Mediterranean: Alexander to Suleiman	3
CLSA:2651/ GWSS:2651	Gender and Sexuality in the Ancient World	3
CLSA:2800	Race and Ethnicity in the Ancient Mediterranean World	3
CLSA:3105/ GHS:3105/ GWSS:3105/ WLLC:3105	Contraception Across Time and Cultures	3
CLSA:3148/ HIST:3448	Barbarians and the Fall of Rome	3
CLSA:3401/ HIST:3401	Ancient Egypt and the Ancient Near East	3
CLSA:3404/ HIST:3404	The World of Ancient Greece	3
CLSA:3821/ ANTH:3821/ HIST:3403	City of Athens: Bronze Age to Roman World	3
CLSA:3836/ ANTH:3204/ HIST:3436	Food in Ancient Mediterranean Society	3
CLSA:4106/ HIST:4406	Warfare in Ancient Mediterranean Society	3
CLSA:4400/ HIST:4400	The Roman Empire	3
CLSA:4403/ HIST:4403	Alexander the Great	3
HIST:1401	The West and the World: Ancient	3
HIST:4407	The Hellenistic World and Rome	3

Ancient Language and Literature

More than half of each course is devoted to the study of literature in translation or ancient language translation skills from the geographical limits identified as relevant by the Department of Classics.

Course #	Title	Hours
At least 3 s.h. from these:		
CLSA:1010	Hero, God, Mortal: Literature of Greece	3
CLSA:1020	Love and Glory: The Literature of Rome	3
CLSA:1200	Interpretation of Ancient Literature	3
CLSA:1740/ WRIT:1740	Writing Strategies: Word Origins and Word Choice	3
CLSA:1805	Legends and Heroes of Ancient Rome	1
CLSA:2016	Classical Mythology	3
CLSA:2048/ ANTH:2248/ ASIA:2248/ COMM:2248/ GRMN:2248/ HIST:2148/IS:2248/ LING:2248/ TRNS:2248/ WLLC:2248	The Invention of Writing: From Cuneiform to Computers	3
CLSA:2910	Egyptian Hieroglyphs	3
CLSA:3016	Myth Makers of the Classical World	3
CLSA:3288/ ENGL:3288	Shakespeare's Romans: The Ancient World Meets the Elizabethan Stage	arr.
CLSA:3445/ RELS:3245	Mythology of Otherworldly Journeys	3
CLSA:3742/ WRIT:3742	Word Power: Building English Vocabulary	3
CLSA:3750	Medical and Technical Terminology	2
CLSA:3979/ ENGL:3850/ TRNS:3179	Undergraduate Translation Workshop	3
CLSA:3980	Teaching in the Classics	1,3
CLSA:4901/ RELS:4001	Biblical Hebrew I	3-4

CLSA:4902/ RELS:4002	Biblical Hebrew II	3
CLSA:4911	Coptic I	3
CLSA:4912	Coptic II	3
CLSA:5903/ RELS:5001	Biblical Aramaic	3
CLSA:5904/ RELS:5002	Targumic Aramaic	3
ARAB:2001	Intermediate Modern Standard Arabic I	5
ARAB:2002	Intermediate Modern Standard Arabic II	5
ARAB:3011	Advanced Modern Standard Arabic I	3
CLSL:3200/ CLSG:3200/ TRNS:3205	Literary Translation Workshop in Ancient Greek and Latin	3
ENGL:2206	Classical and Biblical Literature	3
Ancient Greek courses (prefix CLSG)		
Latin courses (prefix CLSL)		

Ancient Philosophy and Religion

More than half of each course is devoted to the study of ancient religion, belief systems, or philosophy from the geographical limits identified as relevant by the Department of Classics.

Course #	Title	Hours
At least 3 s.h. from these:		
CLSA:1340	Magic in the Ancient World	3
CLSA:1415	Ancient Origins of Religious Conflict	3
CLSA:1454	Hebrew Bible for Everyone	3
CLSA:1455	New Testament for Everyone	3
CLSA:2016	Classical Mythology	3
CLSA:2444/ RELS:2444	Cities of the Bible	3
CLSA:2461/ HIST:2461/ RELS:2361	Middle East and Mediterranean: Alexander to Suleiman	3
CLSA:2489/ RELS:2289	Jerusalem: The Holy City	3
CLSA:2482/ RELS:2182	Ancient Mediterranean Religions	3
CLSA:3247/ RELS:3247	Banned From the Bible: Pseudepigrapha and Apocrypha	3
CLSA:3416/ RELS:3716	Greek Religion and Society	3
CLSA:3443/ RELS:3243	Pagans and Christians: The Church From Jesus to Muhammad	3
CLSA:3445/ RELS:3245	Mythology of Otherworldly Journeys	3
CLSA:3514	Roman Religion and Society	3
CLSA:3666	Angels and Demons	3
CLSA:4452/ RELS:4352	The Dead Sea Scrolls	3
ENGL:2206	Classical and Biblical Literature	3
PHIL:2111	Ancient Philosophy	3
PHIL:4152	Plato	3
PHIL:4153	Aristotle	3
RELS:1001	Judaism, Christianity, and Islam	3
RELS:1070	Introduction to the Hebrew Bible/Old Testament	3
RELS:1080	Introduction to the New Testament	3

Additional Courses

Course #	Title	Hours
At least 18 s.h. from these:		
CLSA:1809	Ancient World on the Modern Screen	3
CLSA:1910	Ancient and Modern Worlds: Common Problems	3
CLSA:3020/ GHS:3021	Mental Health in the Ancient World	3
CLSA:3920	Video Games and the Ancient World	3
RELS:2272	Gods and Superheroes: Mythologies for a Modern World	3
Any courses in the Ancient Art and Archaeology, Ancient History and Society, Ancient Language and Literature, and Ancient Philosophy and Religion lists		
Any course with the prefix CLSA, CLSG, or CLSL		

Major Portfolio

To comply with the Iowa Board of Regents policy on student outcomes assessment, the Department of Classics has established a method to assess the achievement level of students completing one of the department's majors. Students must maintain a portfolio that details their progress in attaining the objectives of their major. Students must register for and complete the following course.

Course #	Title	Hours
CLSA:3982	Graduation Portfolio	0

Students submit the portfolio to their undergraduate advisor by midterm of the semester in which they intend to graduate. Formal approval of the portfolio is required for graduation. Consult the undergraduate advisor for details.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Honors students must maintain a grade-point average (GPA) of at least 3.33 in their major. Additionally, a

UI cumulative GPA of at least 3.33 at the time of graduation is required by the College of Liberal Arts and Sciences.

Students must complete two consecutive courses in honors reading, earning 3 s.h. of credit for each course. Honors work may be done in a student's fourth year, or spring of the third year and fall of the fourth year. The readings and discussions must be on an ancient author or a field in ancient history or literature chosen by the student and the instructor. At the end of the second semester, the student presents a substantial research project, which is evaluated for honors by two members of the department.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the ancient civilization major.

Career Advancement

Although the ancient civilization major is not preparation for graduate study in classics, it provides a sound basis for preparing individuals to teach at the secondary school and community college levels. It also provides a liberal arts and sciences foundation appropriate for further study in law and medicine. Some graduates go on to complete advanced work in library and information science, museum studies, archaeology, or business. A large proportion of its students pursue advanced degrees.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: at least two courses in the major.

Before the seventh semester begins: at least six courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least eight courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Ancient Civilization, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
Major: ancient language and literature course [b, c]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences with Lab [d]		4
GE CLAS Core: Values and Society [d]		3
CSI:1600	Success at Iowa	1
	Hours	**14-15**
Spring		
Major: additional/reception course [c, e]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: Quantitative or Formal Reasoning [d]		4
Elective course [f]		2
	Hours	**15-16**
Second Year		
Fall		
Major: ancient history and society course [b, c]		3
GE CLAS Core: Natural Sciences without Lab [d]		3
GE CLAS Core: Social Sciences [d]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [g]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Spring		
Major: additional/reception course [c, e]		3
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [g]		4 - 5
Elective course [f]		3
Elective course [f]		3
	Hours	**16-17**
Third Year		
Fall		
Major: ancient art and archaeology course [b, c]		3
Major: additional/reception course [c, e]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [g]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Spring		
Major: ancient philosophy and religion course [b, c]		3
Major: additional/reception course [c, e]		3

GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [g]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Fourth Year		
Fall		
Major: additional/reception course [c, e]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Spring		
CLSA:3982	Graduation Portfolio [h]	0
Major: additional/reception course [c, e]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15**
	Total Hours	**123-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b See General Catalog for list of approved courses

c Students must earn at least 9 s.h. in advanced courses, which may include classics in English (CLSA) courses numbered 3000 or above, Greek language (CLSG) courses numbered 2000 or above, and Latin language (CLSL) courses numbered 2000 and above.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e The major requires six additional courses from an approved list or from any of the required subject areas. See General Catalog for list of approved courses or contact advisor for more information.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

h Students must maintain a portfolio that details their progress in attaining the objectives of their major. Students submit the portfolio to their undergraduate advisor by midterm of the semester in which they intend to graduate. Formal approval of the portfolio is required for graduation. Consult the undergraduate advisor for details.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Classical Languages, BA

The Bachelor of Arts in classical languages cultivates and hones students' skills in ancient Greek and/or Latin. Students may study a wide variety of linguistic and cultural aspects of the ancient civilizations of Greece, Rome, the eastern Mediterranean, Mesopotamia, and Egypt from 3000 B.C.E. to 800 C.E.

Learning Outcomes

Students are expected to demonstrate:

- the ability to read the ancient Greek and/or Latin languages at an intermediate to advanced level;
- knowledge of major literary works and written sources of the ancient Mediterranean world;
- transferable linguistic and analytic skills by studying the ancient languages that stand behind the vocabulary and structure of English and the Romance languages; and
- understanding of the impact that the political, intellectual, and social environments of the people from the ancient Mediterranean have on modern cultures.

Requirements

The Bachelor of Arts with a major in classical languages requires a minimum of 120 s.h., including at least 30 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Transfer credit is evaluated individually.

The major trains students to read the ancient Greek and/or Latin languages and acquaints them with the major works of Greek and/or Roman literature. Classical languages students learn about the history of ancient Greece of the eighth through the fourth centuries B.C.E., where most of the modern Western notions of political, artistic, and social life are rooted. They also develop an understanding of the Roman Republic and Empire (3 B.C.E. through 5 C.E.), when Rome established its hegemony over the Mediterranean basin, laid the foundation of law for the Western world, and spread Greece's culture to the West, and of the fall of the Empire and the rise of Medieval civilization from the sixth through the ninth centuries C.E.

In addition to completing the required coursework, students maintain a required portfolio detailing their progress toward the major, which they must complete before graduation; see "Major Portfolio" below.

A maximum of 9 s.h. of coursework used to satisfy requirements for the BA in ancient civilization may be applied toward this major. A maximum of 3 s.h. of coursework used to satisfy requirements for the minor in ancient civilization may be applied toward this major. Students cannot pursue a minor in Latin or Greek while simultaneously enrolled as a classical languages major.

Students majoring only in classical languages may count a maximum of 56 s.h. earned in classics courses toward the degree. BA students who are graduating with a double major in the department (classical languages and ancient civilization) may apply more than 56 s.h. from the Department of Classics toward their degree, but they must earn at least 56 s.h. of credit in courses outside the Department of Classics in order to graduate.

The BA with a major in classical languages requires the following coursework.

Requirements	Hours
Required Courses	30
Major Portfolio	

Required Courses

Course #	Title	Hours
All of these:		
Intermediate or advanced Greek (prefix CLSG) and/or Latin (prefix CLSL) courses numbered 2001-4999		15
Additional classics courses at any level with the prefix CLSA, CLSG, or CLSL, and any courses cross-referenced with prefix CLSA, CLSL, or CLSG		15

The following advanced undergraduate Greek courses are offered every other year and may be repeated or taken in any sequence. They cover a broad range of prose and poetry in historical context.

Course #	Title	Hours
CLSG:3001	Archaic and Classical Periods I	3
CLSG:3002	Archaic and Classical Periods II	1-3
CLSG:3003/ RELS:3003	Classical and Hellenistic Periods I	3
CLSG:3004	Classical and Hellenistic Periods II	3

The following advanced undergraduate Latin courses are offered every other year and may be repeated or taken in any sequence. They cover a range of Latin prose and poetry in historical context from the mid-republic to the third century C.E.

Course #	Title	Hours
CLSL:3001	Latin Literature of the Republic I	3
CLSL:3002	Latin Literature of the Republic II	3
CLSL:3003	Latin Literature of the Empire I	3
CLSL:3004	Latin Literature of the Empire II	3

Major Portfolio

To comply with the Iowa Board of Regents policy on student outcomes assessment, the Department of Classics has established a method to assess the achievement level of students completing one of the department's majors. Students must maintain a portfolio that details their progress in attaining the objectives of their major. Students must register for and complete the following course.

Course #	Title	Hours
CLSA:3982	Graduation Portfolio	0

Students submit the portfolio to the undergraduate advisor by midterm of the semester in which they intend to graduate. Formal approval of the portfolio is required for graduation. Consult the undergraduate advisor for details.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Honors in the major students must maintain a GPA of at least 3.33 in their first three years of classics courses. Additionally, a minimum UI cumulative GPA of 3.33 at the start of the first semester of the honors in the major program and at the time of graduation is required.

Students also must complete two consecutive courses in honors reading, earning 3 s.h. of credit for each course. Honors work may be done in a student's fourth year, or spring of the third year and fall of the fourth year. The readings and discussions must be on an ancient author or a field in ancient history or literature chosen by the student and the instructor. At the end of the second semester of honors work, the student presents a substantial research project, which is evaluated for honors by two members of the department. Students who write an honors thesis in classical languages must be enrolled at the same time in the appropriate advanced language courses.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the classical languages major.

Career Advancement

The University of Iowa's classical languages major is recognized for the excellent preparation it offers for graduate study in classics. A large proportion of its students pursue advanced degrees. They are admitted to the finest public and private university programs in the country, many with full financial support.

Students who major in classical languages and complete the College of Education's Teacher Education Program may be able to find secondary school teaching positions quickly due to a nationwide shortage of Latin teachers.

Graduates have gone on to become secondary or university teachers, librarians, museum curators, and bankers. The study of Latin and Greek also prepares students for the study of law and medicine; classical languages graduates regularly enter these fields. Others go on to complete advanced work in library and information science, museum studies, religious studies, history, archaeology, or business.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Classical Languages—Greek and Latin

Before the third semester begins: CLSG:1001 Classical and New Testament Greek I or CLSL:1001 Elementary Latin I.

Before the fifth semester begins: CLSG:1002 Classical and New Testament Greek II and CLSL:1002 Elementary Latin II.

Before the seventh semester begins: CLSG:2001 Second-Year Greek I, and CLSL:2001 World of Cicero or CLSL:2002 Golden Age of Roman Poetry or CLSG:2002 Second-Year Greek II, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: 6 s.h. of courses numbered 3000 and above with the prefix CLSG or CLSL.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Classical Languages—Greek Only

Before the third semester begins: CLSG:1001 Classical and New Testament Greek I and CLSG:1002 Classical and New Testament Greek II.

Before the fifth semester begins: CLSG:2001 Second-Year Greek I and CLSG:2002 Second-Year Greek II.

Before the seventh semester begins: two courses numbered 3000 and above with prefix CLSG and at least one additional course with the prefix CLSA at any level.

Before the eighth semester begins: either one advanced course numbered 3000 and above with prefix CLSG or one additional course with the prefix CLSA; and at least 90 s.h. earned toward the degree.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Classical Languages—Latin Only

Before the third semester begins: CLSL:1001 Elementary Latin I and CLSL:1002 Elementary Latin II.

Before the fifth semester begins: CLSL:2001 World of Cicero and CLSL:2002 Golden Age of Roman Poetry.

Before the seventh semester begins: two courses numbered 3000 and above with prefix CLSL and at least one additional course with the prefix CLSA at any level; and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: either one course numbered 3000 and above with prefix CLSG or one additional course with the prefix CLSA.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Classical Languages, BA

Greek and Latin

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CLSL:1001	Elementary Latin I [b]	5
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Social Sciences [c]		3
Elective course [d]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
CLSL:1002	Elementary Latin II [b]	5
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
GE CLAS Core: Values and Society [c]		3
Elective course [d]		1
	Hours	**15-16**
Second Year		
Fall		
CLSG:1001	Classical and New Testament Greek I	5
CLSL:2001	World of Cicero [e]	3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
Elective course [d]		3
Elective course [d]		1
	Hours	**15**
Spring		
CLSG:1002	Classical and New Testament Greek II	5
CLSL:2002	Golden Age of Roman Poetry [e]	3
GE CLAS Core: International and Global Issues [c]		3
Elective course [d]		3
Elective course [d]		1
	Hours	**15**
Third Year		
Fall		
CLSG:2001	Second-Year Greek I [e]	3
Major: advanced Latin course [e]		3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: Natural Sciences without Lab [c]		3
Elective course [d]		3
	Hours	**15**
Spring		
CLSG:2002	Second-Year Greek II [e]	3
GE CLAS Core: Quantitative or Formal Reasoning [c]		3
Major: advanced Latin course [e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Fourth Year		
Fall		
Major: advanced Latin, Greek, or additional classics course [e]		3
GE CLAS Core: Natural Sciences with Lab [c]		4
Elective course [d]		3
Elective course [d]		3
Elective course [d]		2
	Hours	**15**
Spring		
CLSA:3982	Graduation Portfolio	0
Major: advanced Latin, Greek, or additional classics course [e]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [f]		
	Hours	**15**
	Total Hours	**120-122**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b A student may also begin with Greek the first year and Latin in the second year.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Students are required to complete 15 s.h. in intermediate or advanced Greek and/or Latin courses (prefix CLSG or CLSL, numbered 2001-4999).

f Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Ancient Civilization, Minor

Requirements

The undergraduate minor in ancient civilization requires a minimum of 15 s.h., including at least 9 s.h. in advanced courses taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

A maximum of 3 s.h. of work for another major, minor, or certificate in the Department of Classics and up to 3 s.h. of lower-level transfer credit may be counted toward the minor.

Required Courses

Department of Classics courses with the prefix CLSA, CLSG, and CLSL and courses cross-referenced with the prefix CLSA count toward the minor. Courses considered advanced for the minor are: Greek courses (prefix CLSG) numbered 2000 or above, Latin courses (prefix CLSL) numbered 2001 or above, and classics courses (prefix CLSA) numbered 3000 or above. Appropriate courses in art, religion, history, and philosophy may be counted toward the minor if approved by the undergraduate advisor. Students who have taken high school Greek or Latin should consult the advisor.

Classical Languages, Minor

Requirements

The undergraduate minor in classical languages requires a minimum of 19 s.h., including 6 s.h. in advanced courses taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

The sequences CLSG:2001 Second-Year Greek I and CLSG:2002 Second-Year Greek II, CLSL:2001 World of Cicero and CLSL:2002 Golden Age of Roman Poetry, and Department of Classics courses numbered 3000 or above are considered advanced for the minor.

A maximum of 3 s.h. of work for another major, minor, or certificate in the Department of Classics and up to 3 s.h. of lower-level transfer credit may be counted toward the minor.

Students who earn a minor in classical languages may not earn a minor in Latin or Greek.

Required Courses

Course #	Title	Hours
All of these:		
CLSG:1001	Classical and New Testament Greek I	5
CLSG:1002	Classical and New Testament Greek II	5
CLSG:2001	Second-Year Greek I	3
CLSL:2001 or CLSL:2002	World of Cicero Golden Age of Roman Poetry	3

Electives

Course #	Title	Hours
At least 3 s.h. from these:		
An ancient civilizations course (prefix CLSA) numbered 1000-4999		
A Greek course (prefix CLSG) numbered 1000-4999		
A Latin course (prefix CLSL) numbered 1000-4999		

Students who have taken high school Greek or Latin should consult the classical languages advisor.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Classical Languages, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in classical languages requires a minimum of 19 s.h., including 6 s.h. in advanced courses taken at the University of Iowa.		
Students must maintain a GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework in the minor may not be taken pass/nonpass.		
A maximum of 3 s.h. of work for another major, minor, or certificate in the Department of Classics and up to 3 s.h. of lower-level transfer credit may be counted toward the minor.		
Students who earn a minor in classical languages may not earn a minor in Latin or Greek.		
	Hours	**0**
First Year		
Fall		
CLSL:1001	Elementary Latin I [a, b]	5
	Hours	**5**
Spring		
CLSL:1002	Elementary Latin II [a]	5
	Hours	**5**
Second Year		
Any Semester		
CLSL:2001 or CLSL:2002	World of Cicero or Golden Age of Roman Poetry	3
	Hours	**3**
Fall		
CLSG:1001	Classical and New Testament Greek I [a]	5
	Hours	**5**
Spring		
CLSG:1002	Classical and New Testament Greek II [a]	5
	Hours	**5**
Third Year		
Fall		
CLSG:2001	Second-Year Greek I	3
	Hours	**3**
	Total Hours	**26**

a Students who have taken high school Greek or Latin should consult the advisor.

b This course is a prerequisite for a required minor course.

Greek, Minor

Requirements

The undergraduate minor in Greek requires a minimum of 15 s.h. in Greek courses (prefix CLSG), including at least 12 s.h. in courses numbered 2000 and above taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

A maximum of 6 s.h. of work for another University of Iowa major, minor, or certificate and up to 3 s.h. of lower-level transfer credit may be counted toward the minor.

Students who earn a minor in Greek may not earn the BA or minor in classical languages; students who are interested in a minor in Latin at the same time as the minor in Greek should consider the minor in classical languages instead.

The sequence CLSG:2001 Second-Year Greek I and CLSG:2002 Second-Year Greek II and Department of Classics courses numbered 3000 or above are considered advanced for the minor. Students may substitute a maximum of 3 s.h. for the CLSG requirement with one of the relevant courses numbered 3000 or above taught in English from the following.

Course #	Title	Hours
CLSA:3227/ ARTH:3330	Classical Greek Art	3
CLSA:3235/ ANTH:3276	Greek Archaeology	3
CLSA:3247/ RELS:3247	Banned From the Bible: Pseudepigrapha and Apocrypha	3
CLSA:3250/ ARTH:3340	Greek Vase Painting	3
CLSA:3404/ HIST:3404	The World of Ancient Greece	3
CLSA:3416/ RELS:3716	Greek Religion and Society	3
CLSA:3443/ RELS:3243	Pagans and Christians: The Church From Jesus to Muhammad	3
CLSA:3742/ WRIT:3742	Word Power: Building English Vocabulary	3
CLSA:3821/ ANTH:3821/ HIST:3403	City of Athens: Bronze Age to Roman World	3
CLSA:3979/ ENGL:3850/ TRNS:3179	Undergraduate Translation Workshop	3
CLSA:3980	Teaching in the Classics	1,3
CLSA:4403/ HIST:4403	Alexander the Great	3
CLSA:4452/ RELS:4352	The Dead Sea Scrolls	3
PHIL:4152	Plato	3
PHIL:4153	Aristotle	3

Students who enter the University of Iowa with prior competence in introductory ancient Greek may substitute 3 s.h. of lower-level Greek courses with CLSA:1010 Hero, God, Mortal: Literature of Greece. Students who have taken high school Greek should consult the classical languages advisor.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Greek, Minor

Course	Title	Hours
Academic Career		
Any Semester		
Students must complete a minimum of 15 s.h. in Greek courses (prefix CLSG), including at least 12 s.h. in courses numbered 2000 and above taken at the University of Iowa. One advanced course in CLSA numbered 3000 or above may be counted toward the minor; see General Catalog for list of approved courses.		
A maximum of 6 s.h. of work for another University of Iowa major, minor, or certificate and up to 3 s.h. of lower-level transfer credit may be counted toward the Greek minor.		
Coursework in the Greek minor may not be taken pass/nonpass.		
	Hours	**0**
First Year		
Fall		
CLSG:1001	Classical and New Testament Greek I [a, b]	5
	Hours	**5**
Spring		
CLSG:1002	Classical and New Testament Greek II [b]	5
	Hours	**5**
Second Year		
Fall		
CLSG:2001	Second-Year Greek I [b]	3
	Hours	**3**
Spring		
CLSG:2002	Second-Year Greek II [b]	3
	Hours	**3**
Third Year		
Fall		
Minor: Greek elective (prefix CLSG) numbered 3000-4999 or relevant advanced-level course taught in English [c]		3
	Hours	**3**
Spring		
Minor: Greek elective (prefix CLSG) numbered 3000-4999		3
	Hours	**3**
	Total Hours	**22**

a This course is a prerequisite for the required minor courses.
b Language level placement will be determined by placement exam score and/or oral interview. Students who place

into the 5th semester level of the language will begin coursework at that level and will not be required to take semesters 1-4 of the language.

c Students may substitute a maximum of 3 s.h. for the CLSG requirement with one relevant course numbered 3000 or above, taught in English. See General Catalog or contact academic advisor for course list.

Health and the Human Condition, Minor

Requirements

The undergraduate minor in health and the human condition requires a minimum of 15 s.h., including at least 12 s.h. in courses taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

A maximum of 3 s.h. of work for another University of Iowa major, minor, or certificate may be counted toward the minor.

The minor in health and the human condition requires the following coursework.

Ethics and Values

These courses focus on moral and ethical issues in the medical field and health care, such as bioethics, patient autonomy, and the role of the state.

Course #	Title	Hours
At least 3 s.h. from these:		
PHIL:1034	Liberty and the Pursuit of Happiness	3
PHIL:1401	Matters of Life and Death	3
PHIL:2402	Introduction to Ethics	3
PHIL:2415/ GHS:2415	Bioethics	3
RELS:2260/ GHS:2260	Hard Cases in Healthcare at the Beginning of Life	3

Historical Approaches

These courses focus on the treatment and understanding of health and disease from the ancient world to the 20th century in order to contextualize students' understanding of the medical field today.

Course #	Title	Hours
At least 3 s.h. from these:		
CLSA:1181/ GHS:1181	Ancient Medicine	3
CLSA:3020/ GHS:3021	Mental Health in the Ancient World	3
HIST:3508/ GHS:3508/LAS:3508	Disease and Health in Latin American History	3

Diversity and Global Perspectives

These courses invite students to consider the contemporary cross-cultural intersections of privilege and marginalization as related to health care. These include issues of gender, sexuality, race, disability, aging, colonialism, and social class.

Course #	Title	Hours
At least 9 s.h. from these:		
ANTH:2155	Fighting to Live: Anthropology and Health Social Movements	3
ANTH:2164/ GHS:2164	Culture and Healing: An Introduction to Medical Anthropology	3
ANTH:2181/ ASP:2181/ GHS:2181	The Anthropology of Aging	3
ASP:3135/ GHS:3050/ SSW:3135	Global Aging	3
ASP:3740/ MED:3740/ NURS:3740	End-of-Life Care for Adults and Families	3
CLSA:3105/ GHS:3105/ GWSS:3105/ WLLC:3105	Contraception Across Time and Cultures	3
GHS:3060	Studies in Complementary and Alternative Medicine	3
GHS:4003	Case Studies in Global Health Inequities	3
SSW:3786/ ASP:3786	Death/Dying: Issues Across the Life Span	3-4

The minor is administered by the Department of Classics and draws on courses from several units in the College of Liberal Arts and Sciences, including the departments of Anthropology, History, Philosophy, Religious Studies, and Health, Sport, and Human Physiology as well as the Global Health Studies and Aging and Longevity Studies programs.

Latin, Minor

Requirements

The undergraduate minor in Latin requires a minimum of 15 s.h. in Latin courses (prefix CLSL), including at least 12 s.h. in advanced courses numbered 2000 and above taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

A maximum of 6 s.h. of work for another University of Iowa major, minor, or certificate and up to 3 s.h. of lower-level transfer credit may be counted toward the minor.

Students who earn the minor in Latin may not earn the BA or minor in classical languages; students who are interested in a minor in Greek at the same time as the minor in Latin should consider the minor in classical languages instead.

The sequence CLSL:2001 World of Cicero and CLSL:2002 Golden Age of Roman Poetry, and Department of Classics courses numbered 3000 or above are considered advanced for the minor. Students may substitute a maximum of 3 s.h. for the Latin requirement with one of the relevant courses numbered 3000 or above taught in English from the following.

Course #	Title	Hours
CLSA:3148/ HIST:3448	Barbarians and the Fall of Rome	3
CLSA:3232/ ARTH:3350	Art of Early Rome: Patrons and Politics	3
CLSA:3233/ ARTH:3360	Art of the Ancient Roman Empire	3
CLSA:3234/ ARTH:3370	Life and Death in Ancient Pompeii	3
CLSA:3240/ ANTH:3277	Roman Archaeology	3
CLSA:3288/ ENGL:3288	Shakespeare's Romans: The Ancient World Meets the Elizabethan Stage	arr.
CLSA:3514	Roman Religion and Society	3
CLSA:3742/ WRIT:3742	Word Power: Building English Vocabulary	3
CLSA:3979/ ENGL:3850/ TRNS:3179	Undergraduate Translation Workshop	3
CLSA:3980	Teaching in the Classics	1,3
CLSA:4106/ HIST:4406	Warfare in Ancient Mediterranean Society	3
CLSA:4400/ HIST:4400	The Roman Empire	3

Students who enter the university with prior competence in introductory Latin may substitute 3 s.h. of lower-level Latin courses with CLSA:1020 Love and Glory: The Literature of Rome. Students who have taken high school Latin should consult the classical languages advisor.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Latin, Minor

Course	Title	Hours
Academic Career		
Any Semester		
Students must complete a minimum of 15 s.h. in Latin courses (prefix CLSL), including at least 12 s.h. in advanced courses numbered 2000 or above taken at the University of Iowa. One advanced course in CLSA numbered 3000 or above may be counted toward the minor; see General Catalog for list of approved courses.		
A maximum of 6 s.h. of work for another University of Iowa major, minor, or certificate and up to 3 s.h. of lower-level transfer credit may be counted toward the Latin minor.		
Coursework in the Latin minor may not be taken pass/nonpass.		
	Hours	**0**
First Year		
Fall		
CLSL:1001	Elementary Latin I [a, b]	5
	Hours	**5**
Spring		
CLSL:1002	Elementary Latin II [a]	5
	Hours	**5**
Second Year		
Fall		
CLSL:2001	World of Cicero	3
	Hours	**3**
Spring		
CLSL:2002	Golden Age of Roman Poetry	3
	Hours	**3**
Third Year		
Fall		
Minor: Latin elective (prefix CLSL) numbered 3000 or above or relevant course [c]		3
	Hours	**3**
Spring		
Minor: Latin elective (prefix CLSL) numbered 3000 or above or other relevant course [c]		3
	Hours	**3**
	Total Hours	**22**

a Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 3rd semester level of the language will begin coursework at that level and will not be required to take semesters 1-2 of the language.

b This course is a prerequisite for the required minor courses.

c Students may substitute a maximum of 3 s.h for the Latin requirement with one relevant advanced-level course taught in English. See General Catalog or contact academic advisor for course list.

Classics, Postbaccalaureate Certificate

This program is designed for students who have a BA but do not have sufficient skills in Latin and/or Greek to continue on in graduate school, seminary, or other programs that require multiple years of both languages. Students in the postbaccalaureate program take classes at the University of Iowa in areas that are appropriate for their long-term goals. The program is typically one year in length, but students may continue if deemed appropriate by the faculty.

Learning Outcomes

Students are expected to demonstrate:

- intermediate to advanced comprehension of classical languages such as ancient Greek and Latin; and
- improvement in writing and communication skills for graduate school applications or other advanced studies focusing on the ancient world.

Requirements

The Postbaccalaureate Certificate in Classics requires 18 s.h. in Department of Classics courses numbered 2000 or above. Students must maintain a grade-point average of at least 3.00 to remain in good standing and complete the program.

The program is designed for students who have a bachelor's degree and would like further study in Greek and Latin in order to be competitive for admission to a graduate program in classics. Entry to most graduate programs requires the study of both Latin and Greek, normally a minimum of three years in one language and two years in the other. The certificate is designed to be completed in two semesters by students who enter with two years of Latin and one to two years of Greek, or vice versa.

At least 12 s.h. of the required credit must be earned in Greek and Latin language courses; the remaining 6 s.h. may be earned in approved advanced courses taught in English (prefix CLSA). Transfer credit is not accepted toward the certificate.

A suggested plan of study for a student who enters the program with two years of Latin and one year of Greek is as follows.

Course #	Title	Hours
Fall		
CLSA:4085	Postbaccalaureate Seminar	1
CLSG:2001	Second-Year Greek I	3
CLSL:3001	Latin Literature of the Republic I	3
CLSL:4076	Latin Composition	2-3
One elective with prefix CLSA, CLSG, or CLSL numbered 3000 or above		3
Spring		
CLSG:2002	Second-Year Greek II	3
CLSL:3002	Latin Literature of the Republic II	3
CLSL:4076	Latin Composition	2-3
Total Hours		**20-22**

A suggested plan of study for a student who enters the program with two years of Latin and two years of Greek is as follows.

Course #	Title	Hours
Fall		
CLSA:4085	Postbaccalaureate Seminar	1
CLSG:3001	Archaic and Classical Periods I	3
CLSG:4076 or CLSL:4076	Greek Composition Latin Composition	2-3
CLSL:3001	Latin Literature of the Republic I	3
One elective with prefix CLSA, CLSG, or CLSL numbered 3000 or above		3
Spring		
CLSG:3002	Archaic and Classical Periods II	3
CLSG:4076 or CLSL:4076	Greek Composition Latin Composition	2-3
CLSL:3002	Latin Literature of the Republic II	3
Total Hours		**20-22**

Students who complete the program successfully receive a certificate from the College of Liberal Arts and Sciences and a letter from the Department of Classics.

Admission

Applicants must have a baccalaureate degree from an accredited college or university and a minimum of two years of language study (two years of Latin or two years of Greek, or one year of each). In unusual circumstances, students with less language preparation may be admitted.

Applicants who are not enrolled in a graduate or professional program may apply to the University of Iowa as undergraduate transfer students; they must state on their application that they are applying to the College of Liberal Arts and Sciences for admission to the classics postbaccalaureate certificate program. They must submit transcripts confirming preparation for certificate language study, a statement of purpose, scores on the Graduate Record Examination (GRE) General Test, a writing sample, and three letters of recommendation from faculty members at their baccalaureate institution.

Classics, MA

The master's degree in classics is intended for students who wish to advance their understanding of ancient Mediterranean languages, literatures, and cultures. Although it is primarily intended for students who wish to teach classics—Greek, Latin, mythology, Mediterranean archaeology, ancient philosophy, and classical literature—at the high school level or continue on to a PhD program, many students bring their advanced education to such careers as law, counseling, publishing, library science, grant writing, nonprofit organizations, and university administration.

Learning Outcomes

Students are expected to demonstrate:

- understanding of advanced Greek and Latin vocabulary and grammar;
- broad knowledge of ancient Greek and Latin literature;
- comprehension of ancient Mediterranean states, geography, and history;
- synthesis of the interplay between economics and trade, politics, warfare, class, race, ethnicity, gender, and rhetoric; and
- application of ancient concepts to modern problems.

Requirements

The Master of Arts program in classics requires a minimum of 30 s.h. in courses numbered 3000 or above. Students may count a maximum of 12 s.h. earned in courses numbered 3000–4999 toward the degree. They must maintain a UI cumulative grade-point average of at least 3.00 to earn the degree.

Students must pass a sight examination in the language(s) studied and an examination on literature and history.

Courses taken to complete the Postbaccalaureate Certificate in Classics do not count toward the degree.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Classics, MA

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Students pursuing the master's degree in Classics who have had no Greek or Latin must include at least elementary Greek or Latin in their programs. Additionally, students must complete either Greek Composition or Advanced Latin Composition. [b]		
	Hours	**0**
First Year		
Fall		
CLSG:4076 or CLSL:4076	Greek Composition or Latin Composition	2 - 3
CLSG:5001	Greek Survey I: Archaic to Classical Literature	3
Departmental Seminar [c]		2
Departmental Seminar [c]		2
	Hours	**9-10**
Spring		
Sight-reading exam in Greek and Latin		
CLSL:4076 or CLSG:4076	Latin Composition or Greek Composition	2 - 3
CLSG:5002	Greek Survey II: Hellenistic to Late Antique Literature	3
CLSA:5010	Proseminar in Classics	1
Departmental Seminar [c]		3
	Hours	**9-10**
Second Year		
Fall		
CLSL:5001	Latin Survey I: Republican Literature	3
Departmental Seminar [c]		3
	Hours	**6**
Spring		
CLSL:5002	Latin Survey II: Imperial to Late Antique Literature	3
Departmental Seminar [c]		3
Final Exam [d]		
	Hours	**6**
	Total Hours	**30-32**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b This requirement may be satisfied by examination. A sight-reading examination in both languages must be taken before the final written comprehensive examination.

c Choose from CLSG or CLSL courses numbered 6011-6014, or CLSA:6100.

d Written comprehensive examination on Greek and Latin (Roman) history and literature.

Greek, MA

The master's degree program in Greek is intended for students who wish to teach Greek language, literature, and history at the high school level. It is also intended for those who wish to transfer to another institution for PhD work.

Learning Outcomes

Students are expected to demonstrate:

- understanding of advanced Greek vocabulary and grammar;
- broad knowledge of ancient Greek literature;
- comprehension of ancient Greek history, material culture, and cultural cohesion, differentiation, and development over time; and
- application of a knowledge of Greek language and culture to modern educational and civic issues.

Requirements

The Master of Arts program in Greek requires a minimum of 30 s.h. in courses numbered 3000 or above. Students may count a maximum of 12 s.h. earned in courses numbered 3000–4999 toward the degree. Students must maintain a UI cumulative grade-point average of at least 3.00 to earn the degree.

Students must pass a sight examination in Greek and an examination on Greek literature and history.

Courses taken to complete the Postbaccalaureate Certificate in Classics do not count toward the degree.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Greek, MA

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Students pursuing the master's degree in Greek who have had no Latin are expected to include it in their programs. Additionally, students must complete Greek Composition. [b]		
	Hours	**0**
First Year		
Fall		
CLSG:4076	Greek Composition	2 - 3
CLSG:5001	Greek Survey I: Archaic to Classical Literature	3
Departmental Seminar [c]		2
Departmental Seminar [c]		2
	Hours	**9-10**
Spring		
Sight-reading exam in Greek		
CLSG:4076	Greek Composition	2 - 3
CLSG:5002	Greek Survey II: Hellenistic to Late Antique Literature	3
CLSA:5010	Proseminar in Classics	1
Departmental Seminar [c]		3
	Hours	**9-10**
Second Year		
Fall		
Departmental Seminar [c]		3
Departmental Seminar [c]		3
	Hours	**6**
Spring		
Departmental Seminar [c]		3
Departmental Seminar [c]		3
Exam: Master's Final Exam [d]		
	Hours	**6**
	Total Hours	**30-32**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b This requirement may also be satisfied by examination. A sight-reading examination in the major language must be taken before the final written comprehensive examination.

c Choose from CLSA:6100, CLSG:6011, CLSG:6012, CLSG:6013.

d Written comprehensive examination on Greek history and literature.

Latin, MA

The master's degree program in Latin is intended for students who wish to teach Latin language, literature, and Roman history at the high school level. It is also intended for those who wish to transfer to another institution for PhD work.

Learning Outcomes

Students are expected to demonstrate:

- understanding of advanced Latin vocabulary and grammar;
- broad knowledge of ancient Latin literature;
- comprehension of ancient Roman and Italian history, material culture, and cultural cohesion, differentiation, and development over time; and
- application of a knowledge of Latin language and Roman culture to modern educational and civic issues.

Requirements

The Master of Arts program in Latin requires a minimum of 30 s.h. in courses numbered 3000 or above. Students may count a maximum of 12 s.h. earned in courses numbered 3000–4999 toward the degree. Students must maintain a UI cumulative grade-point average of at least 3.00 to earn the degree.

Students must pass a sight examination in Latin and an examination on Roman literature and history.

Courses taken to complete the Postbaccalaureate Certificate in Classics do not count toward the degree.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Latin, MA

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Students pursuing the master's degree in Latin who have had no Greek are expected to include it in their programs. Additionally, students must complete Latin Composition. [b]		
	Hours	**0**
First Year		
Fall		
CLSL:4076	Latin Composition	2 - 3
CLSL:5001	Latin Survey I: Republican Literature	3
Departmental Seminar [c]		2
Departmental Seminar [c]		2
	Hours	**9-10**
Spring		
Sight-reading exam in Latin		
CLSL:4076	Latin Composition	2 - 3
CLSL:5002	Latin Survey II: Imperial to Late Antique Literature	3
CLSA:5010	Proseminar in Classics	1
Departmental Seminar [c]		3
	Hours	**9-10**
Second Year		
Fall		
Departmental Seminar [c]		3
Departmental Seminar [c]		3
	Hours	**6**
Spring		
Departmental Seminar [c]		3
Departmental Seminar [c]		3
Exam: Master's Final Exam [d]		
	Hours	**6**
	Total Hours	**30-32**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b This requirement may also be satisfied by examination. A sight-reading examination in the major language must be taken before the final written comprehensive examination.

c Choose from CLSA:6100, CLSL:6011, CLSL:6013, CLSL:6014.

d Written comprehensive examination on Latin history and literature.

Classics, PhD

The PhD program in classics is intended for students who wish to pursue original research in the wide-ranging field of classics—Greek, Latin, Semitic languages, ancient Mediterranean religions and mythology, Mediterranean archaeology, ancient philosophy, and classical literature from Homer to Plato to the Bible to the Church fathers. Students are also trained to teach languages and literature at the university level. Many students bring their advanced education to such careers as law, counseling, publishing, library science, grant writing, nonprofit organizations, and university administration.

Learning Outcomes

Students are expected to demonstrate many, if not all of the following:

- understanding of the vocabulary and grammar of the classical languages they have chosen to study (e.g., Greek, Latin, Hebrew, Aramaic, Syriac, Coptic) at an advanced level;
- broad knowledge of the ancient literature corresponding to their chosen languages of study;
- application of ancient concepts learned to modern problems;
- the ability to conduct original research in various subjects within the field of classics;
- the ability to conduct archaeological field research and teach it at the university level;
- facility with the writing skills necessary to publish articles and critical research volumes at the peer-review level, as well as popular articles in trade books, magazines, newspapers, and online publications; and
- facility with the public-speaking skills necessary to present research both in professional academic settings and in popular, public venues.

Requirements

The Doctor of Philosophy program in classics requires a minimum of 72 s.h. of graduate credit, including the courses listed below (16–18 s.h.). Students may count no more than 12 s.h. earned in courses numbered 3000–4999 toward the degree. Students must maintain a UI cumulative grade-point average of at least 3.00 to earn the degree.

Students must also take precomprehensive and comprehensive examinations and write a dissertation.

Courses taken to complete the Postbaccalaureate Certificate in Classics do not count toward the degree.

Required Courses

Course #	Title	Hours
All of these:		
CLSG:4076	Greek Composition	2-3
CLSG:5001	Greek Survey I: Archaic to Classical Literature	3
CLSG:5002	Greek Survey II: Hellenistic to Late Antique Literature	3
CLSL:4076	Latin Composition	2-3
CLSL:5001	Latin Survey I: Republican Literature	3
CLSL:5002	Latin Survey II: Imperial to Late Antique Literature	3

The remaining coursework is made up of Department of Classics courses and other courses with approval of the graduate advisor.

PhD Examinations

PhD students must take the foundations exam at the end of their first year. The remaining exams may be taken in any sequence during years two to four. Students must file a request for the fourth-year comprehensive exam at least three weeks before the date of the third and final field exam to be taken. Competence in reading two scholarly languages, such as French, German, or Italian, must be demonstrated by the end of the fourth year of study.

Foundations Exam

The foundations exam is based on a set reading list of broad themes in ancient Mediterranean history, literature, and culture. It consists entirely of take-home and open-book essay questions, which students have two weeks to complete.

Translation Exams

Students take two translation exams in either Greek, Latin, Hebrew/Aramaic, Coptic, or Syriac. Translation exams are scheduled on an individual basis, either one or two per semester, and are based on a set reading list. They are four hours each and taken in the department with dictionary access.

Field Exams

Students take three field exams in either Greek literature, Latin literature, biblical studies, early Christianity, Mediterranean history, Mediterranean archaeology, or ancient world digital humanities. Field exams are scheduled on an individual basis, either one or two per semester, and are based on a set reading list. They consist entirely of take-home and open-book essay questions, which students have two weeks to complete.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

The Department of Classics is recognized for the excellent program it offers for graduate study in classics. Most go on to teach at the college level.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Classics, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits from an accredited institution allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Competence in reading two scholarly languages, such as French, German, or Italian must be demonstrated by the end of the fourth year of study. [b]		
	Hours	**0**
First Year		
Fall		
CLSG:4076	Greek Composition [c]	2 - 3
CLSG:5001	Greek Survey I: Archaic to Classical Literature	3
Departmental Seminar [d]		2
Departmental Seminar [d]		3
	Hours	**10-11**
Spring		
CLSG:4076	Greek Composition [c]	2 - 3
CLSG:5002	Greek Survey II: Hellenistic to Late Antique Literature	3
Departmental Seminar [d]		2
Departmental Seminar [d]		3
Foundations Exam [e]		
	Hours	**10-11**
Second Year		
Any Semester		
Field Exams [f, g]		
Translation Exams [f, h]		
	Hours	**0**
Fall		
CLSL:4076	Latin Composition [c]	2 - 3
CLSL:5001	Latin Survey I: Republican Literature	3
Departmental Seminar [d]		2
Departmental Seminar [d]		3
	Hours	**10-11**
Spring		
CLSL:4076	Latin Composition [c]	2 - 3
CLSL:5002	Latin Survey II: Imperial to Late Antique Literature	3
Departmental Seminar [d]		2
Departmental Seminar [d]		3
	Hours	**10-11**
Third Year		
Any Semester		
Field Exams [f, g]		
Translation Exams [f, h]		
	Hours	**0**
Fall		
Departmental Seminar [d]		3
Departmental Seminar [d]		3
	Hours	**6**
Spring		
Departmental Seminar [d]		3
Departmental Seminar [d]		3
	Hours	**6**
Fourth Year		
Any Semester		
Field Exams [f, g]		
Translation Exams [f, h]		
	Hours	**0**
Fall		
Departmental Seminar [d]		3
Departmental Seminar [d]		3
	Hours	**6**
Spring		
Departmental Seminar [d]		3
Departmental Seminar [d]		3
	Hours	**6**
Fifth Year		
Fall		
Prospectus Defense		
CLSL:7080 or CLSG:7080	Latin Thesis or Greek Thesis	4
	Hours	**4**
Spring		
CLSG:7080 or CLSL:7080	Greek Thesis or Latin Thesis	4
Exam: Doctoral Final Exam [i]		
	Hours	**4**
	Total Hours	**72-76**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Other modern languages may be substituted with the approval of the student's faculty advisor and the department chair.

c Taken twice in consecutive semesters.

d Choose from CLSG or CLSL courses numbered 6011-6014, or CLSA:6100.

e Taken at the end of the first year, the foundations exam is a set reading list of broad themes exams in ancient Mediterranean history, literature, and culture. It consists entirely of take-home and open-book essay questions, which students have two weeks to complete.

f The doctoral comprehensive exam is the final field or translation exam undertaken by the student prior to the prospectus defense.

g Students take three field exams in either Greek literature, Latin literature, biblical studies, early Christianity, Mediterranean history, Mediterranean archaeology, or ancient world digital humanities. Field exams are scheduled on an individual basis, either one or two per semester, and are based on a set reading list. They consist entirely of take-home and open-book essay questions, which students have two weeks to complete.

h Students take two translation exams in either Greek, Latin, Hebrew/Aramaic, Coptic, or Syriac. Translation exams are scheduled on an individual basis, either one or two per semester, and are based on a set reading list. They are four hours each and taken in the department with dictionary access.

i Dissertation defense.

Communication Sciences and Disorders

Chair

- Eric J. Hunter

Undergraduate major: speech and hearing science (BA)

Undergraduate minor: communication sciences and disorders

Graduate degrees: MS in audiology; MS in speech language pathology; AuD; PhD in speech and hearing science

Graduate certificate: multilingualism and culturally responsive practice

Faculty: https://csd.uiowa.edu/people

Website: https://csd.uiowa.edu

The courses and degree programs of the Department of Communication Sciences and Disorders are designed to meet the needs of students preparing for careers in clinical service, college and university teaching, and research concerned with speech, language, and/or hearing processes and disorders. Traditionally, this field was called audiology and speech pathology. The department also offers courses for students with vocational and professional goals in other fields—for example, engineering, psychology, education, speech, theatre arts, dentistry, and medicine—whose preparation may be enriched by the study of speech, language, and hearing processes and their disorders.

Advanced degree holders in communication sciences and disorders provide clinical services for people with speech, hearing, or language problems in hospitals, community clinics, rehabilitation facilities, elementary and secondary schools, and private practice. They teach in colleges and universities and conduct research in laboratories concerned with communication processes and disorders.

Programs

Undergraduate Programs of Study

Major

- Major in Speech and Hearing Science (Bachelor of Arts) [p. 252]

Minor

- Minor in Communication Sciences and Disorders [p. 256]

Graduate Programs of Study

- Master of Science in Audiology [p. 257]
- Master of Science in Speech Language Pathology [p. 258]
- Doctor of Audiology [p. 261]
- Doctor of Philosophy in Speech and Hearing Science [p. 263]
- Certificate in Multilingualism and Culturally Responsive Practice [p. 265]

Facilities

Clinical Facilities

The clinical training program benefits greatly from Iowa City's standing as the most comprehensive health sciences center in Iowa and from the ready availability of health service facilities for clinical training of students in speech-language pathology and audiology.

The University of Iowa Affiliated Speech and Hearing Services include the Wendell Johnson Speech and Hearing Clinic; the division of speech and hearing in University of Iowa Health Care Department of Otolaryngology—Head and Neck Surgery; UIHC Consolidated Speech and Swallowing Services, which provides services to the Departments of Neurology and Otolaryngology—Head and Neck Surgery; child psychiatry speech and hearing services in the Center for Disabilities and Development; and the audiology and speech pathology service in the VA Iowa City Health Care.

The Wendell Johnson Speech and Hearing Clinic serves the university and the general public. Included in its services are outpatient evaluation and rehabilitation programs for speech, voice, swallowing, hearing, language problems, and a full range of audiological services that include diagnostic and rehabilitative services. Intensive therapeutic summer programs for children and a variety of clinical programs provide students with supervised clinical experience with a wide variety of speech, hearing, and language disorders.

In addition to clinical training in the Wendell Johnson Speech and Hearing Clinic, training may also be acquired in supervised clinical practice with elementary school children through various state education agencies and in supervised clinical practice in speech, language, and hearing services provided by University of Iowa Health Care Consolidated Speech and Swallowing Services, the Regional Child Health Specialty Clinics, the Center for Disabilities and Development, and the VA Iowa City Health Care.

Public and private departments and programs in addition to those previously mentioned often contribute to cooperative professional training, research, and service programs.

Research Facilities

The Wendell Johnson Speech and Hearing Center includes faculty offices, research lab space for individual faculty members, classrooms, and shared lab space used for teaching. It also serves as the home for the Wendell Johnson Speech and Hearing Clinic. Research spaces are equipped with sound booths, computer labs, and a wide variety of equipment used for acoustic, physiologic, and perceptual studies of hearing, balance, speech, voice, language, and swallowing. The Wendell Johnson Speech and Hearing Clinic is a full-service training clinic that is equipped to serve individuals of all ages with speech, language, and hearing concerns. These facilities include multiple fully equipped audiometric testing suites and suites used for diagnosis and evaluation of individuals with speech, language, swallowing, hearing, and balance concerns. Video recording equipment is available, as are rooms designed specifically to allow for group instruction.

Collaboration with departments in the Carver College of Medicine, the Department of Psychological and Brain Sciences, and the University of Iowa DeLTA Center makes additional laboratory facilities available for research on problems in speech and hearing. The participation and

cooperation of specialists from varied fields, including psychology, child development, education, engineering, statistics, and medicine, further broaden the scope of research activities in speech, language, and hearing.

Courses

Communication Sciences and Disorders Courses

CSD:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

CSD:1015 Introduction to Speech and Hearing Processes and Disorders 2 s.h.
Introduction to communication sciences and disorders field; clinical and research works; wide range of readings; survey course with less emphasis on specific disorders.

CSD:1800 Aging Matters: Introduction to Gerontology 3 s.h.
Overview of the field of gerontology from a bio-psycho-social framework; how the human body and brain age, effects of these biological changes on physical and cognitive functions, and interaction of these individual factors with societal contexts; broad perspective to give students a foundation in gerontology, paving the way for more advanced courses in biology of aging, psychology of aging, and global aging; for students from a wide range of disciplines and levels, no prior knowledge of aging required. GE: Social Sciences. Same as ASP:1800, NURS:1800, SSW:1800, TR:1800.

CSD:2110 Phonetics: Theory and Applications 3 s.h.
Basic concepts: articulatory and acoustic description of speech sound production, dialect variations, and language differences; development of phonetic transcription skills with emphasis on English phonetics and clinical applications to developing and disordered speech.

CSD:2111 Basic Acoustics for Speech and Hearing 3 s.h.
Principles of sound, simple harmonic motion, sound pressure and intensity, decibels, complex waves, Fourier analysis, resonance and filters, distortion, transmission of sound. Requirements: completion of departmental math requirement (MATH:1440 or MATH:1460 or MATH:1850).

CSD:3097 Honors Seminar 2 s.h.
Research topics and procedures in speech and hearing sciences; ongoing faculty research, research opportunities, possible research projects. Requirements: honors standing with intent to complete an honors thesis.

CSD:3112 Anatomy and Physiology of Speech Production 4 s.h.
Normal anatomy and physiology of structures used to produce speech; principles and methods for instrumental study of speech production.

CSD:3113 Introduction to Hearing Science 4 s.h.
Normal auditory process; anatomy and physiology of auditory system; subjective correlates of auditory stimuli.

CSD:3116 Basic Neuroscience for Speech and Hearing 3 s.h.
Basic anatomy, physiology of central nervous system; emphasis on neural systems involved in normal and disordered communication. Offered fall semesters. Requirements: biology, zoology, or physiology course. Same as LING:3116.

CSD:3117 Psychology of Language 3 s.h.
Introduction to scientific study of language use; language approached from a multidisciplinary perspective, integrating theories and methods of psycholinguistics, neuropsychology, and communication sciences and disorders. GE: Social Sciences. Same as LING:3117.

CSD:3118 Language Acquisition 1-3 s.h.
Models of children's language acquisition; child language/communication development from infancy through school age, in context of current developmental research. Requirements: for CSD:3118—LING:3001 and PSY:1001; for LING:3118—LING:3001 or LING:3117. GE: Social Sciences. Same as LING:3118.

CSD:3119 Interdisciplinary Science of Sound and Hearing 3 s.h.
Introduction to physics of sound, biology/psychology of hearing, and audio technology; theories and experimental methods; music, speech, and environmental sounds. Same as MUS:3055, PSY:3055.

CSD:3185 Hearing Loss and Audiometry 3 s.h.
Introduction to profession of audiology; overview of hearing disorders, evaluation, and treatment; basic pure-tone and speech audiometry.

CSD:3993 Research Practicum arr.
Individual or small group participation in faculty research projects.

CSD:4029 Experiential Learning in Audiology 1 s.h.
Students build a foundation of skills to develop in advanced degree program; for students interested in obtaining an AuD or learning more about audiology. Prerequisites: CSD:3185. Requirements: third- or fourth-year standing.

CSD:4030 Experiential Learning: Community Engagement Through Communication and Literacy Programs 2-3 s.h.
Designed for undergraduate students intending to pursue graduate-level professional preparation in speech-language pathology; following instruction, students will commit to local community activities focused on the implementation of programs involving Augmentative Alternative Communication (AAC), literacy, and other communication strategies for the remainder of the semester; preference will be given to third- and fourth-year students majoring in Communication Sciences and Disorders; contact the instructors for information about community activities planned for upcoming semesters. Recommendations: CSD:3118 and CSD:4145.

CSD:4098 Honors Thesis 1-3 s.h.
Close work with a faculty mentor.

CSD:4120 Introduction to Clinical Methods and Observation 3 s.h.
Observation of the diagnosis and treatment of a wide range of speech, language, or hearing disorders in a variety of settings; basic understanding of evaluation process, goal setting, behavior management, pacing of therapy, shaping of behavior, tracking performance/learning, and professional and ethical behavior through observation of clinical interactions; completion of 25 hours of observation as required by the American Speech-Language-Hearing Association for obtaining national certification. Prerequisites: CSD:4145. Recommendations: senior or graduate standing in communication sciences and disorders.

CSD:4130 Reducing Disparities and Inequities in Communication Sciences and Disorders 1 s.h.
Discussion of diversity, equity, and inclusion in communication sciences and disorders field; historical perspectives as related to current practices. Recommendations: graduate standing in speech language pathology, or junior or senior standing in speech language pathology or audiology.

CSD:4140 Manual Communication 1 s.h.
Training in use of sign systems in manual communication.

CSD:4145 Developmental Language Disorders 3 s.h.
Nature of developmental disorders; basic concepts including behavioral characteristics, developmental patterns, and etiology theories; assessment and intervention principles in semantics, morphology, and syntax.

CSD:4148 Developmental Speech Disorders 3 s.h.
Review of typical phonological development in children; introduction to assessment and intervention practices for articulation and phonological disorders in children; may include apraxia, cerebral palsy, and cleft palate.

CSD:4186 Problems: Speech/Hearing Processes and Disorders arr.
Independent readings or research experience through mutual arrangement between student and faculty; goals and requirements determined by participating faculty member.

CSD:4244 Rehabilitative Audiology 3 s.h.
Theory, procedures for assessment, and rehabilitation of speech, hearing, and language deficits of people with hearing impairment. Prerequisites: CSD:3185.

CSD:4291 Statistical and Experimental Methods in Linguistics I 3 s.h.
Introduction to basic experimental design; critical analysis of scientific claims; overview of common methods in experimental linguistics; research preparation and follow-up. Prerequisites: LING:3010 or LING:3020. Requirements: advanced standing in undergraduate linguistics program or graduate standing in linguistics. Same as LING:4291.

CSD:4292 Statistical and Experimental Methods in Linguistics II 3 s.h.
Introduction to statistics with emphasis on common data types in linguistics; coding in R. Prerequisites: LING:4291. Same as LING:4292.

CSD:5104 Language Disorders in School-Aged Children 3 s.h.
Emphasis on elementary grades; usually taken in conjunction with EDTL:4192, which provides approximately 70 hours of supervised clinical practice in elementary schools. Recommendations: primarily for communication sciences and disorders majors. Same as EDTL:5104.

CSD:5114 Introduction to Voice and Resonance Disorders 3 s.h.
Basic foundations for management of voice disorders. Prerequisites: CSD:3112.

CSD:5115 Structural Disorders 2 s.h.
Therapy approaches used to treat speech production and swallowing disorders associated with disorders that affect structure and physiology of the speech and swallowing mechanism; basic knowledge necessary for clinical practice by clinicians who do not specialize in management of patients with head and neck cancer, cleft palate, or neurological disorders.

CSD:5135 Foundations of Clinical Practice I 2 s.h.
Basic concepts of clinical practice including models of diagnosis, fundamentals of clinical data collection and measurement, treatment planning, and professional writing. Corequisites: CSD:4145.

CSD:5136 Foundations of Clinical Practice II 1 s.h.
Advanced concepts of clinical practice including professionalism, clinical decision-making, developing client-clinician alliance, examining biases and prejudices in clinical practice, and developing empathy.

CSD:5137 Foundations of Clinical Practice III 1 s.h.
Advanced principles of clinical practice including risk management, public policy, and models of third-party reimbursement; professional issues.

CSD:5146 Neurogenic Disorders of Language 3 s.h.
Overview of communication disorders secondary to acquired brain damage in adults; focus on aphasia, communication disorders arising from dementia, right-hemisphere stroke, traumatic brain injuries; general principles of diagnosis and intervention.

CSD:5183 Introduction to Stuttering 2 s.h.
Introduction to the nature and treatment of stuttering. Students learn basic concepts regarding foundational knowledge (basic phenomena, major theories, lived experience), holistic assessment, and client-centered intervention. Requirements: graduate standing.

CSD:5203 Counseling in Communication Disorders 1 s.h.
Development of appropriate intervention plans that meet client/patient needs in collaboration with client/patient and relevant others; communicating effectively and recognizing needs, values, preferred mode of communication, and cultural linguistic background of client/patient, family, caregivers, relevant others; providing counseling to clients/patients, family, and caregivers regarding communication and swallowing disorders.

CSD:5204 Counseling in Audiology 1 s.h.
Develop basic skills in the area of counseling, including, but not limited to, explaining diagnostic test results, impact of hearing loss on life, effective listening, and communication skills. Discuss variables that may impact a patient and their ability or decisions to receive care.

CSD:5205 Counseling in Speech Language Pathology 1 s.h.
Develop basic skills in counseling people with speech, language, and swallowing disorders. Topics and learning activities include basics of personal adjustment and strengths-based counseling; emotions of communication disorders; change readiness; mindfulness practices; and active listening micro-skills.

CSD:5213 Voice Habilitation 2 s.h.
Application of methods of intervention in development, training, rehabilitation of vocal behavior; motor learning, efficacy of treatment strategies, factors affecting compliance with recommended therapy. Offered fall semesters. Prerequisites: CSD:3112 and CSD:5114. Same as MUS:5555.

CSD:5219 Fundamentals of Laboratory Instrumentation 2 s.h.
Introduction to instrumentation commonly used in research in speech and hearing sciences; basic audiometric calibration.

CSD:5223 Pediatric Feeding and Swallowing Disorders 1 s.h.
Development of anatomy and physiology of feeding and swallowing in infants and children; assessment and treatment of pediatric feeding and swallowing disorders.

CSD:5224 System and Signal Theory for Speech and Hearing Science 3 s.h.
Introduction to signals and systems with emphasis on their relevance to the fields of audiology and speech-language pathology. Requirements: introductory calculus.

CSD:5233 Aphasia 2 s.h.
Assessment, diagnosis, and treatment of aphasia and other acquired language and cognition-based communication disorders. Corequisites: CSD:5136. Requirements: CSD:5146 or a course that provides an overview of acquired language disorders.

CSD:5234 Acquired Cognitive-Communication Disorders arr.
Cognitive, neuropsychological, and social aspects of communication and the management of acquired cognitive-communication disorders associated with traumatic brain injury, right hemisphere damage, and neurodegenerative diseases.

CSD:5236 Neurological and Structural Disorders of Swallowing 3 s.h.
Provides future speech-pathologists with a strong foundation for career-long learning about the nature and classification of neurogenic motor-speech and swallowing disorders, symptomatology, etiology, diagnosis, treatment, and management options.

CSD:5237 Cleft Palate and Related Disorders 1-2 s.h.
Nature, etiologies, and principles of treatment of common disorders associated with cleft lip and palate, associated disorders.

CSD:5238 Motor Speech Disorders 2 s.h.
Provides future speech-pathologists with a strong foundation for career-long learning about the nature and classification of neurogenic motor-speech disorders, symptomatology, etiology, diagnosis, treatment, and management options.

CSD:5240 Hearing Aids 3 s.h.
Hearing aids and diagnostic procedures; laboratory emphasis on measurement procedures.

CSD:5246 Advanced Audiology 3 s.h.
Theory and procedures for assessment of hearing loss in adult and pediatric populations; experience in test administration through supervised laboratory sessions.

CSD:5253 Speech Perception in Listeners With Hearing Loss 1-2 s.h.
Introduction to study of speech perception in listeners with normal hearing and those with hearing loss; overview of speech acoustics; theories of speech perception; contributions of auditory, visual, and indexical (talker-specific) information in speech signal; assessment techniques; benefits of hearing aid and/or cochlear implant use; factors influencing speech perception by children and adults with hearing loss.

CSD:5255 Educational Audiology 2 s.h.
Training in skills necessary for working with school-age population; case management and aural rehabilitation, amplification and classroom hearing technology, identification and assessment practices, federal legislation that affects services. Requirements: CSD:5240 for AuD students.

CSD:5256 Anatomy and Physiology of Hearing 3-4 s.h.
Anatomy of auditory system, cochlear mechanics, and electrophysiology of peripheral and central auditory nervous system; laboratory emphasis on physiological techniques for study of ear.

CSD:5258 Multilingualism and Culturally Responsive Practice in Communication Sciences and Disorders 2 s.h.
Trajectories of multilingual language acquisition in typical contexts and in context of communication disorders; connections between language, cognition, culture, and cultural-linguistic experiences to develop and apply culturally responsive speech and language assessment and intervention skills in context of cultural and linguistic diversity.

CSD:5260 Augmentative and Alternative Communication 2 s.h.
Theories, assessment, and intervention in augmentative and alternative communication (AAC) for individuals with severe communication disorders resulting from a variety of developmental and acquired conditions.

CSD:5282 Clinical Phonology and Speech Sound Disorders 2 s.h.
Advanced topics in phonological development and disorders; current theoretical approaches to phonological analysis and typical phonological acquisition applied to assessment and intervention with children who have phonological disorders.

CSD:5284 Advanced Fluency Disorders 2 s.h.
Fluency disorders and treatment approaches for children and adults.

CSD:5301 Practicum: Speech-Language Pathology arr.
Supervised clinical practice. Corequisites: CSD:5135. Requirements: MA professional emphasis.

CSD:5304 Speech Pathology Outplacement: School 0-4 s.h.
Supervised teaching and observation in speech-language pathology in an elementary school setting.

CSD:5305 Speech Pathology Outplacement: Non-School 0-4 s.h.
Supervised clinical work and observation in speech-language pathology in a non-school setting.

CSD:5306 Speech-Language Pathology Multilingual/Multicultural Outplacement: School arr.
Supervised multilingual and multicultural teaching and observation in speech-language pathology in an elementary school setting.

CSD:5307 Speech-Language Pathology Multilingual/Multicultural Outplacement: Non-School arr.
Supervised clinical work and observation in speech-language pathology in a multilingual and multicultural non-school setting.

CSD:5308 Practicum: Speech-Language Pathology Multilingual/Multicultural arr.
Supervised clinical practice for Multilingualism and Culturally Responsive Practice in SLP Certificate. Corequisites: CSD:5135. Requirements: MA professional emphasis.

CSD:5309 Practicum: Speech-Language Pathology International 2 s.h.
Supervised teaching and observation in speech-language pathology (SLP) in an international program. Classroom and clinical education in areas of SLP related to multilingualism, global understanding, historical and political context of a chosen country, and effective cross-cultural communication. Clinical experience includes opportunities to collaborate with local SLP students/SLPs or other partners to implement culturally responsive speech-language service delivery. Prerequisites: CSD:5135. Requirements: valid passport and ability to travel internationally.

CSD:5310 Scientific Writing and Publishing 2 s.h.
Develop advanced scientific writing skills needed for generating publishable manuscripts. Provides a space to critically engage with the writing process, offering opportunities to analyze and critique both their own writing and the writing of peers. Emphasis on iterative drafting, constructive feedback, and refining prose for clarity and impact. Requirements: PhD standing.

CSD:5311 Advanced Clinical Topics in Audiology 2 s.h.
Variety of professional issues important to clinical practice; incorporates professional and community engagement as well as service learning; topics directly related to clinical work and covered by clinical faculty and guest speakers with special expertise in each area; student presentations.

CSD:5314 Audiology Student Teaching arr.
Supervised teaching and observation in an area of audiology in the elementary schools. Corequisites: CSD:5315. Requirements: AuD first-, second-, or third-year enrollment.

CSD:5315 Clinical Rotations in Audiology arr.
Supervised clinical practice in audiology. Requirements: AuD first-, second-, or third-year enrollment.

CSD:5317 Advanced Clinical Practice in Audiology 1 s.h.
Various advanced clinical topics in audiology including professional issues and technical skills with a particular interest in culturally responsive practice.

CSD:5318 Literacy: Emergent and School Aged 1 s.h.
Examine literacy development from early emergent skills through the elementary years. Topics include phonological awareness, vocabulary development, print awareness, and reading and writing strategies. Assessment and intervention methods to support all learners will also be investigated.

CSD:5319 Head and Neck Cancer and Instrumentation 2 s.h.
Covers diagnostic procedures, instrumentation, treatment implications, and potential issues during cancer staging; reviews HNC risk factors, initial diagnostics, surgical and nonsurgical treatments, and treatment effects on functional outcomes. Instrumentation includes administering rigid and/or flexible laryngoscopy and stroboscopy for assessment of dysphonia and dysphagia. Flexible nasendoscopy for velopharyngeal port assessment may be included.

CSD:5320 Applied Statistics and Principles of Evidence-Based Practice in Audiology 3 s.h.
Combination of applied statistics and principles of evidence-based clinical practice with emphasis on applications in audiology and hearing science; review of statistical techniques widely used in audiology research including nonparametric and descriptive statistics, correlation, regression, and ANOVA; examples taken from studies published in scientific journals in communication sciences and disorders; principles of evidence-based practice that focus on topics and methods of establishing treatment efficacy, meta analyses, levels of evidence, and methods of assessing research quality. Requirements: introductory course in statistics.

CSD:5321 Clinical Rotations in Audiology Multilingual/Multicultural arr.
Under the direct supervision of a licensed and American Speech-Language-Hearing Association-certified audiologist, students work in various clinical settings with persons manifesting communicative problems. Evaluation, rehabilitation, and management of a variety of auditory and vestibular disorders; includes opportunities to work with multilingual/multicultural individuals. Requirements: AuD first-, second-, or third-year enrollment.

CSD:5350 Seminar in Supervision 1 s.h.
Process and procedures in clinical education and supervision in a graduate program.

CSD:5415 Outplacement Clinical Supervised Rotations in Audiology arr.
Under the direct supervision of a licensed and American Speech-Language-Hearing Association-certified audiologist, students work in various clinical settings that provide a range of audiology and vestibular services for individuals across the lifespan. Clinical experiences involve evaluation, rehabilitation, and management of a variety of auditory and vestibular disorders. Prerequisites: CSD:5315. Requirements: AuD second- or third-year enrollment.

CSD:5511 Introduction to Doctoral Research 1 s.h.
Topics related to development and execution of research; doctoral program, use of library, human and animal subject issues, philosophy of science, use of common research tools, reading and writing research papers, and research grant preparation.

CSD:5525 Principles of Voice Production 3 s.h.
Basic physical, physiological, and pedagogical principles required to understand professional, nonprofessional, and impaired voice production. Topics include vocal anatomy, vocal health, voice changes across the lifespan, voice classification, control of loudness, pitch, register, quality, respiration, phonation, resolution, and articulation, as well as efficient and inefficient use of both the singing and speaking voice. Same as MUS:5525.

CSD:6101 Cognitive Science of Language Proseminar I 3 s.h.
Survey of five major disciplines within language sciences: formal linguistic, communication disorders, psychological, neuroscience, and computational approaches. Requirements: graduate standing in communication sciences and disorders, linguistics, psychology, or neuroscience. Same as LING:6101, PSY:6101.

CSD:6102 Cognitive Science of Language Proseminar II **3 s.h.**
Survey of five major disciplines within language sciences: formal linguistic, communication disorders, psychological, neuroscience, and computational approaches. Requirements: graduate standing in communication sciences and disorders, linguistics, psychology, or neuroscience. Same as LING:6102, PSY:6102.

CSD:6202 Voice Pedagogy **3 s.h.**
History of voice pedagogy, various pedagogical techniques of voice training, vocal anatomy, voice classification, critical listening, postural alignment, managing breath, tonal production, connecting registers, articulation, interpretation, vocal health, pharmacological effects on the voice, vocal gadgets, requirements for a professional career, teaching in the 21st century, and teaching practicum; diagnosis and correction of vocal faults. Same as MUS:6520.

CSD:6230 Psychoacoustics **2-3 s.h.**
Basic properties of auditory perception or psychoacoustics from material covered in CSD:5256; perception of loudness, masking frequency selectivity, temporal processing, and spatial perception; basic perceptual properties, methods of measurement, and physiological basis for performance; properties of perception in normal ears, hearing impairment, and auditory prostheses (e.g., cochlear implants).

CSD:6240 Seminar in Audiology **arr.**
Topics vary; for AuD and PhD students.

CSD:6242 Hearing Aids II **2 s.h.**
Evaluation and verification procedures; emphasis on advanced technologies and strategies.

CSD:6245 Pediatric Audiology **1,3 s.h.**
Theory and procedures for assessment and rehabilitation of pediatric populations; laboratory emphasis on test administration.

CSD:6247 Medical Audiology **2 s.h.**
Review of a wide range of pathologic conditions that have an impact on hearing; focus on understanding the underlying pathophysiology and how the disorder is diagnosed and treated.

CSD:6249 Cochlear Implants **1-3 s.h.**
Introduction to cochlear implants; history of cochlear implantation, introduction to cochlear implant technology, basics of device programming and troubleshooting, candidacy issues, outcomes in children and adults; auditory rehabilitation specific to cochlear implant recipients.

CSD:6290 Auditory Evoked Potentials **3 s.h.**
Introduction to the wide range of electrophysiologic measures of auditory function used in clinical practice.

CSD:6291 Vestibular Assessment and Rehabilitation **3 s.h.**
Introduction to vestibular anatomy, physiology theory, testing techniques, management, and rehabilitation.

CSD:6292 Advanced Rehabilitative Audiology: Adult **1 s.h.**
Current and developing procedures for assessment and habilitation of adults with hearing losses.

CSD:6294 Advanced Rehabilitative Audiology: Pediatric **1 s.h.**
Current and developing procedures for assessment and habilitation of children with hearing losses.

CSD:6311 Professional Issues in Audiology **1 s.h.**
Information on a variety of professional issues important to clinical practice; topics directly related to clinical work; written assignments required as a means for students to reflect on and share clinical experiences related to topics. Corequisites: CSD:6316.

CSD:6312 Professional Issues in Audiology II and Capstone **1 s.h.**
Information on a variety of professional issues important to clinical practice; topics directly related to clinical work; presentations, discussions, and written assignments required as a means for students to reflect on and share clinical experiences related to topics. Corequisites: CSD:6316. Requirements: AuD fourth-year enrollment.

CSD:6316 Advanced Externship in Audiology **arr.**
Advanced clinical externship in audiology. Corequisites: CSD:6311 or CSD:6312. Requirements: AuD fourth-year enrollment.

CSD:6317 Audiology Practice: Business Start-Up **1 s.h.**
Introduction to business aspects of developing and managing an audiology practice related to business start-up as well as short and long range business planning; presentation of topics by clinical faculty and guest speakers with special expertise in each area; student presentations.

CSD:6318 Occupational Audiology **1 s.h.**
Incidence and prevalence of hearing loss; risk factors and assessment; noise exposure guidelines; hearing protection devices; education and motivation.

CSD:6319 Interprofessional Practice and Community Engagement in Communication Sciences and Disorders **1 s.h.**
Advanced knowledge and experiences related to interprofessional education and practice (IPE/IPP) in communication sciences and disorders; IPE/IPP training focus on students' collaboration with multiple service providers from other professions to improve outcomes for individuals, families, and/or communities; presentation of topics by clinical faculty and guest speakers with special expertise in each area; student presentations.

CSD:6515 Professional Seminar **0 s.h.**
Weekly presentation of research projects, ideas, and clinical initiatives by faculty, students, and guests; required for PhD, AuD, and MA-SLP first-year graduate students.

CSD:6519 Evidence-Based Practice **2 s.h.**
Introduction to design and conduct of research and evidence-based clinical practice. Offered fall semesters. Recommendations: clinical graduate standing in audiology or speech-language pathology.

CSD:6538 Advanced Topics in Speech, Language, and Hearing Research **1 s.h.**
Varied topics related to auditory function, assessment, and rehabilitation; discussion based.

CSD:6540 Grant Writing for Fellowship and Career Development Awards **2 s.h.**
Equips students with the skills and knowledge necessary to develop competitive NIH pre-doctoral fellowship (F awards) and career development (K awards) applications. Key components of the NIH grant process, including identifying appropriate funding opportunities, tailoring proposals to align with NIH priorities, and writing the key sections of a training grant. Students work collaboratively with their mentors to craft the research plan as well as the mentoring and institutional support letters.

CSD:7238 Capstone 1 s.h.
Work with a faculty mentor to complete a project that focuses on an area of student's interest.

CSD:7239 Multilingual/Multicultural Capstone 1-3 s.h.
Work with a faculty mentor to complete a project that focuses on multilingualism and/or multiculturalism in speech-language pathology.

CSD:7590 Research arr.
Individual laboratory research training in speech-language pathology or audiology.

Speech and Hearing Science, BA

The undergraduate major in speech and hearing science emphasizes the normal processes of speech, hearing, and language. Coursework for the major prepares students to enroll in either a master's degree program in speech-language pathology or a clinical doctorate program in audiology (AuD). The undergraduate degree does not qualify an individual to work professionally in the field.

Learning Outcomes

Graduating BA students in speech and hearing science will have:

- a strong foundational understanding of the physical processes and biological substrates underlying normal audition, normal perception, and production of speech and language;
- a strong foundational understanding of the normal development of speech, language, and hearing;
- finished all prerequisite coursework needed to begin a graduate program in either speech-language pathology or audiology; and
- prepared to begin more advanced graduate coursework focusing on disorders, diagnosis, and treatment.

Requirements

The Bachelor of Arts with a major in speech and hearing science requires a minimum of 120 s.h., including 63–64 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Requirements include 12 core courses offered by the department and eight cognate courses offered by other departments. Transfer students must complete a minimum of 15 s.h. toward the major at the University of Iowa. Students who earn a major in speech and hearing science may not earn a minor in communication sciences and disorders.

The BA with a major in speech and hearing science requires the following coursework.

Requirements	Hours
Core Courses	37
Cognate Courses	26-27
Clinical Observation	

Core Courses

Course #	Title	Hours
All of these:		
CSD:1015	Introduction to Speech and Hearing Processes and Disorders	2
CSD:2110	Phonetics: Theory and Applications	3
CSD:2111	Basic Acoustics for Speech and Hearing	3
CSD:3112	Anatomy and Physiology of Speech Production	4
CSD:3113	Introduction to Hearing Science	4
CSD:3116	Basic Neuroscience for Speech and Hearing	3
CSD:3117	Psychology of Language	3
CSD:3118	Language Acquisition	3
CSD:3185	Hearing Loss and Audiometry	3
CSD:4145	Developmental Language Disorders	3
CSD:4148	Developmental Speech Disorders	3
CSD:4244	Rehabilitative Audiology	3

Cognate Courses

Students may choose cognate courses that help fulfill the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Course #	Title	Hours
Both of these:		
LING:3001	Introduction to Linguistics	3
PSY:1001	Elementary Psychology	3
One of these:		
PSQF:1020/ STAT:1020	Elementary Statistics and Inference	3
PSQF:4143/ STAT:4143	Introduction to Statistical Methods	3
STAT:2010	Statistical Methods and Computing	3
STAT:3510/ IGPI:3510	Biostatistics	3
One of these:		
CHEM:1070	General Chemistry I	3
CHEM:1110	Principles of Chemistry I	4
PHYS:1400	Basic Physics (preferably with lab)	3-4
PHYS:1511	College Physics I	4
One of these:		
ASP:3150	Psychology of Aging	3
PSY:2301	Introduction to Clinical Psychology	3
PSY:2930	Abnormal Psychology: Health Professions	3
SSW:1800/ ASP:1800/ CSD:1800/ NURS:1800/ TR:1800	Aging Matters: Introduction to Gerontology	3
One of these:		
PSQF:4106	Child Development	3
PSY:2401	Introduction to Developmental Science	3
One of these:		
BIOL:1141	Human Biology: Health Professions (with lab)	4
BIOL:1411	Foundations of Biology (with lab)	4
One of these:		
MATH:1440	Mathematics for the Biological Sciences	4

MATH:1460	Calculus for the Biological Sciences	4
MATH:1850	Calculus I	4

The cognate requirement in mathematics may be fulfilled through an acceptable score on the Advanced Placement AB or BC Calculus exam; see Credit by Exam Options on the Admissions website. Students without AP credit are encouraged to take MATH:1440 Mathematics for the Biological Sciences (speech interest) or MATH:1460 Calculus for the Biological Sciences (audiology interest) to satisfy this requirement.

Clinical Observation

Students have the opportunity and are encouraged to obtain 25 hours of supervised clinical observation, a prerequisite for participation in clinical practicums at the graduate level. This requirement is satisfied by the completion of CSD:4120 Introduction to Clinical Methods and Observation. In some cases, this requirement also can be fulfilled by independent observations.

Honors

Honors in the Major

The departmental honors program provides students the opportunity to conduct research in the field of communication sciences and disorders, gain experience presenting research ideas in public settings, and work closely with a faculty mentor.

In order to be eligible, students must have a cumulative and major grade-point average (GPA) of at least 3.60 at the end of the spring semester of their sophomore year, when top-ranking eligible students will be invited to apply for the program. Interested students should complete and return the application. A limited number of spots are available, based on the availability of mentors. Applications will be reviewed, and a select number of students will be admitted to the program.

After entering the departmental honors program, students enroll in CSD:3097 Honors Seminar in the fall semester of their junior year. The seminar provides an introduction to research philosophies, research design and implementation, and a chance for each student to critically evaluate existing research literature. In addition, the seminar provides an introduction to the department’s research facilities and potential thesis advisors.

By the beginning of the spring semester of their junior year, students will have selected project areas and thesis advisors. During their final three semesters, honors students register for a total of 4 s.h. of CSD:4098 Honors Thesis and work on their projects/theses with their mentors. During the spring semester of their senior year, honors students present their projects at a university-wide forum (such as the UI Spring Undergraduate Research Festival) and a departmental event (such as ProSem). Students must maintain a cumulative and major GPA of at least 3.60 in order to graduate with honors in the major. As a final recognition of the completion of the departmental honors program, honors students' diplomas bear a special notation.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the speech and hearing science major.

Career Advancement

The speech and hearing science program provides excellent preparation for study in an advanced degree program that leads to a career as a speech-language pathologist or audiologist. There continues to be a strong demand for professionals in these fields, and both speech pathology and audiology are consistently ranked highly in “best job” surveys.

Advanced degree holders may work as a professor, clinician, and/or researcher in the field of communication sciences and disorders.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

The major requires specific mathematics and science competencies that may be satisfied with courses approved for the GE CLAS Core.

Before the fifth semester begins: three courses in the major.

Before the seventh semester begins: nine courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: 12 courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Speech and Hearing Science, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
Students who earn a major in speech and hearing science may not earn a minor in communication sciences and disorders.		
	Hours	**0**
First Year		
Fall		
CSD:1015	Introduction to Speech and Hearing Processes and Disorders	2

RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
MATH:1460 or MATH:1440	Calculus for the Biological Sciences [b, c] or Mathematics for the Biological Sciences	4
CSI:1600	Success at Iowa	1
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
	Hours	**14-16**
Spring		
Major: physics or chemistry course [e, f]		3 - 4
Major: statistics course [f]		3
LING:3001	Introduction to Linguistics	3
PSY:1001	Elementary Psychology	3
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
Elective course [g]		1
	Hours	**17-19**
Second Year		
Fall		
BIOL:1141	Human Biology: Health Professions	4
CSD:2110	Phonetics: Theory and Applications [h]	3
CSD:2111	Basic Acoustics for Speech and Hearing [h]	3
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
	Hours	**17-19**
Spring		
CSD:3113	Introduction to Hearing Science [i]	4
CSD:3118	Language Acquisition [i]	3
GE CLAS Core: Understanding Cultural Perspectives [j]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [g]		1
	Hours	**15-16**
Third Year		
Fall		
CSD:3185	Hearing Loss and Audiometry [h]	3
CSD:4140	Manual Communication [h, k]	1
CSD:4145	Developmental Language Disorders [h]	3
Major: group A psychology course [f]		3
GE CLAS Core: Values and Society [j]		3
	Hours	**13**
Spring		
CSD:3112	Anatomy and Physiology of Speech Production [i]	4
CSD:4029	Experiential Learning in Audiology [i, k]	1
CSD:4244	Rehabilitative Audiology [i]	3
Major: group B psychology course [f]		3
GE CLAS Core: Historical Perspectives [j]		3
	Hours	**14**
Fourth Year		
Fall		
CSD:3116	Basic Neuroscience for Speech and Hearing [h]	3
CSD:4030	Experiential Learning: Community Engagement Through Communication and Literacy Programs [k]	2 - 3
GE CLAS Core: International and Global Issues [j]		3
GE CLAS Core: Literary, Visual, and Performing Arts [j]		3
Elective course [g]		3
	Hours	**14-15**
Spring		
CSD:3117	Psychology of Language [i]	3
CSD:4030	Experiential Learning: Community Engagement Through Communication and Literacy Programs [k]	2 - 3
CSD:4120	Introduction to Clinical Methods and Observation [k, l]	3
CSD:4148	Developmental Speech Disorders [i]	3
Elective course [g]		3
Elective course [g]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**17-18**
	Total Hours	**121-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students intending to pursue AuD should consider MATH:1460.

c Enrollment in math courses requires completion of a placement exam.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Students should choose a course that will also fulfill the GE CLAS Core Natural Sciences requirement.

f See General Catalog for list of approved courses.

g Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

h Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

i Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

j GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

k Recommended but not required to complete Speech and Hearing Science BA degree requirements.

l Students have the opportunity and are encouraged to obtain 25 hours of supervised clinical observation, a prerequisite for participation in clinical practicums at the graduate level. This requirement is satisfied by completion of CSD:4120 Introduction to Clinical Methods and Observation. In some cases, this requirement also can be fulfilled by independent observations.

mPlease see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Communication Sciences and Disorders, Minor

Requirements

The undergraduate minor in communication sciences and disorders requires a minimum of 15 s.h., including 12 s.h. in courses taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. Students who earn a major in speech and hearing science may not earn a minor in communication sciences and disorders.

Students must begin the minor with CSD:1015 Introduction to Speech and Hearing Processes and Disorders, which provides a broad overview of all aspects of the normal communication process and of various disorders. Students complete the minor by choosing from the courses listed below, according to their interests.

The minor in communication sciences and disorders requires the following coursework.

Course #	Title	Hours
This course:		
CSD:1015	Introduction to Speech and Hearing Processes and Disorders	2
A minimum of 13 s.h. from these:		
CSD:2110	Phonetics: Theory and Applications	3
CSD:2111	Basic Acoustics for Speech and Hearing	3
CSD:3112	Anatomy and Physiology of Speech Production	4
CSD:3113	Introduction to Hearing Science	4
CSD:3116	Basic Neuroscience for Speech and Hearing	3
CSD:3117	Psychology of Language	3
CSD:3118	Language Acquisition	3
CSD:3185	Hearing Loss and Audiometry	3
CSD:4140	Manual Communication	1
CSD:4145	Developmental Language Disorders	3
CSD:4148	Developmental Speech Disorders	3
CSD:4244	Rehabilitative Audiology	3

Audiology, MS

The MS in audiology is for students currently enrolled in the University of Iowa's AuD Doctor of Audiology program. This degree facilitates the student's ability to apply for temporary audiology licensure if required by the state in which they are completing their 4th year clinical externship. There is no direct admission to the MS in audiology degree program. The doctor of audiology AuD meets all the academic and practicum requirements for clinical certification by the American Speech-Language-Hearing Association (ASHA) and for licensure by the State of Iowa; the MS in audiology does not.

Learning Outcomes

Students will:

- be able to accurately identify hearing and balance disorders affecting both children and adults; and
- understand the importance of patient- and family-centered, evidence-based approaches to identify, treat, and prevent hearing and balance disorders affecting individuals of all ages.

Requirements

The Master of Science in audiology requires 85 s.h. of graduate credit. There is no direct admission to the MS in audiology degree. Rather, it serves as an en passant to the Doctor of Audiology and facilitates the student's ability to apply for temporary audiology licensure if required by the state in which they are completing their fourth-year clinical externship.

In addition to the following coursework, students will only be awarded the MS in audiology if they have successfully secured a fourth-year clinical externship.

Core Courses

The following core courses must be taken on an A–F graded basis.

Course #	Title	Hours
All of these:		
CSD:5203	Counseling in Communication Disorders	1
CSD:5224	System and Signal Theory for Speech and Hearing Science	3
CSD:5240	Hearing Aids	3
CSD:5246	Advanced Audiology	3
CSD:5253	Speech Perception in Listeners With Hearing Loss	2
CSD:5255	Educational Audiology	2
CSD:5256	Anatomy and Physiology of Hearing	3
CSD:5320	Applied Statistics and Principles of Evidence-Based Practice in Audiology	3
CSD:6230	Psychoacoustics	2
CSD:6245	Pediatric Audiology	3
CSD:6247	Medical Audiology	2
CSD:6249	Cochlear Implants	3
CSD:6290	Auditory Evoked Potentials	3
CSD:6291	Vestibular Assessment and Rehabilitation	3
CSD:6292	Advanced Rehabilitative Audiology: Adult	1
CSD:6294	Advanced Rehabilitative Audiology: Pediatric	1
CSD:6318	Occupational Audiology	1

Students must also complete the following core courses.

Course #	Title	Hours
All of these:		
CSD:5311	Advanced Clinical Topics in Audiology (taken twice for 2 s.h. each)	4
CSD:5317	Advanced Clinical Practice in Audiology (taken three times for 1 s.h. each)	3
CSD:6317	Audiology Practice: Business Start-Up	1
CSD:6319	Interprofessional Practice and Community Engagement in Communication Sciences and Disorders	1
CSD:7238	Capstone	1

Additional Courses

Students must enroll in CSD:5315 Clinical Rotations in Audiology during the first eight fall, spring, and summer sessions in which they are enrolled in the AuD program. Students may be permitted to enroll in CSD:5314 Audiology Student Teaching instead if they are completing a rotation in a school.

Students complete a total of at least 36 s.h. in CSD:5315, CSD:5314, and elective courses selected from the following list. They work closely with an advisor to determine which courses they should complete. CSD:7238 Capstone may be taken up to two times as an elective course in addition to the one required enrollment for a total maximum of 3 s.h. toward the degree. Students may count a maximum of 2 s.h. from CSD:3993 Research Practicum toward the degree.

Course #	Title	Hours
CSD:3993	Research Practicum	1-2
CSD:4186	Problems: Speech/Hearing Processes and Disorders	1-2
CSD:6240	Seminar in Audiology	1
CSD:7238	Capstone	1

Speech Language Pathology, MS

The Master of Science program in speech language pathology provides training for individuals who wish to do clinical work in speech language pathology. Graduates of the MS program meet all academic and practicum requirements for clinical certification by the American Speech-Language-Hearing Association (ASHA) and for licensure by the State of Iowa. Students preparing for clinical positions in public schools must meet school licensure or certification requirements of the states in which they plan to work.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Graduating MS students in speech language pathology will:

- demonstrate knowledge and skills specified in the Knowledge and Skills Acquisition (KASA) competencies for speech-language pathology professions;
- use critical thinking skills to apply theory and knowledge to clinical decision making to provide patient-centered care;
- use evidence-based practice and practice-based evidence to make clinical decisions regarding the diagnosis and treatment of persons with communication disorders; and
- adhere to the ASHA Code of Ethics, acting in an ethical and professional manner while providing patient-centered care.

Requirements

The Master of Science in speech language pathology requires a minimum of 53 s.h. of graduate credit, which may include approved graduate transfer credit. Students must maintain a Graduate College program grade-point average of 3.00. The program prepares clinicians to function independently in a variety of clinical settings. The program is designed to ensure that upon graduation, a student will meet the requirements for immediate professional employment. A typical program takes two calendar years to complete.

Candidates for the MS are not required to complete a thesis, although all interested students are encouraged to do so.

The MS in speech language pathology requires the following coursework.

Requirements	Hours
Core Courses	30
Practicum and Outplacement	17
Electives	6

Core Courses

Course #	Title	Hours
All of these (30 s.h.):		
CSD:5104	Language Disorders in School-Aged Children	3
CSD:5114	Introduction to Voice and Resonance Disorders	3
CSD:5135	Foundations of Clinical Practice I	2
CSD:5136	Foundations of Clinical Practice II	1
CSD:5137	Foundations of Clinical Practice III	1
CSD:5183	Introduction to Stuttering	2
CSD:5203	Counseling in Communication Disorders	1
CSD:5233	Aphasia	2
CSD:5234	Acquired Cognitive-Communication Disorders	2
CSD:5236	Neurological and Structural Disorders of Swallowing	3
CSD:5238	Motor Speech Disorders	2
CSD:5258	Multilingualism and Culturally Responsive Practice in Communication Sciences and Disorders	2
CSD:5260	Augmentative and Alternative Communication	2
CSD:5282	Clinical Phonology and Speech Sound Disorders	2
CSD:6519	Evidence-Based Practice	2

Practicum and Outplacement

Students must complete at least 17 s.h. of practicum and outplacement registration sufficient to meet supervised, direct clinical experience requirements for the Certificate of Clinical Competence of the American Speech-Language-Hearing Association and the Iowa license, and to provide broad, supervised practicum experience.

Practicum and outplacement courses may be repeated.

Course #	Title	Hours
12 s.h. from these:		
CSD:5301	Practicum: Speech-Language Pathology	arr.
CSD:5308	Practicum: Speech-Language Pathology Multilingual/Multicultural	arr.
CSD:5309	Practicum: Speech-Language Pathology International	2
5 s.h. from these:		
CSD:5304	Speech Pathology Outplacement: School	0-4
CSD:5305	Speech Pathology Outplacement: Non-School	0-4
CSD:5306	Speech-Language Pathology Multilingual/Multicultural Outplacement: School	arr.
CSD:5307	Speech-Language Pathology Multilingual/Multicultural Outplacement: Non-School	arr.

Electives

All nonthesis students preparing to be speech language pathologists must earn a minimum of 6 s.h. from the following electives. Thesis students earn a minimum of 2 s.h. from the following, plus 4 s.h. in CSD:7590 Research. Students may select courses not listed here with their advisor's permission.

Course #	Title	Hours
CSD:4130	Reducing Disparities and Inequities in Communication Sciences and Disorders	1
CSD:4140	Manual Communication (required for students without an undergraduate equivalent)	1
CSD:5223	Pediatric Feeding and Swallowing Disorders	1
CSD:5237	Cleft Palate and Related Disorders	1-2
CSD:5318	Literacy: Emergent and School Aged	1
CSD:5319	Head and Neck Cancer and Instrumentation	2
CSD:5350	Seminar in Supervision	1
CSD:6294	Advanced Rehabilitative Audiology: Pediatric	1
CSD:6538	Advanced Topics in Speech, Language, and Hearing Research	1
EDTL:4990	Interdisciplinary Issues in Disabilities (for Iowa Leadership Education in Neurodevelopmental and Related Disabilities (ILEND) trainees)	1-3
PSQF:7255	Autism Spectrum Disorders	2

Professional Licensure

State Licensure

A number of states, including Iowa, require a state license in speech language pathology or audiology. Students who meet the requirements listed for the MS in speech language pathology also meet the academic requirements for license in Iowa as well as most other states. For more information, visit Iowa Licensing Requirements for Audiologists and Speech-Language Pathologists on the American Speech-Language-Hearing Association website.

Public School Licensure

Students preparing for clinical positions in public schools typically must meet school licensure or certification requirements of the states in which they plan to work. The following criteria meet the requirements for endorsement as speech language pathologists in Iowa and most other states:

- a master's degree with a professional emphasis in speech language pathology or the equivalent; and
- completion of coursework described in School Speech Language Pathologist Licensure Preparation/Added Endorsement Program K–12 on the College of Education website.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Admission to the program is competitive; applicants' credentials are considered in relation to those of others in the applicant pool and a limited number of individuals are admitted to each program. Applicants whose undergraduate grade-point average is below 3.30 are rarely admitted.

The deadline for application is Jan. 15. All applications to the MS program must be submitted through the Central Application Service for Communication Science and Disorders (CSDCAS) and to the graduate program at the University of Iowa.

For detailed information regarding the evaluation of applicants, application materials and requirements, and other matters, see Graduate Programs on the department's website.

MS students usually have a background of undergraduate courses in speech and hearing science, psychology of language, and human behavior that is equivalent to an undergraduate major in speech and hearing science at the University of Iowa.

Prerequisite Coursework

Before registering for the program, entering MS students receive descriptive materials about basic core science courses considered to be required preparation for the MS and required MS clinical core courses for which the department may accept comparable courses taken at the undergraduate level. Decisions about incorporating background coursework in these areas are made by the faculty advisor in consultation with the student and the instructors of the basic science or clinical core courses. Entering students must have completed the following courses or their equivalents.

Course #	Title	Hours
CSD:2110	Phonetics: Theory and Applications	3
CSD:3112	Anatomy and Physiology of Speech Production	4
CSD:3113	Introduction to Hearing Science	4
CSD:3116	Basic Neuroscience for Speech and Hearing	3
CSD:3118	Language Acquisition	3
CSD:3185	Hearing Loss and Audiometry	3
CSD:4145	Developmental Language Disorders	3
CSD:4148	Developmental Speech Disorders	3
CSD:4244	Rehabilitative Audiology	3
PSQF:1020/ STAT:1020	Elementary Statistics and Inference	3
A biological science course (human or animal biology)		3
A physical science course (physics or chemistry)		3
A social/behavioral science course		3
25 hours of observation documented by a practitioner with ASHA certification		

Career Advancement

The Department of Communication Sciences and Disorders provides excellent preparation for a career as a speech language pathologist or audiologist. There continues to be a strong demand for professionals in these fields, and both speech pathology and audiology rank highly in "best job" surveys.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Speech Language Pathology, MS

Course	Title	Hours
Academic Career		
Any Semester		
53 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
CSD:5104	Language Disorders in School-Aged Children	3
CSD:5135	Foundations of Clinical Practice I	2
CSD:5203	Counseling in Communication Disorders	1
CSD:5233	Aphasia	2
CSD:5258	Multilingualism and Culturally Responsive Practice in Communication Sciences and Disorders	2
CSD:5301 or CSD:5309 or CSD:5308	Practicum: Speech-Language Pathology [c] or Practicum: Speech-Language Pathology International or Practicum: Speech-Language Pathology Multilingual/ Multicultural	2
	Hours	**12**
Spring		
CSD:5114	Introduction to Voice and Resonance Disorders	3
CSD:5136	Foundations of Clinical Practice II	1
CSD:5183	Introduction to Stuttering	2
CSD:5236	Neurological and Structural Disorders of Swallowing	3
CSD:5238	Motor Speech Disorders	2
CSD:5309 or CSD:5301 or CSD:5308	Practicum: Speech-Language Pathology International [c] or Practicum: Speech-Language Pathology or Practicum: Speech-Language Pathology Multilingual/ Multicultural	2 - 4
	Hours	**13-15**
Summer		
CSD:5309 or CSD:5301 or CSD:5308	Practicum: Speech-Language Pathology International [c] or Practicum: Speech-Language Pathology or Practicum: Speech-Language Pathology Multilingual/ Multicultural	2 - 4
	Hours	**2-4**
Second Year		
Fall		
CSD:5137	Foundations of Clinical Practice III	1
CSD:5234	Acquired Cognitive-Communication Disorders	2
CSD:5260	Augmentative and Alternative Communication	2
CSD:5282	Clinical Phonology and Speech Sound Disorders	2
CSD:5309 or CSD:5301 or CSD:5308	Practicum: Speech-Language Pathology International [c] or Practicum: Speech-Language Pathology or Practicum: Speech-Language Pathology Multilingual/ Multicultural	2
CSD:6519	Evidence-Based Practice	2
Outplacement requirement [d]		1
	Hours	**12**
Spring		
Outplacement requirement [d]		4
Elective course [e]		3
Elective course [e]		3
	Hours	**10**
	Total Hours	**49-53**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Complete at least 12 s.h. total of practicum credit.

d Complete a total of at least 5 s.h. from CSD:5304, CSD:5305, CSD:5306, CSD:5307.

e See the General Catalog for list of approved courses.

Doctor of Audiology, AuD

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Graduating AuD students will:

- be able to accurately identify, diagnose, prevent, quantify, and treat hearing and balance disorders affecting both children and adults;
- understand the importance of and be able to implement patient- and family-centered, evidence-based approaches to identify, treat, and prevent hearing and balance disorders affecting individuals of all ages; and
- become leaders—nationally and internationally—driving innovation, shaping the future of the profession, and disseminating information about the consequences of untreated hearing and balance disorders as well as the importance of early intervention and prevention.

Requirements

The Doctor of Audiology (AuD) requires 89 s.h. of graduate credit. Students must earn a minimum UI cumulative grade-point average of 3.00. The AuD is the entry-level degree for individuals who wish to work as audiologists in the United States.

The four-year AuD program is designed for students who have completed an undergraduate degree in speech and hearing science, communication sciences and disorders, or another baccalaureate degree through which they completed the required course prerequisites for the AuD program.

The Doctor of Audiology requires the following coursework.

Requirements	Hours
Core Courses	51
Additional Audiology Courses	38

Core Courses

The following courses must be taken on an A–F graded basis.

Course #	Title	Hours
All of these:		
CSD:5203	Counseling in Communication Disorders	1
CSD:5224	System and Signal Theory for Speech and Hearing Science	3
CSD:5240	Hearing Aids	3
CSD:5246	Advanced Audiology	3
CSD:5253	Speech Perception in Listeners With Hearing Loss	2
CSD:5255	Educational Audiology	2
CSD:5256	Anatomy and Physiology of Hearing	3
CSD:5320	Applied Statistics and Principles of Evidence-Based Practice in Audiology	3
CSD:6230	Psychoacoustics	2
CSD:6245	Pediatric Audiology	3
CSD:6247	Medical Audiology	2
CSD:6249	Cochlear Implants	3
CSD:6290	Auditory Evoked Potentials	3
CSD:6291	Vestibular Assessment and Rehabilitation	3
CSD:6292	Advanced Rehabilitative Audiology: Adult	1
CSD:6294	Advanced Rehabilitative Audiology: Pediatric	1
CSD:6318	Occupational Audiology	1

The following courses may be completed with a grade of S.

Course #	Title	Hours
All of these:		
CSD:5311	Advanced Clinical Topics in Audiology (taken twice for 2 s.h. each)	4
CSD:5317	Advanced Clinical Practice in Audiology (taken three times for 1 s.h. each)	3
CSD:6311	Professional Issues in Audiology	1
CSD:6312	Professional Issues in Audiology II and Capstone	1
CSD:6317	Audiology Practice: Business Start-Up	1
CSD:6319	Interprofessional Practice and Community Engagement in Communication Sciences and Disorders	1
CSD:7238	Capstone	1

Additional Audiology Courses

Students complete a minimum of 38 s.h. in additional audiology courses, including required clinical rotations and elective courses.

Clinical Rotations

Students are required to enroll in CSD:5315 Clinical Rotations in Audiology for the first eight fall, spring, and summer sessions in the AuD program. They may concurrently enroll in CSD:5314 Audiology Student Teaching if completing a rotation in a school.

Students are required to enroll in CSD:6316 Advanced Externship in Audiology during the fall and spring semesters of their fourth year in the AuD program. Students will be awarded the MS in speech language pathology [p. 258] en passant if required for temporary licensure to complete the clinical externship.

Audiology Electives

Students work closely with their advisor to determine which electives they should enroll in. Electives must be numbered 3000 and above. Students commonly choose the following courses as electives.

Course #	Title	Hours
CSD:3993	Research Practicum (maximum 2 s.h.)	arr.
CSD:4186	Problems: Speech/Hearing Processes and Disorders (maximum 2 s.h.)	arr.

CSD:6240	Seminar in Audiology	arr.
CSD:7238	Capstone (including the required 1 s.h. above in Core Courses, students are permitted a maximum total of 3 s.h. of this course)	1

Combined Programs

AuD/PhD in Speech and Hearing Science

For students who are enrolled in the AuD program but interested in research, the Department of Communication Sciences and Disorders offers a combined Doctor of Audiology/Doctor of Philosophy program. This option is appropriate for students who have more applied research interests but would like to work in academics.

The combined program requires 131 s.h. of coursework. Students must satisfy all the clinical practicum experiences required for the AuD as well as all of the milestones required for the traditional PhD. Completion time for the two degrees varies but is typically seven years. Details on applying for the combined program can be found in "Admission" in this section of the catalog. For more information, contact the director of PhD studies.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Admission to the program is competitive and each applicant's credentials are considered in relation to the credentials of others in the applicant pool. Individuals with an undergraduate grade-point average below 3.00 are rarely admitted.

The deadline for application is Jan. 15. All applications to the AuD program must be submitted through the Central Application Service for Communication Science and Disorders (CSDCAS) as well as submit an application to the Graduate Program at the University of Iowa.

Students interested in admission to the combined AuD/PhD program are required to initially apply to the AuD program and be admitted. At the end of their second year in the AuD program, they may formally request permission to change their degree objective. If the faculty approve and a mentor is available, students transition into the AuD/PhD program.

For detailed information regarding the evaluation of applicants, application materials and requirements, and other matters, see Graduate Programs on the department's website.

Career Advancement

The AuD program provides students with excellent preparation for a career as an audiologist. There continues to be a strong demand for audiologists nationwide and it is consistently ranked highly in “best job” surveys. Graduates are often hired as faculty in positions at universities, in industry and clinical positions, and in research settings.

Speech and Hearing Science, PhD

The PhD program in speech and hearing science provides flexible, comprehensive training for scholar-researchers interested in communication processes and disorders, allowing students to develop the knowledge and skills necessary for them to become productive researchers, whether in academia or industry. At the University of Iowa, the program reflects the broadly multidisciplinary interests of its faculty, who have expertise in physiology, bioengineering and physical sciences, neuroscience, psychology, linguistics, and multiculturalism across the domains of speech, language, and hearing. Prospective students are encouraged to identify a mentor whose research area aligns with their own interests. Students with diverse backgrounds in the natural and behavioral sciences are encouraged to apply.

Learning Outcomes

Graduating PhD students in speech pathology and audiology will demonstrate:

- critical thinking through reading, discussing, and writing about relevant scientific literature;
- competence in designing and conducting research, from concept to methodology, and through to data analysis and publication;
- competence in scientific writing;
- competence in developing and delivering oral research presentations; and
- competence in developing and delivering course material to undergraduate and graduate classes.

Requirements

The Doctor of Philosophy program in speech and hearing science requires a minimum of 72 s.h. of graduate credit. Although there is no standard curriculum for the PhD, a program of study is developed by each student in consultation with their mentor and a faculty planning committee.
The course of study typically includes registration in an introductory course in doctoral research that covers broad issues relevant to research approaches and life in academia, as well as one or more courses in statistical or other research methods. In addition, a range of topical seminars and courses are offered by faculty members in the Department of Communication Sciences and Disorders, as well as by faculty in other departments, including linguistics, psychological and brain sciences, otolaryngology—head and neck surgery, statistics and actuarial science, molecular physiology and biophysics, engineering, neuroscience, and computer science. Also important to a student's education is registration in CSD:7590 Research, which covers individual readings and research experiences with their mentor and other faculty members.

The stepping stones of the PhD program include a pre-dissertation project, a comprehensive examination, and the dissertation. The pre-dissertation project is a research project conducted jointly between a student and mentor, under the direction of the mentor. Upon completion, students are expected to present their results at the department's weekly professional seminar series. The comprehensive exam typically involves a written exam consisting of several questions broadly related to a student's interests and goals, followed by an oral defense of the responses. Questions are developed and evaluated by the student's mentor and faculty comprehensive committee. Following successful completion of the comprehensive exam, the student can advance to the candidacy stage. This final step requires each student to successfully conduct, write up, and defend an original research project that meets the college requirements for the dissertation.

Combined Programs

PhD in Speech and Hearing Science/AuD

Students interested in research with an emphasis in audiology or hearing science may be interested in obtaining clinical certification, which requires completing the clinical doctorate (AuD). The Department of Communication Sciences and Disorders offers a combined program that allows students to earn both degrees simultaneously. The Doctor of Philosophy/ Doctor of Audiology program is especially appropriate for students who have more applied research interests but would like to work in academia.

The program requires 131 s.h. of coursework, including all the clinical practicum experiences required for the AuD. Students must also meet all of the milestones required for the traditional PhD. Completion time for the two degrees varies but is typically seven years.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Admission to the PhD program is based on a student's aptitude, as well as their specific area of research interest and the availability of a faculty member to serve as a mentor.

Students interested in admission to the combined PhD/AuD program are required to apply and be admitted to the AuD program initially. At the end of their second year in the AuD program, they may formally request permission to change their degree objective. If the faculty approve and a mentor is available, transition into the AuD/PhD program is approved.

The deadline for application to the PhD program is Jan. 15. Applications must be submitted through Graduate Admissions.

For more information, see Doctor of Philosophy in Speech and Hearing Science on the Department of Communication Sciences and Disorders website or contact the director of graduate studies.

Career Advancement

The PhD program provides excellent preparation for careers in academia, industry, and research. There continues to be a strong demand for graduates with doctoral-level training in speech and hearing sciences. Graduates routinely advance to postdoctoral research positions or are hired as university faculty members, and many graduates have achieved high-level administrative and research positions in the field.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Speech and Hearing Science, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework. More information is included in the General Catalog and on department website. [a, b, c]		
Graduate College program GPA of at least 3.00 is required. [d]		
	Hours	**0**
First Year		
Fall		
CSD:5511	Introduction to Doctoral Research	1
CSD:7590	Research	4
Area of research interest course [e]		3
Principles of scholarly integrity course [f]		1
Statistical or other methods course [e]		3
	Hours	**12**
Spring		
CSD:7590	Research	6
Area of research interest course [e]		3
Area of research interest course [e]		3
Statistical or other methods course [e]		3
	Hours	**15**
Second Year		
Fall		
CSD:7590	Research	6
Area of research interest course [e]		3
Area of research interest course [e]		3
Statistical or other methods course [e]		3
	Hours	**15**
Spring		
CSD:7590	Research	6
Area of research interest course [e]		3
Area of research interest course [e]		3
Statistical or other methods course [e]		3
	Hours	**15**
Third Year		
Fall		
Exam: Doctoral Comprehensive Exam		
Pre-Dissertation Project		
CSD:7590	Research	6
Area of research interest course [e]		3
	Hours	**9**
Spring		
Dissertation Prospectus		
CSD:7590	Research	4
	Hours	**4**
Fourth Year		
Fall		
CSD:7590	Research	1
	Hours	**1**
Spring		
CSD:7590	Research	1
Exam: Doctoral Final Exam [g]		
	Hours	**1**
	Total Hours	**72**

a Up to 33 s.h. of graduate-level transfer credits, taken as part of a graduate program, may be allowed upon approval.

b There is no standard curriculum for the PhD; work with faculty advisor to determine appropriate graduate coursework based on research interests. Coursework should include a range of seminars and courses offered by faculty in CSD or other departments (e.g., psychological and brain sciences, statistics, biology, neuroscience, linguistics).

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

e Work with faculty advisor to determine appropriate coursework and sequence.

f Course number varies depending on which department offers the course; consult with the DGS to select a course that will satisfy this requirement.

g Dissertation defense.

Multilingualism and Culturally Responsive Practice, Graduate Certificate

Requirements

The graduate Certificate in Multilingualism and Culturally Responsive Practice requires a total of 12 s.h. of credit: 9 s.h. of academic coursework and 3 s.h. of supervised clinical practicum. The certificate is open to graduate students currently enrolled and in good standing in the Master of Science in Speech Language Pathology or Doctor of Audiology and is completed concurrently with the coursework for either program. Enrollment in the certificate is subject to the availability of clinical placements. Interested prospective or current students should contact the Department of Communication Sciences and Disorders.

The certificate provides specialized academic and clinical training in culturally responsive speech-language and audiological assessment and treatment practices for bilingual/multilingual and multicultural populations. Bilingualism, multilingualism, or second-language proficiency are not requirements for this certificate.

The graduate Certificate in Multilingualism and Culturally Responsive Practice requires the following coursework.

Required Courses

Course #	Title	Hours
All of these:		
CSD:4130	Reducing Disparities and Inequities in Communication Sciences and Disorders	1
CSD:5104	Language Disorders in School-Aged Children	3
CSD:5258	Multilingualism and Culturally Responsive Practice in Communication Sciences and Disorders	2

Elective Course

Students complete 3 s.h. selected from a list of approved courses. Alternatively, students may complete a course approved by the director of the certificate that covers linguistic aspects of a language other than English; issues related to global engagement; or issues related to cultural, social, or linguistic diversity. Students should discuss their language experience and interest areas with an advisor to identify the most suitable course.

Students who choose to complete a capstone course do so under the advisement of a faculty member in the Department of Communication Sciences and Disorders.

Course #	Title	Hours
One of these:		
CSD:7239	Multilingual/Multicultural Capstone	3
CHIN:3302/ LING:3302	Introduction to Chinese Linguistics	3
EDTL:6483/ ASIA:6483	Multilingual Education and Applied Linguistics	3
EDTL:6484	Bi/Multilingual Literacies	3
FREN:4007	Topics in French Linguistics	3
JPNS:5301	Japanese Linguistics	3
KORE:3100/ LING:3101	Introduction to Korean Linguistics	3
LING:3190/ PSY:3190	Psycholinguistic Aspects of Bilingualism	3
LING:5030	First Language Acquisition	3
LING:6483	Multilingual Education and Applied Linguistics	3
PORT:3105/ LING:3105/ SPAN:3105	Linguistic Aspects of the Lusophone World	3
SPAN:3130	Introduction to Bilingualism	3
SPAN:4100	Introduction to Spanish Phonology	3
SPAN:4150	Introduction to Spanish Syntax	3
SPAN:4205/ GHS:4205	Culture, Language, and Health	3
SPAN:6110	Spanish Phonology	3
SPAN:6120	Spanish Syntax	3
SPAN:6150	Topics in Spanish Language Acquisition	3
Elective approved by certificate director		3

Required Clinical Practicum

Course #	Title	Hours
Any combination of the following classes to total 3 s.h.:		
CSD:5306	Speech-Language Pathology Multilingual/Multicultural Outplacement: School	arr.
CSD:5307	Speech-Language Pathology Multilingual/Multicultural Outplacement: Non-School	arr.
CSD:5308	Practicum: Speech-Language Pathology Multilingual/Multicultural	arr.

Communication Studies

Chair

- Kembrew McLeod

Undergraduate major: communication studies (BA)

Undergraduate minor: communication studies

Graduate degrees: MA in communication studies; PhD in communication studies

Faculty: https://communicationstudies.uiowa.edu/people/faculty

Website: https://communicationstudies.uiowa.edu/

Communication creates meaning and builds worlds. The mission of the Department of Communication Studies is to explore the central role that communication plays in shaping our relationships, institutions, and societies. The department prepares students to serve as innovative scholars, engaged citizens, effective communicators, and visionary leaders in all of the communities they inhabit.

Forensics/Debate

Students in the forensics/debate program have the opportunity to participate in on-campus debates, in developmental programs designed to improve speech activities in the state, and as members of competitive intercollegiate debate teams. Forensics scholarships are available. Students interested in debate should enroll in COMM:2813 Practicum in Debate.

Related Certificates

Certificate in Event Management

The departments of Communication Studies; Health, Sport, and Human Physiology; and Marketing, and the School of Journalism and Mass Communication collaborate to offer the undergraduate Certificate in Event Management. Students who earn the certificate will know and be able to demonstrate the basic principles of organizing a successful event. They will gain a robust understanding of the diverse field of event management and careers in the event management industry. For more information, see the Certificate in Event Management [p. 466] in the catalog.

Certificate in Leadership Studies

The Certificate in Leadership Studies is an interdisciplinary program supported by the Tippie College of Business, the colleges of Education and Liberal Arts and Sciences, and the Center for Student Involvement and Leadership. The certificate provides a structure for involvement and commitment to leadership. It introduces students to leadership concepts and offers them hands-on leadership experiences. The certificate is coordinated by the Pomerantz Career Center and housed in University College. For more information, see the Certificate in Leadership Studies [p. 2201] in the catalog.

Programs

Undergraduate Programs of Study

Major

- Major in Communication Studies (Bachelor of Arts) [p. 276]

Minor

- Minor in Communication Studies [p. 280]

Graduate Programs of Study

- Master of Arts in Communication Studies [p. 281]
- Doctor of Philosophy in Communication Studies [p. 283]

Facilities

The Samuel L. Becker Communication Studies Building is designed to meet the department's research and technological needs.

Courses

Communication Studies Courses

Courses numbered below 5000 are intended primarily for undergraduates; those numbered 5000 and above are for graduate students. Graduate students may take courses numbered 3000–4999 for credit, with their committee's approval.

Not all courses are offered each semester.

Registration in COMM:1000 First-Year Seminar is open to first- and second-semester students regardless of grade-point average.

COMM:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

COMM:1112 Interpersonal Communication **3 s.h.**
Introduction to face-to-face communication in social and personal relationships; maximizing communicative effectiveness in relationships with knowledge about how communication functions; analysis of one's own and others' communication practices and experiences.

COMM:1117 Advocacy and Argument **3 s.h.**
Public arguments as practiced in law, politics, science, and other public arenas; improvement of skills in researching, constructing, organizing, and presenting arguments on disputed subjects; analyzing and refuting arguments of others; developing a better understanding of how scholars apply tools of formal and informal logic in a variety of disciplines to improve quality of academic argument. GE: Quantitative or Formal Reasoning.

COMM:1130 The Art of Persuading Others 3 s.h.
Basic theoretical concepts of effective public communication; employ knowledge of concepts in analyzing texts; definition and influence of rhetorical situation, different elements of persuasion (message logic, appeal to feelings, character of speaker), ability of speakers to invent arguments; issues of judgment, public discourse, identity, and agency.

COMM:1168 Music and Social Change 3 s.h.
What makes popular music important for people; music's power to change culture; production, distribution, reception of popular music in cultural and historical contexts. GE: Understanding Cultural Perspectives.

COMM:1170 Communication Theory in Everyday Life 3 s.h.
General overview of everyday life communication, theories and research techniques used to understand it; sheer depth and complexity of processes in communication that occur in everyday lives and which appear to be trivial; how to observe conversations and identify what is really happening in them; ways in which scholars explain everyday communication and how it works; applications of theoretical thinking to explain processes of everyday communication. GE: Social Sciences.

COMM:1174 Media and Society 3 s.h.
Processes and effects of mass communication; how mass media operate in the United States; how mass communication scholars develop knowledge. GE: Social Sciences; Values and Society.

COMM:1302 Introduction to Civic Bridge-Building: Skills for Effective Dialogue 1 s.h.
Exploration of civic dialogue principles; focus on developing skills for peer-to-peer dialogue; emphasis on self-awareness, active listening, and empathy; application of conflict resolution techniques; reflection on personal growth and the role of dialogue in community-building.

COMM:1305 Understanding Communication Research in Real Life 3 s.h.
Social scientific methods used to generate knowledge about communication processes; basic tools necessary to conduct and evaluate communication research; epistemological perspectives, research procedures, and data analysis; readings and hands-on activities.

COMM:1306 Understanding Communication: Humanistic Approaches 3 s.h.
Humanistic methods and theories used to generate knowledge about communication processes; basic tools necessary to conduct and evaluate communication research in humanities subdisciplines; epistemological perspectives, research procedures, and critical practices; readings and hands-on activities.

COMM:1816 Business and Professional Communication 3 s.h.
Introduction to business and professional communication at individual and corporate levels; individual-level topics cover organizational communication, business vocabulary, speaking and writing, professionalism and interviewing; corporate-level topics focus on marketing, advertising, public relations, corporate communications, crisis communication management, business and communication plans, proposals; guest speakers from for-profit and not-for-profit organizations.

COMM:1818 Communication Skills for Leadership 3 s.h.
Practice and understanding of essential communication skills for leadership; skills-based curriculum promoting application of knowledge; topics include relationship skills, collaboration skills, presentation skills, and writing skills; emphasis on leadership throughout each section of the course.

COMM:1819 Organizational Leadership 3 s.h.
Introduction to nature of leadership, styles of leadership that are most effective, and ways in which obstacles may be overcome in groups or organizations; different approaches to qualities of leadership, role of visions and motivation, interpersonal and decision-making skills, meeting preparation and evaluation, and related communication skills.

COMM:1830 Communication Skills for Community Engagement 3 s.h.
Communication at the heart of public problems and solutions; critical 21st-century skills (writing for a general audience, facilitating dialogue); valuable community service experiences as an introduction to the interdisciplinary field of dialogue and deliberation; focus on a complex local issue, such as affordable housing, flood planning, or excessive drinking; partnering with local organizations to research a local problem, plan community-based solutions, and study the art of facilitating public discussions; topics include issue analysis, deliberative inquiry, convening meetings, and community organizing.

COMM:1840 Introduction to Media Production 3 s.h.
Foundation of electronic media and digital television production skills using industry-quality technology; high-definition camera operation, audio recording and editing, digital switcher operation, nonlinear editing, studio lighting techniques, and more; introduction to questions surrounding the impact of media production on artistic expression, audiences, and society.

COMM:1845 Writing and Producing Commercials 3 s.h.
Basics of writing and producing commercials and other short-form television productions including public service announcements, promotional videos, and more; entire production process from creation to production to post-production; assumes basic knowledge of studio and field production techniques, nonlinear editing. Prerequisites: COMM:1840.

COMM:1898 Introduction to Latina/o/x Communication and Culture 3 s.h.
Introduction to fundamentals of communication by and about Latina/o/x in the U.S.; Latina/o/x as one of the fastest growing demographics; how Latina/o/x history, politics, and culture remain little understood despite a longstanding and growing presence in Iowa and across the nation; historical orientation; Latina/o/x social movement and protest (e.g., Chicana/o/x movements, Young Lords Organization), institutional discourses (e.g., congressional, presidential, legal discourses), and Latina/o/x in popular culture (film, television, music, sports). GE: Understanding Cultural Perspectives. Same as LATS:1898.

COMM:2010 Communication and Organizational Culture 3 s.h.
Introduction to nature, construction, and deconstruction of organizational culture from a communication perspective; examination of different approaches for understanding and analyzing organizational culture, including the lens of symbolic performance, narrative reproduction, textual reproduction, management, power and politics, technology, and globalization; prepares students to be change agents in organizations as they learn how to conduct an organizational cultural audit and how to create and implement successful change.

COMM:2011 Group Communication 3 s.h.
Study of relevant theory, research, and application to increase understanding of communication in small groups; critical thinking and communication skills; individual roles in groups, creativity, leadership, decision-making, problem solving, and conflict resolution.

COMM:2012 African Americans in the Media 3 s.h.
Evolution of the popular image of African Americans as reflected in the visual media of television and film; examination of other media, including print (magazines, newspapers), music, and the Internet; focus on issues of representation (e.g., representations of whom, by whom, for whom) and power dynamics; exploration of the media's impact on African Americans as a cultural minority; emphasis on description, analysis, interpretation, and evaluation of historical and contemporary trends in American media.

COMM:2013 Media, Identity, and Reality TV 3 s.h.
Critical cultural analysis of reality television as a pervasive form of media; exploration of reality TV's role in shaping political, economic, and social meanings; examination of mediated representations and their influence on perceptions of marginalized communities; consideration of how narratives challenge or reinforce cultural beliefs regarding identity, body image, consumerism, and social differences such as race, gender, class, and sexuality.

COMM:2015 Communication and Resilience 3 s.h.
How resilience can be built via communication (conversation, storytelling, art, media, etc.) throughout the life course; considers factors that hinder and facilitate resilience efforts and provides strategies for encouraging resilience personally and professionally; includes practical application, research, and theory.

COMM:2020 Health Communication 3 s.h.
How to better understand the intersections of health and communication; health communication is the study of how health information is generated and disseminated, and how that information affects and is affected by individuals, community groups, institutions, and public policy; people who understand the study of communication are in an important role, and their services are in high demand; health communication specialists work in hospital education departments, public relations, marketing, and human resource departments, in healthcare administration, in media organizations covering health issues, and in organizations that educate and support public policy and research.

COMM:2030 Sexual Communication in Personal Relationships 3 s.h.
Exploration of sexual communication as a foundational activity in the development and maintenance of relationships; examination of intersection of sexual communication and personal, relational, cultural, and institutional norms and values; translation of sexual communication research into practical skills.

COMM:2040 Communication and Conflict 3 s.h.
Conflict and its management as critical issues that pervade people's personal and professional lives; complexities of conflict; forces that make conflict challenging; skills for thinking about and managing conflict more effectively; central features that define conflict; behaviors, attributions, and emotions that are manifest during conflict; formal models of conflict management and their corresponding recommendations for handling conflict.

COMM:2041 Gender, Communication, and Culture 3 s.h.
Social construction of gender and gendered identities across a range of communicative settings in contemporary U.S. society, including relationships, schools, organizations, media, and social movements; how communication creates, reproduces, sustains, and sometimes challenges and changes the meaning of gender and, with that, cultural structures and practices. Same as GWSS:2041.

COMM:2042 Intercultural Communication 3 s.h.
Culture defined as a system of taken-for-granted assumptions about the world that influence how people think and act; cultural differences that produce challenges and opportunities for understanding and communication; those differences from several theoretical perspectives; opportunities to examine culture and cultural differences in practical, experience-driven ways. Same as IS:2042, SSW:2042.

COMM:2044 Political Communication 3 s.h.
Relationship between media, cultural politics, and the American political system; focus on advertising, campaigns, and new media outlets; ways politicians, the press, and intermediaries create and disseminate messages into mainstream culture; how people generate their own discourses of political identity and dissent, creating a robust democratic practice that is both empowering and central to the contemporary political landscape.

COMM:2045 Cultural Politics of the Environment in the US 3 s.h.
Introduction to feminist and queer theories of social space; material and symbolic construction of gender and sexuality; communicating gender and sexuality in different social spaces and scales in historical and contemporary contexts. Same as GWSS:2046.

COMM:2048 Transforming Media: From Telegraph to Internet 3 s.h.
How U.S. electronic media have shaped, and been shaped by, social and cultural transformations since the mid-19th century; examination of public responses to communication revolutions; exploration of questions about media power and influence in specific historical contexts including the emergence and expansion of telegraph, telephone, broadcasting, cable, and internet; readings, discussions, and assignments investigate role of communication media in the rise of the United States as a global power and consumer culture.

COMM:2050 Politics of Popular Culture 3 s.h.
Overview of theories of culture and critical approaches to the study of popular culture; topics include broadcast television, streaming media, advertising, film, news media, video games, popular music, celebrity culture and how they intersect with race, gender, class, sexuality, and other social categories.

COMM:2054 Movements, Protest, Resistance 3 s.h.
Historical and contemporary study of social movements from a symbolic perspective (e.g., speeches, protests, propaganda, media events); social movements as interpersonal and group communication; relationships between media and social change: efficacy of individual and larger-scale forms of resistance.

COMM:2057 Introduction to Computer-Mediated Communication 3 s.h.
Theoretical and practical introduction to concepts and research in computer-mediated communication; emphasis on study of social effects of communication and information technology; factors that distinguish mediated from face-to-face interaction, theories of mediated communication, self-presentation online; internet-based relationships, online supportive communication, online communities; how the internet influences communication and how to use computer-mediated communication for self-presentation.

COMM:2059 Games, Culture, and Society 3 s.h.
Survey of the history and social implications of games, primarily digital, for society. Topics include the historical origins of the game industry; game marketing and gamification; the politics of identity and representation in game design; the advent of online networked gaming, networked toxicity, and community moderation; best practices for conceiving of and pitching prosocial games; and issues of meaning, accessibility, and rhetoric in modern game design.

COMM:2064 Media, Advertising, and Society 3 s.h.
Introduction to the critical study of advertising in the United States; advertising contextualized as an industry and as a key part of media and culture; advertising as an institution and as a series of symbols, ideas, and fantasies; how advertising works, role and function of advertising in culture and society.

COMM:2065 Television Criticism 3 s.h.
Introduction to scholarly study of television as a social institution; nature of television form and content; role of industry in creation, selection, and presentation of television programs; production conventions and textual conventions in defining the medium; application of genre and narrative theory, semiotics, political economy of media industries, and audience reception study.

COMM:2069 Black Television Culture 3 s.h.
Social and political impact of television dramas featuring people of African descent in the West; examination of production, reception, representation, and industry as it relates to the African American images that are granted tenure on television screens. GE: Understanding Cultural Perspectives. Same as AFAM:2070.

COMM:2070 Social Media and Society 3 s.h.
Introduction to theoretical and critical issues raised by social media for communication; particular emphasis on cultural and political phenomena; topics include various understandings of social media, forms of digital communication, individual and collective identity formations via social media, online communities, and global cultural exchange; recent examples of the "viral" phenomenon and internet-born activism.

COMM:2072 African American Popular Culture 3 s.h.
Examination of global popularity and impact of African American popular culture. Same as AFAM:2072.

COMM:2075 Gender, Sexuality, and Media 3 s.h.
Mediated representations of gender and sexuality (television, film, and internet) to understand how these complex and complicated codes influence meaning of sex, sexuality, and gender; contemporary and historical examples used to engage texts that illuminate cultural conceptions of femininity, masculinity, heterosexuality, and homosexuality; cases that confuse and trouble the stability of these categories. Same as GWSS:2075.

COMM:2076 Race, Ethnicity, and Media 3 s.h.
Introduction to debates about media portrayals of race and ethnicity; focus primarily on entertainment media; use of general analytic perspectives (stereotype analysis, aesthetic analysis, history) applied to real-world examples; address one or more racial/ethnic groups in the United States. Same as AFAM:2076.

COMM:2077 Writing and Producing Sitcoms 3 s.h.
Introduction to basics of writing and producing a conventional, three-camera television sitcom; hands-on experience with production equipment and workshopping television scripts; students create one or more episodes of an original television series.

COMM:2079 Digital Media and Religion 3 s.h.
Influences of digital media on religion and spirituality today. GE: Historical Perspectives. Same as RELS:2930.

COMM:2080 Public Life in the U.S.: Religion and Media 3 s.h.
Examination of how the U.S. came into being through specific communication practices, how religion has helped and hindered that process; religious roots of the idea of the U.S., intertwined histories of print media and religion, role of religion and secularism in public discourse; U.S. pride as a nation in which diversity thrives in public discourse; communicative acts that created and sustained this country and also mark sites of discord, conflict, and confusion from the very beginnings of the U.S. to today; how religion has been a source of national identity and national division. Same as RELS:2080.

COMM:2083 Privacy and Anonymity on the Internet 3 s.h.
Exploration of the influence of new communication technologies on privacy and anonymity; engagement with historical and contemporary readings; reaction papers, comprehensive essay, and group project.

COMM:2085 Media Industries and Organizations 3 s.h.
Trends in media industries as reflected in changes of ownership, different work conditions, media convergence, and globalization generally; focus on local, network, and cable television; examination of industry structures, business practices, economic fundamentals, and theoretical explanations of media industries in society.

COMM:2086 Global Media Studies 3 s.h.
Key developments in contemporary international communication; impact of deregulation and privatization on ownership and control of global communication infrastructure; spread of American television abroad in terms of production, texts, and reception; cultural concerns surrounding the phenomenon.

COMM:2088 Media and Democracy 3 s.h.
Exploration of relationship between democracy and mass communication; why controversies regarding mass communication are also controversies about democracy; logical relationship between democracy and mass media; roots and history of ideas of democracy, contemporary obstacles to realization of these ideas, and varied issues of present; latest developments in world of politics and media.

COMM:2089 Nonverbal Communication 3 s.h.
Introduction to theoretical study of nonverbal communication; focus on major principles and research trends; examination of role of nonverbal communication in communication as a whole; perception and interpretation of nonverbal communication (i.e., posture, eye movements, tone of voice); nonverbal behaviors (i.e., facial expression, eye movement) as used to persuade, impress, or deceive someone.

COMM:2090 Topics in Communication Studies 3 s.h.
Topics vary.

COMM:2091 Organizational Communication 3 s.h.
Explores nature and function of communication in organizations; theories of organizational communication and scholarly research related to communicating effectively in organizational settings; course will strengthen critical thinking and research skills, deepen understanding of topics related to organizing, and improve ability to communicate successfully as members and leaders of organizations.

COMM:2248 The Invention of Writing: From Cuneiform to Computers 3 s.h.
Invention of writing as one of the most momentous events in the history of human civilizations; how the use of written sign systems, notations, maps, graphs, encryptions, and most recently, computer programs have consequences that reach deeply into all aspects of people's lives; how writing fascinates and delights, fosters reflexive thinking and facilitates development of complex societies, and gives rise to institutions of social power and control; students explore the invention of writing and its consequences in broad international and interdisciplinary context. Taught in English. Same as ANTH:2248, ASIA:2248, CLSA:2048, GRMN:2248, HIST:2148, IS:2248, LING:2248, TRNS:2248, WLLC:2248.

COMM:2813 Practicum in Debate 1 s.h.
Practice of skills in research, reasoning, argument development, and argumentative performance in debate undertaken by members of the A. Craig Baird Debate Forum in preparation for and participation in intercollegiate debate competition. Requirements: participation in A. Craig Baird Debate Forum.

COMM:2821 Oral Interpretation 3 s.h.
Weekly performances to develop and define communication skills for professional careers in teaching and business; poetry, prose, monologue, storytelling, duo interpretation, reader's theatre, and demonstration speeches. Same as EDTL:2821.

COMM:2828 Experiential Learning in Communication Studies 1-3 s.h.
Structured coursework while student completes a semester-long professional work experience (paid or unpaid, part time or full time, on- or off- campus); professionalization and application of classroom learning to real-world contexts; requires professional supervision and evaluation by a manager in the organization. Requirements: GPA of at least 2.00, communication studies major, and minimum of 12 s.h. of communication studies coursework.

COMM:2829 Leadership for Civic Dialogue 1-3 s.h.
Prepares students to facilitate complex or controversial civic dialogues; contributes to leadership development; covers self-awareness, interpersonal interaction, and communication techniques; emphasizes empathy, active listening, and conflict resolution; explores learning and reasoning through "both/and" thinking, acknowledging complexities, and suspending judgment; fosters intellectual humility and dichotomous thinking; aims at enhancing civic life and collaborative problem-solving skills.

COMM:2897 Independent Study arr.
Creative or research project under faculty supervision.

COMM:2899 Honors Thesis 3 s.h.
Individual research, writing, or creative production under faculty supervision. Requirements: GPA of at least 3.33, honors standing, completion of Foundations of Communication requirement, and 6 s.h. of intermediate-level coursework.

COMM:3070 From Xbox to Instagram: Living and Working in the Platform Society 3 s.h.
Theoretical and practical insights into surviving and thriving in a society dependent on massive digital platforms for every aspect of life. Topics include what digital platforms are and where they came from; predicaments and possibilities of gig labor; how to navigate and brand oneself in the platformized attention economy; the rentier economics of platforms; how to form political stances on different forms of platform governance; and the ambivalent societal effects of virtualizing human socialization in the forms of social media and AI.

COMM:3118 Politics of Reproduction 3 s.h.
Examination of reproductive politics from historical, sociological, anthropological, and communicative perspectives; reproductive justice and bodily autonomy as key sites of feminist struggle in the United States and in global contexts; topical issues include abortion and birth control, assisted reproductive technologies, commercial surrogacy industries, LGBTQ family formation, and systems of reproductive violence. Same as ANTH:3118, GWSS:3118.

COMM:4040 Practical Research Applications: Communication and Community 3 s.h.
Apply research methods, design, and analysis to everyday, real-world problems through serving a community, partnering to determine a problem that will be ameliorated using research skills, including asking and answering questions, collecting and analyzing data, and, ideally, using these results to produce a product. Hone oral and written communication, problem-solving, and critical thinking skills, and build a portfolio that demonstrates practical, real-world experience to potential employers. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899).

COMM:4044 Political Marketing: Media, Campaigns, and Persuasion 3 s.h.
Relationship between media, politics, and professional marketing in American political system; representative topics include U.S. presidential campaigns, communication strategies, social media, issue framing, rhetoric, and campaign narratives; focus on critical marketing and how citizens contest efforts at marketing and generate discourses of political identity. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899).

COMM:4111 360 Radio Experience 3 s.h.
Comprehensive 360-degree survey of radio; history and current cultural and business contexts; hands-on experiential learning at the student-run campus radio station to gain a better understanding of different elements that are part of a radio station (e.g., management, programming, production, music, news, marketing, sports, communications, community engagement) and the ins-and-outs of terrestrial broadcasting, online streaming, and web publishing. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899).

COMM:4131 Globalization and Culture 3 s.h.
How context for everyday experience has increasingly become globally determined (e.g., ever-increasing transnational migration of people, spread of American culture, growth of international corporations and trade, rise of international conflict and transnational activism); range of theoretical and critical readings on globalization; various phenomena and perspectives regarding topic; themes directly relevant to lives of modern youth; how globalization affects opportunities and risks, identities and relationships. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899). Same as IS:4131.

COMM:4140 Communication and Relationships 3 s.h.
Communication process in personal relationships; how communication functions to initiate, sustain, and dissolve a variety of relationships including friendships, romantic couples, marital pairs, and family relationships. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899).

COMM:4147 Family Communication 3 s.h.
Family relationships and various ways they develop and change, how they affect those who participate in them; theory and research on family communication; family conceived as a group of persons who share their lives over an extended period of time bound by ties of marriage, blood, or commitment. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899).

COMM:4148 Advanced Health Communication 3 s.h.
How health information is communicated across a range of levels and relationships, including doctor to patient and through interpersonal relationships, social media, entertainment, and campaigns. Explores both ways to effectively communicate about health and to critically examine health communication. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899).

COMM:4154 Magic Machines: Technology and Social Change 3 s.h.
How media has altered culture, society, and human consciousness throughout history with focus on last two centuries (or modernity); how communication has been shaped by a variety of media (i.e., gesture, language, writing, printing, calendars, clocks, photography, telegraph, telephone, phonograph, film, radio, television, computers); 21st-century questions concerning technology and how few communicate today without aid of some kind of machine or technique. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899). Same as RELS:4154.

COMM:4157 Advanced Topics in Communication Studies 3 s.h.
Issues or problems in particular communication contexts. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899).

COMM:4163 The Dark Side of Interpersonal Communication 3 s.h.
Review of advanced communication theories and research; focus on dark side of interpersonal communication and close relationships; negative or difficult elements of developing and maintaining relationships; expression of difficult emotions; mundane communication that can function in destructive or negative ways. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899).

COMM:4168 Rhetoric of the Body 3 s.h.
Students survey theories of the body as vehicle for communication of social norms; the philosophy, historical, and contemporary practices of productivity culture; discourses of burnout and overwhelm; theories of care from feminist, disability, LGBTQ, and environmental communities. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899).

COMM:4169 Black Feminist Rhetorics 3 s.h.
Exploration of multiple, varied, and complex histories of U.S. Black feminisms from rhetorical perspectives; focus on primary documents, speeches, essays, and manifesto/ as that shaped Black women's feminist organizations and inspire social change from late 19th century to present; social, political, and personal issues that Black feminists sought to address and transform, communicative and rhetorical methods utilized, and implications of these efforts for Black women's lives and broader U.S. American culture. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899). Same as GWSS:4169.

COMM:4171 Community Media 3 s.h.
Theory and history of community media as means of cultural expression, political participation, and social change; focus on case studies from Latin America and other global contexts. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899). Same as LATS:4171.

COMM:4174 Communication, Technology, and National Security 3 s.h.
What is the best way to balance the democratic values of the United States and its national security objectives? To answer this question, students consider discussions in three distinct, but overlapping areas of inquiry: surveillance and privacy, cyber war, and Internet governance. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899).

COMM:4183 Networking America: The Cultural History of Broadcasting 3 s.h.
Exposure to different interpretations of cultural impact and legacy of U.S. broadcasting in 20th century; institutional practices, program genres, and audience formations of 1920s through the 1970s radio and television network eras; how historical contexts shape, and are shaped by, production and reception of broadcasting texts. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899).

COMM:5200 Introduction to Research and Teaching 1-2 s.h.
Introduction to communication studies as a field of scholarship; selection of research problems, major lines of research represented in the department, bibliographical tools for scholarship in the field; issues, practical tasks, and concerns relevant to effective college or university classroom teaching.

COMM:5230 Introduction to Rhetorical Studies 3 s.h.
Introduction to major theories, principles, and practices of rhetorical theory and rhetorical criticism.

COMM:5241 Theories of Mass Communication 3 s.h.
Major concepts, theories, schools of thought in media studies, mass communication.

COMM:5297 MA Research 3 s.h.
Preparation for master's final exam; reading and writing under the supervision of a faculty member.

COMM:5298 MA Thesis 3 s.h.
Research and writing under direction of a faculty member; leads to completion of a master's thesis.

COMM:5299 Graduate Independent Study arr.

COMM:5300 Proseminar: Preparing for the Academic Job Market 1-3 s.h.
Preparation for academic job market; development of a full academic portfolio including cover letter, curriculum vitae, research statement, teaching portfolio, job talk, strong skill set for interviewing, and statement on diversity, equity, and inclusion; includes multiple weeks dedicated to bringing a journal article to publication in an academic outlet; capstone seminar for ABD doctoral students. Requirements: successful completion of comprehensive exams and prospectus, or defense of comprehensive exams completed and prospectus defense scheduled.

COMM:6220 Health Communication Campaigns 3 s.h.
Intervention design and analysis of health campaigns; theory, practice, methods; mass media, community, organization, and interpersonal approaches. Same as CBH:6220.

COMM:6319 Criticism and Public Culture 3 s.h.
Fundamentals of criticism; practice of critical reading to engage various cultural texts (i.e., pop culture, national memorials, social movements, visual rhetoric); contemporary theories/debates that inform the art of critique (i.e., feminist theory, queer theory, critical theory).

COMM:6324 Black Feminist Thought 3 s.h.
Relationships between rhetoric and race/racism; theoretical, critical, and historical perspectives on race/racism with special emphasis on rhetoric and discourse.

COMM:6335 Proseminar: Contemporary Rhetorical Studies 2-4 s.h.
Problems in contemporary rhetorical studies; may include works of Kenneth Burke, Wayne Booth, deconstructionists, feminist theorists and critics, critics of communication technologies.

COMM:6336 Seminar in Rhetorical Theory 1-4 s.h.
Topics in history and development of rhetorical theory; theory construction and application to critical practice.

COMM:6339 Seminar: Rhetoric and Culture 1-4 s.h.
Cultural theories, their utility in accounting for communication practices.

COMM:6342 Critical Television Studies 3 s.h.
Introduction to canonical and contemporary readings in critical television studies; primary questions and theories associated with textual, industrial, ethnographic, and integrated approaches to studying television; how technological, economic, and cultural changes have altered television and how it is studied.

COMM:6343 Feminist Criticism 3 s.h.
Explore the rich terrain of feminist criticism within contemporary rhetorical and cultural studies; survey key interdisciplinary debates within contemporary feminist theory and criticism, trace significant trajectories within the history of feminist criticism, and consider how interdisciplinary feminist perspectives continue to shape humanities scholarship, including in communication studies and religious studies. Provides a strong foundation for exploring how feminism might meaningfully inform the art of academic inquiry and critical practice. Same as GWSS:6343, RELS:6343.

COMM:6345 New Materialisms 3 s.h.
Exploration of new strategies for rupturing persistent dichotomies of subject/object, representation/real, culture/nature, and active humans/passive things offered by theories of the vitality and agency of matter; introduction to origins of and developments in new materialisms; oriented to interdisciplinary inquiry and application to research in the humanities, broadly conceived; particular attention to actor-network theory, feminism, queer theory, infrastructuralism, and materialist theories of media. Same as GWSS:6345, RELS:6345.

COMM:6346 The Public Sphere 3 s.h.
Theories, intellectual history, critics, contemporary issues of the public sphere.

COMM:6350 Seminar: Mass Communication 1-4 s.h.
Topics vary.

COMM:6352 Seminar: Media Theory 3 s.h.
Topics vary.

COMM:6356 Global Media Seminar 3 s.h.
Theories and processes of globalization and cultural implications of media globalization; local responses to globalizing processes with reference to questions of modernity and national/transnational identity.

COMM:6357 Automating Exploitation: Digital Labor in Global Media Industries 3 s.h.
Explore the ways that digital technologies shape and are shaped by labor politics; examine theories of social and technological change from the fields of media studies, sociology, philosophy, and science and technology studies; consider the blurring of work, play, and everyday life through digital surveillance; debate the historical uniqueness of labor dynamics under digital capitalism; project how changing sociotechnical conditions may produce future crises for labor and laborers; and discuss the challenges facing labor organization and political action under digital capitalism.

COMM:6358 Research Design and Data Analysis Using SPSS 3 s.h.
Using concepts, data, and hypotheses to produce research, including psychometrics, using SPSS. Immersive, applied experience in data analysis. Applied methods course emphasizing conceptual and practical understanding of methods and analyses. Focus on decision-making about the relationship among theory, design, measurement and statistics, as well as practical applications of data analysis, and how to plan, submit, and execute research and publication after the point of data collection.

COMM:6365 The Communication of Social Support 3 s.h.
Substantial knowledge base developed by scholars about types, processes, and mechanisms of social support used by humans to comfort one another; in-depth examination of theory and empirical research related to communication of social support; emphasis on types of support, verbal person-centered messages, and various strategies for social support; gender differences and social skills related to comforting; online supportive communication; development of detailed knowledge of this topic, critical assessment of extant research, and synthesis of class readings in written format.

COMM:6371 Communication Theory 3 s.h.
Survey of primary theories of interpersonal, cultural, group, and organizational communication.

COMM:6376 Family Communication 3 s.h.
Theory and research on communication among and between family members (parents, children, marital partners, siblings); quantitative and qualitative research.

COMM:6381 Seminar: Topics in Communication Research 3 s.h.
Topics vary.

COMM:6387 Communication, Cognition, and Emotion 3 s.h.
Theoretical and empirical work that integrates communication, cognition, emotion; role of social cognition in communication, theories of emotion, types of emotional experiences; approaches to understanding emotion from perspectives in psychology, social cognition, communication; emotion-related issues such as influence of gender, effects of mood.

COMM:6399 PhD Dissertation arr.

Communication Studies, BA

Learning Outcomes

Graduating communication studies majors will be able to:

- explain the significance of the communicative process across personal, familial, organizational, civic, and mediated contexts;
- demonstrate effective written, oral, and/or digital communication skills;
- plan, evaluate, and conduct basic communication research using qualitative, quantitative, and critical-cultural methods;
- think critically about the role of communication in the production, maintenance, and transformation of culture;
- apply and reflect upon the skills and theories of communication in communities, professional settings, and a global context; and
- develop the ability to discuss controversial issues of public importance in a way that demonstrates intercultural competence and personal and social responsibility to a dynamic and globalizing world.

Requirements

The Bachelor of Arts with a major in communication studies requires a minimum of 120 s.h., including at least 39 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Students may not use a course to fulfill more than one requirement for the major.

The curriculum is designed to encourage learning that progresses from foundation courses that teach the basics of communication to intermediate and advanced (capstone) courses. Students may choose to build creative combinations of coursework that suit their individual learning and career goals.

Students may count up to 56 s.h. of Department of Communication Studies coursework (prefix COMM) toward credit required for the Bachelor of Arts degree. Transfer courses may be applied toward the requirements of the major, with the department's approval. A maximum of 15 s.h. of transfer credit may be counted toward the major.

Students work with the communication studies academic advisors to develop study plans that meet the requirements of the major. Students may check their progress toward the degree on MyUI.

First-year students interested in completing a major in communication studies are advised at the Academic Advising Center. Students who have earned 30 s.h. or more and have declared the communication studies major are advised in the department by the communication studies academic advisors.

Students are encouraged to discuss their career goals and interests with faculty members.

The BA with a major in communication studies requires the following coursework.

Requirements	Hours
Foundations of Communication Courses	9
Intermediate Courses	15
Capstone Experience Course	3
Major Elective Courses	12

Foundations of Communication

Foundation courses cover introductory concepts in the field of communication. Students must complete three foundation courses (9 s.h.) and should take them early in their studies. The following foundation courses are appropriate for first- or second-year students. They do not require a minimum grade-point average for enrollment and do not have prerequisites. Students complete the three foundation courses as follows.

Course #	Title	Hours
All of these:		
COMM:1112	Interpersonal Communication	3
or COMM:1170	Communication Theory in Everyday Life	
COMM:1117	Advocacy and Argument	3
or COMM:1130	The Art of Persuading Others	
COMM:1168	Music and Social Change	3
or COMM:1174	Media and Society	

Intermediate Courses

Intermediate courses cover detailed aspects of the study of communication. Students usually complete these courses during their third and fourth years of study.

Course #	Title	Hours
At least five of these:		
Communication studies courses (prefix COMM) numbered 1300-2899		15

Capstone Experience

Capstone courses (those numbered 3000–4999) provide a faculty-led experience in which students participate directly in producing knowledge, research, or creative work about communication. The capstone experience gives students a chance to synthesize what they have learned about the study of communication. Students must complete one capstone course (3 s.h.).

In order to enroll in a capstone course, students must have completed at least two of the three foundations of communication courses and at least two intermediate courses.

Course #	Title	Hours
One of these:		
COMM:3118	Politics of Reproduction	3
COMM:4040	Practical Research Applications: Communication and Community	3
COMM:4044	Political Marketing: Media, Campaigns, and Persuasion	3
COMM:4111	360 Radio Experience	3
COMM:4131	Globalization and Culture	3
COMM:4140	Communication and Relationships	3
COMM:4147	Family Communication	3

COMM:4148	Advanced Health Communication	3
COMM:4154	Magic Machines: Technology and Social Change	3
COMM:4157	Advanced Topics in Communication Studies	3
COMM:4163	The Dark Side of Interpersonal Communication	3
COMM:4168	Rhetoric of the Body	3
COMM:4169	Black Feminist Rhetorics	3
COMM:4171	Community Media	3
COMM:4174	Communication, Technology, and National Security	3
COMM:4183	Networking America: The Cultural History of Broadcasting	3

Major Elective Courses

Students must complete 12 s.h. in communication studies courses (prefix COMM) numbered 1100–4999 not already taken for the major.

Internships and Professional Experiences

Internships enable students to supplement their coursework with professional experiences relevant to careers in communication-related fields. The department's internship program is open only to communication studies majors.

To earn academic credit for internships, students must obtain approval for their internship experience and site before they register for COMM:2828. Internship academic credit is awarded for an analytical paper and daily log submitted at the end of the internship and for the number of hours worked. Internships can be completed during fall semester, spring semester, or summer session.

Visit the department's website for information on communication studies internships.

Course #	Title	Hours
COMM:2828	Experiential Learning in Communication Studies	1-3

Honors

Honors in the Major

Students majoring in communication studies have the opportunity to graduate with honors in the major. Students interested in honors in the major should consult the honors advisor as early as possible in their undergraduate career and work with a faculty member to supervise the honors project.

Students earning honors in the major must maintain a minimum cumulative University of Iowa grade-point average (GPA) of at least 3.33, a standard set by the College of Liberal Arts and Sciences, and a minimum cumulative GPA of 3.33 in coursework for the major, a standard set by the Department of Communication Studies. Students may be required to complete COMM:2899 Honors Thesis, depending on their specific project.

Through the Global Engagement, Research, Outreach, and Work Experience (GROW) in communication studies initiative, there are a variety of options for honors in the major. Honors students must complete at least two authorized GROW activities.

Honors students may add an honors designation to a departmental course by completing an agreement with the course instructor.

To learn more about graduating with honors in the major, visit Honors on the department's website.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the University of Iowa Honors Program.

Membership in the UI Honors Program is not required to earn honors in the communication studies major.

Career Advancement

Communication studies graduates have numerous career options. The major provides solid preparation for employment in almost any job that requires effective critical thinking and communication skills. It also prepares students for graduate school by providing a strong theoretical and methodological foundation in communication research. Graduates find work in fields such as the arts, entertainment, and media industries; consulting; sales and marketing; human resources; public advocacy; and higher education.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Students should consult the department for details.

Before the fifth semester begins: at least two courses in the major.

Before the seventh semester begins: at least six courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least eight courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Iowa Degree in Three

University of Iowa majors who are strongly motivated can graduate with a degree in three years under the Iowa Degree in Three. The program is available to students who can complete more semester hours each term than they would on the Four-Year Graduation Plan.

Students sign an agreement during their first semester of enrollment; meet with an advisor at least once a semester to review their plans and progress; take courses during summer

sessions, if necessary; meet specific course checkpoints; and maintain the grade-point average required for the major.

Students are allowed to bring Advanced Placement (AP), College Level Examination Program (CLEP), or transfer credit upon admission to reduce the number of semester hours required for their degree. They should consult their advisor about the program.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Communication Studies, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
COMM:1168 or COMM:1174	Music and Social Change [b, c, d] or Media and Society	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
CSI:1600	Success at Iowa	1
Elective course [f]		3
Elective course [f]		2
	Hours	**15-16**
Spring		
COMM:1170 or COMM:1112	Communication Theory in Everyday Life [b, d] or Interpersonal Communication	3
COMM:1117 or COMM:1130	Advocacy and Argument [b, d, g] or The Art of Persuading Others	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Historical Perspectives [e]		3
Elective course [f]		3
	Hours	**15-16**
Second Year		
Fall		
Major: intermediate communication studies course (prefix COMM numbered 1300-2899)		3
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: Quantitative or Formal Reasoning [e, h]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [i]		4 - 5
	Hours	**14-15**
Spring		
Major: intermediate communication studies course (prefix COMM numbered 1300-2899)		3
Major: intermediate communication studies course (prefix COMM numbered 1300-2899)		3
GE CLAS Core: Natural Sciences without Lab [e]		3
GE CLAS Core: Understanding Cultural Perspectives [e, j]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [i]		4 - 5
	Hours	**16-17**
Third Year		
Fall		
Major: intermediate communication studies course (prefix COMM numbered 1300-2899)		3
Major: intermediate communication studies course (prefix COMM numbered 1300-2899)		3
GE CLAS Core: International and Global Issues [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [i]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Spring		
Major: communication studies elective course (prefix COMM numbered 1100-4999)		3
GE CLAS Core: Values and Society [e, k]		3
GE CLAS Core: Social Sciences [e, l]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [i]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Fourth Year		
Fall		
Major: communication studies elective course (prefix COMM numbered 1100-4999)		3
Major: communication studies capstone course (prefix COMM numbered 3000-4999)		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Spring		
Major: communication studies elective course (prefix COMM numbered 1100-4999)		3
Major: communication studies elective course (prefix COMM numbered 1100-4999)		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**15**
	Total Hours	**122-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives;

International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students should take foundations of communication courses early in their studies.

c COMM:1168 is typically offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

d Fulfills a major requirement and may fulfill a GE requirement.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g COMM:1117 is typically offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

h Students who have previously completed COMM:1117 have already satisfied the GE CLAS Core Quantitative or Formal Reasoning requirement.

i Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

j Students who have previously completed COMM:1168 have already satisfied the GE CLAS Core Understanding Cultural Perspectives requirement.

k Students who have previously completed COMM:1174 have already satisfied the GE CLAS Core Values and Society requirement.

l Students who have previously completed COMM:1170 or COMM:1174 have already satisfied the GE CLAS Core Social Sciences requirement.

mPlease see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Communication Studies, Minor

Requirements

The undergraduate minor in communication studies requires a minimum of 15 s.h. in communication studies courses, including 12 s.h. in courses taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. Students may not use a course to fulfill more than one requirement for the minor.

The undergraduate minor in communication studies requires the following coursework.

Foundations of Communication

Foundation courses cover introductory concepts in the field of communication. Students must complete two foundation courses (6 s.h.) and should take them early in their studies. The following foundation courses do not require a minimum grade-point average for enrollment and do not have prerequisites. Students complete two of the three foundation courses as follows.

Course #	Title	Hours
Two of these:		
COMM:1112	Interpersonal Communication	3
or COMM:1170	Communication Theory in Everyday Life	
COMM:1117	Advocacy and Argument	3
or COMM:1130	The Art of Persuading Others	
COMM:1168	Music and Social Change	3
or COMM:1174	Media and Society	

Intermediate Courses

Intermediate courses cover detailed aspects of the study of communication. Students complete two communication studies courses (prefix COMM) numbered 1300–2899 for 6 s.h.

Elective Course

Students complete 3 s.h. in communication studies courses (prefix COMM) numbered 1100–4999 not already taken for the minor.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Communication Studies, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in communication studies requires a minimum of 15 s.h. in communication studies courses, including 12 s.h. in courses taken at the University of Iowa.		
Students must maintain a GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework in the minor may not be taken pass/nonpass.		
Students may not use a course to fulfill more than one requirement for the minor.		
	Hours	**0**
First Year		
Any Semester		
Minor: foundations of communication course [a]		3
Minor: foundations of communication course [a]		3
	Hours	**6**
Second Year		
Any Semester		
Minor: intermediate course [b]		3
	Hours	**3**
Third Year		
Any Semester		
Minor: intermediate course [b]		3
	Hours	**3**
Fourth Year		
Any Semester		
Minor: elective course [c]		3
	Hours	**3**
	Total Hours	**15**

a Students choose two courses from COMM:1112 or COMM:1170, COMM:1117 or COMM:1130, COMM:1168 or COMM:1174.

b Intermediate courses cover detailed aspects of the study of communication. Students complete two communication studies courses (prefix COMM) numbered 1300-2899 for 6 s.h.

c Students complete 3 s.h. in communication studies courses (prefix COMM) numbered 1100-4999 not already taken for the minor.

Communication Studies, MA

Specialization Areas

The following are specialization areas available for the MA program in communication studies.

Interpersonal Communication and Relationships

This area of specialization is centered on theory complemented by strength in quantitative and qualitative research methods. It focuses on scholarly issues that arise from face-to-face, everyday communication practices. It emphasizes personal relationships and family processes, identity construction, persuasion, and culture.

The goal of the program is to produce scholars who possess sophisticated knowledge of theory and methodology, who are careful consumers of theories and methods, and who can develop their own approaches to communication phenomena. The program emphasizes systematic analysis of the forms, functions, and meanings of messages within various contexts. Its broad social-scientific orientation springs from the belief that many methodological approaches are appropriate for studying and building theoretical explanations of communication.

Advisors and committee members work closely with individual students to select courses from the Department of Communication Studies and other university departments, and to plan teaching and research experiences that prepare students for the employment they seek after graduation.

Media History and Culture

This area of specialization focuses on the interplay of institutions, texts, and audiences in mediated communication systems. Its central aim is to examine modern media—radio, TV, advertising, music, new media, and a wide range of other popular cultural expressions—within their historical, social, political, economic, and cultural contexts. It also uses the mass media as a site for asking basic questions about culture, society, politics, and modernity.

Like the department's other graduate programs, media studies has a strong interdisciplinary flavor. Students draw not only on allied areas in the Department of Communication Studies but on fields across the university.

Learning Outcomes

Research

Learn to interpret and contribute to communication research using qualitative, quantitative, and critical-cultural methods.

Theory

Evaluate and apply communication theories broadly conceived to a range of social, cultural, interpersonal, and other contextual and communicative settings.

Scholarship

Demonstrate familiarity with relevant subfields of scholarship in communication studies and related disciplines.

Teaching and Professional Development

Begin relevant professional training (such as teaching technologies; pedagogy; grant writing; diversity, equity, and inclusion; digital scholarship; media production; or community engagement) to contribute to better and more equitable educational and social outcomes, and to develop transferable skills for employment both inside and outside of academic settings.

Communication Skills

Cultivate the skills to communicate in writing and orally to both professional and popular audiences in ways that demonstrate intercultural competence and personal and social responsibility.

Requirements

The Master of Arts program in communication studies requires a minimum of 36 s.h. of graduate credit, including at least 30 s.h. earned at the University of Iowa and in courses numbered above 4999. No more than 6 s.h. of courses numbered 3000–4999 may be counted toward the major. Students must earn a program grade-point average of at least 3.00 in major coursework. The degree program includes specializations in interpersonal communication and relationships and in media history and culture.

The MA in communication studies requires the following coursework.

Course #	Title	Hours
All of these:		
COMM:5200	Introduction to Research and Teaching (taken the first semester)	2
COMM:5230	Introduction to Rhetorical Studies	3
COMM:5241	Theories of Mass Communication	3
COMM:6371	Communication Theory	3
One of these:		
COMM:5297	MA Research	3
COMM:5298	MA Thesis (taken twice for 3 s.h. each)	6

In exceptional circumstances, replacement courses may be approved by the student's advisor and the Graduate Affairs Committee.

Up to 9 s.h. in coursework may be earned in credit outside the department. Students take courses in specific topical areas as determined in their plan of study meeting.

Thesis or Comprehensive Exam

Students, with the approval of their advisor and the Graduate Affairs Committee, can elect to write a thesis or complete a week-long, seven-day take-home written exam which may be completed more quickly if desired, or take a four-hour written master's comprehensive exam near the completion of the required coursework for the master's degree. The master's comprehensive exam is not a duplicate of previous course examinations but seeks to examine students on their ability to synthesize, integrate, and apply research and theory.

The master's comprehensive exam committee and the thesis committee are three-person faculty committees selected to reflect the pattern of coursework counted toward the master's degree. One of the three members of the committee must be the student's advisor. The examination or thesis is judged satisfactory or unsatisfactory, with two unsatisfactory votes necessary for a committee judgment of unsatisfactory. The thesis committee conducts an oral defense of the thesis.

The report of the master's comprehensive examination or thesis defense is due to the Graduate College no later than two weeks after the examination and by the deadline established by the Graduate College. If the department so recommends, students who fail the examination or thesis defense may be eligible for a reexamination. The examination or thesis defense may be repeated only once.

Admission

Applicants to graduate programs in communication studies must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. For information about applying to the Master of Arts program in communication studies, visit Prospective Graduate Students on the Department of Communication Studies website.

Admission is for fall semester entry. Materials received from applicants by the application deadline of Jan. 1 are considered for admission and financial support.

Career Advancement

MA communication studies graduates pursue PhD academic work and alternate academic careers. Some pursue careers in the private sector, at nonprofit organizations, and as instructional faculty at postsecondary institutions.

The department is deeply engaged in university- and discipline-wide efforts to train students in both traditional and nontraditional career paths.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Communication Studies, MA

Course	Title	Hours
Academic Career		
Any Semester		
36 s.h. must be graduate level coursework; maximum of 6 s.h. graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Students must maintain a Graduate College program GPA of 3.00 or higher. [c]		
	Hours	**0**
First Year		
Fall		
COMM:5200	Introduction to Research and Teaching	2
COMM:5230	Introduction to Rhetorical Studies	3
Elective course [d]		4
	Hours	**9**
Spring		
MA Audit [e]		
COMM:5241	Theories of Mass Communication	3
COMM:6371	Communication Theory	3
Elective course [d]		3
	Hours	**9**
Second Year		
Fall		
COMM:5297	MA Research	3
Elective course [d]		3
Elective course [d]		3
	Hours	**9**
Spring		
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Final Exam [f]		
	Hours	**9**
	Total Hours	**36**

a Maximum of 6 s.h. from coursework numbered between 3000 and 4999 may be counted towards the degree.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Up to 9 s.h. in coursework may be earned in credit outside the department. Work with faculty advisor to determine appropriate coursework and sequence.

e Must be completed by the end of first year spring semester.

f Students, with the approval of their advisor and the Graduate Affairs Committee, can elect to write a thesis or complete a week-long, seven day take-home written exam which may be completed more quickly if desired or take a four-hour, written master's comprehensive exam near the completion of the required coursework.

Communication Studies, PhD

Specialization Areas

The following are specialization areas available for the PhD program in communication studies.

Interpersonal Communication and Relationships

This area of specialization is centered on theory complemented by strength in quantitative and qualitative research methods. It focuses on scholarly issues that arise from face-to-face, everyday communication practices. It emphasizes personal relationships and family processes, identity construction, persuasion, and culture.

The goal of the program is to produce scholars who possess sophisticated knowledge of theory and methodology, who are careful consumers of theories and methods, and who can develop their own approaches to communication phenomena. The program emphasizes systematic analysis of the forms, functions, and meanings of messages within various contexts. Its broad social-scientific orientation springs from the belief that many methodological approaches are appropriate for studying and building theoretical explanations of communication.

Advisors and committee members work closely with individual students to select courses from the Department of Communication Studies and other university departments, and to plan teaching and research experiences that prepare students for the employment they seek after graduation.

Media History and Culture

This area of specialization focuses on the interplay of institutions, texts, and audiences in mediated communication systems. Its central aim is to examine modern media—radio, TV, advertising, music, new media, and a wide range of other popular cultural expressions—within their historical, social, political, economic, and cultural contexts. It also uses the mass media as a site for asking basic questions about culture, society, politics, and modernity.

Like the department's other graduate programs, media studies has a strong interdisciplinary flavor. Students draw not only on allied areas in the Department of Communication Studies but on fields across the university.

Rhetoric, Culture, Engagement

This area of specialization is built on foundation courses in classical and 20th-century rhetorical theory and in an overview of 20th-century rhetorical criticism. Courses from a rhetorical perspective include rhetorical theory, rhetorical criticism, visual rhetoric and politics, public address and public culture, studies in argumentation and freedom of speech, work in science and technology as well as academic inquiry, and historical methods. Cognate work of interest to rhetoricians can also be found in interpersonal communication and relationship studies as well as media studies.

The PhD in rhetoric and public advocacy is designed to give students a mature grasp of the specialties and perspectives embraced by the field and to develop research competence essential to a life of productive scholarship.

Work in related disciplines—political science, history, sociology, English, cinematic arts, anthropology, American studies, rhetoric, and journalism—complements rhetorical studies course offerings.

More information is available on the Department of Communication Studies website.

Learning Outcomes

Research

Plan, organize, and conduct innovative, ethical, and significant communication research using qualitative, quantitative, and critical-cultural methods.

Theory

Evaluate and apply communication theories broadly conceived to a range of social, cultural, interpersonal, and other contextual and communicative settings.

Scholarship

Demonstrate broad-based knowledge of relevant subfields of scholarship in communication studies and related disciplines.

Teaching and Professional Development

Develop relevant teaching and professional training (such as teaching technologies; pedagogy; grant writing; diversity, equity, and inclusion; digital scholarship; media production; or community engagement) to contribute to better and more equitable educational and social outcomes, and to develop transferable skills for employment both inside and outside of academic settings.

Communication Skills

Cultivate the skills necessary to publish peer-reviewed articles and communicate in writing and orally to both professional and popular audiences in ways that demonstrate intercultural competence and personal and social responsibility.

Requirements

The Doctor of Philosophy program in communication studies requires a minimum of 72 s.h. of graduate credit, including at least 39 s.h. earned at the University of Iowa and in courses numbered above 3000. Students must maintain a cumulative grade-point average of at least 3.00. The degree program includes specializations in interpersonal communication and relationships; media history and culture; and rhetoric, culture, and engagement.

Graduate education in communication studies focuses on the PhD, but doctoral students may choose to earn a Master of Arts on their way toward the Doctor of Philosophy degree. A terminal master's degree may be an option for some students already admitted to the doctoral program.

The PhD in communication studies requires the following coursework.

Course #	Title	Hours
These two courses:		
CLAS:5100	Practicum: College Teaching and Professional Development for Teaching Assistants (taken the first semester)	1

COMM:5200	Introduction to Research and Teaching (taken the first semester)	2
One of these in student's primary area of interest:		
COMM:5230	Introduction to Rhetorical Studies	3
COMM:5241	Theories of Mass Communication	3
COMM:6371	Communication Theory	3
All of these:		
Communication Studies courses (prefix COMM) numbered 5000-7000		15
COMM:6399	PhD Dissertation	4

Students must also complete their plan of study, the PhD comprehensive examination, the dissertation prospectus, and successfully defend their dissertation.

More information is available on the Department of Communication Studies website.

Admission

Admission decisions are based on undergraduate achievement for a BA applicant and graduate achievement for an MA applicant, letters of reference, the statement of purpose, and samples of scholarly work.

Applicants to graduate programs in communication studies must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. For information about applying to the doctoral program in communication studies, visit Prospective Graduate Students on the Department of Communication Studies website.

Admission is for fall semester entry. Applicants whose materials are received by the application deadline of Jan. 1 will be considered for admission and financial support.

Career Advancement

Communication studies PhD graduates pursue academic and alternate academic careers. Nearly three-fourths of recent graduates teach in full-time academic positions. Others pursue careers in the private sector, at nonprofit organizations, and as instructional faculty at postsecondary institutions.

The department is deeply engaged in university- and discipline-wide efforts to train students in both traditional and nontraditional career paths.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Communication Studies, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be approved coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
	Hours	**0**
First Year		
Fall		
CLAS:5100	Practicum: College Teaching and Professional Development for Teaching Assistants [d]	1
COMM:5200	Introduction to Research and Teaching [d]	2
COMM:6371 or COMM:5230 or COMM:5241	Communication Theory or Introduction to Rhetorical Studies or Theories of Mass Communication	3
Department course (COMM prefix, numbered 5000-7000)		3
	Hours	**9**
Spring		
Plan of Study Defense [e]		
Department course (COMM prefix, numbered 5000-7000)		3
Department course (COMM prefix, numbered 5000-7000)		3
Elective course [f]		3
	Hours	**9**
Second Year		
Fall		
Department course (COMM prefix, numbered 5000-7000)		3
Elective course [f]		3
Elective course [f]		3
	Hours	**9**
Spring		
Department course (COMM prefix, numbered 5000-7000)		3
Elective course [f]		3
Elective course [f]		3
	Hours	**9**
Third Year		
Fall		
Exam: Doctoral Comprehensive Exam [g]		
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**9**
Spring		
Dissertation Prospectus		
Elective course [f]		3
Elective course [f]		3

Elective course [f]		3
	Hours	**9**
Fourth Year		
Fall		
COMM:6399	PhD Dissertation	2
Elective course [f]		3
Elective course [f]		4
	Hours	**9**
Spring		
COMM:6399	PhD Dissertation	2
Elective course [f]		3
Elective course [f]		4
Exam: Doctoral Final Exam [h]		
	Hours	**9**
	Total Hours	**72**

a At least 39 s.h. must be earned at the University of Iowa, including 4 s.h. of dissertation credit (COMM:6399). A maximum of 6 s.h. from University of Iowa courses numbered between 3000 and 4999 may be counted towards the degree.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Taken during the first semester in the program.

e Must be completed by the end of the second semester but no later than the fifth week of the third semester; students entering with a BA must complete by the end of the first semester of second year.

f Work with faculty advisor to determine appropriate coursework and sequence.

g Consists of a written exam, scholarly paper, and oral defense.

h Dissertation defense.

Computer Science

Chair

- Alberto M. Segre

Director of Graduate Studies

- Stephen M. Goddard

Director of Undergraduate Studies

- Elizabeth Kleiman

Director of Graduate Studies, Informatics

- Juan Pablo Hourcade

Director of Honors

- Rahul Singh

Undergraduate majors: computer science (BA, BS); informatics (BA, BS)

Undergraduate minors: computer science; informatics

Graduate degrees: MCS; MS in computer science; PhD in computer science

Faculty: https://cs.uiowa.edu/people

Website: https://cs.uiowa.edu/

The Department of Computer Science offers undergraduate programs in computer science and in informatics as well as graduate degree programs in computer science. It offers courses that students in all majors may use to satisfy the GE CLAS Core [p. 22] Quantitative or Formal Reasoning requirement and a First-Year Seminar designed for entering undergraduate students. For general information about the department, faculty, and research activities, visit the Department of Computer Science website or the department's office.

Related Majors

Computer Science and Engineering

The Computer Science and Engineering major combines the technical content of a computer science degree and a computer engineering degree into a single program that leads to the Bachelor of Science in Engineering (BSE) degree. The curriculum is jointly offered by the Department of Computer Science and the Department of Electrical and Computer Engineering (College of Engineering). The program provides students with a strong theoretical and conceptual understanding of the principles underlying computer software and hardware along with the engineering analysis, design, and multidisciplinary teamwork skills needed to develop large and complex systems containing both software and hardware components.

Computer science majors may not earn a second major in computer science and engineering. See the BSE in computer science and engineering [p. 1620] in the catalog.

Data Science

The BS in data science produces graduates with the sophisticated analytical and computational skills required to thrive in a quantitative world where new problems are encountered at an ever-increasing rate. The major emphasizes the statistical/probabilistic and algorithmic methods that underlie the preparation, analysis, and communication of complex data. With a focus on technical foundations, the data science program promotes skills useful for creating and implementing new or special-purpose analysis and visualization tools. It also promotes a fundamental understanding of how to best handle uncertainty when making data-driven decisions.

Computer science majors may not earn a second major in data science. The Department of Statistics and Actuarial Science [p. 1075] and the Department of Computer Science collaborate to offer the major in data science. The BS in data science is administered by the Department of Statistics and Actuarial Science; see the BS in data science [p. 350] in the catalog.

Programs

Undergraduate Programs of Study

Majors

- Major in Computer Science (Bachelor of Arts) [p. 292]
- Major in Informatics (Bachelor of Arts) [p. 296]
- Major in Computer Science (Bachelor of Science) [p. 303]
- Major in Informatics (Bachelor of Science) [p. 309]

Minors

- Minor in Computer Science [p. 314]
- Minor in Informatics [p. 315]

Graduate Programs of Study

- Master of Computer Science [p. 316]
- Master of Science in Computer Science [p. 318]
- Doctor of Philosophy in Computer Science [p. 319]

Courses

Computer Science Courses

Competence in and exposure to computer science are not only useful, they often are prerequisites to advanced study and research in many disciplines. For most graduate students from other disciplines, an appropriate first course is CS:5110 Introduction to Informatics.

CS:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

CS:1020 Principles of Computing **3 s.h.**
Introduction to computing; broad overview of discipline; necessary skills and concepts for effective application of computing resources in student's profession. GE: Quantitative or Formal Reasoning.

CS:1110 Introduction to Computer Science **3 s.h.**
Introduction to study of algorithms; how computers work, simple algorithms and their efficiency, networking, databases, artificial intelligence, graphics, simulation, modeling, security, and social impact of computing; hands-on introduction to programming concepts with Python; for students in data-intensive disciplines. GE: Quantitative or Formal Reasoning.

CS:1210 Computer Science I: Fundamentals 4 s.h.
Introduction to programming using Python; programming constructs, data types, problem-solving strategies, data structures, object-oriented programming. Prerequisites: (MATH:1010 with a minimum grade of C- and MATH:1340 with a minimum grade of C-) or (ALEKS score of 45 or higher and MATH:1010 with a minimum grade of C-) or ALEKS score of 75 or higher or MATH:1020 with a minimum grade of C- or (MATH:1005 with a minimum grade of C- and MATH:1010 with a minimum grade of C-) or MPT Level 3 score of 9 or higher or MATH:1460 with a minimum grade of C- or MATH:1350 with a minimum grade of C- or MATH:1850 with a minimum grade of C-. GE: Quantitative or Formal Reasoning.

CS:2110 Programming for Informatics 4 s.h.
Introduction to programming, computing principles, and fundamental aspects of computer science; use of Python programming language for topics including expressions, operators, variables, control structures, basic data structures, functions, data modeling, basic data analysis, object-oriented concepts, and proper documentation. Prerequisites: CS:1110 with a minimum grade of C-.

CS:2210 Discrete Structures 3 s.h.
Mathematical methods used in computer science, including logic, proof techniques (with induction), functions, relations, algorithm analysis, recurrence relations, counting methods, combinatorics, graphs, trees. Prerequisites: (MATH:1010 with a minimum grade of C- and MATH:1340 with a minimum grade of C-) or (ALEKS score of 45 or higher and MATH:1010 with a minimum grade of C-) or ALEKS score of 75 or higher or MATH:1020 with a minimum grade of C- or (MATH:1005 with a minimum grade of C- and MATH:1010 with a minimum grade of C-) or MPT Level 3 score of 9 or higher or MATH:1460 with a minimum grade of C- or MATH:1350 with a minimum grade of C- or MATH:1850 with a minimum grade of C-.

CS:2230 Computer Science II: Data Structures 4 s.h.
Design, implementation, and application of data structures (e.g., linked lists, stacks, queues, hash tables, trees); complexity analysis; recursion; introduction to object-oriented programming concepts; abstract data types and their realization using generic interfaces and classes; software design patterns (e.g., iterators, comparators). Prerequisites: CS:1210 with a minimum grade of C- or ENGR:2730 with a minimum grade of C-. Recommendations: previous or concurrent enrollment in CS:2210.

CS:2420 Analyzing Data for Informatics 3 s.h.
Introduction to data analytics through an understanding of data analysis pipelines including data extraction and collection, data modeling and organization, and use of tools for data analysis; topics include collection of data from a variety of sources, mapping data to appropriate data structures, basic relational database concepts and use, analysis through probability and statistics, use of basic data mining and machine learning tools, and an understanding of privacy issues. Prerequisites: CS:2110 with a minimum grade of C- and (PSY:2811 with a minimum grade of C- or SOC:2160 with a minimum grade of C- or STAT:1020 with a minimum grade of C- or STAT:1030 with a minimum grade of C- or STAT:2010 with a minimum grade of C- or STAT:2020 with a minimum grade of C- or STAT:3120 with a minimum grade of C- or STAT:3510 with a minimum grade of C- or PSQF:4143 with a minimum grade of C-).

CS:2520 Human-Computer Interaction for Informatics 3 s.h.
Basic theories, principles, and guidelines for design and evaluation of human-computer interactions; topics include usability and user experience, user-centered design, quantitative and qualitative evaluation of user interfaces (e.g., expert reviews, usability testing), societal and ethical issues, and front-end development in HTML and JavaScript. Prerequisites: CS:2110 with a minimum grade of C-.

CS:2620 Server-Side Development for Informatics 3 s.h.
Introduction to design, development, testing, and production deployment of data-driven web applications that use cloud/web services; introduction to server-side frameworks, software engineering tools, integration processes, and security mechanisms; topics include representational state transfer (REST) architectural style, key protocols and standards (e.g., HTTP, JSON), use of cloud/web services, data-binding strategies and databases. Prerequisites: CS:2420 with a minimum grade of C- and CS:2520 with a minimum grade of C-.

CS:2630 Computer Organization 4 s.h.
Computing machinery at various levels of abstraction including digital logic, control units and data paths, the representation of data, computer arithmetic, register operations, memory organization, instruction sets, I/O, and assembly language; how these relate to execution of programs written in a systems-level programming language such as C. Prerequisites: CS:2230 with a minimum grade of C- and CS:2210 with a minimum grade of C-.

CS:2800 Digital Arts: An Introduction 3 s.h.
Introduction to potential of integrating art with technology to provide a foundation of skills and concepts through hands-on experimentation; lectures and demonstrations introduce key concepts and ideas as well as the history of digital arts; students develop skills that form a foundation for future investigation through labs; work may include using an Arduino, programming, and developing an interface to control a software project; final project is shared with the public in some way; critical discourse in the form of writing assignments allows for reflection and evaluation. GE: Engineering Be Creative. Same as ARTS:2800, CINE:2800, DANC:2800, DIGA:2800, MUS:2800, THTR:2800.

CS:2820 Introduction to Software Development 4 s.h.
Software design and analysis at component and interface levels; implementation of interfaces; refactoring; abstract data types, delegation, polymorphism, and extension; automation and testing; event handling; significant software project that includes reading code written by others. Prerequisites: CS:2210 with a minimum grade of C- and CS:2230 with a minimum grade of C-.

CS:3010 Software Engineering Fundamentals in Java 3 s.h.
Basic features of Java programming language; designed for students who know how to program in a language other than Java; exposes students to the latest technology and allows students to learn a new programming language once they understand the fundamentals of programming; topics include the philosophy of Java, concepts of OOP (Object Oriented Programming) as applied in Java, programming basics, inheritance, packages, interfaces, exceptions, threads, streams, generics, event-driven graphical user interfaces, database programming, etc. Prerequisites: CS:1210 with a minimum grade of C- or CS:2110 with a minimum grade of C-.

CS:3210 Programming Languages and Tools arr.
Varied programming languages and tools. Prerequisites: CS:1210 with a minimum grade of C- or CS:2110 with a minimum grade of C- or ENGR:2730 with a minimum grade of C-. Requirements: no prior enrollment in CS:3210 with the same subtitle.

CS:3330 Algorithms 3 s.h.
Algorithm design techniques (e.g., greedy algorithms, divide-and-conquer, dynamic programming, randomization); fundamental algorithms (e.g., basic graph algorithms); techniques for efficiency analysis; computational intractability and NP-completeness. Prerequisites: CS:2210 with a minimum grade of C- and CS:2230 with a minimum grade of C-. Recommendations: concurrent or prior enrollment in calculus I.

CS:3420 Introduction to Artificial Intelligence 3 s.h.
Core ideas and techniques of artificial intelligence, including AI and agents, fundamental problem-solving and search strategies (breadth-first search, depth-first search, uniform cost search, etc.), constraint satisfaction, and logic-based reasoning; introduction to machine learning. Prerequisites: CS:2230 with a minimum grade of C- and CS:2210 with a minimum grade of C- and MATH:2700 with a minimum grade of C- and (STAT:2020 with a minimum grade of C- or STAT:3120 with a minimum grade of C-).

CS:3620 Operating Systems 3 s.h.
Introduction to modern operating systems, including device control, memory management and addressing, process scheduling, interprocess communication, interrupts, synchronization, security. Prerequisites: CS:2210 with a minimum grade of C- and CS:2230 with a minimum grade of C- and (CS:2630 with a minimum grade of C- or ECE:3350 with a minimum grade of C-).

CS:3640 Introduction to Networks and Their Applications 3 s.h.
Introduction to networks and the development of network applications; basic principles of network and Internet design; socket programming; network performance measurement; link layer protocols; network layer addressing; routing protocols; transport layer user datagram protocol (UDP) and transmission control protocol (TCP); application layer protocols. Prerequisites: CS:2210 with a minimum grade of C- and CS:2230 with a minimum grade of C-.

CS:3700 Introduction to Numerical Methods 3 s.h.
Computer arithmetic, root finding, polynomial approximation, numerical integration, numerical linear algebra, numerical solution of differential equations; use of a higher-level computer language such as Matlab, Python, or Julia. Prerequisites: (MATH:2550 or MATH:2700) and (MATH:1560 or MATH:1860). Same as MATH:3800.

CS:3820 Programming Language Concepts 3 s.h.
Imperative, functional, and logical programming languages, and differences between them; syntax specification, types, control structures, recursion, data abstraction. Prerequisites: CS:2230 with a minimum grade of C- and CS:2210 with a minimum grade of C- and (CS:2630 with a minimum grade of C- or ECE:3330 with a minimum grade of C- or CS:2820 with a minimum grade of C- or ECE:3350 with a minimum grade of C-).

CS:3910 Informatics Project 3 s.h.
Students work in small groups to design, implement, document, and test a system using appropriate software tools; or compile, prepare, visualize, and analyze a data set to support a decision-making process; capstone course for informatics majors. Prerequisites: CS:2620 with a minimum grade of C-.

CS:3980 Topics in Computer Science I 3 s.h.
Complement to material in other courses; for informatics and non-computer science majors. Prerequisites: CS:1210 with a minimum grade of C- or CS:2110 with a minimum grade of C- or ENGR:2730 with a minimum grade of C-. Requirements: no prior enrollment in CS:3980 with the same subtitle.

CS:3990 Honors in Computer Science or Informatics arr.
Individual projects. Requirements: computer science or informatics major, and honors standing.

CS:3999 Computer Science or Informatics Honors Cohort 0 s.h.
Students complete all requirements for honors in the computer science or informatics major; supervision by computer science honors director. Requirements: final semester prior to graduation with honors.

CS:4310 Design and Implementation of Algorithms 3 s.h.
Algorithm design techniques with emphasis on programming and implementation in the work of students; topics include data structures, graph algorithms, divide-and-conquer, dynamic programming, randomized algorithms, and dealing with intractability; primarily for master's degree students in computer science. Prerequisites: CS:2210 with a minimum grade of C- and CS:2230 with a minimum grade of C-.

CS:4330 Theory of Computation 3 s.h.
Finite automata; regular sets and expressions; context-free and context-sensitive grammars, their properties; push-down automata; standard, universal, and linear-bounded Turing machines; relationships between formal languages and automata; undecidability and its consequences. Prerequisites: CS:3330 with a minimum grade of C-.

CS:4350 Logic in Computer Science 3 s.h.
Applications of symbolic logic in computer science; symbolic logic as a powerful tool for modeling computation and computational devices and reasoning formally about them; introduction to several logics (i.e., propositional, predicate, temporal, modal) differing in their expressive power and focus, their uses in computer science; how to represent knowledge in these logics, what represents a valid argument, and how to prove or disprove, possibly automatically, the validity of a logical statement. Prerequisites: CS:3330 with a minimum grade of C-. Recommendations: computer science, math, or engineering major.

CS:4400 Database Systems 3 s.h.
Introduction to database systems including querying using SQL, design using ER diagrams, developing relational databases, programming web applications using PHP or JDBC. Prerequisites: CS:2210 with a minimum grade of C- and CS:2230 with a minimum grade of C-.

CS:4420 Artificial Intelligence 3 s.h.
Artificial intelligence course covering problem-solving methods, heuristic search, knowledge representation, automated reasoning, planning, game playing, machine learning, and neural networks. Prerequisites: CS:3330 with a minimum grade of C-.

CS:4440 Web Mining 3 s.h.
Core methods underlying development of applications on the Web; examples of relevant applications, including those pertaining to information retrieval, summarization of Web documents, and identifying social networks. Prerequisites: CS:3330 with a minimum grade of C-. Recommendations: CS:4400 strongly recommended.

CS:4470 Health Data Analytics 3 s.h.
Analysis of different kinds of health care data, such as patient electronic medical records, public health data, biomedical publications, social media pertaining to health, and ontologies in health care; students will read papers exploring different kinds of research and application development involving such data; course will run in distinct modules with each focused on a dataset type and related research; students must be comfortable with programming (e.g., Java, Python, Perl). Prerequisites: CS:3330 with a minimum grade of C-.

CS:4500 Research Methods in Human-Computer Interaction 3 s.h.
Introduction to research in the field of human-computer interaction; conducting research experiments; latest research in human-computer interaction. Prerequisites: CS:2520 with a minimum grade of C- or (CS:2210 with a minimum grade of C- and CS:2230 with a minimum grade of C-).

CS:4510 Human-Computer Interaction for Computer Science 3 s.h.
Basic theories, principles, and guidelines for design and evaluation of human-computer interactions; usability and user experience, user-centered design, quantitative and qualitative evaluation of user interfaces (e.g., expert reviews, usability testing), societal and ethical issues; application of topics through a challenging and collaborative software development project. Prerequisites: CS:2230 with a minimum grade of C-.

CS:4630 Mobile Computing 3 s.h.
Building mobile sensing systems requires addressing issues in sensor acquisition, wireless communication, and middleware development; hands-on projects using embedded computers and sensors; includes significant writing and presentation components; a conference-quality research paper on a novel research project in mobile computing is expected; knowledge of Java is assumed. Prerequisites: CS:2210 with a minimum grade of C- and CS:2230 with a minimum grade of C- and CS:2820 with a minimum grade of C-.

CS:4640 Computer Security 3 s.h.
Mechanism versus policy; authentication, access control, security domains; perimeter security, defense in depth; cryptographic protocols; key management and distribution; security assessment. Prerequisites: CS:3620 with a minimum grade of C- or CS:3640 with a minimum grade of C- or ECE:3540 with a minimum grade of C-.

CS:4660 Cryptography 3 s.h.
Introduction to cryptography and the underlying mathematical concepts. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures. Prerequisites: CS:2210 with a minimum grade of C- and CS:2230 with a minimum grade of C-.

CS:4700 High Performance and Parallel Computing 3 s.h.
Exploration and implementation of parallel algorithms using diverse frameworks and libraries, across platforms such as multicore processors and GPUs. Emphasis on current advancements, scientific computing applications, and large-scale data analysis projects. Prerequisites: (CS:2210 with a minimum grade of C- or MATH:4050) and CS:2230 with a minimum grade of C-. Same as MATH:4860.

CS:4720 Optimization Techniques 3 s.h.
Basic theory of optimization, use of numerical algorithms in solution of optimization problems; linear and nonlinear programming, sensitivity analysis, convexity, optimal control theory, dynamic programming, calculus of variations. Prerequisites: (MATH:2700 or MATH:2550) and (ME:4111 or MATH:3800 or CS:3700) and (MATH:1560 or MATH:2850). Same as MATH:4820.

CS:4740 Large Data Analysis 3 s.h.
Current areas that deal with problem of big data; techniques from computer science, mathematics, statistics; high performance and parallel computing, matrix techniques, cluster analysis, visualization; variety of applications including Google PageRank, seismology, Netflix-type problems, weather forecasting; fusion of data with simulation; projects. Prerequisites: (CS:1210 with a minimum grade of C- or ENGR:2730 with a minimum grade of C-) and (MATH:3800 or CS:3700) and (STAT:3200 or IE:3760 or IGPI:3200). Same as IGPI:4740, MATH:4740, STAT:4740.

CS:4980 Topics in Computer Science II 3 s.h.
Complements material in other courses; for computer science graduate students and advanced undergraduate computer science, computer science and engineering, and data science majors. Prerequisites: CS:2210 with a minimum grade of C- and CS:2230 with a minimum grade of C-. Requirements: no prior enrollment in CS:4980 with the same subtitle.

CS:5110 Introduction to Informatics 3 s.h.
Fundamentals of computer science: algorithms, complexity, relational databases, systems concepts, programming in Python. Same as IGPI:5110.

CS:5340 Limits of Computation 3 s.h.
Turing machines, undecidability and complexity: reductions, Cook's theorem and NP-completeness, approximation algorithms and randomized algorithms. Prerequisites: CS:3330.

CS:5350 Design and Analysis of Algorithms 3 s.h.
Review of design and analysis techniques; advanced data structures (binomial and Fibonacci heaps, disjoint sets); graph algorithms (network flows, matching, min-cut); NP-completeness, randomization and approximation algorithms; special topics (string matching, computational geometry, number theoretic algorithms). Prerequisites: CS:3330 or CS:5340.

CS:5360 Randomized Algorithms 3 s.h.
Use of randomization in the design of algorithms; focus on various fundamental principles in the design of randomized algorithms, such as first and second moment method, random sampling, hashing, probability amplification; tools for analysis, such as the tail bounds of Markov, Chebyshev, Chernoff, and Hoeffding, the Lovasz Local Lemma, Martingale tail bounds, randomized rounding of linear and semi-definite programs; applications to network routing, combinatorial optimization, random walks, social networks, data streaming, and more. Prerequisites: CS:3330.

CS:5370 Computational Geometry 3 s.h.
Study of data structures for geometric problems such as point location, range searching, finding nearest neighbors, and algorithms for convex hulls, Voronoi diagrams, triangulations, and quad-trees along with their uses; other topics will be determined by student interest; focus on algorithm design and an understanding of the implementation of geometric algorithms; assumes a sound understanding of the material in an undergraduate algorithms course. Prerequisites: CS:3330.

CS:5430 Machine Learning 3 s.h.
Fundamental machine learning techniques as well as hands-on experience applying these techniques and developing new techniques for solving problems from the real world; topics include regression (least square regression, lasso), classification (naive Bayes, nearest neighbor, support vector machines, logistic regression), kernel methods, unsupervised methods (k-means clustering, spectral clustering, dimensionality reduction), stochastic optimization, deep learning, and recent advances in big data analytics. Prerequisites: MATH:1850 and MATH:2700 and (STAT:2020 or STAT:3100 or STAT:3101 or STAT:3120) and CS:4420.

CS:5560 Privacy Law and Technology 3 s.h.
Introduction to privacy law and its relevance to computation, the Internet, and emerging technologies. Prerequisites: CS:3640 or ECE:3540 or CS:4510 or CS:4640.

CS:5610 High Performance Computer Architecture 3 s.h.
Problems involved in designing and analyzing current machine architectures using hardware description language (HDL) simulation and analysis, hierarchical memory design, pipeline processing, vector machines, numerical applications, multiprocessor architectures and parallel algorithm design techniques; evaluation methods to determine relationship between computer design and design goals. Prerequisites: ECE:3350 or CS:3620. Same as ECE:5320.

CS:5620 Distributed Systems and Algorithms 3 s.h.
Models of distributed systems, program correctness—safety and liveness properties, causality, logical and vector clocks, mutual exclusion, distributed snapshot, leader election, distributed algorithms for graph-theoretic problems, fault-tolerance—masking versus nonmasking types, checkpointing, stabilization, consensus—byzantine generals problem, fault-tolerant broadcast and multicast, management of replicated data. Prerequisites: CS:3330 and CS:3620. Requirements: some interest in networking.

CS:5630 Cloud Computing Technology 3 s.h.
Explores infrastructure and programming paradigms of scalable systems and databases; provides experience with popular cluster frameworks (MapReduce, Hadoop, Spark, Flink, or similar) through programming exercises, projects, and experiments; assigned readings and case studies explore themes such as replication, data sharding, looser types of consistency, virtualization, consensus, and barrier synchronization; cloud system stacks developed by Google, Amazon, Facebook, and Microsoft. Prerequisites: CS:2820 and (CS:3620 or CS:3640).

CS:5710 Numerical Methods I 3 s.h.
Root finding for nonlinear equations; polynomial interpolation; polynomial approximation of functions; numerical integration. Prerequisites: MATH:2700 and (MATH:2850 or MATH:3550). Requirements: knowledge of computer programming. Same as MATH:5800.

CS:5720 Numerical Methods II 3 s.h.
Numerical methods for initial value problems for ordinary differential equations; direct and iterative methods for linear systems of equations; eigenvalue problems for matrices. Prerequisites: MATH:2700 and MATH:5800 and (MATH:2850 or MATH:3550) and (MATH:3600 or MATH:2560). Requirements: knowledge of computer programming. Same as MATH:5810.

CS:5800 Fundamentals of Software Engineering 3 s.h.
Problem analysis, requirements definition, specification, design, implementation, testing/maintenance, integration, project management; human factors; management, technical communication; design methodologies; software validation, verification; group project experience. Prerequisites: CS:2820 or ECE:3330. Same as ECE:5800.

CS:5810 Formal Methods in Software Engineering 3 s.h.
Models, methods, and their application in all phases of software engineering process; specification methods; verification of consistency, completeness of specifications; verification using tools. Prerequisites: ECE:3330 or CS:2820. Recommendations: CS:4350. Same as ECE:5810.

CS:5820 Software Engineering Languages and Tools 3 s.h.
Modern agile software development practices for cloud and web-based applications, using state-of-the-art software engineering languages, tools, and technologies; agile software development practices, software-as-a-service (SAAS), and the Ruby on Rails Development Framework. Prerequisites: ECE:3330 or CS:2820. Same as ECE:5820.

CS:5830 Software Engineering Project 3 s.h.
Team software development project using concepts and methodologies learned in earlier software engineering classes; practical aspects of large-scale software development. Prerequisites: ECE:5820. Same as ECE:5830.

CS:5850 Programming Language Foundations 3 s.h.
Introduction to formal foundations of programming languages using a variety of models, including attribute grammars, operational, axiomatic, denotational, and algebraic techniques; proofs of program equivalence, correctness, termination. Prerequisites: CS:3330 and CS:3820.

CS:5860 Lambda Calculus and Applications 3 s.h.
Covers both typed and untyped versions of the lambda calculus in depth, including essential theoretical results like confluence for untyped lambda calculus and normalization for typed lambda calculi, as well as applications in computer science, logic, and linguistics; coursework includes both theoretical exercises and practical problems using software for manipulating lambda-calculus expressions, students devise their own final projects; no prior experience with lambda calculus, programming, logic, or linguistics is required, although ability to grasp definitions of new concepts and to follow detailed arguments is needed. Prerequisites: CS:3820.

CS:5980 Topics in Computer Science III arr.
Complements material in other courses; for computer science graduate students.

CS:5990 Individualized Research or Programming Project 1-3 s.h.
Individualized research and/or programming projects in computer science, guided by a faculty member.

CS:6000 Research Seminar: Colloquium Series 1 s.h.
Graduate colloquium. Requirements: graduate standing in computer science.

CS:6990 Readings for Research arr.
Requirements: PhD standing in computer science.

CS:7604 Computing Research Ethics for Postdocs 0 s.h.
Review of responsible conduct of research policies specifically tailored to research roles computer science students are likely to play at the University of Iowa and beyond in their professional lives. Requirements: postdoctoral research scholar/fellow standing in computer science.

CS:7990 Research for Dissertation arr.
Individualized instruction for PhD candidates in computer science towards thesis requirements. Requirements: PhD candidacy (postcomprehensive exam) in computer science.

Computer Science, BA

The major in computer science provides students with the necessary training for employment in careers such as software development and information management. It provides good preparation for graduate study in a variety of disciplines.

Students may declare a major in computer science when they are admitted to the university or afterward. They may declare either a Bachelor of Arts or a Bachelor of Science, but if no preference is indicated by a student, the Bachelor of Arts is designated. Students may switch to the Bachelor of Science at any time.

Undergraduates majoring in computer science develop competence in programming principles and methodologies, problem-solving techniques, mathematics, and computer systems. Computer science training is critical for many careers in science, engineering, business, and health care.

Computer science majors are advised at the Academic Advising Center until they have completed 30 s.h., at which point they are assigned a departmental advisor. Students being advised at the Academic Advising Center can also consult with a computer science faculty advisor.

Transfer students who have taken a course approved as equivalent to a required computer science or informatics course are exempt from that course. Transfer course grades are included in the computer science grade-point average.

Students should consult the Department of Computer Science website or visit the department's office for information about general policies, elective areas, internships, scholarships, and student groups, such as the university's chapter of the Association for Computing Machinery (ACM) and Women in Computing Sciences (WiCS).

Advanced Placement

The Computer Science Advanced Placement Program test may be used to satisfy requirements. See Advanced Placement Credit Policy on the Department of Computer Science website.

Learning Outcomes

- Students understand the mathematical, logical, and theoretical foundations of computing.
- Students can analyze and compare the relative merits of alternative software designs and develop high-quality software systems.
- Students understand the fundamental principles of computer organization, system software, networks, and security.
- Students understand social, professional, and ethical issues related to computing.

Requirements

The Bachelor of Arts with a major in computer science requires a minimum of 120 s.h., including at least 41 s.h. of work for the major. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major. A cumulative GPA of at least 2.00 is required for graduation. Students must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The computer science major for the Bachelor of Arts is designed for students who would like to gain considerable knowledge in computer science and have flexibility in choosing electives. Students preparing for careers in the computing field are encouraged to supplement the base requirements with additional computer science courses. The program's flexibility makes it suitable for combination with other majors.

Coursework for the major includes computer science courses as well as courses in mathematics, statistics, and other supporting disciplines. Work for the major may not be taken pass/nonpass.

Bachelor of Arts students considering a switch to the Bachelor of Science program should choose their GE CLAS Core Natural Sciences courses carefully because students may be able to use the same courses to satisfy the computer science major natural science sequences requirement for the BS degree. See "Natural Science Sequences" under Requirements in the BS in computer science [p. 303] section of the catalog.

Students who major in computer science may not also major or minor in computer science and engineering, data science, or informatics.

Departmental Residency Requirement

Students who earn a BA in computer science must complete at least five courses (minimum of 15 s.h.) at the University of Iowa from the following: CS:2630 Computer Organization or ECE:3350 Computer Architecture and Organization, CS:2820 Introduction to Software Development, CS:3330 Algorithms, and at least two computer science courses (prefix CS) numbered 3620–5899, but excluding CS:3910 Informatics Project, CS:3980 Topics in Computer Science I, and CS:4310 Design and Implementation of Algorithms; these courses are requirements for the BA in computer science as listed below.

Program Requirements

The BA with a major in computer science requires the following coursework. Enrollment in many courses for the major requires a minimum grade of C-minus in prerequisite courses.

Requirements	Hours
Computer Science Core Courses	27-28
Mathematics Core Courses	11-12
Advanced Computer Science Electives	3

Computer Science Core

Course #	Title	Hours
All of these:		
CS:1210	Computer Science I: Fundamentals	4
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
CS:2820	Introduction to Software Development	4
CS:3330	Algorithms	3
CS:3820	Programming Language Concepts	3
One of these:		
CS:2630	Computer Organization	4
ECE:3350	Computer Architecture and Organization	3

One of these:		
CS:3620	Operating Systems	3
CS:3640	Introduction to Networks and Their Applications	3

Mathematics Core

Calculus I

Course #	Title	Hours
One of these:		
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4

Calculus II

Course #	Title	Hours
One of these:		
MATH:1560	Engineering Calculus II	4
MATH:1860	Calculus II	4

Linear Algebra/Probability and Statistics

Students who take MATH:2550 Engineering Matrix Algebra and MATH:2560 Engineering Differential Equations can use these courses together to satisfy the linear algebra requirement.

Course #	Title	Hours
One of these:		
MATH:2700	Introduction to Linear Algebra	4
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:3120	Probability and Statistics	4

Advanced Computer Science Electives

Course #	Title	Hours
At least 3 s.h. from these:		
A computer science course (prefix CS) numbered 3620-5899, except CS:3910, CS:3980, or CS:4310		
A computer science course (prefix CS) numbered 5900 or above, with department approval		

Students may count a maximum of 3 s.h. earned in CS:3990 Honors in Computer Science or Informatics toward the advanced computer science electives requirement.

Early Admission to the Graduate College

Undergraduate computer science students who have 6 s.h. or less to earn toward graduation may apply for early admission to the Graduate College. Early admission allows students in their final undergraduate semester to take courses for graduate credit in addition to the courses they need to complete their bachelor's degrees.

Combined Programs

BA/MCS

Qualified computer science undergraduate students who plan to earn the Master of Computer Science degree may apply for the combined Bachelor of Arts/Master of Computer Science program. The combined BA/MCS program allows students to earn both degrees in five years. The program requires a total of 140 s.h. Students are granted a BA when they complete all requirements for the undergraduate degree.

Students in the combined program must complete all requirements for each degree, but may count a maximum of 12 s.h. (four courses) toward both degrees. The four courses must be taken during the fourth year of undergraduate study, after admission to the combined program, and must satisfy degree requirements of both the BA and the MCS.

If students withdraw from the combined program before completing their bachelor's degree, credit earned in the four courses is counted only toward the undergraduate degree.

Students apply for admission to the combined program during their third year as an undergraduate and enter the program at the beginning of their fourth year. They typically complete the combined program in one year after completing the BA requirements.

Applicants to the combined program must:

- be enrolled as a BA student majoring in computer science at the University of Iowa;
- have completed a minimum of 80 s.h. at the time of admission to the combined program, with at least 30 s.h. earned at the University of Iowa; and
- have a cumulative University of Iowa grade-point average (GPA) of at least 3.25 and a GPA of at least 3.25 in the computer science major (computed on math prerequisites and core computer science coursework taken at the University of Iowa).

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Students must submit an application for admission to the program, a statement of purpose, three letters of recommendation, and transcripts from all colleges attended; they also must apply to the Graduate College. Graduate Record Examination (GRE) scores are not required. For more detailed information, see Graduate Programs on the Department of Computer Science website.

Honors

Honors in the Major

Students majoring in computer science have the opportunity to graduate with honors in the major. They must maintain a minimum UI cumulative grade-point average (GPA) of 3.33 and a minimum major GPA of 3.50; additionally, students complete 4–6 s.h. of CS:3990 Honors in Computer Science or Informatics and submit an acceptable honors thesis or project. At any time, students can communicate to the computer science professional advisor that they have an honors interest and can have that designation placed on their academic record.

A student is responsible for finding a faculty member willing to supervise the honors project. The student can register for

CS:3990 Honors in Computer Science or Informatics under the project supervisor's name once the faculty member approves the proposed project and a timetable for the work. Once that is accomplished, the student must then communicate with the Department of Computer Science honors director, who changes the student's status to denote the student is pursuing honors in the major. It is not necessary to have declared an honors interest before finding a thesis supervisor and beginning to pursue honors in the major, but the student must be coded as pursuing honors prior to completing the application for degree.

An honors project can be completed in one semester, but it usually takes two semesters to complete. In their final semester, a student must register for CS:3999 Computer Science or Informatics Honors Cohort. The honors thesis/project must be approved by the thesis supervisor and then submitted to the honors director who will give initial approval that the student can graduate with honors in the major. Final approval is given after final grades are submitted and all requirements are met. For more details regarding project requirements, see Honors in Computer Science on the department's website.

Students who pursue honors in the major may count a maximum of 3 s.h. in CS:3990 Honors in Computer Science or Informatics toward the advanced computer science elective requirement. Those in the combined BA/MCS program may register for 4–6 s.h. in CS:5990 Individualized Research or Programming Project instead of CS:3990; this registration allows them to receive graduate credit for the course while satisfying the course requirements to graduate with honors.

University of Iowa Honors Program

In addition to honors in the major, students can pursue honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the computer science major. However, the semester hours earned in CS:3990 Honors in Computer Science or Informatics or CS:5990 Individualized Research or Programming Project can be used to partially satisfy the UI Honors requirement of 12 s.h. of experiential learning coursework.

For more information, contact the Department of Computer Science honors director.

Career Advancement

Computer science graduates work primarily in two market sectors. One sector is the software and computer industry where the words computer science are being used—those in Silicon Valley, among other areas, that can range from start-ups to giants like Amazon, Google, Facebook, and Microsoft. The other sector allows computer science students to use their technical expertise in fields beyond computer science. Examples would be working as a user experience (UX) designer for a marketing agency or developing software for a financial group; those are computer science majors working in media, health care, the government, and even law firms. Computer science skills are needed everywhere so students have ample opportunities to find an environment that fits their interests and strengths.

As many as one-third of computer science graduates go into research or elect to pursue graduate studies in computer science, including the University of Iowa's five-year BA/MCS program, or pursue other areas where computer science provides a strong foundation.

A recent job placement survey indicates that more than 97% of computer science graduates have a job, are continuing education, or are not seeking employment within six months of graduation.

View post-graduation data on the Pomerantz Career Center website, which uses University of Iowa placement information to explore what recent computer science alumni are doing, including median salaries, job titles, companies of employment, and other facts about UI graduates.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The Four-Year Graduation Plan is not available to BA students majoring in computer science. Students work with their advisors on individual graduation plans.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Computer Science, BA

Course	Title	Hours
Academic Career		
Any Semester		
Students who major in computer science may not also major or minor in computer science and engineering, data science, or informatics.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
MATH:1005	College Algebra [b]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**15-17**
Spring		
CS:1110	Introduction to Computer Science	3
MATH:1010	Trigonometry	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Historical Perspectives [c]		3

GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
	Hours	**16-18**
Second Year		
Fall		
CS:1210	Computer Science I: Fundamentals	4
MATH:1850	Calculus I	4
GE CLAS Core: Social Sciences [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
Elective course [e]		1
	Hours	**16-17**
Spring		
CS:2210	Discrete Structures	3
MATH:1860	Calculus II	4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [e]		3
Elective course [e]		2
	Hours	**16-17**
Third Year		
Fall		
CS:2230	Computer Science II: Data Structures	4
Major: mathematics core course [f]		3 - 4
GE CLAS Core: Natural Sciences with Lab [c]		4
Elective course [e]		3
Elective course [e]		1
	Hours	**15-16**
Spring		
ECE:3350 or CS:2630	Computer Architecture and Organization or Computer Organization	3 - 4
CS:3330	Algorithms [g]	3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: Natural Sciences without Lab [c]		3
Elective course [e]		3
	Hours	**15-16**
Fourth Year		
Fall		
CS:2820	Introduction to Software Development [g]	4
CS:3820	Programming Language Concepts [g]	3
GE CLAS Core: International and Global Issues [c]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**16**
Spring		
CS:3640 or CS:3620	Introduction to Networks and Their Applications or Operating Systems	3
Major: advanced computer science elective [h]		3
GE CLAS Core: Values and Society [c]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15**
	Total Hours	**124-132**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in math courses requires completion of a placement exam.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Choose from MATH:2700, STAT:2020, or STAT:3120.

g Students may take CS:2820, CS:3330, and CS:3820 in any order after completing CS:1210, CS:2210, and CS:2230.

h Students may choose a computer science course (prefix CS) numbered 3620-5899 (except CS:3910, CS:3980, CS:4310), or a CS course numbered 5900 or above with department approval. A course used to complete a core requirement cannot also be used as a major elective.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Informatics, BA

The major in informatics provides students with the necessary training for employment in careers such as software development, user experience, and data analytics. It provides good preparation for graduate study in a variety of disciplines.

Students may declare a major in informatics when they are admitted to the university or afterward. All students begin the major as Bachelor of Arts students but may switch to the Bachelor of Science program at any time.

The informatics major combines fundamental and practical computing knowledge with a choice of cognate area from the liberal arts and sciences, providing students with the necessary background and specialized skills to work at the interface of computing and another discipline. Students may begin the major without a chosen cognate area; they may declare a cognate at any time. Some cognates are available only with the Bachelor of Arts, while others are available only with the Bachelor of Science. A student's choice of cognate determines whether the student will earn a BA or a BS.

Informatics majors are advised at the Academic Advising Center until they have completed 30 s.h., at which point they are assigned a departmental advisor. Students being advised at the Academic Advising Center also can consult with an informatics faculty advisor.

Transfer students who have taken a course approved as equivalent to a required informatics or computer science course are exempt from that course. Transfer course grades are included in the informatics grade-point average.

Students should consult the Department of Computer Science website or visit the department's office for information about general policies, elective areas, internships, scholarships, and student groups, such as the university's chapter of the Association for Computing Machinery (ACM) and Women in Computing Sciences (WiCS).

Many informatics major courses are offered once per year and have prerequisites that are also only offered annually. Speak with an advisor for more information.

Advanced Placement

The Computer Science Advanced Placement (AP) exam may be used to satisfy requirements. See Advanced Placement Credit Policy on the Department of Computer Science website.

Learning Outcomes

- Students can apply computational thinking approaches to solve problems.
- Students can individually and collaboratively develop software using professional tools.
- Students can extract, organize, analyze, and present data from a variety of sources.
- Students can contribute to the development of usable, useful, and enjoyable software applications by using human-centered methods.
- Students understand social, professional, and ethical issues related to computing.
- Students have a thorough understanding of a chosen cognate area.

Requirements

The Bachelor of Arts with a major in informatics requires a minimum of 120 s.h., including at least 45–51 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. A cumulative GPA of at least 2.00 is required for graduation. Students must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The program combines foundational informatics coursework with coursework in a cognate area. The major offers the cognate areas of art, economics, geoinformatics, health informatics, human-computer interaction, linguistics, media, music, social informatics, and individualized cognates. Required credit for the major depends on a student's choice of cognate area.

Coursework for the major includes the informatics core, one elective, a statistics course, and a set of courses in a chosen cognate area. Work for the major may not be taken pass/nonpass. Students are expected to have taken MATH:1005 College Algebra or the equivalent.

Students who major in informatics may not also major in computer science, business analytics and information systems, or computer science and engineering. They may, however, earn a minor in computer science.

Departmental Residency Requirement

Students must complete at least four courses (minimum of 12 s.h.) at the University of Iowa from the following: CS:3910 Informatics Project and three additional computer science courses (prefix CS) numbered 2500–4999; these courses are requirements for the BA in informatics as listed below.

Program Requirements

The BA with a major in informatics requires the following coursework. Enrollment in many courses for the major requires a minimum grade of C-minus in prerequisite courses.

Requirements	Hours
Informatics Core Courses	19
Informatics Electives	3
Statistics Course	3-4
Cognate Courses	18-26

Informatics Core

The informatics core consists of six required computing courses (19 s.h.) that emphasize data manipulation, databases, and networking. It provides more applications-oriented content than the traditional computer science curriculum yet is designed to offer students a sound basis in underlying computer science themes and techniques.

Course #	Title	Hours
All of these:		
CS:1110	Introduction to Computer Science	3
CS:2110	Programming for Informatics	4
CS:2420	Analyzing Data for Informatics	3
CS:2520	Human-Computer Interaction for Informatics	3

CS:2620	Server-Side Development for Informatics	3
CS:3910	Informatics Project	3

Informatics Electives

Students must complete at least 3 s.h. in one computer science course (prefix CS) numbered 3000–4999, excluding CS:3910 and CS:4510; they may count up to 3 s.h. from CS:3990 Honors in Computer Science or Informatics. Course selection must be approved by an informatics advisor. Students may have additional choices from the Department of Electrical and Computer Engineering and the Department of Business Analytics; consult an informatics advisor for additional choices.

Statistics Course

Students must complete one introductory statistics course. Some cognates require a specific statistics course. Students should consult with their advisors to choose a statistics course appropriate for their cognate area.

Course #	Title	Hours
One of these:		
PSY:2811	Research Methods and Data Analysis in Psychology I	3
SOC:2160	Applied Statistics for Social Scientists	3
STAT:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:2010	Statistical Methods and Computing	3
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:3120	Probability and Statistics	4
STAT:3510	Biostatistics	3
STAT:4143	Introduction to Statistical Methods	3

Cognates

Students must complete all requirements listed under one of the following cognate areas: art, economics, geoinformatics, health informatics, human-computer interaction, linguistics, media, music, social informatics, or an individualized cognate.

Art

The informatics major with the art cognate requires a minimum of 47 s.h. of work for the major, including at least 22 s.h. in cognate courses. Students learn about the design and maintenance of web services, applications of modern computerized artistic tools, and benefits and limitations of computers as a digital medium. They also gain insight into computerized tool design that is guided by knowledge of an artist's requirements. The art cognate may lead to careers in web development, technology coordination for artistic productions, development of digital artistic tools, and artistic or technical development for entertainment companies. Cognate courses are primarily in art history, design, elements of art, and photography.

Some courses listed below are open only to students majoring in art, so they are appropriate choices only for students with a double major in art and informatics. Non-art majors should work with an informatics advisor to develop an individual set of art cognate courses.

Course #	Title	Hours
All of these:		
ARTS:1510	Basic Drawing	3
ARTS:1520	Design Fundamentals	3
DSGN:2500	Graphic Design I	3
or PHTO:2600	Photography I	
DSGN:2600	Graphic Design II	3
or PHTO:3100	Photography II: Introduction to Darkroom Photography	
DSGN:3500	Graphic Design III	4
or PHTO:3110	Photography III: The Constructed Image	
Any art history course (prefix ARTH) numbered 1010-2999		3
One of these, to complete at least 22 s.h. for the art cognate:		
CS:2800	Digital Arts: An Introduction	3
DSGN:3600	Graphic Design IV	4
MUSM:3125	Museums in a Digital World	3
PHTO:3200	Photography IV: Special Topics	4
PHTO:3210	Photography IV: Contemporary Video Practices	4
PHTO:3220	Photography IV: Alternative Photographic Processes	4
SCLP:3840	Robotic Art Studio	4
SCLP:4835	Electronic Objects and Spaces	4
SCLP:4840	Air, Actuators, and Motors	4

Economics

The informatics major with the economics cognate requires a minimum of 49 s.h. of work for the major, including 24 s.h. in cognate courses, which are primarily from economics. The economics cognate is intended for students interested in working with economic, financial, or demographic data. It may lead to careers in administration, business, or government or to graduate study in management or policy areas.

Course #	Title	Hours
All of these:		
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
ECON:3100	Intermediate Microeconomics	3
ECON:3150	Intermediate Macroeconomics	3
MATH:1350	Quantitative Reasoning for Business	4
Additional 6 s.h. in economics courses (prefix ECON) numbered 3000 or above		6

Geoinformatics

The informatics major with the geoinformatics cognate requires a minimum of 48 s.h. of work for the major, including 23 s.h. in cognate courses, which are primarily from earth, environment, and sustainability sciences. The geoinformatics cognate is intended for students interested in geographic information systems (GIS) and spatial aspects of data. It may

lead to careers in business, government, or public health or to graduate study in geography, public health, or policy areas.

Course #	Title	Hours
All of these:		
SEES:1020	The Global Environment	3
SEES:1021	The Global Environment Lab	1
SEES:2050	Foundations of GIS	4
Two of these:		
SEES:1070	Contemporary Environmental Issues	3
SEES:2110	Eight Billion and Counting: Introduction to Population Dynamics	3
SEES:2910	The Global Economy	3
One of these:		
SEES:3520	GIS for Environmental Applications	3
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
Two of these:		
SEES:3500	Introduction to Environmental Remote Sensing	3
SEES:3520	GIS for Environmental Applications (if not used to satisfy the preceding requirement)	3
SEES:3540	Geographic Visualization	3
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications (if not used to satisfy the preceding requirement)	3
SEES:3610	Ethical Collection and Use of Geospatial Information	3

Health Informatics

The informatics major with the health informatics cognate requires a minimum of 46 s.h. of work for the major, including 21 s.h. in cognate courses. The health informatics cognate is intended for students interested in applications of computing to health care, especially in public health. It may lead to careers in medical or health-related areas or to graduate and professional degree programs in public health, health informatics, and medical informatics. Cognate courses are selected primarily from public health, earth, environment, and sustainability sciences, and global health studies.

Once students complete the required courses in each of the four sets below, they must select additional courses from the sets to complete 21 s.h. of credit for the cognate.

Course #	Title	Hours
One of these:		
CPH:1400	Fundamentals of Public Health	3
GHS:3720	Contemporary Issues in Global Health	3
At least two of these:		
SEES:2050	Foundations of GIS	4
SEES:3110	Geography of Health	3
SEES:4150	Health and Environment: GIS Applications	3
One of these:		
SEES:3500	Introduction to Environmental Remote Sensing	3
SEES:3520	GIS for Environmental Applications	3
SEES:3540	Geographic Visualization	3
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
SEES:3610	Ethical Collection and Use of Geospatial Information	3
At least 6 s.h. from these:		
GHS:3720	Contemporary Issues in Global Health (if not used to satisfy preceding requirement)	3
GHS:3850	Promoting Health Globally	3
GHS:4100	Topics in Global Health	1-3
JMC:3150	Media and Health	3
One of these:		
EPID:4400	Epidemiology I: Principles	3
HMP:4000	Introduction to the U.S. Health Care System	3

Human-Computer Interaction

The informatics major with the human-computer interaction cognate requires a minimum of 46 s.h. of work for the major, including at least 21 s.h. in cognate courses. The human-computer interaction cognate is intended for students interested in designing useful and usable technologies. It can lead to careers in interaction design, web design, implementation of user interfaces, and evaluation of human-computer interactions as well as providing valuable skills for graduate study in human-computer interaction.

The cognate's courses provide an interdisciplinary foundation including psychology, sociology, and studio arts, together with an understanding of research methods in human-computer interaction and relevant software development skills. This cognate requires more advanced courses in computer science than other cognates.

Course #	Title	Hours
This course:		
CS:4500	Research Methods in Human-Computer Interaction	3
Either both psychology courses or both sociology courses:		
PSY:1001 & PSY:2601	Elementary Psychology and Introduction to Cognitive Psychology	6
SOC:1010 & SOC:2130	Introduction to Sociology and Sociological Theory	6-7
One art course from these:		
ARTS:1020	Elements of 3D Design	3
ARTS:1070	Elements of Graphic Design (recommended)	3
At least 9 s.h. from these, to complete at least 21 s.h. for the cognate:		
ISE:3400	Human Factors	3

PSY:2401	Introduction to Developmental Science	3
PSY:2501	Introduction to Social Psychology	3
PSY:2701	Introduction to Behavioral Neuroscience	4
Any computer science course (prefix CS) numbered 3000 or above, except CS:4510 and CS:5990, with human-computer interaction themed courses numbered 4000 and above recommended		

Most courses in this list have prerequisites, which students must complete before they may register for the course. Most of the psychological and brain science courses (prefix PSY) require PSY:1001 Elementary Psychology as a prerequisite. Students should review prerequisites carefully before making their selections.

Linguistics

The informatics major with the linguistics cognate requires a minimum of 47 s.h. of work for the major, including 22 s.h. in cognate courses. Linguistics, the scientific study of human languages, is directly related to psychology, anthropology, and computer science as well as to more applied fields such as second language acquisition or speech and hearing science. The cognate focuses on computational representations of syntax and semantics for processing natural language. Cognate courses are drawn primarily from linguistics.

Course #	Title	Hours
All of these:		
CSD:3112	Anatomy and Physiology of Speech Production	4
CSD:3116	Basic Neuroscience for Speech and Hearing	3
LING:3001	Introduction to Linguistics	3
LING:3005	Articulatory and Acoustic Phonetics	3
LING:3010	Syntactic Analysis	3
LING:3020	Phonological Analysis	3
LING:3080	History of the English Language	3

Media

The informatics major with the media cognate requires a minimum of 47 s.h. of work for the major, including 22 s.h. in cognate courses. This cognate is intended for students interested in working in media industries. Data-specific occupations in these industries include but are not limited to data/communication analyst, data mining expert, strategic analyst, data journalist, web developer, information graphics specialist, app developer, and multimedia journalist.

Course #	Title	Hours
One of these:		
JMC:1100	Introduction to Media Effects	3
JMC:1200	Introduction to Media and Culture	3
JMC:1500	Introduction to Social Media	3
All of these:		
JMC:1300	Introduction to Journalism and Strategic Communication	3
JMC:1600	Writing Fundamentals	1
JMC:2020	Multimedia Storytelling	3
JMC:2030	Visual Communication and Design	3
Three of these:		
JMC:3600	Topics in Designing/ Producing	3-4
JMC:3603	Newscast Production	3-4
JMC:3610	Graphic Design	3-4
JMC:3630	Photography	3-4
JMC:3640	Information and Data Visualization	3-4
JMC:3650	Video Production	3-4
JMC:3660	Audio Production	3-4

Music

The informatics major with the music cognate requires a minimum of 51 s.h. of work for the major, including 26 s.h. in cognate courses. The music cognate is intended for students interested in audio recording, manipulation of sound, and digital media. It may help students prepare for careers in the entertainment industry. Cognate courses are primarily from music, with some from cinematic arts and theatre arts. Entering students must possess basic musicianship skills; an audition may be required for admission.

When students begin work on this cognate, they should enroll in MUS:1201 Musicianship and Theory I and must take the Placement Exam A, which is administered online during the summer before the fall semester begins, to determine readiness for the musicianship and theory course sequence. See Musicianship and Theory Placement on the School of Music website for more information. Advanced placement in School of Music courses does not reduce the number of semester hours required for the cognate.

Course #	Title	Hours
All of these:		
MUS:1200	Fundamentals of Music for Majors	3
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:1211	Group Instruction in Piano I	1
MUS:1212	Group Instruction in Piano II	1
MUS:3780	Audio Recording I	3
MUS:3781	Audio Recording II	3
One of these:		
MUS:1310	World Music	3
MUS:1720	History of Jazz	3
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:2311	Music of Latin America and the Caribbean	3
At least one of these, to complete 26 s.h. for the music cognate:		
CS:2800	Digital Arts: An Introduction	3
CINE:4841	Film/Video Production: Sound Design	4
MUS:1007	Garage Band: The Basics	2
MUS:1010	Recital Attendance for Nonmajors	1

THTR:3260	Sound Design for the Theatre	3

Social Informatics

The informatics major with the social informatics cognate requires a minimum of 45 s.h. of work for the major, including at least 20 s.h. in cognate courses, all from the Department of Sociology and Criminology. The sociology cognate is intended for students interested in applying data analytics to topics related to social change, social relationships, societal impact on individual behavior, crime, and the criminal justice system.

Course #	Title	Hours
All of these:		
SOC:1010	Introduction to Sociology	3-4
SOC:2130	Sociological Theory	3
SOC:2170	Research Methods	3
At least 11 s.h. from these:		
CRIM:1410	Introduction to Criminology	3
CRIM:3420	Juvenile Delinquency	3
CRIM:3450	Criminal Legal System	3
CRIM:4400	Internship in Criminal Justice and Corrections	3
Any sociology course (prefix SOC) numbered 1020 or above		

Individualized Cognates

Students interested in developing individualized cognates may work with an informatics advisor. Individualized cognates may be drawn primarily from one department or an appropriate mix of departments; they require an approved set of cognate courses totaling 18–25 s.h.

Early Admission to the Graduate College

Undergraduate informatics students who have 6 s.h. or less to earn toward graduation may apply for early admission to the Graduate College. Early admission allows students in their final undergraduate semester to take courses for graduate credit in addition to the courses they need to complete their bachelor's degrees.

Combined Programs

BA/MS in Informatics (Geoinformatics, Health Informatics, or Human-Computer Interaction Subprogram)

Students majoring in informatics who are interested in earning a master's degree in informatics may apply to the combined BA/MS program (geoinformatics, health informatics, or human-computer interaction subprogram) offered by the College of Liberal Arts and Sciences and the Graduate College. The program enables students to begin graduate-level study of informatics before they complete their bachelor's degree. Students are able to complete both degrees in less time than if they were to complete the two degrees separately.

Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. For more information about the graduate degree program, see the MS in informatics [p. 1753] (Graduate College) in the catalog.

Honors

Honors in the Major

Students majoring in informatics have the opportunity to graduate with honors in the major. They must maintain a minimum UI cumulative grade-point average (GPA) of 3.33 and a minimum major GPA of 3.50; additionally, students complete 4–6 s.h. of CS:3990 Honors in Computer Science or Informatics and submit an acceptable honors thesis or project. At any time, students can communicate to the computer science professional advisor that they have an honors interest and can have that designation placed on their academic record.

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An honors project can be completed in one semester, but it usually takes two semesters to complete. In the final semester, a student must register for CS:3999 Computer Science or Informatics Honors Cohort. The honors thesis/project must be approved by the thesis supervisor and then submitted to the honors director who will give initial approval that the student can graduate with honors in the major. Final approval is given after final grades are submitted and all requirements are met. For more details regarding project requirements, see Honors in Computer Science on the department's website.

University of Iowa Honors Program

In addition to honors in the major, students can pursue honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

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For more information, contact the Department of Computer Science honors director.

Career Advancement

Informatics graduates work in a broad range of market sectors, reflecting the interdisciplinary nature of the program and the large number of available cognates. Students will have technical skills along with a specialty area that can help them pursue a specific type of organization or interest field. Areas that informatics graduates have pursued include

software development, database and/or web administration, data analysis, software support (IT), user interface/user experience web design (the human-computer interaction cognate is useful for this area), and health care information (the health informatics cognate is useful for this area).

A recent job placement survey indicates that more than 90% of University of Iowa informatics graduates have a job, are continuing education, or are not seeking employment within six months of graduation.

View post-graduation data on the Pomerantz Career Center website, which uses University of Iowa placement information to explore what recent informatics alumni are doing, including median salaries, job titles, companies of employment, and other facts about UI graduates.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The Four-Year Graduation Plan is not available to BA students majoring in informatics. Students work with their advisors on individual graduation plans.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Informatics, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CS:1110	Introduction to Computer Science	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [b]		3
GE CLAS Core: International and Global Issues [b]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
Major: introductory statistics [c, d]		3 - 4
Major: cognate area course [e]		3 - 4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3
GE CLAS Core: Historical Perspectives [b]		3
Elective course [f]		2
	Hours	**14-16**
Second Year		
Fall		
CS:2110	Programming for Informatics [g]	4
Major: cognate area course [e]		3 - 4
GE CLAS Core: Social Sciences [b]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
Elective course [f]		3
	Hours	**17-19**
Spring		
CS:2420	Analyzing Data for Informatics [i]	3
CS:2520	Human-Computer Interaction for Informatics [i]	3
Major: cognate area course [e]		3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
Elective course [f]		2
	Hours	**15-17**
Third Year		
Fall		
CS:2620	Server-Side Development for Informatics [g]	3
Major: cognate area course [e]		3 - 4
GE CLAS Core: Natural Sciences without Lab [b]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
Elective course [f]		2
	Hours	**15-17**
Spring		
Major: cognate area course [e]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [b]		3
GE CLAS Core: Natural Sciences with Lab [b]		4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
Elective course [f]		3
	Hours	**17-19**
Fourth Year		
Fall		
Major: advanced informatics elective [j]		3
Major: cognate area course [e]		3 - 4
GE CLAS Core: Values and Society [b]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15-16**
Spring		
CS:3910	Informatics Project [i]	3
Major: cognate area course [e]		3 - 4
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15-16**
	Total Hours	**121-134**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives;

International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

c See General Catalog for list of approved courses. Students pursuing the human-computer interaction cognate are encouraged to take either PSY:2811 or SOC:2160.

d Fulfills a major requirement and may fulfill a GE requirement.

e Students must complete all requirements in one of the following cognate areas: art, economics, geoinformatics, health informatics, human-computer interaction, linguistics, media, music, social informatics or an individualized cognate. Students interested in developing individualized cognates (a grouping of 18-25 s.h. of courses drawn primarily from one department) must work with an informatics faculty advisor to create a plan of study and obtain departmental approval for their plan.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

j Computer science course (prefix CS) numbered 3000-4999, including CS:3990 for 3 s.h., but excluding CS:3910 and CS:4510.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Computer Science, BS

The major in computer science provides students with the necessary training for employment in careers such as software development and information management. It provides good preparation for graduate study in a variety of disciplines.

Students may declare a major in computer science when they are admitted to the university or afterward. They may declare either a Bachelor of Arts or a Bachelor of Science, but if no preference is indicated by a student, the Bachelor of Arts is designated. Students may switch to the Bachelor of Science at any time.

Undergraduates majoring in computer science develop competence in programming principles and methodologies, problem-solving techniques, mathematics, and computer systems. Computer science training is critical for many careers in science, engineering, business, and health care.

Computer science majors are advised at the Academic Advising Center until they have completed 30 s.h., at which point they are assigned a departmental advisor. Students being advised at the Academic Advising Center can also consult with a computer science faculty advisor.

Transfer students who have taken a course approved as equivalent to a required computer science or informatics course are exempt from that course. Transfer course grades are included in the computer science grade-point average.

Students should consult the Department of Computer Science website or visit the department's office for information about general policies, elective areas, internships, scholarships, and student groups, such as the university's chapter of the Association for Computing Machinery (ACM) and Women in Computing Sciences (WiCS).

Advanced Placement

The Computer Science Advanced Placement Program test may be used to satisfy requirements. See Advanced Placement Credit Policy on the Department of Computer Science website.

Learning Outcomes

- Students understand the mathematical, logical, and theoretical foundations of computing.
- Students can analyze and compare the relative merits of alternative software designs and develop high-quality software systems.
- Students understand the fundamental principles of computer organization, system software, networks, and security.
- Students can apply computer science principles to a variety of problems, such as databases, data mining, and various fields of artificial intelligence (AI).
- Students understand social, professional, and ethical issues related to computing.

Requirements

The Bachelor of Science with a major in computer science requires a minimum of 120 s.h., including at least 63 s.h. of work for the major. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major. A cumulative GPA of at least 2.00 is required for graduation. Students must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The Bachelor of Science program is more rigorous than that of the Bachelor of Arts program; it is designed to provide in-depth training for students who would like to acquire strength in math and science in order to enhance their skills and job prospects. It is also appropriate for those who plan to pursue graduate work in computer science, although it is not required for graduate study at most universities.

Coursework for the major includes computer science courses as well as courses in mathematics, statistics, and other supporting disciplines. Work for the major may not be taken pass/nonpass.

Bachelor of Science students with a computer science major should choose their GE CLAS Core Natural Sciences courses carefully because they may be able to use the same courses to satisfy the computer science major natural science sequences requirement; see "Natural Science Sequences" below.

Students who major in computer science may not also major or minor in computer science and engineering, data science, or informatics.

Departmental Residency Requirement

Students who earn a BS in computer science must complete at least seven courses (minimum of 21 s.h.) at the University of Iowa from the following: CS:2630 Computer Organization or ECE:3350 Computer Architecture and Organization, CS:2820 Introduction to Software Development, CS:3330 Algorithms, and at least four computer science courses (prefix CS) numbered 3620–5899, but excluding CS:3910 Informatics Project, CS:3980 Topics in Computer Science I, and CS:4310 Design and Implementation of Algorithms; these courses are requirements for the BS in computer science as listed below.

Program Requirements

The BS with a major in computer science requires the following coursework. Enrollment in many courses for the major requires a minimum grade of C-minus in prerequisite courses.

Requirements	Hours
Computer Science Core Courses	27-28
Mathematics Core Courses	15-16
Computation Theory Course	3
Advanced Technical Electives	12
Natural Sciences Sequence Courses	6-8

Computer Science Core

Course #	Title	Hours
All of these:		
CS:1210	Computer Science I: Fundamentals	4
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
CS:2820	Introduction to Software Development	4
CS:3330	Algorithms	3
CS:3820	Programming Language Concepts	3

One of these:		
CS:2630	Computer Organization	4
ECE:3350	Computer Architecture and Organization	3
One of these:		
CS:3620	Operating Systems	3
CS:3640	Introduction to Networks and Their Applications	3

Mathematics Core

Calculus I

Course #	Title	Hours
One of these:		
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4

Calculus II

Course #	Title	Hours
One of these:		
MATH:1560	Engineering Calculus II	4
MATH:1860	Calculus II	4

Linear Algebra

Students who take MATH:2550 Engineering Matrix Algebra and MATH:2560 Engineering Differential Equations can use these courses together to satisfy the linear algebra requirement.

Course #	Title	Hours
This course:		
MATH:2700	Introduction to Linear Algebra	4

Probability and Statistics

Course #	Title	Hours
One of these:		
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:3120	Probability and Statistics	4
Other probability and statistics courses (prefix STAT) with a calculus prerequisite approved by the department		

Computation Theory

Course #	Title	Hours
One of these:		
CS:4330	Theory of Computation	3
CS:4350	Logic in Computer Science	3

Advanced Technical Electives

Students must earn at least 12 s.h. (four courses) in advanced technical electives, as follows.

Course #	Title	Hours
At least 6 s.h. from these:		
A computer science course (prefix CS) numbered 3620-5899, except CS:3910, CS:3980, or CS:4310; a maximum of 3 s.h. in CS:3990 will count toward the requirement		
A computer science course (prefix CS) numbered 5900 or above, with department approval		

Remaining courses may be chosen from advanced technical elective courses in computer science (prefix CS) or in other disciplines with department approval; the following are preapproved technical electives.

Course #	Title	Hours
Biology		
BIOL:2512	Fundamental Genetics	4
BIOL:3172	Evolution	4
Chemistry		
CHEM:2210	Organic Chemistry I	3
CHEM:2220	Organic Chemistry II	3
CHEM:2230	Organic Chemistry I for Majors	3
CHEM:2240	Organic Chemistry II for Majors	3
CHEM:2410	Organic Chemistry Laboratory	3
Electrical and Computer Engineering		
ECE:3600	Control Systems	3
ECE:5450	Machine Learning	3
ECE:5480	Digital Image Processing	3
ECE:5600	Control Theory	3
Earth, Environment, and Sustainability		
SEES:2410	Mineralogy	4
SEES:3020	Earth Surface Processes	3
SEES:3210	Principles of Paleontology	3
SEES:3330	Sedimentary Geology	4
SEES:3360	Soil Genesis and Geomorphology	3
SEES:3380	Fluvial Geomorphology	3
SEES:3390	Integrated Watershed Analysis	3
SEES:3510	Igneous and Metamorphic Petrology	4
SEES:3520	GIS for Environmental Applications	3
SEES:3540	Geographic Visualization	3
SEES:3840	Structural Geology	4
SEES:4800	Global Geophysics	3
Economics		
ECON:4700	Topics in Analytical Economics	3
Linguistics		
LING:3117	Psychology of Language	3
Mathematics		
MATH:2560	Engineering Differential Equations	3
MATH:2850	Calculus III	4
MATH:3550	Engineering Vector Calculus	3
MATH:3600	Introduction to Ordinary Differential Equations	2-3
MATH:3720	Introduction to Abstract Algebra	4
MATH:3770	Foundations of Analysis	4
MATH:4040	Matrix Theory	3
MATH:4050	Introduction to Discrete Mathematics	3

MATH:4060	Discrete Mathematical Models	3
Philosophy		
PHIL:4590	Foundations of Cognitive Science	3
PHIL:4691	Mathematical Logic	3
PHIL:4692	Modal Logic	3
Physics		
PHYS:2703	Physics III	4
PHYS:2704	Physics IV	3-4
Statistics and Actuarial Science		
ACTS:3080	Mathematics of Finance I	3
STAT:4100	Statistical Inference I	3
STAT:4101	Statistical Inference II	3

Natural Science Sequences

Students take two or more courses in a sequence (totaling at least 6 s.h.) in a cognate area of natural science. The natural science sequence is intended to enhance a student's perspective by providing a deeper understanding of the scientific method. Typically, it consists of a sequence of courses taken in the same science department. Students often choose courses that also fulfill the GE CLAS Core [p. 22] Natural Sciences requirement. Some possible choices are listed below; the director of undergraduate studies may approve others.

CLEP/AP credit may be used to satisfy part or all of the natural science requirement only if the appropriate science department at the University of Iowa accepts the credit as equivalent to one or more of the specific courses listed below.

Course #	Title	Hours
Astronomy		
ASTR:1771	Fundamental Astronomy I: The Solar System and Exoplanets	4
ASTR:1772	Fundamental Astronomy II: Evolution of Stars, Galaxies, and the Universe	4
Biology		
BIOL:1411	Foundations of Biology	4
BIOL:1412	Diversity of Form and Function	4
Chemistry		
CHEM:1110	Principles of Chemistry I	4
CHEM:1120	Principles of Chemistry II	4
Earth, Environment, and Sustainability		
One of these sequences:		
SEES:1030	Introduction to Earth Science	3-4
or SEES:1050	Introduction to Geology	
SEES:1080	Introduction to Environmental Science	3-4
or		
SEES:1020	The Global Environment	3
SEES:2050	Foundations of GIS	4
Physics		
PHYS:1611 & PHYS:1612	Introductory Physics I and Introductory Physics II	8
or		
PHYS:1701 & PHYS:1702	Physics I and Physics II	8

Early Admission to the Graduate College

Undergraduate computer science students who have 6 s.h. or less to earn toward graduation may apply for early admission to the Graduate College. Early admission allows students in their final undergraduate semester to take courses for graduate credit in addition to the courses they need to complete their bachelor's degrees.

Combined Programs

BS/MCS

Qualified computer science undergraduate students who plan to earn the Master of Computer Science degree may apply for the combined Bachelor of Science/Master of Computer Science program. The combined BS/MCS program allows students to earn both degrees in five years. The program requires a total of 140 s.h. Students are granted a BS when they complete all requirements for the undergraduate degree.

Students in the combined program must complete all requirements for each degree, but may count a maximum of 12 s.h. (four courses) toward both degrees. The four courses must be taken during the fourth year of undergraduate study, after admission to the combined program, and must satisfy degree requirements of both the BS and the MCS.

If students withdraw from the combined program before completing their bachelor's degree, credit earned in the four courses is counted only toward the undergraduate degree.

Students apply for admission to the combined program during their third year as an undergraduate and enter the program at the beginning of their fourth year. They typically complete the combined program in one year after completing the BS requirements.

Applicants to the combined program must:

- be enrolled as a BS student majoring in computer science at the University of Iowa;
- have completed a minimum of 80 s.h. at the time of admission to the combined program, with at least 30 s.h. earned at the University of Iowa; and
- have a cumulative University of Iowa grade-point average (GPA) of at least 3.25 and a GPA of at least 3.25 in the computer science major (computed on math prerequisites and core computer science coursework taken at the University of Iowa).

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Students must submit an application for admission to the program, a statement of purpose, three letters of recommendation, and transcripts from all colleges attended; they also must apply to the Graduate College. Graduate Record Examination (GRE) scores are not required. For more detailed information, see Graduate Programs on the Department of Computer Science website.

Honors

Honors in the Major

Students majoring in computer science have the opportunity to graduate with honors in the major. They must maintain a minimum UI cumulative grade-point average (GPA) of 3.33 and a minimum major GPA of 3.50; additionally, students complete 4–6 s.h. of CS:3990 Honors in Computer Science or Informatics and submit an acceptable honors thesis or project. At any time, students can communicate to the computer science professional advisor that they have an honors interest and can have that designation placed on their academic record.

A student is responsible for finding a faculty member willing to supervise the honors project. The student can register for CS:3990 Honors in Computer Science or Informatics under the project supervisor's name once the faculty member approves the proposed project and a timetable for the work. Once that is accomplished, the student must then communicate with the Department of Computer Science honors director, who changes the student's status to denote the student is pursuing honors in the major. It is not necessary to have declared an honors interest before finding a thesis supervisor and beginning to pursue honors in the major, but the student must be coded as pursuing honors prior to completing the application for degree.

An honors project can be completed in one semester, but it usually takes two semesters to complete. In their final semester, a student must register for CS:3999 Computer Science or Informatics Honors Cohort. The honors thesis/project must be approved by the thesis supervisor and then submitted to the honors director who will give initial approval that the student can graduate with honors in the major. Final approval is given after final grades are submitted and all requirements are met. For more details regarding project requirements, see Honors in Computer Science on the department's website.

Students who pursue honors in the major may count a maximum of 3 s.h. in CS:3990 Honors in Computer Science or Informatics toward the advanced technical elective requirement. Those in the combined BS/MCS program may register for 4–6 s.h. in CS:5990 Individualized Research or Programming Project instead of CS:3990; this registration allows them to receive graduate credit for the course while satisfying the course requirements to graduate with honors.

University of Iowa Honors Program

In addition to honors in the major, students can pursue honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the computer science major. However, the semester hours earned in CS:3990 Honors in Computer Science or Informatics or CS:5990 Individualized Research or Programming Project can be used to partially satisfy the UI Honors requirement of 12 s.h. of experiential learning coursework.

For more information, contact the Department of Computer Science honors director.

Career Advancement

Computer science graduates work primarily in two market sectors. One sector is the software and computer industry where the words computer science are being used—those in Silicon Valley, among other areas, that can range from start-ups to giants like Amazon, Google, Facebook, and Microsoft. The other sector allows computer science students to use their technical expertise in fields beyond computer science. Examples would be working as a user experience (UX) designer for a marketing agency or developing software for a financial group; there are computer science majors working in media, health care, the government, and even in law firms. Computer science skills are needed everywhere so students have ample opportunities to find an environment that fits their interests and strengths.

As many as one-third of computer science graduates go into research or elect to pursue graduate studies in computer science, including the University of Iowa's five-year BS/MCS program, or pursue other areas where computer science provides a strong foundation.

A recent job placement survey indicates that more than 97% of computer science graduates have a job, are continuing education, or are not seeking employment within six months of graduation.

View post-graduation data on the Pomerantz Career Center website, which uses University of Iowa placement information to explore what recent computer science alumni are doing, including median salaries, job titles, companies of employment, and other facts about UI graduates.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The Four-Year Graduation Plan is not available to BS students majoring in computer science. Students work with their advisors on individual graduation plans.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Computer Science, BS

Course	Title	Hours
Academic Career		
Any Semester		
Students who major in computer science may not also major or minor in computer science and engineering, data science, or informatics.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CS:1210	Computer Science I: Fundamentals [b]	4
MATH:1850	Calculus I [c]	4

RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
CSI:1600	Success at Iowa	1
Elective course [d]		1
	Hours	**13-14**
Spring		
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
MATH:1860	Calculus II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
	Hours	**17-18**
Second Year		
Fall		
CS:2630	Computer Organization [f]	4
CS:3330	Algorithms [f]	3
Major: mathematics elective [g]		3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
Elective course [d]		1
	Hours	**15-17**
Spring		
CS:2820	Introduction to Software Development [f]	4
CS:3820	Programming Language Concepts	3
Major: mathematics elective [g]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
Elective course [d]		2
	Hours	**19-21**
Third Year		
Fall		
CS:3640 or CS:3620	Introduction to Networks and Their Applications or Operating Systems	3
Major: advanced computer science elective [i]		3
GE CLAS Core: Natural Sciences without Lab [e, j]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
	Hours	**13-14**
Spring		
CS:4330 or CS:4350	Theory of Computation or Logic in Computer Science	3
Major: advanced computer science elective [i]		3
GE CLAS Core: Natural Sciences with Lab [e, j]		4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
Elective course [d]		1
	Hours	**15-16**
Fourth Year		
Fall		
Major: advanced computer science or technical elective [k]		3
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: International and Global Issues [e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
Major: advanced computer science or technical elective [k]		3
GE CLAS Core: Social Sciences [e]		3
GE CLAS Core: Values and Society [e]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**15**
	Total Hours	**122-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in this course requires completion of a placement exam.

c Enrollment in math courses requires completion of a placement exam.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students may take CS:2630, CS:2820 and CS:3330 in any order after completing CS:1210, CS:2210, and CS:2230.

g Required math electives include (1) MATH:2700 and (2) STAT:2020 or STAT:3120

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i Students may choose a computer science course (prefix CS) numbered 3620-5899, except CS:3910, CS:3980 and CS:4310, or a CS course numbered 5900 or above with department approval. A course used to complete a core requirement cannot also be used as a major elective.

j The BS in computer science requires a 6-8 s.h., two-semester sequence science cognate. Select courses approved to meet the major requirement may also be used to meet the GE CLAS Core Natural Science requirement. See your academic advisor for additional information.

k Students may choose a computer science course (prefix CS) numbered 3620-5890, except CS:3910, CS:3980 and CS:4310, or a CS course numbered 5900 or above with department approval. A course used to satisfy a core requirement cannot also be used as an advanced major elective. Alternatively, students may take a course in other disciplines with department approval. See academic advisor for additional information.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Informatics, BS

The major in informatics provides students with the necessary training for employment in careers such as software development, user experience, and data analytics. It provides good preparation for graduate study in a variety of disciplines.

Students may declare a major in informatics when they are admitted to the university or afterward. All students begin the majors as Bachelor of Arts students but may switch to the Bachelor of Science program at any time.

The informatics major combines fundamental and practical computing knowledge with a choice of cognate area from the liberal arts and sciences, providing students with the necessary background and specialized skills to work at the interface of computing and another discipline. Students may begin the major without a chosen cognate area; they may declare a cognate at any time. Some cognates are available only with the Bachelor of Arts, while others are available only with the Bachelor of Science. A student's choice of cognate determines whether the student will earn a BA or a BS.

Informatics majors are advised at the Academic Advising Center until they have completed 30 s.h., at which point they are assigned a departmental advisor. Students being advised at the Academic Advising Center also can consult with an informatics faculty advisor.

Transfer students who have taken a course approved as equivalent to a required informatics or computer science course are exempt from that course. Transfer course grades are included in the informatics grade-point average.

Students should consult the Department of Computer Science website or visit the department's office for information about general policies, elective areas, internships, scholarships, and student groups, such as the university's chapter of the Association for Computing Machinery (ACM) and Women in Computing Sciences (WiCS).

Many informatics major courses are offered once per year and have prerequisites that are only offered annually. Speak with an advisor for more information.

Advanced Placement

The Computer Science Advanced Placement (AP) exam may be used to satisfy requirements. See Advanced Placement Credit Policy on the Department of Computer Science website.

Learning Outcomes

- Students can apply computational thinking approaches to solve problems.
- Students can individually and collaboratively develop software using professional tools.
- Students can extract, organize, analyze, and present data from a variety of sources.
- Students can contribute to the development of usable, useful, and enjoyable software applications by using human-centered methods.
- Students understand social, professional, and ethical issues related to computing.
- Students have a thorough understanding of a chosen cognate area.

Requirements

The Bachelor of Science with a major in informatics requires a minimum of 120 s.h., including at least 55–59 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. A cumulative GPA of at least 2.00 is required for graduation. Students must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The program combines foundational informatics coursework with coursework in a cognate area. The major offers the cognate areas of bioinformatics, medical informatics, and individualized cognates. Required credit for the major depends on a student's choice of cognate area.

Coursework for the major includes the informatics core, two electives, a statistics course, and a set of courses in the chosen cognate area. Work for the major may not be taken pass/nonpass. Students are expected to have taken MATH:1005 College Algebra or the equivalent.

Students who major in informatics may not also major in computer science, business analytics and information systems, or computer science and engineering. They may, however, earn a minor in computer science.

Departmental Residency Requirement

Students must complete at least five courses (minimum of 15 s.h.) at the University of Iowa from the following: CS:3910 Informatics Project and four additional computer science courses (prefix CS) numbered 2500–4999; these courses are requirements for the BS in informatics as listed below.

Program Requirements

The BS with a major in informatics requires the following coursework. Enrollment in many courses for the major requires a minimum grade of C-minus in prerequisite courses.

Requirements	Hours
Informatics Core Courses	19
Informatics Electives	6
Statistics Course	3
Cognate Courses	27-31

Informatics Core

The informatics core consists of six required computing courses (19 s.h.) that emphasize data manipulation, databases, and networking. It provides more applications-oriented content than the traditional computer science curriculum yet is designed to offer students a sound basis in underlying computer science themes and techniques.

Course #	Title	Hours
All of these:		
CS:1110	Introduction to Computer Science	3
CS:2110	Programming for Informatics	4
CS:2420	Analyzing Data for Informatics	3
CS:2520	Human-Computer Interaction for Informatics	3

CS:2620	Server-Side Development for Informatics	3
CS:3910	Informatics Project	3

Informatics Electives

Students must complete at least 6 s.h. in two computer science courses (prefix CS) numbered 3000–4999, excluding CS:3910 and CS:4510; they may count up to 3 s.h. from CS:3990 Honors in Computer Science or Informatics. Course selection must be approved by an informatics advisor. Students may have additional choices from the Department of Electrical and Computer Engineering and the Department of Business Analytics; consult an informatics advisor for additional choices.

Statistics Course

Students must complete one introductory statistics course. Some cognates require a specific statistics course. Students should consult with their advisors to choose a statistics course appropriate for their cognate area.

Course #	Title	Hours
One of these:		
STAT:2010	Statistical Methods and Computing	3
STAT:3510	Biostatistics	3

Cognates

Students must complete all requirements listed under one of the following cognate areas: bioinformatics, medical informatics, or an individualized cognate.

Bioinformatics

The informatics major with the bioinformatics cognate requires a minimum of 58 s.h. of work for the major, including 30 s.h. in cognate courses. The bioinformatics cognate is intended for students interested in applications of computing to the biological sciences. It may lead to careers in laboratory research, biotechnology, data management, and other related areas. It may also prepare students for graduate programs in bioinformatics or genetics. Cognate courses are drawn primarily from biology and chemistry.

Course #	Title	Hours
All of these:		
BIOL:1411	Foundations of Biology	4
BIOL:1412	Diversity of Form and Function	4
CHEM:1110	Principles of Chemistry I	4
CHEM:1120	Principles of Chemistry II	4
BIOL:2512	Fundamental Genetics	4
BIOL:3172	Evolution	4
Two of these:		
BIOL:2673	Ecology	3
BIOL:3212	Bioinformatics for Beginners	3
BIOL:3314	Genomics	3

Medical Informatics

The informatics major with the medical informatics cognate requires a minimum of 56 s.h. of work for the major, including at least 28 s.h. in cognate courses. The medical informatics cognate is intended for students interested in applications of computing to health care, especially in a clinical setting. It may lead to careers in medical or hospital settings, graduate programs in medical informatics, or professional degree programs in medicine, dentistry, nursing, or other allied health professions. Cognate courses are drawn from biology, chemistry, health, sport, and human physiology, and public health.

Students who choose the medical informatics cognate must satisfy the major's statistics requirement with either STAT:2010 Statistical Methods and Computing or STAT:3510 Biostatistics.

Course #	Title	Hours
All of these:		
BIOL:1411 & BIOL:1412	Foundations of Biology and Diversity of Form and Function	8
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
CHEM:2210 & CHEM:2220	Organic Chemistry I and Organic Chemistry II	6
At least two of these:		
BIOL:2512	Fundamental Genetics	4
BIOL:3172	Evolution	4
CHEM:2410	Organic Chemistry Laboratory	3
HHP:2100	Human Anatomy	3
HMP:4000	Introduction to the U.S. Health Care System	3

Individualized Cognates

Students interested in developing individualized cognates may work with an informatics advisor. Individualized cognates may be drawn primarily from one department or an appropriate mix of departments; they require an approved set of cognate courses totaling 27–31 s.h.

Early Admission to the Graduate College

Undergraduate informatics students who have 6 s.h. or less to earn toward graduation may apply for early admission to the Graduate College. Early admission allows students in their final undergraduate semester to take courses for graduate credit in addition to the courses they need to complete their bachelor's degrees.

Combined Programs

BS/MS in Informatics (Geoinformatics, Health Informatics, or Human-Computer Interaction Subprogram)

Students majoring in informatics who are interested in earning a master's degree in informatics may apply to the combined BS/MS program (bioinformatics or medical informatics subprogram) offered by the College of Liberal Arts and Sciences and the Graduate College. The program enables students to begin graduate-level study of informatics before they complete their bachelor's degree. Students are able to complete both degrees in less time than if they were to complete the two degrees separately.

Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. For more information about the graduate degree program, see the MS in informatics [p. 1753] (Graduate College) in the catalog.

Honors

Honors in the Major

Students majoring in informatics have the opportunity to graduate with honors in the major. They must maintain a minimum UI cumulative grade-point average (GPA) of 3.33 and a minimum major GPA of 3.50; additionally, students complete 4–6 s.h. of CS:3990 Honors in Computer Science or Informatics and submit an acceptable honors thesis or project. At any time, students can communicate to the computer science professional advisor that they have an honors interest and can have that designation placed on their academic record.

A student is responsible for finding a faculty member willing to supervise the honors project. The student can register for CS:3990 Honors in Computer Science or Informatics under the project supervisor's name once the faculty member approves the proposed project and a timetable for the work. Once that is accomplished, the student must then communicate with the Department of Computer Science honors director, who changes the student's status to denote the student is pursuing honors in the major. It is not necessary to have declared an honors interest before finding a thesis supervisor and beginning to pursue honors in the major, but the student must be coded as pursuing honors prior to completing the application for degree.

An honors project can be completed in one semester, but it usually takes two semesters to complete. In the final semester, a student must register for CS:3999 Computer Science or Informatics Honors Cohort. The honors thesis/project must be approved by the thesis supervisor and then submitted to the honors director who will give initial approval that the student can graduate with honors in the major. Final approval is given after final grades are submitted and all requirements are met. For more details regarding project requirements, see Honors in Computer Science on the department's website.

University of Iowa Honors Program

In addition to honors in the major, students can pursue honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the informatics major. However, the semester hours earned in CS:3990 Honors in Computer Science or Informatics can be used to partially satisfy the UI Honors requirement of 12 s.h. of experiential learning coursework.

For more information, contact the Department of Computer Science honors director.

Career Advancement

Informatics graduates work in a broad range of market sectors, reflecting the interdisciplinary nature of the program and the large number of available cognates. Students will have technical skills along with a specialty area that can help them pursue a specific type of organization or interest field. Here are just a few of the areas that informatics graduates have pursued: software development, database and/or web administration, data analysis, software support (IT), user interface/user experience design (the human-computer interaction cognate is useful for this area), and health care information (the health informatics cognate is useful for this area).

A recent job placement survey indicates that more than 90% of University of Iowa informatics graduates have a job, are continuing education, or are not seeking employment within six months of graduation.

View post-graduation data on the Pomerantz Career Center website, which uses University of Iowa placement information to explore what recent informatics alumni are doing, including median salaries, job titles, companies of employment, and other facts about UI graduates.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The Four-Year Graduation Plan is not available to BS students majoring in informatics. Students work with their advisors on individual graduation plans.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Informatics, BS

- Bioinformatics Track [p. 311]
- Medical Informatics Track [p. 312]

Bioinformatics Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CS:1110	Introduction to Computer Science	3
CSI:1600	Success at Iowa	1
CHEM:1110	Principles of Chemistry I [b]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
	Hours	**14-15**
Spring		
CHEM:1120	Principles of Chemistry II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3

Major: statistics requirement [d]		3
Elective course [e]		3
	Hours	**13**
Second Year		
Fall		
BIOL:1411	Foundations of Biology	4
CS:2110	Programming for Informatics [f]	4
GE CLAS Core: Social Sciences [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [g]		4 - 5
Elective course [e]		1
	Hours	**16-17**
Spring		
BIOL:1412	Diversity of Form and Function	4
CS:2420	Analyzing Data for Informatics [h]	3
CS:2520	Human-Computer Interaction for Informatics [h]	3
GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [g]		4 - 5
	Hours	**17-18**
Third Year		
Fall		
CS:2620	Server-Side Development for Informatics [f]	3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective courses [g]		4 - 5
Elective course [e]		3
Elective course [e]		2
	Hours	**15-16**
Spring		
BIOL:2512	Fundamental Genetics	4
Major: advanced informatics elective [i]		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [g]		4 - 5
Elective course [e]		2
	Hours	**16-17**
Fourth Year		
Fall		
BIOL:3172	Evolution	4
Major: advanced informatics elective [i]		3
GE CLAS Core: Values and Society [c]		3
Elective course [e]		3
Elective course [e]		2
	Hours	**15**
Spring		
CS:3910	Informatics Project [h]	3
Major: advanced biology elective [j]		3
Major: advanced biology elective [j]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**121-126**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Choose from STAT:2010 or STAT:3510.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

g Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

h Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

i Computer science course (prefix CS) numbered 3000-4999, including CS:3990 for 3 s.h., but excluding CS:3910 and CS:4510.

j Students must choose from BIOL:2673, BIOL:3212, or BIOL:3314.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Medical Informatics Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CS:1110	Introduction to Computer Science	3
CHEM:1110	Principles of Chemistry I [b]	4

RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
CSI:1600	Success at Iowa	1
	Hours	**14-15**
Spring		
CHEM:1120	Principles of Chemistry II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
Major: statistics requirement [d]		3
Elective course [e]		3
	Hours	**13-14**
Second Year		
Fall		
BIOL:1411	Foundations of Biology	4
CS:2110	Programming for Informatics [f]	4
GE CLAS Core: Social Sciences [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [g]		4 - 5
Elective course [e]		2
	Hours	**17-18**
Spring		
CS:2420	Analyzing Data for Informatics [h]	3
CS:2520	Human-Computer Interaction for Informatics [h]	3
BIOL:1412	Diversity of Form and Function	4
GE CLAS Core: World Languages Second Level Proficiency or elective course [g]		4 - 5
Elective course [e]		2
	Hours	**16-17**
Third Year		
Fall		
CS:2620	Server-Side Development for Informatics [f]	3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [g]		4 - 5
Elective course [e]		3
	Hours	**16-17**
Spring		
CHEM:2210	Organic Chemistry I	3
Major: advanced informatics elective [i]		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [g]		4 - 5
Elective course [e]		3
	Hours	**16-17**
Fourth Year		
Fall		
CHEM:2220	Organic Chemistry II	3
Major: advanced informatics elective [i]		3
GE CLAS Core: Values and Society [c]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**
Spring		
CS:3910	Informatics Project [h]	3
Major: advanced science elective [j]		3
Major: advanced science elective [j]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**122-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Choose from STAT:2010 or STAT:3510.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

g Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

h Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

i Computer science course (prefix CS) numbered 3000-4999, including CS:3990 for 3 s.h., but excluding CS:3910 and CS:4510.

j Choose from BIOL:2512, BIOL:3172, CHEM:2410, HHP:2100 or HMP:4000.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Computer Science, Minor

Requirements

The undergraduate minor in computer science requires a minimum of 17 s.h. in computer science coursework, including 12 s.h. in courses taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. Students excused from courses required for the minor may substitute other computer science electives. Enrollment in many courses for the minor requires a minimum grade of C- minus in prerequisite courses.

Students who major in informatics may earn a minor in computer science. Students majoring in computer science, computer science and engineering, or data science may not minor in computer science.

The minor in computer science requires the following coursework.

Course #	Title	Hours
All of these:		
CS:1210	Computer Science I: Fundamentals	4
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
CS:3330	Algorithms	3
One of these:		
CS:3210	Programming Languages and Tools	3
CS:3980	Topics in Computer Science I	3

Students who have completed ENGR:1300 Introduction to Engineering Computing and ENGR:2730 Computers in Engineering are considered to have satisfied the minor's requirement for CS:1210 Computer Science I: Fundamentals.

Students may declare the computer science minor and request an audit for the minor on MyUI.

Informatics, Minor

Requirements

The undergraduate minor in informatics requires a minimum of 16 s.h., including at least 12 s.h. in courses taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Students who major in computer science, data science, computer science and engineering, electrical engineering (computer track), or business analytics and information systems may not earn a minor in informatics.

The minor in informatics requires the following coursework. Enrollment in many courses for the minor requires a minimum grade of C-minus in prerequisite courses.

Course #	Title	Hours
Both of these:		
CS:1110	Introduction to Computer Science	3
CS:2110	Programming for Informatics	4
Two of these:		
CS:2420	Analyzing Data for Informatics	3
CS:2520	Human-Computer Interaction for Informatics	3
CS:2620	Server-Side Development for Informatics	3
One of these:		
PSY:2811	Research Methods and Data Analysis in Psychology I	3
STAT:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:2010	Statistical Methods and Computing	3
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:3120	Probability and Statistics	4
STAT:3510	Biostatistics	3
STAT:4143	Introduction to Statistical Methods	3

Students may declare the informatics minor and request an audit for the minor on MyUI.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Informatics, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The informatics minor requires a minimum of 16 s.h. of coursework, including at least 12 s.h. of courses taken at the University of Iowa.		
Students must earn a C-minus minimum grade in prerequisite courses to advance to the subsequent course.		
Several informatics courses are offered only in the fall or spring terms.		
For assistance sequencing the minor given the irregular course offerings and prerequisite structure, see the computer science departmental advisor.		
	Hours	**0**
First Year		
Fall		
CS:1110	Introduction to Computer Science	3
	Hours	**3**
Spring		
CS:2110	Programming for Informatics	4
	Hours	**4**
Second Year		
Fall		
Minor: statistics course [a]		3 - 4
	Hours	**3-4**
Spring		
CS:2420	Analyzing Data for Informatics [b]	3
	Hours	**3**
Third Year		
Spring		
CS:2520	Human-Computer Interaction for Informatics [b]	3
	Hours	**3**
	Total Hours	**16-17**

a Choose from PSY:2811, STAT:1020, STAT:1030, STAT:2010, STAT:2020, STAT:3120, STAT:3510 or STAT:4143. Some statistics options require specific math prerequisites. See academic advisor for more information.

b Need two of these: CS:2420 (spring only, requires a statistics prerequisite), CS:2520 (spring only), CS:2620 (fall only); check MyUI for course availability since offerings are subject to change.

Master of Computer Science, MCS

The Master of Computer Science (MCS) is a course-based program for students who wish to enhance their careers with advanced knowledge of computer science. The MCS program does not include a thesis requirement.

Current and prospective graduate students should consult the Computer Science Graduate Handbook, available from the department's office and its website. The handbook provides detailed information about specific degree requirements, such as required courses, examinations, and dissertation requirements.

Learning Outcomes

Students gain:

- in-depth and up-to-date knowledge of concepts and/or technologies covering a breadth of computer science;
- problem-solving expertise in the context of the areas covered;
- a grounding in theoretical aspects of computer science; and
- exposure to cutting-edge research.

Requirements

The Master of Computer Science (MCS) requires a minimum of 32 s.h. of graduate credit, including at least 24 s.h. earned at the University of Iowa. Students must maintain a UI cumulative grade-point average of at least 2.75. Consult the Computer Science Graduate Handbook for detailed information about MCS requirements and graduate study policies.

The Master of Computer Science requires the following coursework.

Theory

Course #	Title	Hours
One of these:		
CS:4330	Theory of Computation	3
CS:4350	Logic in Computer Science	3
CS:4980	Topics in Computer Science II (if topic is approved by the director of graduate studies)	3
CS:5340	Limits of Computation	3
CS:5350	Design and Analysis of Algorithms	3
CS:5360	Randomized Algorithms	3
CS:5370	Computational Geometry	3
CS:5850	Programming Language Foundations	3
CS:5860	Lambda Calculus and Applications	3

Algorithms

Course #	Title	Hours
This course:		
CS:4310	Design and Implementation of Algorithms	3

Colloquium

Students are graded on a satisfactory/unsatisfactory (S/U) basis. They must attend at least 80% of scheduled talks to earn a satisfactory grade in the course.

Course #	Title	Hours
This course:		
CS:6000	Research Seminar: Colloquium Series (taken twice for 1 s.h. each)	2

Electives

Students complete their remaining 24 s.h. (eight additional courses) with a combination of computer science graduate courses, research and project courses, and non-computer science graduate courses approved by their advisor. The choice of electives must satisfy the following constraints.

- At least six courses (18 s.h.) must be classroom-based computer science graduate courses numbered 4300 or above, excluding CS:5110 Introduction to Informatics, CS:5990 Individualized Research or Programming Project, CS:6000 Research Seminar: Colloquium Series, CS:6990 Readings for Research, and CS:7990 Research for Dissertation.
- At most, one offering of CS:5990 Individualized Research or Programming Project may be taken. This course is an excellent option for students interested in exploring an area in computer science beyond that provided by computer science classroom-based courses. Students interested in pursuing a PhD usually benefit from taking CS:5990.
- At most, two technical courses (approved by the advisor) that are not computer science graduate courses may be taken. For students who want to take courses outside the department, those in mathematics, statistics, electrical engineering, industrial engineering, and management sciences are some popular options. Students may also include one computer science course taken during their first year in the MCS program from these: CS:3620 Operating Systems, CS:3640 Introduction to Networks and Their Applications, or CS:3820 Programming Language Concepts.

Software Engineering Subprogram

The Department of Computer Science, with the Department of Electrical and Computer Engineering, offers an MCS subprogram in software engineering. Students receive a software engineering subprogram designation on their transcript after they complete CS:5800 Fundamentals of Software Engineering, CS:5810 Formal Methods in Software Engineering, CS:5820 Software Engineering Languages and Tools, and CS:5830 Software Engineering Project, and earn their MCS degree. Students should meet with the academic services coordinator to file the appropriate paperwork when they apply for the degree if they did not originally declare their intent to complete the software engineering subprogram.

Admission

Admission decisions are based on prior academic performance, letters of reference, and the applicant's statement about background and purpose. Applicants must meet the admission requirements of the Graduate College;

see the Manual of Rules and Regulations on the Graduate College website.

A version of the BA/MCS combined program is available for Grinnell College undergraduate students pursuing a BA degree in computer science who want to earn the MCS at the University of Iowa.

Career Advancement

Students pursue software design and development careers in the technology sector, including UIX, mobile, and web development. Recent graduates hold positions at technology giants such as Microsoft, Google, Yahoo, or Intel, while others have taken positions in internationally established organizations whose primary business lies in the consulting, financial, health care, insurance, or media/entertainment sectors. A few MCS students enter the start-up market or pursue additional graduate education leading to the PhD at the University of Iowa or elsewhere.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Master of Computer Science, MCS

Course	Title	Hours
Academic Career		
Any Semester		
32 s.h. must be graduate level coursework; up to 8 s.h. of graduate transfer credits allowed upon approval. Students choose graduate level coursework from an approved list of courses; more information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CS:4310	Design and Implementation of Algorithms	3
CS:6000	Research Seminar: Colloquium Series [b]	1
Elective course [c]		3
Elective course [c]		3
	Hours	**10**
Spring		
Theory course [d]		3
Elective course (possibly CS:5990 Indiv Research or Programming Project) [c]		3
Elective course [c]		3
	Hours	**9**
Second Year		
Fall		
Elective course (possibly non-CS technical course) [c]		3
Elective course [c]		3
Elective course [c]		3
	Hours	**9**
Spring		
CS:6000	Research Seminar: Colloquium Series [b]	1
Elective course [c]		3
Final Exam [e]		
	Hours	**4**
	Total Hours	**32**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Students must enroll twice for 1 s.h. each semester and attend at least 80% of scheduled talks for a satisfactory grade.

c See General Catalog and department website for specifics about elective coursework requirements; at least 18 s.h. must be computer science graduate coursework numbered 4300 or above; remaining 6 s.h. may be a combination of CS or non-CS graduate coursework, research and project courses.

d See General Catalog and department website for list of approved courses.

e Confirm completion of degree requirements.

Computer Science, MS

The Master of Science in computer science is offered only to students working toward the PhD in computer science. Students who are interested primarily in a master's degree and who do not intend to pursue a more advanced degree should apply to the Master of Computer Science [p. 316] (MCS) program. Students are not directly admitted to this degree program. For more information about program admission options, please contact the program.

Current and prospective graduate students should consult the Computer Science Graduate Handbook, available from the department's office and its website. The handbook provides detailed information about specific degree requirements, such as required courses, examinations, and dissertation requirements.

Learning Outcomes

Students gain:

- broad, up-to-date knowledge of computer science;
- fluency in reading, analyzing, synthesizing, and communicating research;
- a good understanding of a research area, its methods, and major open problems; and
- awareness of computing research ethics.

Requirements

Students should view the requirements for the PhD in computer science [p. 319]; the MS is offered only to students working toward the PhD in computer science. The MS requires a minimum of 32 s.h. of graduate credit.

Admission

The Department of Computer Science does not admit students to the Master of Science degree program; only to the Master of Computer Science (MCS) or Doctor of Philosophy (PhD) degree programs. Students who are interested primarily in a master's degree and who do not intend to pursue a more advanced degree should apply to the Master of Computer Science [p. 316] (MCS) program.

Computer Science, PhD

The Doctor of Philosophy program in computer science emphasizes preparation for research and teaching in academic settings or for research in private, industrial, or government laboratories.

Current and prospective graduate students should consult the Computer Science Graduate Handbook, available from the department's office and its website. The handbook provides detailed information about specific degree requirements, such as required courses, examinations, and dissertation requirements.

Learning Outcomes

Students gain:

- broad, up-to-date knowledge of computer science;
- fluency in reading, analyzing, synthesizing, and communicating research;
- a thorough understanding of a research area and its major open problems;
- awareness of computing research ethics; and
- experience performing original research advancing the state of knowledge in an area of computer science.

Requirements

The Doctor of Philosophy program in computer science requires a minimum of 72 s.h. of graduate credit, four examinations (qualifying, comprehensive, dissertation proposal, and final), and a written dissertation. Students must maintain a UI cumulative grade-point average of at least 3.00. Consult the Computer Science Graduate Handbook for detailed information about PhD requirements and graduate study policies.

Basic PhD requirements are as follows.

Core Requirements

Course #	Title	Hours
This course:		
CS:5350	Design and Analysis of Algorithms	3
And one of these:		
CS:4330	Theory of Computation	3
CS:5340	Limits of Computation	3

Breadth

Students must complete at least three of the following courses, with at least one course selected from each area (9 s.h.).

Systems and Software

Course #	Title	Hours
CS:4640	Computer Security	3
CS:4980	Topics in Computer Science II (section approved by the director of graduate studies)	3
CS:5610	High Performance Computer Architecture	3

Networks and Distributed Systems

Course #	Title	Hours
CS:4980	Topics in Computer Science II (section approved by the director of graduate studies)	3
CS:5620	Distributed Systems and Algorithms	3
CS:5630	Cloud Computing Technology	3

Programming Languages and Compilers

Course #	Title	Hours
CS:4980	Topics in Computer Science II (section approved by the director of graduate studies)	3
CS:5810	Formal Methods in Software Engineering	3
CS:5850	Programming Language Foundations	3
CS:5860	Lambda Calculus and Applications	3

With departmental approval, new courses or specific section offerings of CS:4980 Topics in Computer Science II may also satisfy a given area requirement.

Practice

Students must complete at least one 3 s.h. course with significant practical or implementation-oriented content. Each semester the department designates courses that satisfy this requirement. The following are typical selections.

Course #	Title	Hours
CS:4400	Database Systems	3
CS:4420	Artificial Intelligence	3
CS:4440	Web Mining	3
CS:4470	Health Data Analytics	3
CS:4500	Research Methods in Human-Computer Interaction	3
CS:4630	Mobile Computing	3
CS:4700	High Performance and Parallel Computing	3
CS:4720	Optimization Techniques	3
CS:4980	Topics in Computer Science II (section approved by the director of graduate studies)	3
CS:5800	Fundamentals of Software Engineering	3
CS:5990	Individualized Research or Programming Project	3

Cognate Area

In consultation with their advisor, students are required to select three courses, totaling 9 s.h. or more, that constitute coherent coverage of an external cognate area; the courses need not be offered by the same department. Choices include, but are not limited to, mathematics, statistics, genetics, biology, and engineering disciplines.

Colloquium

Students must earn at least 4 s.h. in the following.

Course #	Title	Hours
CS:6000	Research Seminar: Colloquium Series (taken at least four times for 1 s.h. each)	4

Responsible Conduct of Research Requirement

Students must complete this course within their first two years; it is offered in spring semesters.

Course #	Title	Hours
CS:5980	Topics in Computer Science III (Responsible Conduct of Research)	1 s.h.

Electives

Students fill their remaining semester hours with a selection of computer science graduate courses numbered 4300 or above and graduate courses outside of the Department of Computer Science, approved by their advisor.

Qualifying Exam

Students are required to pass a qualifying examination by the end of their second year of graduate study. Once students select a topic in consultation with their advisor, they are assigned a three-member faculty examination panel by the department. Then they prepare a written prospectus for review by the committee, followed by an oral presentation.

Comprehensive Exam

The comprehensive examination is an evaluation of a student's mastery of a research area near completion of formal coursework and before the preparation of the dissertation. The exam may be written, oral, or both, at the department's discretion, and is administered by a faculty committee. The comprehensive exam typically should be completed by the end of a student's third year and no later than the end of the fourth year in the PhD program.

Dissertation Proposal

At least six months prior to the final exam, a student must form a dissertation committee and circulate a formal thesis proposal to the committee. The proposal should describe the research performed to date and related work, and outline the expected thesis results. A student must argue the originality and significance of the expected results to the committee in a manner consistent with the advisor's counsel, which may or may not include an oral presentation.

Possible outcomes of a thesis proposal are that the committee finds the proposal satisfactory; the committee suggests modifications, and within a few weeks after the proposal defense, the student and committee reach a consensus by email or in face-to-face meetings on a modified set of expected thesis results; or the committee asks the student to redo their proposal, likely with a fresh proposal document and oral presentation, giving the student enough time to address the committee's concerns.

Dissertation

Each student must write a dissertation, a significant, original contribution to the field of computer science. The dissertation must be prepared in accordance with the format specified on the Graduate College Thesis and Dissertation website.

Final Oral Examination

Once the dissertation is complete and has been reviewed by the student's committee, a final oral examination is administered. This examination must take place no sooner than the semester following the successful completion of the comprehensive examination and no later than five years after completion of the comprehensive exam.

Admission

Admission decisions are based on prior academic performance, letters of reference, and the applicant's statement about background and purpose. Scores on the Graduate Record Examination (GRE) General Test are considered if applicants choose to include them. Students need not have a master's degree to begin the PhD program. Students admitted without a master's degree may choose to be granted an MS or the MCS while working toward the doctorate.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Many graduates obtain positions in industry research laboratories, such as Amazon, Disney, Google, Samsung, and Yahoo, or in government research laboratories. Others pursue research and teaching careers in higher education, with some starting their careers in postdoctoral positions at universities before seeking employment in tenure-track positions, and some are employed as faculty with more teaching-oriented positions. A few recent PhD graduates have founded or joined start-up companies.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Computer Science, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; up to 33 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**

First Year

Fall

CS:4330 or CS:5340	Theory of Computation or Limits of Computation	3
CS:5350	Design and Analysis of Algorithms	3
CS:6000	Research Seminar: Colloquium Series [c]	1
Breadth requirement course [d]		3
	Hours	**10**

Spring

CS:5980	Topics in Computer Science III [e]	1
Breadth requirement course [d]		3
Breadth requirement course [d]		3
Practice requirement course [f]		3
	Hours	**10**

Second Year

Any Semester

Exam: Doctoral Qualifying Exam [g]		
	Hours	**0**

Fall

CS:6000	Research Seminar: Colloquium Series [c]	1
Cognate area course [h]		3
Cognate area course [h]		3
Cognate area course [h]		3
	Hours	**10**

Spring

CS:6000	Research Seminar: Colloquium Series [c]	1
Elective course [i]		3
Elective course [i]		3
Elective course [i]		3
	Hours	**10**

Third Year

Any Semester

Exam: Doctoral Comprehensive Exam [j]		
	Hours	**0**

Fall

CS:6000	Research Seminar: Colloquium Series [c]	1
Elective course [i]		3
Elective course [i]		3
Elective course [i]		3
	Hours	**10**

Spring

Elective course [i]		3
Elective course [i]		3
Elective course [i]		3
Elective course [i]		1
	Hours	**10**

Fourth Year

Fall

Dissertation Proposal Defense [k]		
CS:7990	Research for Dissertation	7
	Hours	**7**

Spring

CS:7990	Research for Dissertation	6
Exam: Doctoral Final Exam [l]		
	Hours	**6**
	Total Hours	**73**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Students must enroll four times for 1 s.h. each semester and attend at least 80% of scheduled talks for a satisfactory grade.

d Students must complete at least three courses (9 s.h.), with at least one course from each of the following areas: systems and software, networks and distributed systems, programming languages and compilers; see General Catalog and department website for list of approved courses.

e Students must complete this course during first two years; typically offered in spring semesters. Note: this course does not count toward degree requirements.

f Students must complete at least one course (3 s.h.) with significant practical or implementation-oriented content; see General Catalog and department website for list of approved courses.

g Taken before the end of second year; see General Catalog and department website for specifics.

h In consultation with their advisor, students are required to select three courses, totaling 9 s.h. or more, that constitutes coherent coverage of an external cognate area; the courses need not be offered by the same department. Choices include, but are not limited to, mathematics, statistics, genetics, biology, and engineering disciplines.

i See General Catalog and department website for specifics about elective coursework requirements; may be a combination of thesis hours, directed readings, or CS graduate or non-CS graduate coursework. Work with faculty advisor to determine appropriate graduate coursework and sequence.

j Taken before the end of third year; see General Catalog and department website for specifics.

k Usually takes place six months prior to doctoral final exam.

l Oral dissertation defense.

Creative Writing (Iowa Writers' Workshop)

Interim Director

- Mark Levine

Graduate degree: MFA in English

Faculty: https://writersworkshop.uiowa.edu/faculty

Website: https://writersworkshop.uiowa.edu/

The Creative Writing Program (Iowa Writers' Workshop) is a world-renowned graduate program for fiction writers and poets. Founded in 1936, it was the first creative writing program in the United States to offer a degree, and it became a model for many contemporary writing programs. In addition to its Master of Fine Arts program, it also offers writing courses for undergraduates.

The Iowa Writers' Workshop has been home to thousands of remarkable writers, including Flannery O'Connor, Raymond Carver, Rita Dove, John Irving, James Alan McPherson, Philip Levine, Jane Smiley, Michael Cunningham, Sandra Cisneros, Marilynne Robinson, Denis Johnson, Mark Levine, Jorie Graham, Charles D'Ambrosio, Ann Patchett, Lan Samantha Chang, Margot Livesey, D.A. Powell, Nathan Englander, Yiyun Li, Elizabeth Willis, Eleanor Catton, Angela Flournoy, Garth Greenwell, Jamel Brinkley and Yaa Gyasi. The program's faculty and alumni include winners of virtually every major literary award, including thirty winners of the Pulitzer Prize, eight recent U.S. Poets Laureate, and numerous winners of the National Book Award, MacArthur Foundation Fellowships, and other major honors. In 2003, the Iowa Writers' Workshop received a National Humanities Medal from the National Endowment for the Humanities—the first awarded to a university and only the second given to an institution rather than an individual.

The Creative Writing Program offers courses for students from other programs of study; summer courses are open to undergraduate and graduate students.

To learn more about the Creative Writing Program's history and faculty, visit the Iowa Writers' Workshop website.

Programs

Graduate Program of Study

- Master of Fine Arts in English [p. 323]

Courses

Creative Writing—Writers' Workshop Courses

The Creative Writing Program offers courses for undergraduates as well as graduate students. Enrollment in some graduate-level courses requires admission to the MFA program. For more information about how the undergraduate courses fit into the undergraduate curriculum, see the "Creative Writing -Writers' Workshop" section on the Department of English's "Courses" list.

Course #	Title	Hours
CW:1800	Creative Writing Studio Workshop	3
CW:2100	Creative Writing	3
CW:2600	Special Topics Workshop	3
CW:2870	Fiction Writing	3
CW:2875	Poetry Writing	3
CW:3002	Writing and Reading Young Adult Fiction	0,3
CW:3003	Writing and Reading Science Fiction	3
CW:3004	Writing and Reading Fantasy Fiction	3
CW:3105	Writing From Life	3
CW:3107	Creative Writing for the Health Professions	3
CW:3215	Creative Writing and Popular Culture	3
CW:3218	Creative Writing for New Media	3
CW:3400	Working Writers in Conversation	3
CW:3870	Advanced Fiction Writing	3
CW:3875	Advanced Poetry Writing	3
CW:4745	The Sentence: Strategies for Writing	3
CW:4751	Creative Writing for the Musician	3
CW:4760	The Art of Revision: Rewriting Prose for Clarity and Impact	3
CW:4870	Undergraduate Writers' Workshop: Fiction	arr.
CW:4875	Undergraduate Writers' Workshop: Poetry	arr.
CW:4885	Undergraduate Writers' Seminar	arr.
CW:4894	Undergraduate Project in Creative Writing	arr.
CW:4897	Novel Writing	3
CW:7810	Form of Fiction	3
CW:7820	Form of Poetry	3
CW:7830	Seminar: Problems in Modern Fiction	arr.
CW:7840	Seminar: Problems in Modern Poetry	arr.
CW:7870	Fiction Workshop	arr.
CW:7875	Poetry Workshop	arr.
CW:7878	Special Topics Seminar	3
CW:7880	Teaching Assistant Pedagogy Colloquium	1-2
CW:7890	Graduate Project in Creative Writing	arr.
CW:7895	MFA Thesis	arr.

English, MFA

The Iowa Writers' Workshop offers an MFA degree in English with a subprogram in creative writing. The MFA is administered by the Department of English.

Occasionally well-qualified PhD students in the Department of English may obtain permission to submit a creative dissertation for the doctoral degree; the creative writing program assumes responsibility for granting permission for the option of the creative dissertation and for approving the dissertation once it is completed. Contact the director of graduate studies in the Department of English for more information.

Learning Outcomes

Graduates will:

- develop expertise in the art of writing through practical, immersive engagement with techniques and principles of craft in fiction or poetry;
- build deep knowledge and broad appreciation of the literary landscape through immersive engagement with diverse literary traditions;
- gain practical experience teaching literature, rhetoric, and/or creative writing at the college level;
- create and revise a significant body of top-level creative work in fiction or poetry;
- develop a strong individual artistic vision; and
- gain exposure to a wide range of career options in both academic and non-academic literary disciplines.

Requirements

The Master of Fine Arts degree in English (creative writing) requires 48 s.h. of graduate credit taken over four semesters in residence at the University of Iowa. Students must maintain a UI cumulative grade-point average of 2.75.

Students specialize in fiction or poetry. Up to 18 s.h. of graduate transfer credit may be counted toward the degree.

The MFA in English with a creative writing subprogram requires the following coursework.

Required Workshops

Course #	Title	Hours
One of the these:		
CW:7870	Fiction Workshop (taken four times for 1-6 s.h. each)	4-24
CW:7875	Poetry Workshop (taken four times for 1-6 s.h. each)	4-24

Students must enroll in one of these workshops during each semester of residence in the program. In each course, groups of 10–15 students read and critique each other's work.

Elective Courses

In conjunction with an advisor, students select courses that align with their creative research interests. The program is flexible and individualized. Elective coursework may be selected from any course subject numbered 3000 or above and must bring the total credit for the MFA to 48 s.h.

The program's seminars provide students with a thorough knowledge of their chosen literary form and related aspects of craft. Seminars include CW:7810 Form of Fiction, CW:7820 Form of Poetry, CW:7830 Seminar: Problems in Modern Fiction, and CW:7840 Seminar: Problems in Modern Poetry. Each focuses on a single aspect of modern poetry or fiction, such as a single writer's work or a body of work with a common theme or purpose.

In addition to taking creative writing program courses, MFA students can choose courses offered by other University of Iowa departments and programs, such as the Center for the Book (Graduate College), and the departments of Theatre Arts, Languages, Linguistics, Literatures, and Cultures [p. 659], and English (College of Liberal Arts and Sciences).

Examination and Thesis

During the second year of the program, each student must take the MFA examination, an essay exam that may be written outside of the classroom. Students also enroll in CW:7895 MFA Thesis for a maximum of 12 s.h. and submit their graduate thesis during the last semester; the thesis is a fiction or poetry manuscript of substantial length.

Admission

Applicants to the Iowa Writers' Workshop must meet the program's admission requirements as well as those of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

A creative writing manuscript is the most important element of the application for admission to the workshop. Submissions for poetry should include 10–12 poems. Submissions for fiction should include two or three short stories, several sections of a novel, or a combination of those. Submissions are typically 30–80 double-spaced pages, and may not exceed 80 double-spaced pages.

Other application materials include a personal statement, official transcripts from all universities and colleges attended, the graduate application form, three letters of recommendation, an application for graduate awards, and an application to the Graduate College.

For detailed information on application materials and procedures, see How to Apply on the Iowa Writers' Workshop website.

Critical Cultural Competence

Director, School of Social Work

- Miriam J. Landsman

Coordinator, Critical Cultural Competence

- Yolanda D. Spears (Social Work)

Undergraduate certificate: critical cultural competence

Website: https://socialwork.uiowa.edu/undergraduate/certificate-critical-cultural-competence

The certificate program helps students develop an appreciation for their own cultural identities. It also helps them become critically self-reflective in their orientation to differences in other people's cultural identities as defined by matters such as race, ethnicity, gender, class, abilities, age, and sexual orientation.

Certificate students build the knowledge, skills, and attitudes they will need in order to increase their effectiveness in relating to others across cultural differences and in domestic and international environments that are increasingly diverse.

Students who complete the certificate program develop:

- a greater appreciation of cultural differences;
- increased ability to interact with individuals of diverse backgrounds;
- a philosophy of treating people fairly, equitably, and thoughtfully;
- critical self-reflection and awareness of their own culture;
- ability to assess and understand culture-related privilege and disprivilege;
- concern with issues of power, privilege, and social justice; and
- marketable skills that will give them a competitive edge in their future endeavors.

Students can schedule a meeting with their advisor or the coordinator of the certificate to determine how earning the certificate will add vital skillsets to their major/degree.

The Certificate in Critical Cultural Competence is administered by the School of Social Work [p. 998].

Programs

Undergraduate Program of Study

Certificate

- Certificate in Critical Cultural Competence [p. 325]

Courses

Critical Cultural Competence Courses

CCCC:2220 Foundations of Critical Cultural Competence **3 s.h.**
Experiential and theoretical foundation; cultural competence as a concept and practice; conceptual frameworks and models for understanding cultural differences and similarities within, among, and between groups of people with whom others interact in their professional, personal, public, and private lives; appreciating differences while learning to be self-reflective; adjustment of perceptions, behaviors, styles for effective interaction with people from different ethnic, racial, sexual, gender, age, ability, and class groups. GE: Understanding Cultural Perspectives.

CCCC:4490 Integrative Seminar in Critical Cultural Competence **3 s.h.**
Capstone course; application of knowledge to one's areas of study; community settings where cultural competence is required; challenges and benefits of behaving in culturally competent ways in varied contexts; review and critique of educational experiences in the certificate program; development of skills in community education related to cultural competence; group project to benefit the university and/or community; development of a plan to integrate critical cultural competence into careers. Requirements: completion of other required certificate courses. Same as SSW:4490.

Critical Cultural Competence, Certificate

Faculty: https://socialwork.uiowa.edu/people/yolanda-spears

Requirements

The undergraduate Certificate in Critical Cultural Competence requires 18 s.h. of coursework. Students must maintain a grade-point average of at least 2.00 in work for the certificate. Ideally, students begin the certificate during their second year of undergraduate study.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

The Certificate in Critical Cultural Competence requires the following coursework.

Course #	Title	Hours
CCCC:2220	Foundations of Critical Cultural Competence (taken first)	3
CCCC:4490	Integrative Seminar in Critical Cultural Competence	3
One elective course with an immersion-learning or service-learning component		3
Three elective courses that cover at least two diversity categories (two courses can be taken from the same department and two must be numbered 2000 or above)		9
Total Hours		**18**

Students begin the certificate with CCCC:2220 Foundations of Critical Cultural Competence, which is offered fall and spring semesters and is a prerequisite to the coursework that follows. Students complete the certificate's requirements with the capstone course, CCCC:4490 Integrative Seminar in Critical Cultural Competence, which is offered in spring semesters.

In collaboration with the certificate program's coordinator, students establish study plans while completing the foundation course. The coordinator works with the student to ensure that the study plan complements the student's academic program and career interests.

For more information, students may contact the School of Social Work, their advisor, or the certificate coordinator to determine how the certificate would contribute to their degree.

Dance

Chair

- Rebekah J. Kowal

Undergraduate major: dance (BA, BFA)

Undergraduate minor: dance

Graduate degree: MFA in dance

Faculty: https://dance.uiowa.edu/people

Website: https://dance.uiowa.edu/

The Department of Dance provides comprehensive training in dance technique, performance, choreography, and theoretical studies while approaching scholarship, creative research, and studio-based training in the framework of a liberal arts education at the Bachelor of Arts, Bachelor of Fine Arts, and Master of Fine Arts levels. Integrating dance studies with the liberal arts and sciences, the dance degree programs promote creative and intellectual growth in an environment that develops young artists and advances the art of dance.

The undergraduate major prepares students for careers as performers, choreographers, and educators as well as for graduate studies in dance and related fields. The MFA curriculum broadens and deepens the knowledge and experience of returning professionals seeking to reenter the field or secure positions in higher education.

The Department of Dance imparts the values and knowledge necessary to empower students as they create unique paths forward. Students develop as young artists, creative thinkers, and problem solvers who may further the arts in society in diverse, urgent, and transformational ways.

The department offers 10 concerts each year on average, providing dance students with numerous opportunities to perform and/or to present their choreography; visit the Dance Callboard for more information on performances and auditions. The department's annual Dance Gala presents original faculty choreography as well as work by a distinguished guest artist with undergraduate and graduate students performing. UI Dance Company, the department's student repertory company, engages with the Iowa City community and performs around Iowa and the Midwest.

All dance faculty members regularly present and publish their choreography or scholarship nationally and internationally. Students have ample opportunities to work with faculty on their creative and scholarly research. Periodic master classes with noted guest teachers, choreographers, and touring companies introduce students to contemporary artists and provide opportunities for professionalization and networking.

Students have the opportunity to earn a major in dance and a second major in another of the university's programs, including one of the other performing arts units—music or theatre arts. Faculty and advisors guide students in combining their rigorous dance education with many other disciplines. Dance graduates work in the dance profession and also establish careers in a range of professional fields, such as arts administration and production, education, business, the health sciences, law, and engineering.

Programs

Undergraduate Programs of Study

Majors

- Major in Dance (Bachelor of Arts) [p. 334]
- Major in Dance (Bachelor of Fine Arts) [p. 339]

Minor

- Minor in Dance [p. 344]

Graduate Program of Study

- Master of Fine Arts in Dance [p. 346]

Facilities

The Department of Dance houses six dance studios, a media classroom, an audio recording laboratory, a costume shop, and its own 220-seat theater for dance concerts.

Courses

Dance Courses

DANC:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

DANC:1010 Beginning Tap **3 s.h.**
Elementary techniques, steps, and performance skills for rhythm and show tap styles; enhancement of rhythmic ability through exercises, improvisation, and creative activities; concert attendance, reading assignments, reflective and analytical writing; historical origins of dance form. Tap shoes required. GE: Literary, Visual, and Performing Arts.

DANC:1020 Beginning Jazz **3 s.h.**
Basic movement fundamentals, terminology, performance skills of jazz dance; enhancement of flexibility, strength, body alignment, coordination, balance, kinesthetic awareness, personal range of motion, and musicality; warm-up, locomotion, center combinations; concert attendance, reading assignments, reflective and analytical writing; historical origins of dance form. GE: Literary, Visual, and Performing Arts.

DANC:1025 Beginning Hip Hop Dance **3 s.h.**
Foundations of hip hop dance and street dance culture; movement participation is central to learning; students are challenged and encouraged to understand and apply foundational and historical knowledge of hip hop; concert attendance, reading assignments, reflective and analytical writing; historical origins of dance form. GE: Literary, Visual, and Performing Arts.

DANC:1030 Beginning Ballet 3 s.h.
Basic movement fundamentals, terminology, performance skills of ballet; enhancement of flexibility, strength, body alignment, coordination, balance, kinesthetic awareness, personal range of motion, and musicality; barre and center combinations; terminology; concert attendance, reading assignments, reflective and analytical writing; historical origins of dance form. GE: Literary, Visual, and Performing Arts.

DANC:1040 Beginning Modern Dance 3 s.h.
Basic movement fundamentals, terminology, performance skills of modern dance; enhancement of flexibility, strength, body alignment, coordination, balance, kinesthetic awareness, personal range of motion, and musicality; warm-up, locomotion, center combinations; concert attendance, reading assignments, reflective and analytical writing; historical origins of dance form. GE: Literary, Visual, and Performing Arts.

DANC:1070 Yoga 3 s.h.
In-depth physical practice of yoga postures; basic yoga philosophy and texts; personal practice of meditation; breathing techniques; for students interested in expanding or beginning yoga practice.

DANC:1075 Mat Pilates 2 s.h.
Basic movement fundamentals of the Pilates system of exercises benefiting body alignment, flexibility, balance, coordination, strengthening, injury prevention, self-awareness, and efficiency of movement; somatic training techniques that achieve conditioning needs of performing artists, athletes, and students at large.

DANC:1090 Dance Production 3 s.h.
Scenic design, costuming, lighting, audio/video, publicity; visits by professional guest lecturers, field trips to creative shops; projects.

DANC:1110 Continuing Tap 3 s.h.
Continuation of performance skills learned in DANC:1010; concert attendance, reading assignments, reflective and analytical writing; historical origins of dance form. GE: Literary, Visual, and Performing Arts.

DANC:1120 Continuing Jazz 3 s.h.
Continuation of DANC:1020; skills for technique and performance of jazz dance; enhancement of flexibility, strength, body alignment, coordination, balance, kinesthetic awareness, personal range of motion, and musicality; warm-up, locomotion, center combinations; concert attendance, reading assignments, reflective and analytical writing; historical origins of dance form. GE: Literary, Visual, and Performing Arts.

DANC:1125 Continuing Hip Hop Dance 3 s.h.
Continuation of DANC:1025; focus on hip hop and street dance foundations and origins through movement participation; students are challenged and encouraged to understand and apply historical and practical knowledge of hip hop; concert attendance, reading assignments, reflective and analytical writing; historical origins of dance form; for advanced beginning students. GE: Literary, Visual, and Performing Arts.

DANC:1130 Continuing Ballet 3 s.h.
Continuation of DANC:1030; skills necessary for technique and performance of ballet; enhancement of flexibility, strength, body alignment, coordination, balance, kinesthetic awareness, personal range of motion, and musicality; barre and center combinations; terminology; concert attendance, reading assignments, reflective and analytical writing; historical origins of dance form. GE: Literary, Visual, and Performing Arts.

DANC:1150 Brazilian Culture and Carnival 3 s.h.
Dance, music, historical, and social contents of Brazilian Carnival production, critical theories of performance, religious backgrounds, and theatre making in carnival parades. GE: Engineering Be Creative; Values and Society. Same as LAS:1150.

DANC:1170 Functional Anatomy 2 s.h.
Introduction to human anatomy; scientific principles of movement safety and efficiency; survey of somatic practices for better kinesthetic awareness, body organization, and alignment; application of anatomical knowledge to multiple dance techniques.

DANC:1412 The Arts in Performance 3 s.h.
GE: Literary, Visual, and Performing Arts; Values and Society. Same as THTR:1412.

DANC:2020 Intermediate Jazz 3 s.h.
Low-intermediate technique and performance training in jazz dance; flexibility, strength, body alignment, and coordination as foundation for more advanced dance artistry including mobility, musicality, style; warm-up, locomotion, center combinations; concert attendance, reading assignments, reflective and analytical writing; historical origins of dance form. GE: Literary, Visual, and Performing Arts.

DANC:2025 Intermediate Hip Hop Dance 3 s.h.
Continuation of DANC:1125; focus on strengthening and adding to foundations and origins of hip hop and street dance culture; the journey to today's current definitions of hip hop and street dance with introduction to freestyling and groove theory; movement participation is central to learning; students are challenged and encouraged to understand and apply historical and practical knowledge of hip hop at an intermediate level; concert attendance, reading assignments, reflective and analytical writing; historical origins of dance form. GE: Literary, Visual, and Performing Arts.

DANC:2030 Majors Intermediate Ballet 3 s.h.
Concentrated intermediate-level technical and performance training in ballet; topics include flexibility, strength, body alignment, and coordination as a foundation for more advanced dance artistry including more difficult steps, musicality, mobility, and balance; basic ballet terminology including steps, head, body, and arm positions; variations in timing; changes of facing. Requirements: placement by departmental audition.

DANC:2040 Majors Intermediate Contemporary Movement Practices 3 s.h.
Concentrated intermediate-level technical and performance training in contemporary movement practices; topics include flexibility, strength, body alignment, and breath as a foundation for more advanced dance artistry including musicality, mobility, balance, and improvisation; variations in timing; changes of facing. Requirements: placement by departmental audition.

DANC:2050 Introduction to Improvisation and Composition 3 s.h.
Introduction to movement as research; experimental process as vehicle for invention, creative freedom, aesthetic range; development of kinesthetic imagination, awareness, creative problem solving; introduction to issues of artistic originality and authenticity; practical integration of improvisation and composition through spontaneous manipulation of time, space, and energy; knowledge of creative process supported by reading and individual research.

DANC:2060 Dance and Society in Global Contexts 3 s.h.
Dance and other physical endeavors as embodied forms of knowledge and culture; U.S. dance practices; European and African dance cultures; aesthetic and political issues raised by concert dance (i.e., performance, choreography, spectatorship, criticism); ethnographic methods to examine the function of dance in cultural formation (i.e., spiritual, celebratory, social, political contexts); lecture, discussion, viewing, movement workshops, formal and informal writing, field research, and blog construction. GE: Engineering Be Creative; Literary, Visual, and Performing Arts.

DANC:2065 Performing Power/Performing Protest: The Body, Identity, and the Image 3 s.h.
What is the relationship between Beyoncé, Jesse Owens, and Thích Quang Duc?—Protest! Each of these cultural figures put their body on the line using protest as performance to challenge power structures, address social equity, and influence social change; students examine historical and contemporary issues of power, identity, and inclusion, situating protest and dissent as key parts of civic engagement through study of music and performance videos, readings, blogs and other media; students are asked to place themselves in a historical continuum where intersections of class, race, gender, and sexuality are considered. GE: Understanding Cultural Perspectives.

DANC:2075 Teaching and Using Creative Dance for Children (K-8) in a Variety of Educational Settings 2 s.h.
Practical and creative approach to understanding and using creative dance as the art of learning by doing, involving all the senses and intelligences; language of movement (i.e., scope, possibilities, movement experiences, resources); guidance and practice in developing comprehensive lesson plans for sequencing, progression, successful presentation, objective observation, and evaluation; creative dance for children and its philosophy, theories, sound pedagogical practices, uses, and benefits; in-class teaching experience and resources for K-8 students.

DANC:2080 Dance and Social Action 3 s.h.
Exploration of dance as a means for civic engagement; readings that support theory and practice of dance as social action; practicum experience of facilitating a workshop to girls at the Iowa Juvenile Home.

DANC:2085 Introduction to African Caribbean Dance Practices 3 s.h.
Introduction to African Caribbean dance with emphasis on ritual, performance, and music; exploration of basic fundamentals of African Caribbean dances from Trinidad and Tobago, Jamaica, Haiti, and Cuba, as well as musical instruments used to accompany these dances; practical dance training; theoretical basis for understanding geographical, historical, sociological, and political contexts in which dances originated. GE: Understanding Cultural Perspectives.

DANC:2150 Brazilian Social Dance: The Samba 3 s.h.
Unique opportunity to actively experience the Samba de Gafieira and samba rock at a low-intermediate level; detailed information and extensive practice to learn social dance skills and choreograph partnering combinations; exposure to historical, social contents, and critical theories of performance; various performative elements related to Afro-Brazilian diaspora; the origins of samba music and its relevance for Brazilian culture.

DANC:2220 Production Run Crew 1 s.h.
Hands-on experience in production work for live dance performance.

DANC:2800 Digital Arts: An Introduction 3 s.h.
Introduction to potential of integrating art with technology to provide a foundation of skills and concepts through hands-on experimentation; lectures and demonstrations introduce key concepts and ideas as well as the history of digital arts; students develop skills that form a foundation for future investigation through labs; work may include using an Arduino, programming, and developing an interface to control a software project; final project is shared with the public in some way; critical discourse in the form of writing assignments allows for reflection and evaluation. GE: Engineering Be Creative. Same as ARTS:2800, CINE:2800, CS:2800, DIGA:2800, MUS:2800, THTR:2800.

DANC:2880 Installations and Interactive Performance 3 s.h.
Introduction to aesthetics, techniques, and practical possibilities of fusing together theatre, dance, music/sound, art, design, cinema, gaming, human computer interaction, and engineering; foundations of creating interactive experiences that use digital photos, video, text, real-world objects, sensor data, live bodies moving in space, Kinect 2 sensors, cameras, and multiple video outputs (e.g., projectors, LED displays); use of Isadora, an interactive, node-based programming software, to create immersive mediated performances, interactive installations, embodied user-based experiences, and user-manipulated virtual environments. GE: Engineering Be Creative. Same as DIGA:2880, THTR:2880.

DANC:2890 Producing and Directing Digital Video 3 s.h.
Introduction to basic concepts, theories, and practical applications of digital video production for multiple distribution streams, with focus on aesthetic and technical principles; development of proficiency in contemporary approaches to digital media production by understanding the production pipeline from ideation to preproduction, production, postproduction, and through to distribution. GE: Engineering Be Creative. Same as DIGA:2890, THTR:2890.

DANC:2981 Dance Repertory and Performance 1 s.h.
Students broaden their exposure to contemporary concert dance forms through participation in restaging of existing works by UI faculty and nationally or internationally renowned choreographers; in-depth study of particular dance compositions from training and rehearsal process to performance, with consideration to preservation and stewardship of the work for future performances; opportunities to engage in many roles of creation and restaging process. Prerequisites: DANC:1000.

DANC:3010 Topics in Global Movement Practices 3 s.h.
Beginning, continuing, or advanced technique of global and non-Western movement practices; topics vary, may include Asia, Latin America, Africa, Pacific Islands, or other regions in historical and cultural context, and classical, folk, traditional, or contemporary forms.

DANC:3020 Advanced Jazz 2 s.h.
Advanced technique and performance training in jazz dance; flexibility, strength, body alignment, and coordination as foundation for more advanced dance artistry including mobility, musicality, style; warm-up, locomotion, center combinations; may include history of jazz dance. Requirements: dance major.

DANC:3030 Major Ballet I 1-3 s.h.
Builds on DANC:2030; intermediate technical and performance training in ballet; flexibility, strength, body alignment, and coordination as foundation for introduction of more advanced aspects of dance artistry, including steps, musicality, mobility, balance; terminology related to barre and center vocabulary including steps, head, body, and arm positions; practice of steps and combinations, variations in timing, changes of facing. Requirements: audition or promotion.

DANC:3040 Major Contemporary Movement Practices I 1-3 s.h.
Builds on DANC:2040; intermediate technical and performance training in contemporary movement practices; physical and mental skills for transition to more advanced dance—physical stamina, strength, flexibility, articulation, coordination, musicality, phrasing; basic physical concepts underlying clear and efficient movement; assimilation of new movement material; center of gravity and its role in body mobilization and control; personal movement choices and expressive range. Requirements: audition or promotion.

DANC:3050 Body/Image: Dance and Media in Discourse and Practice 3 s.h.
Intersection of body, image, and sound in analog and digital media; relationship to critical and practical texts; written and performative assignments that address fundamental concepts of corporeality in related fields including dance for camera, stage and film performance, and artistic, documentary, and publicity filmmaking and photography.

DANC:3060 Western Concert Dance History: Romantic to Contemporary 3 s.h.
Examination of concert dance practices in the United State and Europe from 19th to 21st centuries; changes in dance compositional, performance, viewing, technical, and training practices situated within aesthetic, cultural, social, and political contexts including the Industrial Revolution, Russian imperial court, World War I and World War II, movements for social justice, and aesthetic formations (e.g., romanticism, classicism, modernism, postmodernism); students consider the work of the historian and methodological approaches to formulating historiographic ideas, and put them into practice in individual research projects focused on historical or contemporary dance makers. Prerequisites: DANC:2060.

DANC:3070 Dance Kinesiology 3 s.h.
Body science related to demands of dance; structural and muscular analysis for efficient, effective dance training and prevention of injuries; investigation of skeletal and ligamentous structure for working knowledge of how the body produces movement; joint actions and restrictions, common injuries to those sites; attachments of the voluntary muscles, pathways and potential actions; neuromuscular analysis of an action; functional skeletal alignment; how individual differences may affect movement performance. Prerequisites: DANC:1170.

DANC:3075 Yoga Teacher Training I 3 s.h.
Exploration of in-depth knowledge of yoga in preparation for teaching through physical practice of yoga postures, study of basic yoga philosophy and texts, personal practice of meditation, yoga for various populations, anatomy of yoga postures, and practice teaching within class structure; two-semester course that results in a 200-hour yoga teacher certification. Requirements: dance major and sophomore or higher standing. Recommendations: prior yoga experience highly recommended.

DANC:3076 Yoga Teacher Training II 3 s.h.
Continuation of DANC:3075; expansion of yoga and/or teaching knowledge, in-depth physical practice of yoga postures, basic yoga philosophy and texts, personal practice of meditation, yoga for various populations, anatomy of yoga postures, and practice teaching within class structure. Prerequisites: DANC:3075. Corequisites: DANC:3070. Requirements: dance major and sophomore or higher standing. Recommendations: experience and knowledge of yoga practice highly recommended.

DANC:3080 Music Essentials for Dance 3 s.h.
Evolution of music and dance forms from early history times to the present; rhythmic analysis and fundamental music theory for dance students.

DANC:3150 Choreography I 3 s.h.
Introduction to theories and practices of creating choreography; locating varied sources for movement; elementary considerations of choreographic form; development of ideas, impulses, and initial inspirations into short works; fundamentals of giving and receiving critical feedback; articulation of thoughts and experience as composers and watchers of choreography; exposure to choreographic concerns supported by video and reading. Prerequisites: DANC:2050.

DANC:3250 Choreography II 3 s.h.
Continuation of DANC:3150; development of intermediate choreographic skills; emphasis on cultivation of individual choreographic voice through expansion of vocabulary, discovery of complex ways to form and arrange, and use of widening range of methods and types of resources. Prerequisites: DANC:2050 and DANC:3150.

DANC:3330 Advanced Contemporary Ballet Practices 3 s.h.
Advanced pre-professional level in contemporary ballet practice with a focus on strength, stamina, and agility for professional auditions. Study of movement phrases of contemporary choreographers to develop familiarity with current trends. Choreographic study includes selected works of Crystal Pite, Kyle Abraham, Alonzo King, other professional choreographers, and pointe study for those interested. Corequisites: DANC:2030 or DANC:3030 or DANC:3530 or DANC:4030. Requirements: BFA in dance major.

DANC:3340 BFA Movement Practices 3 s.h.
Advanced dance technique and performance training in contemporary dance, designed for students pursuing a BFA in dance. Corequisites: DANC:3030 or DANC:3040 or DANC:3530 or DANC:3540 or DANC:4030 or DANC:4040. Requirements: Dance BFA student in first, second or third year of study. Dance BA students may enroll with permission of instructor. Movement styles in the course will vary based on the expertise of the instructor.

DANC:3530 Major Ballet II 3 s.h.
High-intermediate training in ballet technique and performance; physical and mental skills necessary for more advanced work—physical stamina, strength, flexibility, articulation, coordination, musicality, phrasing, basic physical concepts underlying clear and efficient movement, capacity to assimilate new movement material, awareness of the center of gravity and its role in mobilization and control of the body. Requirements: audition or promotion to determine placement.

DANC:3540 Major Contemporary Movement Practices II 3 s.h.
High-intermediate technical and performance training in contemporary movement practices; physical and mental skills necessary for more advanced work—physical stamina, strength, flexibility, articulation, coordination, musicality, phrasing; basic physical concepts underlying clear and efficient movement; capacity to assimilate new movement material; awareness of the center of gravity and its role in mobilization and control of the body; consciousness of personal movement choices and expressive range. Requirements: audition or promotion to determine placement.

DANC:3600 Art, Feminist Practice, and Social Justice 3 s.h.
Issues specifically related to gender, women's, and sexuality studies through the arts; exploration of a theme—a broad social issue such as violence, sexual assault, incarceration, reproduction, immigration, labor—and work with community partners to address the theme through social practice in the arts. Recommendations: prior courses in gender, women's, and sexuality studies or social work or art education or studio arts.

DANC:3700 Dance Pedagogy: Theories, Issues, and Perspectives 3 s.h.
Overview of educational practices, ethics, and responsibilities in the dance studio for teaching children and adults; educational histories, philosophies, and methodologies for teaching dance in diverse settings; assignments may include readings, classroom observations, teaching demonstrations, and discussions with leaders in the field.

DANC:3710 Topics in Intermedia 4 s.h.
Performance, writing, reading, observation, physical practice, improvisation, and devising methods; development or expansion of physical practices that articulate with current artistic production. Prerequisites: (ARTS:1510 and ARTS:1520 and (CERM:2010 or INTM:2710 or MTLS:2910 or PNTG:2410 or PRNT:2610 or SCLP:2810 or TDSN:2210)) or DANC:2800 or DANC:2050. Same as INTM:3700.

DANC:3750 Dance Internship arr.
Develop skills in a dance or dance-related field. Internships include but are not limited to positions in teaching, administration, production, and performance. Students are tasked with connecting their internship experience to their academic coursework and their future career goals. Requirements: dance major and sophomore standing or higher.

DANC:3851 Introduction to the Alexander Technique 3 s.h.
The Alexander Technique and "self-use"—how movement choices affect results achieved; improvement of physical skills and presence; principles in support of performing arts (e.g., speaking, singing, playing an instrument, dancing, acting); application to skills in daily life, addressing underpinnings of movement; physical participation (e.g., lying down, rolling, sitting, standing, locomotion). Same as MUS:3851.

DANC:3852 Introduction to the Feldenkrais Method: Posture, Perception, and Pain Relief 3 s.h.
Introduction to the Feldenkrais Method of Awareness Through Movement; refinement of physical organization and coordination applied toward ordinary actions and functions, as well as athletics and performing arts; non-repetitive lessons on the floor, sitting in a chair, and standing; lessons communicated via auditory cues, no demonstration and imitation of idealized positions; improving awareness toward uncovering postural habits; expanding options for new and more efficient movement; exploring developmental patterns, joint, muscle and postural relationships; cultivating multiple possibilities for achieving the same action; conscious integration of sensing, feeling, thinking, and action.

DANC:3853 Introduction to Klein Technique 3 s.h.
Introduction to principles and practice of Klein Technique to reeducate the body and offer tools for aligning bones, accessing the breath, and working with gravity to find more efficiency and articulation in movement; experiential design supplemented with readings and discussions on founder Susan Klein's writings.

DANC:3875 Topics in Digital Performing Arts 3 s.h.
Advanced techniques in performing with established and new technologies including live cameras in performance, controlling digital avatars, motion capture, virtual and augmented reality, and more. Same as THTR:3875.

DANC:3876 Projection Design 3 s.h.
Introduction to the aesthetics and practical applications of projection design for live performance, including content creation, system design, media servers, projectors, cameras, and related professional equipment. Students learn how to create digital artwork with professional content/animation/effects software Adobe After Effects, Illustrator, Photoshop, Premiere Pro, Audition, etc. Through the media server QLab students learn how to integrate digital artwork and live video cameras into live performance via projectors and digital displays. GE: Engineering Be Creative. Same as CINE:3876, DIGA:3876, INTM:3876, THTR:3876.

DANC:3885 Repertory Dance Company 1-4 s.h.
Advanced repertory studies; learning and performing multiple works by professional guest artists, faculty, and invited graduate students; collaborative creation and performing in community outreach lecture-demonstration throughout Iowa and the region. Requirements: audition.

DANC:3895 Performance, Art, and New Technologies in Society 3 s.h.
Students pitch projects and work in interdisciplinary groups to create original live performances and installations based on major technological innovations that have deeply impacted society and live performance in late 20th and early 21st centuries; daily hands-on making; examination of theoretical texts and performances that address impact of technology on human condition to contextualize students' own art/technology projects; exploration and adaptation of technologies/aesthetics for live performance and art including telepresence and liveness, artificial intelligence and big data, augmented and virtual reality. Prerequisites: MUS:2800 or THTR:2880 or CS:1110 or CS:1210 or SCLP:4835. Same as DIGA:3895, THTR:3895.

DANC:4030 Major Ballet III 3 s.h.
Advanced training in ballet technique and performance; physical and mental skills necessary for professional work—physical stamina, strength, flexibility, articulation, coordination, musicality, phrasing, basic physical concepts underlying clear and efficient movement, capacity to assimilate new movement material, awareness of the center of gravity and its role in mobilization and control of the body. Requirements: audition or promotion to determine placement.

DANC:4034 Ballet Pointe 3 s.h.
Intermediate/advanced techniques and training for ballet pointe work; barre and center exercises to strengthen feet/legs/back and ensure proper alignment; review of basic ballet vocabulary; pirouettes and turns commonly performed *en pointe*; learning and performing variations drawn from repertory. Requirements: DANC:2030, or higher placement.

DANC:4040 Major Contemporary Movement Practices III 3 s.h.
Advanced technical and performance training in contemporary movement practices; physical and mental skills necessary for professional work—physical stamina, strength, flexibility, articulation, coordination, musicality, phrasing; basic physical concepts underlying clear and efficient movement; capacity to assimilate new movement material; awareness of the center of gravity and its role in mobilization and control of the body; consciousness of personal movement choices and expressive range; may include partnering exercises for investigation of weight exchange, timing, and expressivity. Requirements: audition or promotion to determine placement.

DANC:4060 The Contemporary Dance Scene 3 s.h.
Historical, theoretical, and practical elements of contemporary dance; the term "postmodern" and its associations with dance, performing arts, contemporary culture; relationships between process and product, identity and subjectivity, artistic intent and authorship, meaning and intertextuality; possibility of art as a form of dissent; theory and practice placed in a dialectic; analysis and synthesis of previous research.

DANC:4350 Choreography III 3 s.h.
Continuation of DANC:3250; increased emphasis on invention, clarity, sophistication, and development of complete works; creation of sharply defined mature movement worlds; increasingly thorough consideration of sources and methods, responsibility for applying coursework to self-defined artistic concerns and emerging individual aesthetic; advanced theories and methods through video, reading, choreographic research. Prerequisites: DANC:2050 and DANC:3250.

DANC:4452 MFA Independent Project Research Lab arr.
Participation in rehearsals, showings, adjudication, concert rehearsals and performances; for undergraduate dancers who have been selected through audition for graduate independent projects conducted by graduate students enrolled in DANC:6990. Requirements: audition and selection by an MFA student creating a piece for adjudication, showing, and/or performances.

DANC:4453 MFA Thesis Research Lab arr.
Participation in rehearsals, showings, adjudication, and concert rehearsals and performances; for undergraduate dancers who have been selected through audition for roles in MFA thesis concerts conducted by graduate students. Requirements: audition and selection by MFA student creating a piece for thesis concert.

DANC:4454 Faculty Creative Research Lab arr.
Participation in rehearsals, showings, and concert rehearsals and performances; for students who have been selected through audition for roles in creative research conducted by faculty members. Requirements: audition or selection by faculty member.

DANC:4535 Elementary Ballet Pedagogy 3 s.h.
Methods, materials, concepts for teaching ballet techniques.

DANC:4540 Major Contemporary Movement Practices IV 3 s.h.
Professional technique and performance training in contemporary dance. Requirements: two semesters of DANC:4030 with a minimum grade of A- or two semesters of DANC:4040 with a minimum grade of A-.

DANC:4545 Teaching of Modern and Contemporary Dance Forms 3 s.h.
Practices of teaching modern dance; information and experience for developing an individualized approach to teaching; educational methodology for defining essential elements of a modern class, approaches for planning and structuring classes.

DANC:4880 Dance Gala Performance 1-4 s.h.
Rehearsal hours and performance of dance works in produced dance concerts. Requirements: audition and/or concert adjudication.

DANC:4881 Graduate Concert 1 s.h.
Rehearsal hours and performance of dance works in produced dance concert. Requirements: audition.

DANC:4882 Graduate/Undergraduate Concert 1-4 s.h.
Rehearsal hours and performance of dance works in produced dance concert. Requirements: audition and/or concert adjudication.

DANC:4883 Faculty/Graduate Concert 1-4 s.h.
Rehearsal hours and performance of dance works in produced dance concert. Requirements: selection by audition and/or concert adjudication.

DANC:4884 Undergraduate Event 1-4 s.h.
Rehearsal hours and performance of dance works in produced dance concert. Requirements: audition and/or concert adjudication.

DANC:4885 MFA Thesis Concert 0-4 s.h.
Rehearsal hours and performance of dance works in produced dance concert.

DANC:4886 BFA Concert 0-4 s.h.
Rehearsal hours and performance of dance works in produced dance concert. Requirements: audition and/or concert adjudication.

DANC:4887 MFA Event 1-3 s.h.
Participation in rehearsals, concert rehearsals, and performances; for graduate dancers who have been selected through audition for roles in the MFA event held during spring semesters. Requirements: selection by audition and/or concert adjudication.

DANC:4888 Special Project Student Performance arr.
Rehearsal hours and performance of dance works created by faculty outside of traditional performance cycle. Requirements: audition or selection by faculty member.

DANC:4980 BFA Seminar in Dance 3 s.h.
Transitioning from college to careers in professional dance; creation and performance of a devised ensemble work; résumé building and personal marketing; how to make the most of auditions, internships, and company intensives; artist portfolios, grant writing skills, arts administration strategies, and discussion of opportunities for graduate study. Requirements: BFA major and junior or senior standing.

DANC:4990 Independent Study arr.
Credit for an individual student-designed project coordinated with a faculty advisor. Requirements: sophomore or higher standing.

DANC:4991 Independent Choreography arr.
Credit for creation of independent choreographic project, developed under guidance of faculty advisor, that results in production of a dance work.

DANC:4995 Honors Studies in Dance arr.
Choreography, performance, production, Labanotation, dance history, or pedagogy. Prerequisites: a minimum g.p.a. of 3.33.

DANC:4998 BFA Senior Project in Dance arr.
Senior year choreographic/performance capstone to complete BFA in dance under supervision of faculty advisor; culminates in public showing or produced concert. Requirements: admitted to BFA program in dance and senior standing.

DANC:4999 Honors Project in Dance arr.
Research, choreographic, reconstruction, or performance project under guidance of a faculty advisor. Requirements: senior standing.

DANC:5050 Graduate Improvisation I 1-2 s.h.
Dance improvisation.

DANC:5055 Embodying Voice/Performing Persona 3 s.h.
Creation and performance of text from body-based perspectives; working in a spectrum from casual conversation to formal presentation, students research verbal and written language habits, personal access to vocal range in volume and tone, communication through body and gesture, performance of personas, how breath relates to the voice, how voice expresses a sense of self, and how listening relates to speaking; projects include creative research presentations, storytelling, solo/group songs, improvisational scene studies, nonverbal physical theater, and personal performative essay writing. Recommendations: junior or higher standing.

DANC:5060 Theories of Dance and the Body 3 s.h.
Theoretical trends in studies of dance and physical bodies; performative and choreographic aspects of being. Recommendations: MFA major in dance or advanced dance standing.

DANC:5085 Graduate African Caribbean Dance Practices 3 s.h.
Introduction to African Caribbean dance with emphasis on ritual, performance, and music; exploration of basic fundamentals of African Caribbean dances from Trinidad, Tobago, Jamaica, Haiti, and Cuba; musical instruments used to accompany these dances; practical dance training; theoretical basis for understanding geographical, historical, and political sociology contexts in which dances originated.

DANC:5530 Graduate Majors Ballet II 1-3 s.h.
High intermediate technique and performance training; physical and mental skills necessary for more advanced work—physical stamina, strength, flexibility, articulation, coordination, musicality, phrasing, basic physical concepts underlying clear and efficient movement, capacity to assimilate new movement material, awareness of the center of gravity and its role in mobilization and control of the body.

DANC:5540 Graduate Contemporary Movement Practices II 1-3 s.h.
High intermediate technical and performance training in contemporary movement practices; physical and mental skills necessary for more advanced work—physical stamina, strength, flexibility, articulation, coordination, musicality, phrasing, basic physical concepts underlying clear and efficient movement, capacity to assimilate new movement material, awareness of the center of gravity and its role in mobilization and control of the body, consciousness of personal movement choices and expressive range.

DANC:5545 Teaching Dance in Higher Education 3 s.h.
Introduction to pedagogical practices of lecture and studio-based dance teaching at collegiate level.

DANC:5880 Installations and Interactive Performance 3 s.h.
Introduction to creating interactive experiences with technology; aesthetics, techniques, and practical possibilities of fusing together theatre, dance, music/sound, art, design, cinema, gaming, human-computer interaction, and engineering through use of Isadora, an interactive, node-based programming software; students create immersive performances, interactive installations, embodied user experiences, and user-manipulated virtual environments. Same as THTR:5880.

DANC:5890 Producing and Directing Digital Video 3 s.h.
Introduction to basic concepts, theories, and practical applications of digital video production for multiple distribution streams with focus on aesthetic and technical principles; development of proficiency in contemporary approaches to digital media production by understanding the production pipeline from ideation to preproduction, production, postproduction, and through to distribution. Same as THTR:5890.

DANC:6030 Graduate Majors Ballet III 1-3 s.h.
Advanced ballet technique and performance training for proficient dancers; physical and mental skills necessary for professional work—physical stamina, strength, flexibility, articulation, coordination, musicality, phrasing, understanding of basic physical concepts underlying clear and efficient movement, capacity to assimilate new movement material, awareness of the center of gravity and its role in mobilization and control of the body.

DANC:6040 Graduate Contemporary Movement Practices III 1-3 s.h.
Advanced technical and performance training in contemporary movement practices; physical and mental skills necessary for professional work—physical stamina, strength, flexibility, articulation, coordination, musicality, phrasing, understanding of basic physical concepts underlying clear and efficient movement, capacity to assimilate new movement material, awareness of the center of gravity and its role in mobilization and control of the body, consciousness of personal movement choices and expressive range.

DANC:6050 Graduate Improvisation II 3 s.h.
Advanced concepts in compositional improvisation; students practice through individual exploration and ensemble collaboration; multiple structures and entry points to develop embodied imagination; diverse materials including movement, text, site, objects, and music; creative process as physical research applied to choreographic thinking and spontaneous performance; integration of conceptual and experiential in dancing and dance-making; examination of aesthetic and political frameworks and harmonies with other spontaneous practices.

DANC:6060 Graduate Seminar in Dance 3 s.h.
Introduction to areas of study in dance to encourage rigorous research; preparation for artistic, academic, administrative, and socially engaged careers; topics address role of dance in society and higher education, issues of dance administration, and areas of concern to dance artists, educators, and audiences; investigation of cultural, economic, political, and historical role of dance and dance artists in Western and other social contexts; brief history of dance in higher education; current issues and trends of dance programs in higher education.

DANC:6350 Graduate Choreography III 3 s.h.
Advanced choreography as research; students ask and answer questions through a creative process to produce original choreography and address complex concepts, methods, and applications to produce multiple works; experimentation with movement and structure to formulate artistic questions and produce innovative treatments of generic concepts; exploration of choreography as a directorial process; establishment of context and point-of-view to frame developing and editing processes; individual research within larger choreographic, aesthetic, theoretical, and/or sociocultural contexts; practice of advanced critical response. Requirements: MFA major in dance.

DANC:6450 Graduate Choreography IV 3 s.h.
Advanced theories, practices, directing, and arranging of choreography; collaborative process with performers and co-choreographers utilizing analytical and creative connections with bodies of knowledge across the liberal arts and sciences; theorizing through compositional studies; development of multiple works; advanced practice in critical feedback and articulation of ideas about process and product; students turn assignments into research questions that produce original/ innovative treatments of generic concept development; independent research to advance individual goals and utilize course content.

DANC:6540 Graduate Contemporary Movement Practices IV 1-3 s.h.
Professional technique and performance training in contemporary movement practices.

DANC:6880 Dance Gala Performance 1-4 s.h.
Rehearsal hours and performance of dance works in produced dance concerts. Requirements: audition and/or concert adjudication.

DANC:6881 Graduate Concert arr.
Rehearsal hours and performance of dance works in produced dance concert. Requirements: audition.

DANC:6882 Graduate/Undergraduate Concert 1-4 s.h.
Rehearsal hours and performance of dance works in produced dance concert. Requirements: audition and/or concert adjudication.

DANC:6883 Faculty/Graduate Concert 1-4 s.h.
Rehearsal hours and performance of dance works in produced dance concert. Requirements: selection by audition and/or concert adjudication.

DANC:6884 Undergraduate Event 1-4 s.h.
Rehearsal hours and performance of dance works in produced dance concert. Requirements: audition and/or concert adjudication.

DANC:6885 MFA Thesis Concert 1-4 s.h.
Rehearsal hours and performance of dance works in produced dance concert.

DANC:6887 MFA Event 1-2 s.h.
Participation in rehearsals, concert rehearsals, and performances; for graduate dancers who have been selected through audition for roles in the MFA event held during spring semesters. Requirements: selection by audition and/or concert adjudication.

DANC:6888 Special Project Student Performance arr.
Rehearsal hours and performance of dance works created by faculty outside traditional performance cycle. Requirements: graduate standing in dance.

DANC:6889 Graduate Performance Credit 1-3 s.h.
Credit for performances held outside of the department's regular production calendar; for students not already receiving credit for their project. Requirements: MFA major in dance.

DANC:6990 Graduate Independent Projects 3 s.h.
Creation and presentation of an independent choreographic or performance project; students prepare ideas, write an abstract and a proposal, attend progress showings several times during creative process, participate in feedback sessions, and complete a final paper.

DANC:6991 Graduate Independent Study arr.
Credit for individually designed project coordinated with a faculty advisor.

DANC:6992 Graduate Independent Performance Project arr.
Credit for creative participation as a performer in a chorography project, developed under guidance of a faculty advisor, that results in the performance of a dance work.

DANC:7550 Graduate Contemporary Movement Practicum 2-3 s.h.
Advanced, in-depth understanding of teaching dance technique at the college level; emphasis on studio practice of technique through active participation in technique class; individualized research on technical and pedagogical approaches to dance; taken with a faculty member during student's teaching rotation to gain understanding of the teacher's pedagogical approach across three levels of the majors-level technique curriculum. Requirements: completion of one semester of MFA program and good standing.

DANC:7560 Graduate Ballet Technique Practicum 2-3 s.h.
Advanced, in-depth understanding of teaching dance technique at the college level; emphasis on studio practice of technique through active participation in technique class; individualized research on technical and pedagogical approaches to dance; taken with a faculty member during student's teaching rotation to gain understanding of the teacher's pedagogical approach across three levels of the majors-level technique curriculum. Requirements: completion of one semester of MFA program and good standing.

DANC:7990 Thesis arr.

Dance, BA

Integrating studies in dance and the liberal arts, the Bachelor of Arts degree program establishes foundations for creative and intellectual development and cultivates multiple approaches to dance, career, and citizenship. Students train daily in movement practices and are afforded ample opportunities to perform in faculty and student creative research and to produce their own choreographic works in the department's concert season. This training is complemented by courses in improvisation, choreography, dance history and theory, multicultural movement practices, global dance studies, digital performing arts, kinesiology, pedagogy, and community engagement.

Auditions for Placement

The department admits all students to the dance BA. An audition is required to determine placement in ballet and contemporary movement classes and for consideration for scholarships. Students may email a video, attend a Hawkeye Dance Day in the department, or arrange to visit a class to audition for placement. For incoming first-year students, a short, supplemental application is required to make audition arrangements and will become available to students after they have been admitted to the University of Iowa. See Undergraduate Applications on the Department of Dance website for more information about the first-year admissions process. Students who have already matriculated at the University of Iowa may contact the Department of Dance to add the BA and to arrange placement auditions.

Learning Outcomes

Students will:

- achieve proficiency in contemporary concert dance movement practices while developing stylistic versatility, expressive range, and efficient body mechanics;
- learn to think critically about the historical, cultural, and social contexts of dance as an art form and cultural practice while developing strong writing skills and effective oral expression;
- master formal compositional elements and improvisational techniques toward the creation of original choreographic work, and learn to articulate and render their creative intentions with clarity, with opportunities to present these works in public performances;
- acquire performance skills, such as interpretation, expressivity, physical agility, and refinement, by participating in auditions, rehearsals, and studio and public performances;
- acquire knowledge of anatomical and kinesiological principles and injury prevention for effective dance training and career longevity; and
- attain an understanding of digital arts tools currently used in contemporary dance.

Requirements

The Bachelor of Arts with a major in dance requires a minimum of 120 s.h., including 61 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Students also have the opportunity to complete the Dance Pedagogy and Instruction Track [p. 335] while fulfilling the BA requirements.

In planning coursework, especially electives, students may apply a maximum of 61 s.h. in Department of Dance courses (prefix DANC) toward the minimum 120 s.h. required for the BA degree. At least 28 s.h. in major coursework must be earned at the University of Iowa. Any grades earned for coursework are included in the grade-point average.

The BA with a major in dance requires the following coursework.

Requirements	Hours
Core Courses	20
Studio Courses	9
Performance and Creative Research Courses	2
Movement Practices Courses	21
Distribution Areas	9

Core Courses

Course #	Title	Hours
All of these:		
DANC:1000	First-Year Seminar	1
DANC:1090	Dance Production	3
DANC:1170	Functional Anatomy	2
DANC:2060	Dance and Society in Global Contexts	3
DANC:2220	Production Run Crew (taken twice for 1 s.h. each)	2
DANC:3060	Western Concert Dance History: Romantic to Contemporary	3
DANC:3070	Dance Kinesiology	3
DANC:3080	Music Essentials for Dance	3

Studio Courses

Course #	Title	Hours
All of these:		
DANC:2050	Introduction to Improvisation and Composition	3
DANC:3150	Choreography I	3
DANC:3250	Choreography II	3

Performance and Creative Research Courses

Course #	Title	Hours
2 s.h. from these:		
DANC:3885	Repertory Dance Company	1-3
DANC:4452	MFA Independent Project Research Lab	arr.
DANC:4453	MFA Thesis Research Lab	arr.
DANC:4454	Faculty Creative Research Lab	arr.
DANC:4880	Dance Gala Performance	1-4
DANC:4881	Graduate Concert	1
DANC:4882	Graduate/Undergraduate Concert	1-4
DANC:4883	Faculty/Graduate Concert	1-4
DANC:4884	Undergraduate Event	1-4
DANC:4885	MFA Thesis Concert	1-4

DANC:4886	BFA Concert	1-4
DANC:4887	MFA Event	1-3
DANC:4888	Special Project Student Performance	arr.

Movement Practices Courses

Students must complete 21 s.h. from the following.

Course #	Title	Hours
At least 9 s.h. of ballet and at least 9 s.h. of contemporary movement practices from these:		
DANC:2020	Intermediate Jazz	3
DANC:2025	Intermediate Hip Hop Dance	3
DANC:2030	Majors Intermediate Ballet	3
DANC:2040	Majors Intermediate Contemporary Movement Practices	3
DANC:3030	Major Ballet I	3
DANC:3040	Major Contemporary Movement Practices I	3
DANC:3530	Major Ballet II	3
DANC:3540	Major Contemporary Movement Practices II	3
DANC:4030	Major Ballet III	3
DANC:4034	Ballet Pointe	3
DANC:4040	Major Contemporary Movement Practices III	3
DANC:4540	Major Contemporary Movement Practices IV	3
At least two semesters of one of these with grades of B-minus or higher:		
DANC:3530	Major Ballet II	3
DANC:3540	Major Contemporary Movement Practices II	3
DANC:4030	Major Ballet III	3
DANC:4040	Major Contemporary Movement Practices III	3
DANC:4540	Major Contemporary Movement Practices IV	3

Distribution Areas

Students must complete one course from each of the following three areas.

Dance Somatics

Course #	Title	Hours
One of these:		
DANC:3851/ MUS:3851	Introduction to the Alexander Technique	3
DANC:3852	Introduction to the Feldenkrais Method: Posture, Perception, and Pain Relief	3
DANC:3853	Introduction to Klein Technique	3

Global Dance Studies

Course #	Title	Hours
One of these:		
DANC:1150/ LAS:1150	Brazilian Culture and Carnival	3
DANC:2065	Performing Power/ Performing Protest: The Body, Identity, and the Image	3
DANC:2085	Introduction to African Caribbean Dance Practices	3
DANC:2150	Brazilian Social Dance: The Samba	3
DANC:3010	Topics in Global Movement Practices	3

Digital Performing Arts

Course #	Title	Hours
One of these:		
DANC:2800/ ARTS:2800/ CINE:2800/CS:2800/ DIGA:2800/ MUS:2800/ THTR:2800	Digital Arts: An Introduction	3
DANC:2880/ DIGA:2880/ THTR:2880	Installations and Interactive Performance	3
DANC:2890/ DIGA:2890/ THTR:2890	Producing and Directing Digital Video	3
DANC:3050	Body/Image: Dance and Media in Discourse and Practice	3
DANC:3875/ THTR:3875	Topics in Digital Performing Arts	3
DANC:3876/ CINE:3876/ DIGA:3876/ INTM:3876/ THTR:3876	Projection Design	3
DANC:3895/ DIGA:3895/ THTR:3895	Performance, Art, and New Technologies in Society	3

Dance Pedagogy and Instruction Track

Dance majors who have a particular interest in the art and practice of teaching dance as a passion and/or profession may complete the dance pedagogy and instruction track at the same time as they are completing their degree requirements. This track tailors the knowledge and skills gained in the pursuit of a major in dance toward the preparation of students for professions in dance instruction and studio ownership, and for opportunities to work as teaching artists within community and dance company outreach and engagement programs.

Some of the required courses fulfill the requirements for the dance major or GE CLAS Core requirements.

The dance pedagogy and instruction track requires 23 s.h. from the following.

Dance Pedagogy Foundations

Course #	Title	Hours
This course:		
DANC:3700	Dance Pedagogy: Theories, Issues, and Perspectives	3

Dance Pedagogy Electives

Course #	Title	Hours
5-6 s.h. from these:		
DANC:2075	Teaching and Using Creative Dance for Children (K-8) in a Variety of Educational Settings	2
DANC:3075	Yoga Teacher Training I	3
DANC:3076	Yoga Teacher Training II	3
DANC:4535	Elementary Ballet Pedagogy	3
DANC:4545	Teaching of Modern and Contemporary Dance Forms	3

Education, Learning, and Human Development

Course #	Title	Hours
Two of these:		
EPLS:3000	Foundations of Education	3
PSQF:1075	Educational Psychology and Measurement	3
PSQF:4133	The Adolescent and Young Adult	3
PSY:1001	Elementary Psychology	3
PSY:2401	Introduction to Developmental Science	3

Leadership and Entrepreneurship Studies

Course #	Title	Hours
One of these:		
ENTR:1350	Foundations in Entrepreneurship	3
THTR:3510/ INTD:3510	Introduction to Arts Management	3

Social Justice Studies

Students may only apply either DANC:3600 or GWSS:3600 to this area.

Course #	Title	Hours
One of these:		
DANC:2065	Performing Power/ Performing Protest: The Body, Identity, and the Image	3
DANC:3600	Art, Feminist Practice, and Social Justice	3
or GWSS:3600	Art, Feminist Practice, and Social Justice	
SJUS:1001/ GWSS:1003	Introduction to Social Justice	3

Electives

To complete the required 23 s.h., students must take one additional course selected from one of these preceding categories: "Education, Learning, and Human Development," "Leadership and Entrepreneurship Studies," or "Social Justice Studies." Students using DANC:3600 to fulfill the Social Justice Studies area cannot apply GWSS:3600 to the elective requirement. Students using GWSS:3600 to fulfill the Social Justice Studies area cannot apply DANC:3600 to the elective requirement.

Honors

Honors in the Major

Majors who maintain a Department of Dance grade-point average (GPA) of at least 3.50 and a UI GPA of at least 3.33 are encouraged to pursue honors in dance. Although it is not necessary for students pursuing honors in dance to be members of the University of Iowa Honors Program, earning honors in dance does satisfy the experiential learning component (“learning by doing”) of the UI Honors Program.

Students who graduate with honors in their major receive special recognition during commencement, and their transcript and diploma reflect honors designations.

Graduation with honors in dance requires successful completion of 8–10 s.h. of University of Iowa honors courses or honors contract courses in the Department of Dance and successful completion of an honors project.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the dance major.

Career Advancement

Careers for dance majors include professional work in performing, choreography, education, private teaching, and related areas such as arts management, technical theater, dance scholarship, or dance and physical therapy. Many graduates from the UI dance program are currently working in arts organizations throughout the United States.

The discipline and creative challenges of dance training transfer well to other careers. Students have combined dance with a second major in another field such as business or communication.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Department of Dance coursework beyond 61 s.h. for BA students does not apply toward semester hours required for graduation.

Before the third semester begins: 12 s.h. of coursework in the major.

Before the fifth semester begins: 24–32 s.h. of coursework in the major.

Before the seventh semester begins: 36–48 s.h. of coursework in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: 42–50 s.h. of coursework in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Dance, BA

Course	Title	Hours
Academic Career		
Any Semester		
The department admits all students to the dance BA. An audition is required to determine placement in ballet and contemporary movement classes and for consideration for scholarships.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
DANC:1000	First-Year Seminar	1
DANC:1090	Dance Production	3
DANC:1170	Functional Anatomy	2
Major: ballet course [b]		3
Major: contemporary movement practices course [b]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
CSI:1600	Success at Iowa	1
	Hours	**16-17**
Spring		
DANC:2050	Introduction to Improvisation and Composition	3
DANC:2060	Dance and Society in Global Contexts [c]	3
Major: ballet course [b]		3
Major: contemporary movement practices course [b]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
	Hours	**15-16**
Second Year		
Fall		
DANC:3080	Music Essentials for Dance	3
Major: ballet/contemporary movement practices course [b]		3
Major: global dance studies course [d]		3
BIOL:1140	Human Biology: Nonmajors [e]	4
GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
	Hours	**17-18**
Spring		
DANC:2220	Production Run Crew	1
Major: ballet/contemporary movement practices course [b]		3
GE CLAS Core: Understanding Cultural Perspectives [d, g]		3
GE CLAS Core: Natural Sciences without Lab		3
GE CLAS Core: International and Global Issues [g]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
	Hours	**17-18**
Third Year		
Fall		
Major: digital performing arts course [h]		3
Major: ballet/contemporary movement practices course (if needed) [b]		3
GE CLAS Core: Values and Society [g, i]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]		4 - 5
Elective course [j]		3
	Hours	**16-17**
Spring		
DANC:3060	Western Concert Dance History: Romantic to Contemporary	3
DANC:3070	Dance Kinesiology	3
Major: ballet/contemporary movement practices course (if needed) [b]		3
GE CLAS Core: Quantitative or Formal Reasoning [g]		3 - 4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]		4 - 5
	Hours	**16-18**
Fourth Year		
Fall		
DANC:2220	Production Run Crew	1
DANC:3150	Choreography I	3
Major: dance somatics course [h]		3
GE CLAS Core: Historical Perspectives [g]		3
GE CLAS Core: Social Sciences [g]		3
Elective course [j]		3
	Hours	**16**
Spring		
DANC:3250	Choreography II	3
Major: dance performance and creative research course [h]		2
Elective course [j]		3
Elective course [j]		3
Elective course [j]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**14**
	Total Hours	**127-134**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students must complete 21 s.h. of movement practices courses, including at least 9 s.h. of ballet and at least 9 s.h. of contemporary movement practices. At least two semesters of one of these must be completed with grades of B-minus or higher: DANC:3530, DANC:3540, DANC:4030, DANC:4040, DANC:4540.

c Fulfills a major requirement and may fulfill a GE requirement.

d DANC:2065 meets both the GE CLAS Core Understanding Cultural Perspectives requirement and the global dance studies requirement for the major.

e Recommended course for GE CLAS Core Natural Sciences with Lab, not a major requirement.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

h See General Catalog for list of approved courses.

i DANC:1150 and DANC:1412 meet the GE CLAS Core Values and Society requirement.

j Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Dance, BFA

The Bachelor of Fine Arts degree program provides students with a conservatory-like studio experience that is enriched by studies in the liberal arts and sciences. Students train daily in concert movement practices and are afforded ample opportunities to perform in faculty and student creative research and to produce their own choreographic works in the department's concert season. A preprofessional degree, the BFA in dance establishes a strong foundation for creative and intellectual development and cultivates multiple approaches to dance, career, and citizenship. Studies in movement practices, performance, and choreography are complemented by courses in improvisation, dance history and theory, multicultural movement practices, global dance studies, digital performing arts, kinesiology, pedagogy, and community engagement.

Auditions for BFA Admission

An audition is required to be considered for the BFA program, as well as for placement in ballet and contemporary movement practice course and for consideration for scholarships. For incoming first-year students, a short supplemental application is required as well as an audition in person or by video. Visit Undergraduate Applications on the Department of Dance website for more information about the first-year admissions process.

Students auditioning for the BFA will be required to perform a two-minute solo on audition day or send a video through their supplemental application. The solo may be self-choreographed or be choreographed by someone else, usually a teacher or mentor.

Current BA students in dance may apply for the BFA during the spring semester of their sophomore year.

Learning Outcomes

Students will:

- achieve proficiency in contemporary concert dance movement practices while developing stylistic versatility, expressive range, and efficient body mechanics;
- learn to think critically about the historical, cultural, and social contexts of dance as an art form and cultural practice while developing strong writing skills and effective oral expression;
- master formal compositional elements and improvisational techniques toward the creation of original choreographic work, and learn to articulate and render their creative intentions with clarity, with opportunities to present these works in public performances;
- acquire performance skills, such as interpretation, expressivity, physical agility, and refinement, by participating in auditions, rehearsals, and studio and public performances;
- acquire knowledge of anatomical and kinesiological principles and injury prevention for effective dance training and career longevity; and
- attain an understanding of digital arts tools currently used in contemporary dance.

Requirements

The Bachelor of Fine Arts with a major in dance requires a minimum of 120 s.h., including at least 87 s.h. of work for the major. Students must maintain a grade-point average of at least 3.50 in all courses for the major and in all UI courses for the major. Students must earn at least 42 s.h. in the major at the University of Iowa. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Students also have the opportunity to complete the Dance Pedagogy and Instruction Track [p. 341] while fulfilling the BFA requirements.

In planning coursework, especially electives, students may apply a maximum of 87 s.h. in Department of Dance courses (prefix DANC) toward the minimum 120 s.h. required for the BFA degree. Any grades earned for coursework are included in the grade-point average.

In contrast to the BA in dance, the BFA program emphasizes choreography and performance. It requires an additional 19 s.h. of choreography, performance, and technique. Students who did not audition for the BFA program prior to entrance to the University of Iowa may subsequently apply for admission to the program during their sophomore year. The strongest candidates are those who have achieved the equivalent of major II technique and show academic and professional promise.

The BFA with a major in dance requires the following coursework.

Requirements	Hours
Core Courses	23
Studio Courses	12
Performance and Creative Research Courses	10-12
Movement Technique Courses	30
Distribution Areas	9
Dance Specialization Area	3

Core Courses

Course #	Title	Hours
All of these:		
DANC:1000	First-Year Seminar	1
DANC:1090	Dance Production	3
DANC:1170	Functional Anatomy	2
DANC:2060	Dance and Society in Global Contexts	3
DANC:2220	Production Run Crew (taken twice for 1 s.h. each; must complete this requirement by the end of the second year)	2
DANC:3060	Western Concert Dance History: Romantic to Contemporary	3
DANC:3070	Dance Kinesiology	3
DANC:3080	Music Essentials for Dance	3
DANC:4980	BFA Seminar in Dance	3

Studio Courses

Course #	Title	Hours
All of these:		
DANC:2050	Introduction to Improvisation and Composition	3
DANC:3150	Choreography I	3
DANC:3250	Choreography II	3
DANC:4350	Choreography III	3

Performance and Creative Research Courses

Students should enroll in DANC:3885 Repertory Dance Company during their second or third year.

Course #	Title	Hours
This course:		
DANC:3885	Repertory Dance Company	1-3
One of these:		
DANC:4998	BFA Senior Project in Dance	3
DANC:4999	Honors Project in Dance	3
6 s.h. from these:		
DANC:4452	MFA Independent Project Research Lab	arr.
DANC:4453	MFA Thesis Research Lab	arr.
DANC:4454	Faculty Creative Research Lab	arr.
DANC:4880	Dance Gala Performance	1-4
DANC:4881	Graduate Concert	1
DANC:4882	Graduate/Undergraduate Concert	1-4
DANC:4883	Faculty/Graduate Concert	1-4
DANC:4884	Undergraduate Event	1-4
DANC:4885	MFA Thesis Concert	1-4
DANC:4886	BFA Concert	1-4
DANC:4887	MFA Event	1-3
DANC:4888	Special Project Student Performance	arr.
May include up to 2 s.h. from this:		
DANC:4991	Independent Choreography	1-2

Movement Technique Courses

Students must complete 30 s.h. of movement technique courses, including two semesters of either DANC:4030 Major Ballet III or DANC:4040 Major Contemporary Movement Practices III with a grade of A-minus or higher and two semesters of DANC:4540 Major Contemporary Movement Practices IV with a grade of B-plus or higher. All movement technique courses may be taken more than once.

Eligible students may petition to take either DANC:4030 or DANC:4040 concurrently with DANC:4540 for two semesters during their final two semesters in order to satisfy technique requirements; the petition must originate with a student's advisor and be approved by the assigned course instructors.

Course #	Title	Hours
This course:		
DANC:3340	BFA Movement Practices (taken twice for 3 s.h. each during the first year)	6
12 s.h. from these:		
DANC:3030	Major Ballet I	3
DANC:3530	Major Ballet II	3
DANC:4030	Major Ballet III	3
DANC:4034	Ballet Pointe	3
12 s.h. from these:		
DANC:3040	Major Contemporary Movement Practices I	3
DANC:3540	Major Contemporary Movement Practices II	3
DANC:4040	Major Contemporary Movement Practices III	3
DANC:4540	Major Contemporary Movement Practices IV	3

Distribution Areas

Students must complete at least one course from each of the following three areas.

Dance Somatics

Course #	Title	Hours
One of these:		
DANC:3851/ MUS:3851	Introduction to the Alexander Technique	3
DANC:3852	Introduction to the Feldenkrais Method: Posture, Perception, and Pain Relief	3
DANC:3853	Introduction to Klein Technique	3

Global Dance Studies

Course #	Title	Hours
One of these:		
DANC:1150/ LAS:1150	Brazilian Culture and Carnival	3
DANC:2065	Performing Power/ Performing Protest: The Body, Identity, and the Image	3
DANC:2085	Introduction to African Caribbean Dance Practices	3
DANC:2150	Brazilian Social Dance: The Samba	3
DANC:3010	Topics in Global Movement Practices	3
DANC:5055	Embodying Voice/Performing Persona	3

Digital Performing Arts

Course #	Title	Hours
One of these:		
DANC:2800/ ARTS:2800/ CINE:2800/CS:2800/ DIGA:2800/ MUS:2800/ THTR:2800	Digital Arts: An Introduction	3
DANC:2880/ DIGA:2880/ THTR:2880	Installations and Interactive Performance	3
DANC:2890/ DIGA:2890/ THTR:2890	Producing and Directing Digital Video	3
DANC:3050	Body/Image: Dance and Media in Discourse and Practice	3
DANC:3875/ THTR:3875	Topics in Digital Performing Arts	3

DANC:3876/ CINE:3876/ DIGA:3876/ INTM:3876/ THTR:3876	Projection Design	3
DANC:3895/ DIGA:3895/ THTR:3895	Performance, Art, and New Technologies in Society	3

Dance Specialization Areas

Students choose advanced-level elective coursework by selecting one of the following three options: pedagogy, advanced history or theory, or choreography.

Pedagogy

Course #	Title	Hours
One of these:		
DANC:4535	Elementary Ballet Pedagogy	3
DANC:4545	Teaching of Modern and Contemporary Dance Forms	3

Advanced History or Theory

Course #	Title	Hours
One of these:		
DANC:4060	The Contemporary Dance Scene	3
DANC:5060	Theories of Dance and the Body	3

Choreography

Students who choose this option are encouraged to complete DANC:4991 Independent Choreography before DANC:6450 Graduate Choreography IV.

Course #	Title	Hours
This course:		
DANC:6450	Graduate Choreography IV	3

Dance Pedagogy and Instruction Track

Dance majors who have a particular interest in the art and practice of teaching dance as a passion and/or profession may complete the dance pedagogy and instruction track at the same time as they are completing their degree requirements. This track tailors the knowledge and skills gained in the pursuit of a major in dance toward the preparation of students for professions in dance instruction and studio ownership, and for opportunities to work as teaching artists within community and dance company outreach and engagement programs.

Most of the required courses fulfill the requirements for the dance major and/or GE CLAS Core requirements.

The dance pedagogy and instruction track requires 23 s.h. from the following.

Dance Pedagogy Foundations

Course #	Title	Hours
This course:		
DANC:3700	Dance Pedagogy: Theories, Issues, and Perspectives	3

Dance Pedagogy Electives

Course #	Title	Hours
5-6 s.h. from these:		
DANC:2075	Teaching and Using Creative Dance for Children (K-8) in a Variety of Educational Settings	2
DANC:3075	Yoga Teacher Training I	3
DANC:3076	Yoga Teacher Training II	3
DANC:4535	Elementary Ballet Pedagogy	3
DANC:4545	Teaching of Modern and Contemporary Dance Forms	3

Education, Learning, and Human Development

Course #	Title	Hours
Two of these:		
EPLS:3000	Foundations of Education	3
PSQF:1075	Educational Psychology and Measurement	3
PSQF:4133	The Adolescent and Young Adult	3
PSY:1001	Elementary Psychology	3
PSY:2401	Introduction to Developmental Science	3

Leadership and Entrepreneurship Studies

Course #	Title	Hours
One of these:		
ENTR:1350	Foundations in Entrepreneurship	3
THTR:3510/ INTD:3510	Introduction to Arts Management	3

Social Justice Studies

Students may only apply either DANC:3600 or GWSS:3600 to this track.

Course #	Title	Hours
One of these:		
DANC:2065	Performing Power/ Performing Protest: The Body, Identity, and the Image	3
DANC:3600	Art, Feminist Practice, and Social Justice	3
or GWSS:3600	Art, Feminist Practice, and Social Justice	
SJUS:1001/ GWSS:1003	Introduction to Social Justice	3

Electives

To complete the required 23 s.h., students must take one additional course selected from one of these preceding categories: "Education, Learning, and Human Development," "Leadership and Entrepreneurship Studies," or "Social Justice Studies." Students using DANC:3600 to fulfill the Social Justice Studies area cannot apply GWSS:3600 to the elective requirement. Students using GWSS:3600 to fulfill the Social Justice Studies area cannot apply DANC:3600 to the elective requirement.

Honors

Honors in the Major

Majors who maintain a Department of Dance grade-point average (GPA) of at least 3.50 and a UI GPA of at least 3.33 are encouraged to pursue honors in dance. Although it is not necessary for students pursuing honors in dance to be members of the University of Iowa Honors Program, earning honors in dance does satisfy the experiential learning component ("learning by doing") of the UI Honors Program.

Students who graduate with honors in their major receive special recognition during commencement, and their transcript and diploma reflect honors designations.

Graduation with honors in dance requires successful completion of 8–10 s.h. of University of Iowa honors courses or honors contract courses in Department of Dance classes and successful completion of an honors project.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the dance major.

Career Advancement

Careers for dance majors include professional work in performing, choreography, education, private teaching, and related areas such as arts management, technical theater, dance scholarship, or dance and physical therapy. Many graduates from the UI dance program are currently working in arts organizations throughout the United States.

The discipline and creative challenges of dance training transfer well to other careers. Students have combined dance with a second major in another field such as business or communication.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Department of Dance coursework beyond 87 s.h. for BFA students does not apply toward semester hours required for graduation.

Before the third semester begins: 16 s.h. of coursework in the major.

Before the fifth semester begins: 25–40 s.h. of coursework in the major.

Before the seventh semester begins: 45–60 s.h. of coursework in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: 57–75 s.h. of coursework in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Dance, BFA

Course	Title	Hours
Academic Career		
Any Semester		
Students must maintain a GPA of at least 3.50 in all courses for the major and in all UI courses for the major.		
An audition is required to be considered for the BFA program, as well as for placement in ballet and contemporary movement practice courses and for consideration for scholarships.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
DANC:1000	First-Year Seminar	1
DANC:1090	Dance Production	3
DANC:1170	Functional Anatomy	2
DANC:3340	BFA Movement Practices [b]	3
Major: contemporary movement practices course [b]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
CSI:1600	Success at Iowa	1
	Hours	**16-17**
Spring		
DANC:2050	Introduction to Improvisation and Composition	3
DANC:2060	Dance and Society in Global Contexts [c]	3
DANC:2220	Production Run Crew [d]	1
DANC:3340	BFA Movement Practices [b]	3
Major: contemporary movement practices course [b]		3
Major: performance and creative research course [e]		1
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
	Hours	**17-18**
Second Year		
Fall		
DANC:3080	Music Essentials for Dance	3
DANC:3885	Repertory Dance Company [e]	1
Major: ballet course [b]		3

Major: dance somatics course [f]		3
BIOL:1140	Human Biology: Nonmajors [g]	4
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
	Hours	**18-19**

Spring

DANC:2220	Production Run Crew [d]	1
Major: ballet course [b]		3
Major: performance and creative research course [e]		1
GE CLAS Core: Understanding Cultural Perspectives [i, j]		3
GE CLAS Core: Natural Sciences without Lab		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
	Hours	**15-16**

Third Year

Fall

DANC:3150	Choreography I	3
Major: digital performing arts course [f]		3
Major: global dance studies course [i, k]		3
Major: performance and creative research course [e]		1
GE CLAS Core: Values and Society [j, k]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
	Hours	**17-18**

Spring

DANC:3060	Western Concert Dance History: Romantic to Contemporary	3
DANC:3070	Dance Kinesiology [l]	3
DANC:3250	Choreography II	3
Major: performance and creative research course [e]		1
GE CLAS Core: Quantitative or Formal Reasoning [j]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
	Hours	**17-18**

Fourth Year

Fall

DANC:4540	Major Contemporary Movement Practices IV [b]	3
DANC:4350	Choreography III	3
DANC:4980	BFA Seminar in Dance	3
Major: specialization area course [f]		3
Major: ballet course [b]		3
GE CLAS Core: Historical Perspectives [j]		3
	Hours	**18**

Spring

DANC:4540	Major Contemporary Movement Practices IV [b]	3
DANC:4998 or DANC:4999	BFA Senior Project in Dance [e] or Honors Project in Dance	3
Major: ballet course [b]		3
Major: performance and creative research course [e]		2
GE CLAS Core: Social Sciences [j]		3
GE CLAS Core: International and Global Issues [j]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**17**
	Total Hours	**135-141**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students must complete 30 s.h. of movement technique courses including DANC:3340 (taken twice for 3 s.h. each during the first year); two semesters of either DANC:4030 or DANC:4040 (with a grade of A-minus or higher); and two semesters of DANC:4540 (with a grade of B-plus or higher). At least 12 s.h. of ballet and at least 12 s.h. of contemporary movement practices are required.

c Fulfills a major requirement and may fulfill a GE requirement.

d Take DANC:2220 twice for 1 s.h. each; must complete this requirement by the end of the second year.

e Students must complete DANC:3885; DANC:4998 or DANC:4999; and at least 6 s.h. from other performance and creative research courses; may include up to 2 s.h. from DANC:4991. See the General Catalog for list of approved courses.

f See General Catalog for list of approved courses.

g Recommended course for GE CLAS Core Natural Sciences with Lab, not a major requirement.

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i DANC:2065 meets both the GE CLAS Core Understanding Cultural Perspectives requirement and the global dance studies requirement for the major.

j GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

k DANC:1150 meets both the GE CLAS Core Values and Society requirement and the global dance studies requirement for the major.

l Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

mPlease see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Dance, Minor

Requirements

The undergraduate minor in dance requires a minimum of 15 s.h. in University of Iowa Department of Dance courses. Students must maintain a cumulative grade-point average of 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Adding a Dance Minor

The department admits all students to the dance minor without an audition. A placement audition is required to participate in ballet and contemporary movement practices courses numbered 2000 and above, however. Ballet and contemporary movement practices courses are not required to complete the minor.

Students may email a video, attend a Hawkeye Dance Day in the department, or arrange to visit a class to audition for placement in courses numbered 2000 and above. For incoming first-year students, a short, supplemental application is required to make audition arrangements and will become available to students after they have been admitted to the University of Iowa. See Undergraduate Applications on the Department of Dance website for more information about the first-year admissions process. Students who have already matriculated at the University of Iowa may declare the minor without completing the supplemental application.

Required Coursework

The minor in dance requires the following coursework. Students must complete all prerequisites for the courses they choose for the minor. Please refer to the Technique Placement and Promotion Policy for information on the major ballet and contemporary movement practices sequence of coursework.

Course #	Title	Hours
This course:		
DANC:2060	Dance and Society in Global Contexts	3
One of these:		
DANC:1150/ LAS:1150	Brazilian Culture and Carnival	3
DANC:2065	Performing Power/ Performing Protest: The Body, Identity, and the Image	3
DANC:2085	Introduction to African Caribbean Dance Practices	3
DANC:2150	Brazilian Social Dance: The Samba	3
9 s.h. from these:		
DANC:1090	Dance Production	3
DANC:1170	Functional Anatomy	2
DANC:2020	Intermediate Jazz (maximum of 6 s.h. of all intermediate-level coursework will count toward the minor)	3
DANC:2025	Intermediate Hip Hop Dance (maximum of 6 s.h. of all intermediate-level coursework will count toward the minor)	3
DANC:2030	Majors Intermediate Ballet (maximum of 6 s.h. of all intermediate-level coursework will count toward the minor)	3
DANC:2040	Majors Intermediate Contemporary Movement Practices (maximum of 6 s.h. of all intermediate-level coursework will count toward the minor)	3
DANC:2050	Introduction to Improvisation and Composition	3
DANC:2220	Production Run Crew	1
DANC:2800/ ARTS:2800/ CINE:2800/CS:2800/ DIGA:2800/ MUS:2800/ THTR:2800	Digital Arts: An Introduction	3
DANC:2880/ DIGA:2880/ THTR:2880	Installations and Interactive Performance	3
DANC:2890/ DIGA:2890/ THTR:2890	Producing and Directing Digital Video	3
DANC:3010	Topics in Global Movement Practices	3
DANC:3030	Major Ballet I (mandatory Department of Dance audition; enrollment is limited to the fall semester)	3
DANC:3040	Major Contemporary Movement Practices I (mandatory Department of Dance audition; enrollment is limited to the fall semester)	3
DANC:3050	Body/Image: Dance and Media in Discourse and Practice	3
DANC:3060	Western Concert Dance History: Romantic to Contemporary	3
DANC:3070	Dance Kinesiology	3
DANC:3150	Choreography I	3
DANC:3250	Choreography II	3
DANC:3340	BFA Movement Practices	3
DANC:3530	Major Ballet II (mandatory Department of Dance audition; enrollment is limited to the fall semester)	3
DANC:3540	Major Contemporary Movement Practices II (mandatory Department of Dance audition; enrollment is limited to the fall semester)	3

DANC:3700	Dance Pedagogy: Theories, Issues, and Perspectives	3
DANC:3710/ INTM:3700	Topics in Intermedia	4
DANC:3851/ MUS:3851	Introduction to the Alexander Technique	3
DANC:3852	Introduction to the Feldenkrais Method: Posture, Perception, and Pain Relief	3
DANC:3853	Introduction to Klein Technique	3
DANC:3875/ THTR:3875	Topics in Digital Performing Arts	3
DANC:3876/ CINE:3876/ DIGA:3876/ INTM:3876/ THTR:3876	Projection Design	3
DANC:3895/ DIGA:3895/ THTR:3895	Performance, Art, and New Technologies in Society	3
DANC:4030	Major Ballet III	3
DANC:4034	Ballet Pointe	3
DANC:4040	Major Contemporary Movement Practices III	3
DANC:4452	MFA Independent Project Research Lab	arr.
DANC:4453	MFA Thesis Research Lab	arr.
DANC:4454	Faculty Creative Research Lab	arr.
DANC:4540	Major Contemporary Movement Practices IV	3
DANC:4880	Dance Gala Performance	1-4
DANC:4881	Graduate Concert	1
DANC:4882	Graduate/Undergraduate Concert	1-4
DANC:4883	Faculty/Graduate Concert	1-4
DANC:4884	Undergraduate Event	1-4
DANC:4885	MFA Thesis Concert	1-4
DANC:4886	BFA Concert	1-4
DANC:4887	MFA Event	1-2
DANC:4888	Special Project Student Performance	arr.

Dance, MFA

The Master of Fine Arts program in dance offers subprograms in choreography or performance. Students must first complete the online application and then be selected to interview and audition to be considered for admission.

Learning Outcomes

- Movement expertise: achieve professional-level expertise in contemporary movement practices and techniques as a means to advanced, body-based creative research and teaching.
- Creative research: establish individualized creative research trajectories that couple dance theories and practices and foster coherent aesthetic points of view in both scholarly and performative contexts.
- Communication: demonstrate skilled communication through artistic process and product, and through verbal, written, digital, pedagogical, and emerging artistic forms.
- Artistic citizenship: understand and develop the combined artistic, social, and organizational skills of the artist-citizen who, in humane ways, contributes to the local, national, and global dialogues about dance and contemporary culture, and to the evolution of the professional field.
- Career readiness and sustainability: understand the diverse and ever-changing nature of the field of dance and develop the relevant agility to hold significant roles in a sustained, lifelong career.

Requirements

The Master of Fine Arts in dance requires a minimum of 60 s.h. of graduate credit. The program is designed to be completed in four to six semesters in residence. Students must maintain a graduate college program grade-point average (GPA) of at least 3.00.

Students who demonstrate accomplishment in dance performance and/or choreography may apply for admission to the MFA program. Applicants select the choreography or the performance subprogram before they are admitted.

The MFA in dance requires the following coursework.

Dance Core

A total of 29 s.h. of core coursework is required.

Course #	Title	Hours
All of these:		
DANC:4060	The Contemporary Dance Scene	3
DANC:5060	Theories of Dance and the Body	3
DANC:5545	Teaching Dance in Higher Education	3
DANC:5880/ THTR:5880	Installations and Interactive Performance	3
DANC:6050	Graduate Improvisation II	3
DANC:6060	Graduate Seminar in Dance	3
DANC:6350	Graduate Choreography III	3
DANC:7990	Thesis (taken once for 8 s.h.)	8

Movement Practices and Extended Techniques

Students in the choreography subprogram complete 7 s.h. and students in the performance subprogram complete 14 s.h. from the courses listed below. Performance subprogram students must satisfy at least half (7 s.h.) of their movement practice coursework in the ballet and contemporary movement practice curriculum (courses ending in 30 for ballet and 40 for contemporary movement).

Other university courses outside the Department of Dance can satisfy the movement practices requirements with permission of the MFA advisor if they serve a student's embodied creative research objectives.

Course #	Title	Hours
DANC:3030	Major Ballet I	1-3
DANC:3040	Major Contemporary Movement Practices I	1-3
DANC:3851/ MUS:3851	Introduction to the Alexander Technique	3
DANC:3852	Introduction to the Feldenkrais Method: Posture, Perception, and Pain Relief	3
DANC:3853	Introduction to Klein Technique	3
DANC:4034	Ballet Pointe	3
DANC:5085	Graduate African Caribbean Dance Practices	3
DANC:5530	Graduate Majors Ballet II	1-3
DANC:5540	Graduate Contemporary Movement Practices II	1-3
DANC:6030	Graduate Majors Ballet III	1-3
DANC:6040	Graduate Contemporary Movement Practices III	1-3
DANC:6540	Graduate Contemporary Movement Practices IV	1-3
DANC:7550	Graduate Contemporary Movement Practicum	2-3
DANC:7560	Graduate Ballet Technique Practicum	2-3

Choreography Subprogram

Choreography students complete 12 s.h. in the following courses.

Course #	Title	Hours
Both of these:		
DANC:6450	Graduate Choreography IV	3
DANC:6990	Graduate Independent Projects (taken three times for 3 s.h. each)	9

Performance Subprogram

Performance subprogram students complete 14 s.h. in the following courses.

Course #	Title	Hours
Both of these:		
DANC:5055	Embodying Voice/Performing Persona	3

DANC:6990	Graduate Independent Projects (taken twice for 3 s.h. each)	6
At least 5 s.h. from these:		
DANC:3885	Repertory Dance Company	1-3
DANC:6880	Dance Gala Performance	1-4
DANC:6881	Graduate Concert	arr.
DANC:6882	Graduate/Undergraduate Concert	1-4
DANC:6883	Faculty/Graduate Concert	1-4
DANC:6884	Undergraduate Event	1-4
DANC:6885	MFA Thesis Concert	1-4
DANC:6887	MFA Event	1-2
DANC:6888	Special Project Student Performance	arr.
DANC:6889	Graduate Performance Credit	1-3

Electives

Choreography students complete 12 s.h. of electives; performance students complete 3 s.h. of electives. Electives may be selected from dance courses (prefix DANC) numbered 3000 or above, excluding DANC:4880–DANC:4980 and DANC:7990 Thesis; this may include additional courses in the requirement areas listed above. Electives are chosen in consultation with the student's advisor; courses in other departments numbered 3000 or above may be approved.

Admission

Admission is based on a review of submitted choreographic and performance work, letters of recommendation, transcripts, teaching application, statement of purpose, and curriculum vitae. Selected applicants participate in an interview and audition which includes a solo dance, a teaching audition, and when possible, an on-campus visit that includes advanced classes in ballet and contemporary movement practices to determine class placement level.

Demonstrated accomplishment in performance or choreography is a prerequisite for admission to the program. For more information, see Master of Fine Arts in Dance on the Department of Dance website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Graduates establish successful, professional careers as professors in higher education and as dance-makers and artistic directors, performers in regional and national companies, writers who contribute to knowledge in the field, and teachers for the next generation of dancers.

Academic Plans

Sample Plans

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Dance, MFA

- Choreography Subprogram [p. 347]
- Performance Subprogram [p. 348]

Choreography Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
60 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
DANC:5060	Theories of Dance and the Body [c]	3
DANC:6050	Graduate Improvisation II [c]	3
DANC:6350	Graduate Choreography III	3
DANC:6990	Graduate Independent Projects [d]	3
	Hours	**12**
Spring		
DANC:6060	Graduate Seminar in Dance [c]	3
DANC:6450	Graduate Choreography IV	3
DANC:6990	Graduate Independent Projects [d]	3
Elective course [e]		3
	Hours	**12**
Second Year		
Fall		
DANC:4060	The Contemporary Dance Scene [c]	3
DANC:5545	Teaching Dance in Higher Education [c]	3
DANC:6990	Graduate Independent Projects [d]	3
Movement Practices and Extended Techniques course [f]		1
	Hours	**10**
Spring		
Movement Practices and Extended Techniques course [f]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Third Year		
Fall		
DANC:5880	Installations and Interactive Performance	3
Movement Practices and Extended Techniques course [f]		2
Elective course [e]		3
	Hours	**8**
Spring		
DANC:7990	Thesis [g]	8
Movement Practices and Extended Techniques course [f]		1
Exam: Master's Final Exam [h]		
	Hours	**9**
	Total Hours	**60**

a The program is designed to be completed in four to six semesters in residence.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c Typically this course is offered every other year. Check MyUI for course availability since offerings are subject to change.
d Taken three times for 3 s.h. each.
e Complete at least 12 s.h. of electives. Electives may be selected from dance courses (prefix DANC) numbered 3000 or above, excluding DANC:4880-DANC:4980 and DANC:7990. Electives are chosen in consultation with the student's advisor; courses in other departments numbered 3000 or above may be approved.
f Complete at least 7 s.h. of movement practices and extended techniques coursework. See the General Catalog for list of approved courses.
g Taken once for 8 s.h.
h Thesis defense.

Performance Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
60 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
DANC:5060	Theories of Dance and the Body [c]	3
DANC:6050	Graduate Improvisation II [c]	3
DANC:6350	Graduate Choreography III	3
DANC:6990	Graduate Independent Projects [d]	3
Movement Practices and Extended Techniques course [e]		1
	Hours	**13**
Spring		
DANC:5055	Embodying Voice/Performing Persona [c]	3
DANC:6060	Graduate Seminar in Dance [c]	3
DANC:6990	Graduate Independent Projects [d]	3
Movement Practices and Extended Techniques course [e]		2
Performance course [f]		1
	Hours	**12**
Second Year		
Fall		
DANC:4060	The Contemporary Dance Scene [c]	3
DANC:5545	Teaching Dance in Higher Education [c]	3
Movement Practices and Extended Techniques course [e]		3
	Hours	**9**
Spring		
Movement Practices and Extended Techniques course [e]		3
Performance course [f]		3
Elective course [g]		3
	Hours	**9**
Third Year		
Fall		
DANC:5880	Installations and Interactive Performance	3
Movement Practices and Extended Techniques course [e]		4
Performance course [f]		1
	Hours	**8**
Spring		
Movement Practices and Extended Techniques course [e]		1
DANC:7990	Thesis [h]	8
Exam: Master's Final Exam [i]		
	Hours	**9**
	Total Hours	**60**

a The program is designed to be completed in four to six semesters in residence.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c Typically this course is offered every other year. Check MyUI for course availability since offerings are subject to change.
d Taken twice for 3 s.h. each.
e Complete at least 14 s.h. of movement practices and extended techniques coursework. See the General Catalog for list of approved courses.
f Complete at least 5 s.h. to satisfy the performance subprogram requirements. See the General Catalog for list of approved courses.
g Complete at least 3 s.h. of electives. Electives may be selected from dance courses (prefix DANC) numbered 3000 or above, excluding DANC:4880-DANC:4980 and DANC:7990. Electives are chosen in consultation with the student's advisor; courses in other departments numbered 3000 or above may be approved.
h Taken once for 8 s.h.
i Thesis defense.

Data Science

Chair, Department of Statistics and Actuarial Science

- Kung-Sik Chan

Director of Undergraduate Studies, Data Science

- Sanvesh Srivastava

Director of Graduate Studies

- Boxiang Wang

Undergraduate major: data science (BS)

Graduate degree: MS in data science

Faculty: https://stat.uiowa.edu/people

Website: https://stat.uiowa.edu

The BS in data science produces graduates with the sophisticated analytical and computational skills required to thrive in a quantitative world where new problems are encountered at an ever-increasing rate. The major emphasizes the statistical/probabilistic and algorithmic methods that underlie the preparation, analysis, and communication of complex data. With a focus on technical foundations, the data science program promotes skills useful for creating and implementing new or special-purpose analysis and visualization tools. It also promotes a fundamental understanding of how to best handle uncertainty when making data-driven decisions.

The MS in data science trains the next generation of data scientists who have the analytical and technical skills to explore, formulate, and solve complex data-driven problems in science, industry, business, and government. The program focuses on the theory, methodology, application, and ethics for working with and learning from data. With an emphasis on statistical thinking and foundations, the program rigorously prepares its graduates with the abilities to develop and implement new or special-purpose analysis and visualization tools. It promotes a fundamental understanding of how to quantify uncertainty in data-driven decision-making.

The BS and MS in data science are administered by the Department of Statistics and Actuarial Science [p. 1075].

Programs

Undergraduate Program of Study

Major

- Major in Data Science (Bachelor of Science) [p. 350]

Graduate Program of Study

- Master of Science in Data Science [p. 354]

Data Science, BS

Learning Outcomes

Data Curation Skills

Graduates will be able to:

- understand issues associated with data collection, management, provenance, storage, merging, sharing, and preparation;
- work with multiple-source, multiple-format data;
- investigate the quality of the data; and
- have a basic understanding of ethical and confidentiality issues associated with data collection, storage, merging, and sharing.

Computational Skills

Graduates will be able to:

- use critical thinking skills to translate substantive questions into well-defined computational problems and choose appropriate computational techniques for a given problem;
- understand the foundational software skills and associated algorithmic and computational problem-solving methods used in computer science;
- be proficient in computational methods for collecting, managing, storing, preparing, sharing, and describing data numerically and graphically from a variety of sources to design and carry out basic simulation studies; and
- use professional statistical software and understand the principles of programming and algorithmic problem-solving that underlie these packages.

Statistical/Probabilistic Skills

Graduates will be able to:

- use critical thinking skills to translate substantive questions into well-defined statistical or probability problems and choose the appropriate graphical or numerical descriptive and/or inferential statistical techniques for a given problem;
- understand the importance of, and issues related to, the choice of the study design, such as designed experiment versus probability sample versus convenience sample, used to produce data;
- understand that uncertainty, variability, and randomness play significant roles in data-driven decision-making;
- understand how to measure and display uncertainty, the effect of randomness, confidence/credibility, and the likelihood of incorrect inferences;
- understand and be able to explain common misperceptions, paradoxes, and fallacies of probability and statistics; and
- understand basic regression, prediction, simulation, and visualization methods.

Mathematical Skills

Graduates will:

- have a firm grasp of the mathematical tools underlying statistical and computational methods which are primarily based on ideas in calculus, linear algebra, and discrete mathematics, including distribution theory, uncertainty quantification (e.g., probability theory), the probabilistic basis of formal statistical inference, models, and algorithms, and combinatorial analysis and recursion, which are used for algorithmic analysis, design, and for distribution theory.

Communication Skills

Graduates will be able to:

- clearly justify and communicate study results to a non-technical audience;
- write accurate and meaningful reports that describe the statistical and computational analyses and summarize important findings; and
- work effectively as part of a team to address substantive questions that can be handled using statistical and computational methods.

Requirements

The Bachelor of Science with a major in data science requires a minimum of 120 s.h., including at least 64 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Data science majors may not earn a major or minor in computer science or statistics, a major in computer science and engineering, or the Certificate in Social Science Analytics.

The BS with a major in data science requires the following coursework.

Requirements	Hours
Prerequisite Courses	16
Core Courses	36
Advanced Electives	9
Capstone Course	3

Prerequisite Courses

Course #	Title	Hours
MATH:1850	Calculus I	4
MATH:1860	Calculus II	4
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4

Core Courses

Course #	Title	Hours
All of these:		
DATA:3200/ IGPI:3200/ISE:3760/ STAT:3200	Applied Linear Regression	3
DATA:4580/ IGPI:4580/ STAT:4580	Data Visualization and Data Technologies	3
CS:1210	Computer Science I: Fundamentals	4
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
CS:3330	Algorithms	3
CS:4400	Database Systems	3

STAT:2010	Statistical Methods and Computing	3
STAT:3100/ IGPI:3100	Introduction to Mathematical Statistics I	4
STAT:3101/ IGPI:3101	Introduction to Mathematical Statistics II	3
One of these:		
DATA:4540/ BAIS:4540/ IGPI:4540/ STAT:4540	Statistical Learning	3
CS:5430	Machine Learning	3

Advanced Electives

Course #	Title	Hours
9 s.h. from these, with at least one computer science course (prefix CS) and one statistics course (prefix STAT):		
DATA:4600/ STAT:4600	Causal Inference for Data Science	3
DATA:4610	Data Acquisition and Management	3
DATA:4620	Text Data Analysis	3
DATA:4750/ STAT:4750	Probabilistic Statistical Learning	3
DATA:4880	Data Science Creative Component	1
DATA:6200/ ACTS:6200/ STAT:6200	Predictive Analytics	3
BIOS:4510	Data Science Foundations in R	2
CS:4420	Artificial Intelligence	3
CS:4440	Web Mining	3
CS:4470	Health Data Analytics	3
CS:4510	Human-Computer Interaction for Computer Science	3
CS:4630	Mobile Computing	3
CS:4700/ MATH:4860	High Performance and Parallel Computing	3
CS:5630	Cloud Computing Technology	3
MATH:4840	Mathematics of Machine Learning	3
STAT:3210	Experimental Design and Analysis	3
STAT:4520/ IGPI:4522/ PSQF:4520	Bayesian Statistics	3
STAT:4560	Statistics for Risk Modeling I	3
Other advanced computer science or statistics courses approved by advisor		

Capstone Course

Course #	Title	Hours
DATA:4890	Data Science Practicum	3

The Department of Statistics and Actuarial Science [p. 1075] and the Department of Computer Science [p. 286] collaborate to offer the major in data science.

Combined Programs

Undergraduate to Graduate (U2G) Program

Bachelor of Science students in data science may pair their degree with an Undergraduate to Graduate (U2G) program, which allows a student to earn a bachelor's and master's degree in five years of study. See the Undergraduate to Graduate website for available programs.

Honors

Honors in the Major

Students majoring in data science have the opportunity to graduate with honors in the major. They must maintain a grade-point average (GPA) of at least 3.67 in their major and a cumulative University of Iowa GPA of at least 3.33. Students must complete an honors thesis.

Students are responsible for finding a faculty member willing to supervise their honors project. The faculty member must approve the proposed project and a timetable for the work. Credit for thesis work must be earned in either CS:3990 Honors in Computer Science or Informatics for work supervised by a computer science faculty member or an honors course supervised by a statistics and actuarial science faculty member.

Honors in data science also satisfies the 12 s.h. experiential learning requirement for University of Iowa honors students.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the data science major.

Career Advancement

Today, nearly every business, government, social media platform, and educational institution collects and analyzes data about its users, logistics and operations, and media presence, in the hope of extracting valuable insights and utilizing the resulting efficiencies.

As an example, Amazon is the company most closely identified with a data-driven business model. Starting just over 25 years ago as an online bookseller with a relatively crude crowdsourced book review platform and simple recommender system technology, it was subsequently augmented with extensive tracking of customer page views, advertising hits, data about prior purchases, and an aggressive emphasis on data-driven operational efficiencies. Amazon has become the major player in U.S. retail and a prime example of the strategic value of big data.

Data science graduates may pursue careers as data scientists. This position allows them to apply their understanding of statistics, as well as algorithm and software design, to create and develop the next generation of data analysis tools.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The Four-Year Graduation Plan is not available to students majoring in data science. Students work with their advisors on individual graduation plans.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Data Science, BS

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CS:1210	Computer Science I: Fundamentals	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
MATH:1550	Engineering Calculus I [b]	4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**16-18**
Spring		
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
STAT:2010	Statistical Methods and Computing	3
CS:2210	Discrete Structures	3
MATH:1560	Engineering Calculus II	4
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
	Hours	**17-19**
Second Year		
Fall		
CS:2230	Computer Science II: Data Structures	4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: Natural Sciences without Lab [d]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
Elective course [e]		3
	Hours	**17-18**
Spring		
CS:3330	Algorithms	3
MATH:2700	Introduction to Linear Algebra	4
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
DATA:3200	Applied Linear Regression	3
	Hours	**17-18**
Third Year		
Fall		
STAT:3100	Introduction to Mathematical Statistics I [f]	4
GE CLAS Core: Natural Sciences with Lab [d]		4
GE CLAS Core: Social Sciences [d]		3
DATA:4540 or CS:5430	Statistical Learning [f] or Machine Learning	3
Elective course [e]		3
	Hours	**17**
Spring		
DATA:4580	Data Visualization and Data Technologies [g]	3
STAT:3101	Introduction to Mathematical Statistics II [g]	3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
CS:4400	Database Systems	3
Elective course [e]		3
	Hours	**15**
Fourth Year		
Fall		
DATA:4890	Data Science Practicum	3
Major: advanced elective I course [h]		3
Major: advanced elective II course [h]		3
GE CLAS Core: Historical Perspectives [d]		3
Elective course [e]		3
	Hours	**15**
Spring		
Major: advanced elective III course [h]		3
GE CLAS Core: Values and Society [d]		3
Elective course [e]		1
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**13**
	Total Hours	**127-133**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in math courses requires completion of a placement exam.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate

Programs Office with questions concerning the World Languages requirement.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

g Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

h Students should select at least one computer science course and one statistics course for their advanced electives.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Data Science, MS

Learning Outcomes

Graduates will be able to:

- understand the fundamental concepts in probability and statistics that underlie commonly used data science algorithms;
- write efficient Python and R codes for data processing and data wrangling (data storage, access, and management) and computing for data analysis and modeling;
- use visualization techniques to display salient data features;
- use data technologies to process complex data;
- correctly and effectively implement appropriate algorithms for learning with data;
- identify and criticize inappropriate/unethical uses of data and/or algorithms;
- acquire effective communication skills for disseminating findings; and
- work with data stakeholders to help collect and analyze data.

The program aims to train the next generation of data scientists with the analytical and technical skills to explore, formulate, and solve complex data-driven problems in science, industry, business, and government. The program focuses on the theory, methodology, application, and ethics for working with and learning from data. Students acquire the ability to develop and implement new or special-purpose analysis and visualization tools, and a fundamental understanding of how to quantify uncertainty in data-driven decision-making.

Requirements

The Master of Science in data science requires 30 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average of at least 3.00 in all coursework.

Coursework includes core courses covering the fundamentals of data science including probability and statistics; data storage, access, and management; and data visualization, exploration, modeling, analysis, and uncertainty quantification. Students acquire hands-on experience in solving real-world problems, communication skills, and data ethics via a required capstone project. Students may choose from a wide variety of electives or supplemental courses on specialized data science topics offered by the departments of Statistics and Actuarial Science, Computer Science, Business Analytics, and Biostatistics to enhance their skill sets based on their interests and career goals.

Students who have received a waiver for certain required courses must select from the list of approved supplemental courses to reach 30 s.h. of graduate credit; see the " Elective and Supplemental Courses" section. In particular, this may be the case for some undergraduate to graduate students; see the Undergraduate to Graduate website for more information.

The MS in data science requires the following coursework.

Required Courses

All required courses must be taken on an A–F graded basis, except DATA:4890, DATA:5890, and DATA:6220, which may be taken for a S/U grade.

Course #	Title	Hours
All of these:		
DATA:3120/ IGPI:3120/ STAT:3120	Probability and Statistics	4
DATA:3200/ IGPI:3200/ISE:3760/ STAT:3200	Applied Linear Regression	3
DATA:4540/ BAIS:4540/ IGPI:4540/ STAT:4540	Statistical Learning	3
DATA:4580/ IGPI:4580/ STAT:4580	Data Visualization and Data Technologies	3
DATA:4600/ STAT:4600	Causal Inference for Data Science	3
DATA:4750/ STAT:4750	Probabilistic Statistical Learning	3
DATA:5400/ IGPI:5400/ STAT:5400	Computing in Statistics	3
DATA:6220/ STAT:6220	Consulting and Communication With Data	3
DATA:7400/ IGPI:7400/ STAT:7400	Computer Intensive Statistics	3
One of these:		
DATA:4890	Data Science Practicum	3
DATA:5890	MS Data Science Practicum	2

Elective and Supplemental Courses

Course #	Title	Hours
DATA:3120/ IGPI:3120/ STAT:3120	Probability and Statistics	4
DATA:4610	Data Acquisition and Management	3
DATA:4620	Text Data Analysis	3
DATA:4890	Data Science Practicum	3
DATA:6200/ ACTS:6200/ STAT:6200	Predictive Analytics	3
BAIS:6040	Data Programming in Python	3
BAIS:6100	Text Analytics	3
BAIS:6130	Applied Optimization	3
BAIS:6210	Data Leadership and Management	3
BAIS:9100	Data and Decisions	3
BIOS:4510	Data Science Foundations in R	2
BIOS:5310/ IGPI:5310/ STAT:5810	Research Data Management	3

BIOS:6310/ IGPI:6310/ STAT:6550	Introductory Longitudinal Data Analysis	3
BIOS:6720	Statistical Machine Learning for Biomedical and Public Health Data	3
BIOS:6810	Bayesian Methods and Design	3
BIOS:7410/ STAT:7510	Analysis of Categorical Data	3
BIOS:7600/ IGPI:7600	Advanced Biostatistics Seminar	0-3
BME:5240	Deep Learning in Medical Imaging (DLMI)	3
CS:4310	Design and Implementation of Algorithms	3
CS:4400	Database Systems	3
CS:4420	Artificial Intelligence	3
CS:4470	Health Data Analytics	3
CS:4980	Topics in Computer Science II	3
CS:5430	Machine Learning	3
CS:5630	Cloud Computing Technology	3
CS:5800/ECE:5800	Fundamentals of Software Engineering	3
CS:5820/ECE:5820	Software Engineering Languages and Tools	3
ECE:5845	Modern Databases	3
ECE:5995	Contemporary Topics in Electrical and Computer Engineering	arr.
MATH:4840	Mathematics of Machine Learning	3
STAT:4520/ IGPI:4522/ PSQF:4520	Bayesian Statistics	3
STAT:4560	Statistics for Risk Modeling I	3
STAT:6530/ IGPI:6530	Environmental and Spatial Statistics	3
STAT:6560	Applied Time Series Analysis	3
STAT:6970	Topics in Statistics	3

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

The program prepares graduates for careers in academia, industry, business, or government that involve data visualization and modeling, managing reproducible data analysis workflows, and collaborating and communicating with scientists and other data stakeholders.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Data Science, MS

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
DATA:3120	Probability and Statistics [b]	4
DATA:3200	Applied Linear Regression	3
DATA:4540	Statistical Learning	3
DATA:5400	Computing in Statistics	3
	Hours	**13**
Spring		
DATA:4580	Data Visualization and Data Technologies	3
DATA:4750	Probabilistic Statistical Learning	3
	Hours	**6**
Second Year		
Fall		
DATA:4600	Causal Inference for Data Science	3
DATA:5890 or DATA:4890	MS Data Science Practicum or Data Science Practicum	2 - 3
	Hours	**5-6**
Spring		
DATA:6220	Consulting and Communication With Data	3
DATA:7400	Computer Intensive Statistics	3
	Hours	**6**
	Total Hours	**30-31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b If a student has completed STAT:3100 and STAT:3101 or STAT:4100 and STAT:4101 they will not need to take DATA:3120. However, another higher-level course must be taken to reach the 30 s.h. minimum total required for the degree.

Digital Arts

Chair, Department of Theatre Arts

- Mary Beth Easley

Coordinator, Digital Arts

- Daniel S. Fine (Dance/Theatre Arts)

Undergraduate certificate: digital arts

Website: https://theatre.uiowa.edu/

Digital technologies transform how people create, perform, and experience art. The goal of the digital arts certificate program is to give students skills to make works of art that are informed by digital technology, scholarship, disciplinary tradition, and interdisciplinary collaboration. At the core of the certificate is a commitment to innovation and interdisciplinary collaboration in research, teaching, creative work, and the public expression of the university's creative research and scholarship.

Upon completion of the certificate program, students will be able to develop and realize artistic visions using digital technology and work collaboratively with other artists, engineers, or computer scientists. Most courses will include a public dimension, where projects are shown to a public audience.

What Are the Digital Arts?

The digital arts are digital technologies that keep transforming how people create, perform, and experience art.

At the core of the digital arts cluster is a commitment to innovation and interdisciplinary collaboration in research, teaching, creative work, and the public expression of the university's creative research and scholarship. Faculty have home departments in Theatre Arts [p. 1100] and Dance [p. 326], the schools of Music [p. 813] and Art, Art History, and Design [p. 85], and the College of Engineering [p. 1514].

The Certificate in Digital Arts at the University of Iowa gives students the knowledge and skills "to apply new technologies and integrate multiple media and disciplines in new forms of expression" (Cal Arts, Integrated Media Program). Upon completion of the certificate, students are able to develop and realize artistic visions using digital technology and work collaboratively with other artists, engineers, or computer scientists.

The Department of Theatre Arts [p. 1100], which administers the Certificate in Digital Arts, partners with the schools of Music [p. 813] and Art, Art History, and Design [p. 85], the departments of Computer Science [p. 286] and Cinematic Arts [p. 198] (College of Liberal Arts and Sciences), and the College of Engineering [p. 1514] to offer the certificate.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Digital Arts [p. 358]

Courses

Digital Arts Courses

DIGA:2800 Digital Arts: An Introduction 3 s.h.
Introduction to potential of integrating art with technology to provide a foundation of skills and concepts through hands-on experimentation; lectures and demonstrations introduce key concepts and ideas as well as the history of digital arts; students develop skills that form a foundation for future investigation through labs; work may include using an Arduino, programming, and developing an interface to control a software project; final project is shared with the public in some way; critical discourse in the form of writing assignments allows for reflection and evaluation. GE: Engineering Be Creative. Same as ARTS:2800, CINE:2800, CS:2800, DANC:2800, MUS:2800, THTR:2800.

DIGA:2880 Installations and Interactive Performance 3 s.h.
Introduction to aesthetics, techniques, and practical possibilities of fusing together theatre, dance, music/sound, art, design, cinema, gaming, human computer interaction, and engineering; foundations of creating interactive experiences that use digital photos, video, text, real-world objects, sensor data, live bodies moving in space, Kinect 2 sensors, cameras, and multiple video outputs (e.g., projectors, LED displays); use of Isadora, an interactive, node-based programming software, to create immersive mediated performances, interactive installations, embodied user-based experiences, and user-manipulated virtual environments. GE: Engineering Be Creative. Same as DANC:2880, THTR:2880.

DIGA:2890 Producing and Directing Digital Video 3 s.h.
Introduction to basic concepts, theories, and practical applications of digital video production for multiple distribution streams, with focus on aesthetic and technical principles; development of proficiency in contemporary approaches to digital media production by understanding the production pipeline from ideation to preproduction, production, postproduction, and through to distribution. GE: Engineering Be Creative. Same as DANC:2890, THTR:2890.

DIGA:3285 New Musical Instruments: From Design to Performance 3 s.h.
Acoustic principles of selected traditional instruments (e.g., winds, strings, percussion) as well as principles of electroacoustic sound production (e.g., analog synthesizers, microphones, transducers); students work in teams to build, test, and improve their own musical instrument and experiment with its playing modes; projects may include inharmonic variations upon classical instruments, musical bots, guitar or voice-processing pedals, transducer-driven DIY Gamelans, and more; for composers, performers, engineers, and sound enthusiasts who want to design, build, and/or perform with new musical instruments. GE: Engineering Be Creative. Same as MUS:3285.

DIGA:3840 Robotic Art Studio 4 s.h.
Exploration, design, and creation of interactive artworks, kinetic sculpture, robotic art, sound works, light art, and performance environments; application of basic electronics and mechanical techniques; use of programmable micro-controller Arduino. Prerequisites: ARTS:1510 and ARTS:1520 and (SCLP:2810 or CERM:2010 or INTM:2710 or MTLS:2910 or TDSN:2210). GE: Engineering Be Creative. Same as SCLP:3840.

DIGA:3876 Projection Design 3 s.h.
Introduction to the aesthetics and practical applications of projection design for live performance, including content creation, system design, media servers, projectors, cameras, and related professional equipment. Students learn how to create digital artwork with professional content/animation/effects software Adobe After Effects, Illustrator, Photoshop, Premiere Pro, Audition, etc. Through the media server QLab students learn how to integrate digital artwork and live video cameras into live performance via projectors and digital displays. GE: Engineering Be Creative. Same as CINE:3876, DANC:3876, INTM:3876, THTR:3876.

DIGA:3895 Performance, Art, and New Technologies in Society 3 s.h.
Students pitch projects and work in interdisciplinary groups to create original live performances and installations based on major technological innovations that have deeply impacted society and live performance in late 20th and early 21st centuries; daily hands-on making; examination of theoretical texts and performances that address impact of technology on human condition to contextualize students' own art/technology projects; exploration and adaptation of technologies/aesthetics for live performance and art including telepresence and liveness, artificial intelligence and big data, augmented and virtual reality. Prerequisites: MUS:2800 or THTR:2880 or CS:1110 or CS:1210 or SCLP:4835. Same as DANC:3895, THTR:3895.

DIGA:4835 Electronic Objects and Spaces 4 s.h.
Aesthetic use of electronics to sequence and control motion, light, and sound; introduction to basic electronics through hands-on workshops and discussions; demonstrations on how to build an Arduino, integrated circuits, power supplies, soldering, prototyping, motors, sensors; projects integrating electronics with objects and spaces; artist screenings and critiques. Prerequisites: ARTS:1510 and ARTS:1520 and (SCLP:2810 or CERM:2010 or INTM:2710 or MTLS:2910 or TDSN:2210). GE: Engineering Be Creative. Same as SCLP:4835.

DIGA:4840 Air, Actuators, and Motors 4 s.h.
Introduction to wide range of motors, actuators, and air devices available for integration in art projects; various forms of motor control and necessary means to power these devices; DC and AC motors, stepper motors, solenoids, electro magnets, relays, pneumatics, inflatables, and other air-driven devices; development of a project utilizing one or more systems; examples and media demonstrations to show how artists and scientists employ these systems. Prerequisites: ARTS:1510 and ARTS:1520 and (SCLP:2810 or CERM:2010 or INTM:2710 or MTLS:2910 or TDSN:2210). GE: Engineering Be Creative. Same as SCLP:4840.

Digital Arts, Certificate

Learning Outcomes

The certificate provides the ability to:

- think about and develop works of art that use digital technology in creative ways;
- participate in critical discourse about such artistic works;
- collaborate across disciplines on artistic projects at the intersection of the physical and digital worlds; and
- use art and digital technology to identify, attract, and interact with audiences in a meaningful and creative way.

Most courses will include a public dimension, where projects are shown to a public audience.

Requirements

The undergraduate Certificate in Digital Arts requires a minimum of 25 s.h. of coursework, including at least 18 s.h. earned at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in coursework for the certificate. Courses taken pass/nonpass do not count toward the certificate.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Students should declare their intent to earn the certificate at the College of Liberal Arts and Sciences Undergraduate Programs office, at the Academic Advising Center, or on MyUI.

Students must meet with the certificate director or a digital arts advisor every semester to discuss their course selections and plan for the capstone course. The capstone project course may be taken only after both core courses have been completed.

The Certificate in Digital Arts requires the following coursework.

Requirements	Hours
Core Courses	6
Interactive Sound Course	3
Electronics/Robotics Course	4
Capstone Project	3
Elective Courses	9-10

Core Courses

Course #	Title	Hours
Both of these:		
DIGA:2880/ DANC:2880/ THTR:2880	Installations and Interactive Performance	3
DIGA:3895/ DANC:3895/ THTR:3895	Performance, Art, and New Technologies in Society	3

Interactive Sound

Course #	Title	Hours
One of these:		
DIGA:2800/ ARTS:2800/ CINE:2800/CS:2800/ DANC:2800/ MUS:2800/ THTR:2800	Digital Arts: An Introduction	3
DIGA:3285/ MUS:3285	New Musical Instruments: From Design to Performance	3

Electronics/Robotics

Course #	Title	Hours
One of these:		
DIGA:3840/ SCLP:3840	Robotic Art Studio	4
DIGA:4835/ SCLP:4835	Electronic Objects and Spaces	4
DIGA:4840/ SCLP:4840	Air, Actuators, and Motors	4

Capstone Project

The capstone project must result in a work that is both artistic and digital, and it must be shared in a meaningful way with the public. It must be informally approved by the certificate director at least one semester before the work takes place. The student will then select at least one faculty member from an appropriate department as a formal advisor. The student then submits a written proposal to the certificate director and the advisor. The proposal must include a description of the work; a statement of why the student is prepared to accomplish the work; and a list of equipment, materials, space, or funding required.

Once the proposal is approved by the director and advisor, the student enrolls in an independent study in the advisor's home department with the advisor as instructor for 3 s.h. The student meets with the advisor on a regular basis and engages other faculty and students as needed. Once the project is complete and shared publicly, the advisor evaluates the project and submits a grade.

Elective Courses

Course #	Title	Hours
Three of these:		
DIGA:2890/ DANC:2890/ THTR:2890	Producing and Directing Digital Video	3
DIGA:3876/ CINE:3876/ DANC:3876/ INTM:3876/ THTR:3876	Projection Design	3
CINE:1834/ THTR:1834	Modes of Film and Video Production (when topic is interactive multimedia programming)	4
CS:3980	Topics in Computer Science I	3
CW:3218/ INTD:3200	Creative Writing for New Media	3

DANC:3050	Body/Image: Dance and Media in Discourse and Practice	3
ECE:3320	Introduction to Digital Design	3
ENGR:2730	Computers in Engineering	3
INTM:2710/ CINE:2869	Introduction to Intermedia	3
JMC:2020	Multimedia Storytelling	3
JMC:2030	Visual Communication and Design	3
MUS:2820	Electronic Music Production	3
MUS:3780	Audio Recording I	3
THTR:2690	Sound Excursions: The Evolving Soundscape and the Reverberations of Human Activity	3
THTR:3260	Sound Design for the Theatre	3
THTR:3270	Entertainment Design	3
THTR:3630	Special Topics in Theatre Arts (when topic is audio plays)	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Digital Arts, Certificate

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate Certificate in Digital Arts requires a minimum of 25 s.h. of coursework, including at least 18 s.h. earned at the University of Iowa.		
Students must maintain a GPA of at least 2.00 in coursework for the certificate.		
Courses taken pass/nonpass do not count toward the certificate.		
	Hours	**0**
First Year		
Fall		
DIGA:2880	Installations and Interactive Performance	3
	Hours	**3**
Spring		
DIGA:3895	Performance, Art, and New Technologies in Society	3
	Hours	**3**
Second Year		
Fall		
DIGA:3840 or DIGA:4840 or DIGA:4835	Robotic Art Studio or Air, Actuators, and Motors or Electronic Objects and Spaces	4
	Hours	**4**
Spring		
DIGA:3285 or DIGA:2800	New Musical Instruments: From Design to Performance or Digital Arts: An Introduction	3
	Hours	**3**
Third Year		
Fall		
Certificate: elective course [a]		3 - 4
	Hours	**3-4**
Spring		
Certificate: elective course [a]		3 - 4
	Hours	**3-4**
Fourth Year		
Fall		
Certificate: elective course [a]		3 - 4
	Hours	**3-4**
Spring		
Certificate: capstone project [b]		3
	Hours	**3**
	Total Hours	**25-28**

a Students must complete at least 9 s.h. of electives; see General Catalog for list of approved courses.
b Consult certificate director for specifics.

Disability Studies

Chair, Department of Health, Sport, and Human Physiology

- Gary L. Pierce

Coordinator, Disability Studies

- Kristina M. Gordon (Health, Sport, and Human Physiology)

Undergraduate certificate: disability studies

Website: https://hhp.uiowa.edu/certificate-disability-studies

Disability studies examines disability as a social, cultural, historical, and political phenomenon rather than focusing on its clinical, medical, or therapeutic aspects. It is an interdisciplinary and multidisciplinary field that draws on scholarship from diverse disciplines, including anthropology, architecture, the arts, communication and media studies, cultural studies, economics, gender studies, geography, global studies, history, law, literature, medicine, nursing, philosophy, policy studies, political science, religious studies, social work, and sociology.

The certificate program helps students expand their knowledge and awareness of issues related to disability and prepare for careers in a variety of fields. Its multidisciplinary nature makes disability studies a good complement to a broad range of undergraduate majors.

Students who complete the certificate develop:

- understanding of the history of disability in America;
- awareness of how culture and society define disability;
- the ability to interact with individuals from diverse backgrounds;
- a personal philosophy of treating people fairly, equitably, and thoughtfully; and
- greater understanding of and concern for public policy issues and active citizenship.

The certificate program in disability studies is administered by the Department of Health, Sport, and Human Physiology [p. 505].

Programs

Undergraduate Program of Study

Certificate

- Certificate in Disability Studies [p. 361]

Courses

Disability Studies Courses

DST:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements:
first- or second-semester standing.

DST:1101 Introduction to Disability Studies 3 s.h.
Introduction and overview of important topics and discussions that pertain to the experience of being disabled; contrast between medical and social models of disability; focus on how disability has been constructed historically, socially, and politically in an effort to distinguish myth and stigma from reality; perspective that disability is part of human experience and touches everyone; interdisciplinary with many academic areas that offer narratives about experience of disability. GE: Understanding Cultural Perspectives.

DST:1200 Disabilities and Inclusion in Writing and Film Around the World 3 s.h.
Exploration of human experiences of dis/ability and exclusion/inclusion. Taught in English. GE: Understanding Cultural Perspectives. Same as GHS:1200, GRMN:1200, WLLC:1200.

DST:3200 Bioethics, Health, and Disability arr.
There is always room for learning to think more carefully about any ethical dilemmas that might be encountered in potential future roles as health care or social service professionals; students take a more fundamental look at issues affecting health care and social services access for people with disabilities than presently occurs.

DST:3201 Advanced Disability Studies: Issues and Research 3 s.h.
Advanced exploration and discussion of contemporary issues, concepts, and research in disability studies; investigation of domains of disability in society (i.e., history, politics, health care, housing, recreation, media); engagement with disability related organizations; application of a global social justice perspective to disability rights and equity; exploration of disability as a culture, identity, and variation on the continuum of human existence. Requirements: DST:1101.

DST:4198 Therapeutic Recreation: Experiences in Adaptive and Inclusive Sports 3 s.h.
In-depth exploration of adaptive and inclusive sports from the perspectives of disability studies, therapeutic recreation, and sport and recreation management; examines the intersectionality of these three crucial components to create meaningful, accessible, and inclusive sporting experiences for individuals with diverse abilities; integrates theoretical knowledge with practical application, including hands-on experience in adaptive sports programming. Students will emerge with the skills and understanding needed to facilitate adaptive sports activities. Same as HHP:4197, TR:4197.

Disability Studies, Certificate

Requirements

The undergraduate Certificate in Disability Studies requires a minimum of 19 s.h. of credit. Students must maintain a grade-point average of at least 2.00 in work for the certificate.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

The Certificate in Disability Studies requires the following coursework.

Core Courses

Students earn 11–12 s.h. by taking the following four core courses.

Course #	Title	Hours
Both of these:		
DST:1101	Introduction to Disability Studies	3
DST:3201	Advanced Disability Studies: Issues and Research	3
One of these:		
EDTL:4940	Characteristics of Disabilities	3
TR:3162	Therapeutic Recreation: Clientele	3
And one of these:		
EDTL:2073	Finding Your Comfort Zone: Secrets to Success	3
EDTL:4967	Integrated Disability Studies Practicum	2

Focused Elective Courses

Students earn a minimum of 7–8 s.h. in focused electives to earn a total of at least 19 s.h. for the certificate, which they select from courses in at least two of the following areas (maximum of 6 s.h. from any one area). They may count a maximum of 3 s.h. earned in courses numbered below 3000 toward this requirement.

Course #	Title	Hours
Aging Studies		
ASP:3170	Health and Aging	3
American Sign Language		
ASL:3200	Topics in Deaf Studies	3
ASL:3400	Issues in ASL and Deaf Studies	3
ASL:3500	Deafness in the Media	3
ASL:3700	Deaf Gain: Reframing Deaf People, Cultures, and Languages	3
ASL:4201/ HIST:4201	History of the American Deaf Community	3-4
American Studies		
AMST:2025	Diversity in American Culture	3
Anthropology		
ANTH:3152/ ASP:3152/ GHS:3152	Anthropology of Caregiving and Health	3
ANTH:3308	Human Variation	3
Cinematic Arts		
CINE:1195	Video Games and Identity	3
Classics		
CLSA:1181/ GHS:1181	Ancient Medicine	3
CLSA:3105/ GHS:3105/ GWSS:3105/ WLLC:3105	Contraception Across Time and Cultures	3
College of Public Health		
CPH:2400	The U.S. Health System in a Global Context	3
Communication Sciences and Disorders		
CSD:1015	Introduction to Speech and Hearing Processes and Disorders	2
CSD:3185	Hearing Loss and Audiometry	3
CSD:4145	Developmental Language Disorders	3
CSD:4148	Developmental Speech Disorders	3
Communications		
COMM:2020	Health Communication	3
RHET:2135/ SJUS:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
Counselor Education		
CSED:4113	Sleep, Sleep Deprivation, and Sleep Disorders	3
CSED:4132	Introduction to Addictions and Impulse Control Disorders	3
CSED:4179	Sexuality Within the Helping Professions	3
CSED:4185	Introduction to Substance Abuse	3
CSED:4197	Citizenship in a Multicultural Society	3
Criminology		
CRIM:3250	Drugs, Deviance, and Social Control	3
Disability Studies		
DST:1200/ GHS:1200/ GRMN:1200/ WLLC:1200	Disabilities and Inclusion in Writing and Film Around the World	3
DST:3200	Bioethics, Health, and Disability	arr.
Earth, Environment, and Sustainability		
SEES:3110/ GHS:3111	Geography of Health	3
Educational Policy and Leadership		
EPLS:4180	Human Relations for the Classroom Teacher	3

EPLS:4200	Athletic Administration in Educational Settings	3
Gender, Women's, and Sexuality Studies		
GWSS:2700	Transgender People, Politics, and Cultures	3
GWSS:4140/ ANTH:4140/ CBH:4140/ GHS:4140	Feminist Activism and Global Health	3
Global Health Studies		
GHS:2260/ RELS:2260	Hard Cases in Healthcare at the Beginning of Life	3
GHS:2265/ ASP:2265/ RELS:2265	Hard Cases in Healthcare at the End of Life	3
GHS:4205/ SPAN:4205	Culture, Language, and Health	3
Health Management and Policy		
HMP:4000	Introduction to the U.S. Health Care System	3
International Studies		
IS:3555/GHS:3555/ HIST:3755	Understanding Health and Disease in Africa	3
Psychological and Quantitative Foundations		
PSQF:2116	Applied Child and Adolescent Psychology	3
PSQF:3104	Multicultural Issues in Counseling and Psychology	3
Psychology		
PSY:1501	Everyone's a Little Bit Biased: The Science Behind Prejudice	3
PSY:3320	Psychopathology	3
School of Social Work		
SSW:3729	Substance Use and Abuse	2-3
SSW:3847	Discrimination, Oppression, and Diversity	3
SSW:4100	Social Work in the Criminal Justice System	3
Sociology and Criminology		
SOC:3510	Medical Sociology	3
Teaching and Learning		
EDTL:2963/ THTR:2605	Monsters, Victims, and Villains: Changing Perceptions	3
EDTL:3130	Adaptive Physical Education for the Elementary Classroom Teacher	2
EDTL:4900	Foundations of Special Education	3
EDTL:4987/ CSED:4187	Introduction to Assistive Technology	3
EDTL:4990	Interdisciplinary Issues in Disabilities	1-3
Therapeutic Recreation		
TR:3261	Inclusive Recreation	3
TR:4197/DST:4198	Therapeutic Recreation: Experiences in Adaptive and Inclusive Sports	3

Division of Interdisciplinary Programs

Director

- Cornelia C. Lang (Physics and Astronomy)

Website: https://interdisciplinaryprograms.uiowa.edu/

The Division of Interdisciplinary Programs includes Enterprise Leadership, Interdepartmental Studies, and Museum Studies.

The academic units within the division offer two BA degrees and one certificate.

Enterprise Leadership [p. 453] provides an option for students who want to focus on entrepreneurial business leadership. The major presents a unique blend of skills, theory, and content, encouraging students to apply their knowledge and skills to entrepreneurial and growing organizations. It is designed to prepare students for career success—whether they desire to be an innovator inside a large organization or aspire to be an entrepreneur and launch their own business one day. The program offers a combination of business and liberal arts approaches and allows students to hone their skills in innovation, entrepreneurship, communication, critical thinking, problem solving, and leadership. Enterprise Leadership offers a BA degree.

Interdepartmental Studies [p. 586] gives students the opportunity to choose a preapproved plan of study in applied human services, business studies, or health science. Each track includes coursework from a variety of departments. Interdepartmental Studies offers a BA degree.

Museums embrace every aspect of human experience. Iowa's Museum Studies [p. 808] Program reflects this multiplicity and includes students and instructors from many fields, including American studies, anthropology and archaeology, art, biology, business, communication studies, earth, environment, and sustainability sciences, elementary and secondary education, English, world languages, history, and library and information science. This program offers an undergraduate certificate.

Earth, Environment, and Sustainability

Chair

- Emily Finzel

Undergraduate majors: earth and environmental sciences (BA, BS); environmental policy and planning (BA); geographical and sustainability sciences (BA, BS)

Undergraduate minors: earth and environmental sciences; environmental policy and planning

Undergraduate certificates: geographic information science; sustainability

Graduate degrees: MA in geography; MS in geoscience; PhD in geography; PhD in geoscience

Faculty: https://sees.uiowa.edu/people/faculty

Website: https://sees.uiowa.edu/

The School of Earth, Environment, and Sustainability (SEES) offers interdisciplinary education and research focused around three majors: earth and environmental sciences, geographical and sustainability sciences, and environmental policy and planning. To support the growing need for interdisciplinary understanding, SEES uniquely assembles scientists with natural science and human-centered perspectives to investigate the causes, impacts, and solutions to environmental challenges. This combination allows students to understand the breadth and integration of the overall environmental and sustainability fields, and then focus their passion to make an impact in their chosen career.

Programs

Undergraduate Programs of Study

Majors

- Major in Earth and Environmental Sciences (Bachelor of Arts) [p. 374]
- Major in Environmental Policy and Planning (Bachelor of Arts) [p. 377]
- Major in Geographical and Sustainability Sciences (Bachelor of Arts) [p. 382]
- Major in Earth and Environmental Sciences (Bachelor of Science) [p. 385]
- Major in Geographical and Sustainability Sciences (Bachelor of Science) [p. 392]

Minors

- Minor in Earth and Environmental Sciences [p. 398]
- Minor in Environmental Policy and Planning [p. 400]

Certificates

- Certificate in Geographic Information Science [p. 402]
- Certificate in Sustainability [p. 404]

Graduate Programs of Study

- Master of Arts in Geography [p. 407]
- Master of Science in Geoscience [p. 409]
- Doctor of Philosophy in Geography [p. 411]
- Doctor of Philosophy in Geoscience [p. 413]

Facilities

Geographic Information Systems Instructional Lab

Students have access to the Geographic Information Systems Instructional Lab (GISIL), a state-of-the art computer lab used to teach GIS, cartography, and remote sensing. The GISIL also supports field-based educational activities using mobile GIS software, UAVs, and GPS to collect and analyze data. This unique training experience builds future researchers and practitioners with the perspective and strong analytical skillset needed to address today's most pressing challenges head-on.

Earth Science Research Laboratories

The sample preparation and analytical equipment housed in the School of Earth, Environment, and Sustainability are shared facilities co-managed by faculty. Specific research labs include Environmental and Hydrogeology, MicroPaleontology, Petrology, Sedimentary Materials, Thin Section and Sample Preparation, and Mineral Separation. Major analytical instruments for earth science research, including an SEM, electron microprobe, laser ablation ICP-MS, and XRF, are housed in the Iowa MatFab Facility.

Ashton Prairie Living Laboratory

Ashton Prairie Living Laboratory (APLL) is an eight-acre prairie restoration project located within the University of Iowa's Ashton Cross Country Course. APLL was established in 2019 to educate students and the public about ecosystems, and for faculty and students to explore environmental processes and management at a developing prairie restoration site.

The site includes an initial one-acre pilot plot and a recently added seven-acre area, as well as an adjacent stream. The grounds have been instrumented with twelve groundwater wells, a weather station and eddy flux-tower, soil moisture probes, stream discharge gages, and two soil pits. Other equipment available for the site include a soil respiration meter, water quality probes and sondes, infiltrometers, small flumes, a soil camera, GNSS and Total Station, and thermal cameras. Over the last five years, the site has supported over forty undergraduate students, across multiple departments, working directly on management, monitoring, and research projects. Student activities have included seed gathering, thistle management, pollinator and plant distribution studies, groundwater-surface water-macroinvertebrate interactions, and soil health studies. APLL has also hosted a number of academic courses, such as Intro to Environmental Studies, Entomology, Hydrogeology, and Prairie Restoration, as well as community events, including the annual University of Iowa BioBlitz.

UI Paleontology Repository

The University of Iowa Paleontology Repository (UIPR) is a public research facility developed to support and fulfill the mission of teaching, research, and service of the School of Earth, Environment, and Sustainability and the university. The repository is an international resource that houses type specimens of fossils and makes them accessible to

the scientific community as proscribed by the International Code of Zoological Nomenclature. It holds over one million specimens including more than 25,000 type and referred specimens and has been ranked among the top ten collections in North America in terms of size and significance. UIPR is a hub for experiential learning and graduate and faculty research support. Student opportunities include unpaid volunteering and internships, course projects, internally funded Office for Undergraduate Research fellowships or Hawkeye Experience Grants, and externally funded employment (e.g., by Iowa Science Foundation, Historical Research Development Program, U.S. Geological Survey, or National Science Foundation). Projects range from database cataloging, digitization, collection preservation, specimen preparation and conservation (e.g., mastodon bone conservation), and archive management to science education, public outreach, and web development.

Iowa Lakeside Laboratory

Students may have the opportunity to take courses at Iowa Lakeside Laboratory, a field station located on West Lake Okoboji in northwestern Iowa. Run cooperatively by the University of Iowa, Iowa State University, and the University of Northern Iowa, the laboratory offers courses at the undergraduate and graduate levels and provides excellent conditions for summer study in several disciplines. See Iowa Lakeside Laboratory [p. 2196] (University College) in the catalog or visit the Lakeside Laboratory website.

Courses

Earth, Environment, and Sustainability Courses

SEES:1000 First-Year Seminar 1-2 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

SEES:1020 The Global Environment 3 s.h.
Underlying processes driving human/environment interaction, including climate change, deforestation, and natural disasters; environmental challenges, including declining biological diversity; human response to more frequent severe climate events; production of a more sustainable future. GE: Sustainability. GE: Natural Sciences without Lab; Sustainability.

SEES:1021 The Global Environment Lab 1 s.h.
Laboratory application of concepts discussed in SEES:1020; computer-based and traditional approaches to the investigation of earth's processes, including earthquakes, water and energy balances, climate and weather, and soil development. Corequisites: SEES:1020, if not taken as a prerequisite. GE: Natural Sciences Lab only.

SEES:1030 Introduction to Earth Science 3-4 s.h.
Relationships between plate tectonics, geologic time, and the rock cycle with volcanoes and igneous, sedimentary, metamorphic rocks; fossils; radioactive isotopes; landscape evolution; mountain building; natural resources; their impacts on civilization. GE: Natural Sciences with Lab; Natural Sciences without Lab. Same as CEE:1030.

SEES:1031 Introduction to Earth Science Laboratory 1 s.h.
Laboratory component of SEES:1030. Requirements: completion of 3 s.h. in SEES:1030 or CEE:1030. GE: Natural Sciences Lab only. Same as CEE:1031.

SEES:1035 Our Digital Earth 3 s.h.
Gain experience working with geospatial technology, such as geographic information systems (GIS) and remote sensing, using geospatial data and analysis to illuminate and improve sustainability issues that face current and future generations. GE: Sustainability. GE: Quantitative or Formal Reasoning; Sustainability.

SEES:1040 Evolution and the History of Life 3-4 s.h.
Fossils over the past 3.5 billion years, origin and evolution of life, evolutionary radiations and mass extinctions, the invasion of land, dinosaurs, the age of mammals, relationship between biological systems and environmental change in earth history. GE: Natural Sciences with Lab; Natural Sciences without Lab.

SEES:1046 Environmental Politics in India 3 s.h.
How resources, commodities, people, and ideas cross borders; examination of globalization through issues of technology, social justice, environment; perspectives from anthropology, gender studies, geography, energy science, and development. GE: Sustainability. GE: International and Global Issues; Sustainability. Same as ANTH:1046, GWSS:1046, SJUS:1046.

SEES:1050 Introduction to Geology 4 s.h.
Minerals, rocks, and rock-forming processes (including volcanoes and sedimentary environments); surface processes (rivers, groundwater, glaciers, deserts, ocean shorelines), major earth processes (continental drift, plate tectonics, earthquakes, mountain building); impact on civilization. Offered fall semesters. GE: Natural Sciences with Lab.

SEES:1060 Big Ideas: Origins of the Universe, Earth, and Life 3 s.h.
Origin of the universe, the biochemistry of life, and the origin of life on Earth; for non-science majors. Recommendations: first-year or sophomore standing. GE: Natural Sciences without Lab. Same as ASTR:1060, BIOL:1060.

SEES:1070 Contemporary Environmental Issues 3 s.h.
Global environmental challenges; ecological, economical, cultural, and geographical causes and effects; underlying science and potential solutions to global issues of sustainability. GE: Sustainability. GE: International and Global Issues; Sustainability.

SEES:1080 Introduction to Environmental Science 3-4 s.h.
Biological and physical character of the Earth; interaction of humans with the environment, including impacts on ecosystems, climate, natural processes, resources; alternative options, including sustainability, waste management, energy, land reform. GE: Sustainability. GE: Natural Sciences with Lab; Natural Sciences without Lab; Sustainability.

SEES:1081 Introduction to Environmental Sciences Laboratory 1 s.h.
Laboratory component of SEES:1080. Requirements: completion of 3 s.h. in SEES:1080 or 3 s.h. of transfer equivalent. GE: Natural Sciences Lab only.

SEES:1085 Fundamentals of Environmental Science 4 s.h.
Interdisciplinary study of how Earth's natural systems interact, how these systems affect society, and how they respond to human activity; how environmental problems can be solved and avoided by drawing upon knowledge in disciplines as diverse as ecology, anthropology, economics, chemistry, and political science; blended instructional environment, including traditional lectures, discussions in TILE classrooms, laboratory, online learning, peer-reviewed writing exercises, and service learning. Offered fall semesters. GE: Sustainability. GE: Natural Sciences with Lab; Sustainability.

SEES:1090 Globalization and Geographic Diversity 3 s.h.
World regions including their physical environment, culture, economy, politics, and relationships with other regions; students learn about conflicts within and between regions. GE: International and Global Issues.

SEES:1100 Age of Dinosaurs 4 s.h.
Origin and evolutionary history of dinosaurs; diversity of dinosaurian groups, their geographic distributions and paleoecology; origins of flight among dinosaurs; environmental context, including other animals and plants that lived alongside dinosaurs; the so-called extinction of dinosaurs and radiation of modern forms; the role dinosaurs play in the interaction between science and the popular media. Offered fall semesters. GE: Natural Sciences with Lab.

SEES:1115 The History of Oil 3 s.h.
Historical perspective on business, science, geology, technology, politics, environment, and culture of the global oil industry; the rise of oil as the most influential international business of the last 150 years, the material foundation of economies, a major force in world politics, a shaper of daily life, and a guide to understanding Earth's deep history. Offered fall semesters. GE: Sustainability. GE: Historical Perspectives; Sustainability. Same as HIST:1115.

SEES:1170 Geology of the U.S. National Parks 2 s.h.
Geologic features, geologic history, important biological and archaeological characteristics, with emphasis on features that caused certain areas to be included in national park system.

SEES:1179 Geology of National Parks: Preparation and Planning 1 s.h.
Preparation for a national park field trip offered in SEES:1180; students learn about locations; basic safety rules; camping skills; administrative work, including defensive driver training; investigation of national parks, national monuments, and protected lands; basic geology.

SEES:1180 Geology of National Parks: Field Trip 2 s.h.
Observation, interpretation of prominent geologic, geomorphic, biological features; semester-break or semester-end visits to different parks or groups of parks each year. Offered spring semesters. Prerequisites: SEES:1179.

SEES:1290 Energy and the Environment 3 s.h.
Scientific concepts related to potentially significant energy sources of the 21st century; environmental impacts, positive and negative, of each energy source as well as geologic and geographical distributions and applications. GE: Natural Sciences without Lab.

SEES:1400 Natural Disasters 3 s.h.
How earth-atmosphere-hydrosphere-space systems produce events catastrophic to humans on the scale of individual lives to civilizations; root causes of earthquakes, landslides, volcanic eruptions, floods, hurricanes, tsunami, tornadoes, and asteroid impact, and their local, national, and global impact; spatial and temporal occurrences of these hazards; methods and processes for hazard preparedness, response, and recovery; social, economic, and policy aspects that affect and compound the magnitude of disasters associated with natural phenomena; case studies drawn from contemporary and ancient societies. GE: Sustainability. GE: Natural Sciences without Lab; Sustainability.

SEES:2001 Second-Year Field Trip for Earth and Environmental Sciences 1 s.h.
Opportunity for students to begin developing an appreciation of earth system and earth history scales; application of classroom learning to field-based inquiry; real-world examples of introductory course material in an outdoor classroom setting. Prerequisites: SEES:1030 or SEES:1050 or SEES:1080. Requirements: geoscience or environmental sciences major.

SEES:2010 Interdisciplinary Environmental Seminar 1 s.h.
Discover research, explore careers, and build connections. Requirements: first- or second-year standing.

SEES:2013 Introduction to Sustainability 3 s.h.
Introduction to sustainability knowledge, skills, and habits as a means to shape one's vision of a sustainable citizen; emphasis on basic skills of literacy, applied math, and finding information; traditional sustainability knowledge areas related to society, economy, and environment; intersecting themes (e.g., informed consumerism, eco-economics, and livable environments). GE: Sustainability. GE: Social Sciences; Sustainability. Same as BUS:2013, URP:2013.

SEES:2050 Foundations of GIS 4 s.h.
Introduction to concepts and methods of geographical information systems (GIS) technology through hands-on lab activities and projects; introduction to map design and spatial analysis.

SEES:2110 Eight Billion and Counting: Introduction to Population Dynamics 3 s.h.
How dramatic changes to the size of population has changed fundamental characteristics of populations and processes, such as food and water scarcity, climate change and biodiversity, rise of megacities, health and disease, migration, social networks, economics, environment, and household structure. GE: Social Sciences. Same as GHS:2110.

SEES:2200 Historical Geology 4 s.h.
Framework of earth history that is essential to understand how the earth system works; investigation of physical, biological, atmospheric, oceanographic, and chemical history of the earth to prepare for further earth and environmental science courses. Prerequisites: SEES:1030 or SEES:1050 or SEES:1080 or SEES:1085.

SEES:2310 Introduction to Climatology 3 s.h.
Introduction to atmospheric processes that determine weather and climate; flow of energy through the atmosphere, distribution and movement of moisture and air, and atmospheric disturbances such as cyclones, hurricanes and tornadoes, and climate change. Recommendations: SEES:1020 or similar earth systems science course.

SEES:2374 Biogeography 3 s.h.
Introduction to processes that lead to the patterns of plant and animal distributions we see across the globe; processes of focus include plate tectonics, climate, and human-ecological interactions; species management and conservation in relationship to climate and change in human patterns of environment. Prerequisites: SEES:1020 or BIOL:1412 or BIOL:1261 or BIOL:1370 or BIOL:1141. Same as BIOL:2374.

SEES:2410 Mineralogy 4 s.h.
Physical, chemical, and optical properties of minerals; phase relations; structures; associations; diagnostic features for identification. Offered fall semesters. Prerequisites: (CHEM:1110 or CHEM:1070) and (SEES:1050 or SEES:1030).

SEES:2673 Ecology 3 s.h.
Adaptations of organisms to their physical and biological environments; organism-environment interactions; population biology; interactions between species; ecology of communities, ecosystems; human impact on ecosystems. Recommendations: a basic statistics or calculus course. Same as BIOL:2673.

SEES:2831 Geologic Field Methods 3 s.h.
Basic methods of geologic fieldwork in southwest Montana using topographic maps and GPS to locate oneself, identifying geologic map units (including superficial deposits), recognizing geologic contacts, constructing stratigraphic sections, measuring planar structures, and making geologic maps complete with a legend and cross-section. Offered summer sessions. Prerequisites: SEES:1080 or SEES:1050 or SEES:1030 or SEES:1400.

SEES:2910 The Global Economy 3 s.h.
Examination of contemporary economic geography; types of national economies, uneven development, role of government in shaping economy, multinational corporations; foundation for understanding national economies and economic statistics; contemporary issues including economic globalization, commodification of nature, de-industrialization. GE: International and Global Issues.

SEES:2930 Water Resources 3 s.h.
Introduction to science and policy issues affecting water resources management in the U.S.; how the intersection of people, climate, technology, and geography affects the quality, availability, and demand for freshwater resources.

SEES:2950 Environmental Conservation 4 s.h.
Scientific foundations of biological conservation; strategies used to better connect conservation practice with needs of a growing human population. Prerequisites: SEES:1020 or SEES:1070 or SEES:1080 or SEES:1085.

SEES:3001 Third-Year Field Trip for Earth and Environmental Sciences 1 s.h.
Opportunity for students to apply their major coursework to real-world problems; field trip to visit parks, mines, and/or quarries in Missouri and Arkansas that illustrate many of the lessons learned in SEES:2410 and SEES:3510. Prerequisites: SEES:1030 or SEES:1050 or SEES:1080 or SEES:2410. Requirements: geoscience or environmental sciences major, and junior standing.

SEES:3003 Natural History Research Collections 3 s.h.
Techniques, methods, and issues specific to natural history research collections; practice in preparing and cleaning specimens; role of natural history specimens in modern scientific research. Recommendations: basic understanding of the diversity of plants and animals and natural history museum collections, MUSM:3001 or MUSM:3200, and BIOL:1411 or BIOL:1412; or other experience. Same as MUSM:3003.

SEES:3020 Earth Surface Processes 3 s.h.
Basic geomorphic and environmental processes that shape the earth's surface; emphasis on erosion, transport, deposition by land mass movement (creep, landslides, earth flow), fluid agents (wind, water, ice); methods used to study these processes. Recommendations: SEES:1050 or SEES:1080 or SEES:1020 or SEES:1085.

SEES:3050 Geospatial Programming 3 s.h.
Introduction to geospatial programming with Python; programming basics, data structures, and algorithms; spatial data models and structures; vector-based and raster-based geoprocessing; automating GIS tasks and models; spatial libraries (e.g., ArcPy, GeoPandas, GDAL, PySAL). Prerequisites: SEES:2050. Same as IGPI:3050.

SEES:3060 Ecology and Natural History of Iowa 3 s.h.
Plant and animal communities, landforms, and geologic history of Iowa; local area fieldwork; students learn identification and survey techniques, and interact with local naturalists.

SEES:3070 Marine Ecosystems and Conservation 3 s.h.
Introduction to ocean ecosystems, including coral reefs, mangroves, estuaries and salt marshes, sandy and rocky shores, seagrass and kelp beds, the deep sea, plankton; biodiversity of each ecosystem; interrelationship of biota and physical/chemical environment; interactions among organisms, including food webs and symbiosis; local and global threats such as overfishing, pollution, ocean acidification, global warming, sea level change; ongoing biodiversity crisis, solutions for conservation problems.

SEES:3080 Introduction to Oceanography 2 s.h.
Descriptive, chemical, physical, biological, geological aspects of oceans; impact on weather, climate, shorelines, food supply, other aspects of civilization. Offered spring semesters. Recommendations: knowledge of basic chemistry, biology, physics, earth science.

SEES:3090 Hungry Planet: Global Geographies of Food 3 s.h.
Societal and environmental implications of past, current, and future global food supply examined from a geographical perspective; focus on questions of who eats what, where, and why; transformative history of agriculture, modern agribusiness and alternative food supplies, geopolitical implications of food production, food scarcity and rising food costs, urban versus rural agriculture, the obesity epidemic versus malnutrition, and the future of food. Same as GHS:3070.

SEES:3095 Field Ecology 4 s.h.
Analysis and interpretation of patterns and underlying physical and biotic basis for regional and local distributions of plants and animals of eastern Iowa; field observation, sampling, and laboratory analysis; conduction of several field research projects requiring collection, statistical analysis, and interpretation of data in short reports; field-oriented course. Prerequisites: BIOL:2673. Recommendations: advanced undergraduate standing or graduate standing in ecology, environmental sciences, or geoscience.

SEES:3096 Winter Ecology 2 s.h.
How seasons occur, thermoregulation, microhabitats, what animals are active, and winter plant identification; local area fieldwork.

SEES:3097 Introduction to Bird Study 2 s.h.
Basic identification skills, bird banding, and bird ecology; Hageboeck Hall of Birds at the UI Museum of Natural History; local field study.

SEES:3100 Earth and Planetary Remote Sensing 4 s.h.
Remote sensing of the earth's surface from aircraft, satellites; aerial photograph interpretation; remote sensing systems, methods, data analysis using electromagnetic spectrum and digital processing techniques, including visible, infrared, microwave radiation; remote sensing applied to geologic and environmental problems. Prerequisites: SEES:1030 or SEES:1050 or SEES:1080 or SEES:1085.

SEES:3110 Geography of Health 3 s.h.
Provision of health care in selected countries, with particular reference to the Third World; focus on problems of geographical, economic, cultural accessibility to health services; disease ecology, prospective payment systems, privatization, medical pluralism. Same as GHS:3111.

SEES:3131 Unnatural Disasters: A Global History 3 s.h.
What is a natural disaster? How do we assess "naturalness" of these events within political, social, and historical contexts in which they occur? Are disasters specific moments of crisis, or rather, are they slow—unraveling across time and space years before and after the moment their pain is most acutely felt? Examination of these questions at a global scale. Same as HIST:3131.

SEES:3150 Sustainability Project arr.
Individual or collective project related to sustainability under the direction and supervision of a faculty member; involves regularly scheduled meetings, data collection and interpretation, and a final project report.

SEES:3160 Field Trip 1-3 s.h.
Field trip to an area of geologic interest, such as localities in the Midwest, Hawaii, Grand Canyon (Arizona), Rio Grande Rift (New Mexico), Death Valley (California, Nevada), Appalachian Mountains (Virginia), as well as international destinations such as the Caribbean and China; preceded by weekly discussions of destination's geology.

SEES:3190 Undergraduate Directed Study arr.
Special topics, independent research.

SEES:3200 Collection Care and Management 3 s.h.
How a museum's management policy relates to its administrative, legal, and ethical obligations to its collections; acquisitions, deaccessions, collection use, data standards, storage environment, health, safety, documentation. Same as MUSM:3200.

SEES:3210 Principles of Paleontology 3 s.h.
Patterns of evolution in fossil record; species and analysis of their evolutionary relationships; paleoecology, paleocommunity evolution; evolutionary radiation and mass extinctions; large-scale relationships between biodiversity and climatic change. Offered fall semesters.

SEES:3220 Evolution of the Vertebrates 4 s.h.
Evolutionary history of vertebrates revealed by fossils and information from living animals; biogeographic, stratigraphic, paleoecological aspects of selected groups, especially mammals and dinosaurs; transitions from aquatic to terrestrial life, origins of flight, major events in vertebrate history (including mass extinctions and explosive radiations). Requirements: introductory course in geoscience, bioscience, or physical anthropology.

SEES:3230 Prairie Restoration 3 s.h.
Actively participate in the ecological reconstruction of a prairie on the University of Iowa campus. Topics include a brief history of tallgrass prairie; aerial photography and plant community analysis; stewardship land planning; native plant seed preparation and planting techniques; botany; invasive plant species identification and management; prescribed fire/controlled burning planning and techniques; erosion control and stormwater mitigation; Native American land management practices; and the tallgrass prairie's role in shaping the American Midwest's landscape.

SEES:3250 Health, Work, and the Environment 3 s.h.
Survey of environmental and occupational health hazards and the associated health risks of exposure; how public health protects society from these hazards; how public health policy can be influenced by science. Same as CPH:3400.

SEES:3300 Envisioning Future Worlds: Sustainable Development and Its Alternatives 3 s.h.
Sociocultural, geopolitical, and environmental implications of sustainable development and its alternatives investigated from a geographic perspective; geopolitical history of sustainable development; measures of sustainability in development; major critiques of sustainable development; alternative visions of development from different geographical contexts including ecofeminism, Buen Vivir, food sovereignty, degrowth, commoning, and the People's Health Movement. Same as GHS:3300.

SEES:3315 Ecosystem Ecology 4 s.h.
Terrestrial ecosystems as integrators of biological, physical, and ecological processes; flows of energy, carbon, water, and nutrients within ecosystems; spatial and temporal patterns and processes of Earth's ecosystems; sustaining ecosystems in the face of global change. Prerequisites: SEES:1020 or SEES:1080 or SEES:1085 or SEES:2374 or SEES:2673 or BIOL:2673.

SEES:3320 Earth's Climate System 3 s.h.
Overview of climate science and how we understand Earth's climate system through interconnected relationships between oceans, atmosphere, biosphere, and geosphere; introduction to climate archives, systems science, climate modeling, and mechanisms responsible for ancient and modern climate change. Recommendations: SEES:1020, SEES:1030, SEES:1050, SEES:1080, or SEES:1085.

SEES:3330 Sedimentary Geology 4 s.h.
Basic concepts of sedimentology, stratigraphy, depositional environments, sedimentary petrology; hands-on analyses of sediments and sedimentary rocks, including thin-section petrography; lecture/laboratory. Offered fall semesters.

SEES:3331 Human Dimensions of Climate 3 s.h.
How climate shapes human societies; focus on how climate and climate variability affects food production, water use, energy use, and human disease systems (e.g., influenza, malaria, air pollution, diarrheal disease); climate change impacts (e.g., sea level rise, droughts, wildfires, famine); societal impact, adaptation and vulnerability, mitigation strategies; policy.

SEES:3340 Ecosystem Services 3 s.h.
Ecosystem services—valuable goods and services produced by ecosystems (e.g., flood control, food production, water purification)—from an interdisciplinary perspective centering on geographic techniques used to measure, map, and model ecosystem services; methods used to incorporate ecosystem services into decision and policy making; how human activities alter these services. Prerequisites: SEES:2050 and (SEES:1020 or SEES:1070 or SEES:1080 or SEES:2374 or SEES:2673 or BIOL:2673 or BIOL:1370).

SEES:3350 Urban Ecology 3 s.h.
Urban ecology as an interdisciplinary field that investigates relationships between natural and the systems in urban environments; students explore urban ecosystems through lecture, discussion of current research, and field-based research projects; and identify how cities can become more sustainable systems. Prerequisites: SEES:2374 or SEES:2673 or BIOL:2673. Requirements: SEES:2374 or SEES:2673 or BIOL:2673 or introductory course in ecology, and junior standing.

SEES:3360 Soil Genesis and Geomorphology 3 s.h.
Introduction to soil genesis, soil geomorphology, and classification including the basics of soil profile description and soil-landscape, soil-vegetation, and soil-climate relationships; emphasis on study of soils as the interface between living and non-living Earth systems and the role of soils in sustaining ecosystems and human societies; short field excursions and a weekend field trip. Requirements: college earth science and chemistry.

SEES:3380 Fluvial Geomorphology 3 s.h.
Hydrologic principles, stream channel processes, and fluvial geomorphology within drainage basin systems; spatial and temporal variations in water distribution, analysis of hydrological data, flow mechanisms, sediment transport, forecasting procedures, hydrograph construction, modeling. Requirements: SEES:3020 or another 3000-level geology or hydraulics course. Same as CEE:3328.

SEES:3390 Integrated Watershed Analysis 3 s.h.
Integration of existing knowledge of physical, hydrological, and environmental processes with management issues and challenges in water resources and environmental management; aspects of water quantity and quality, water use and treatment; basin management issues related to forestry, agriculture, urbanization, floods, droughts.

SEES:3400 Iowa Environmental Policy in Practice 3 s.h.
How Iowa government addresses environmental policy development and implementation; policy process and current environmental issues; students attend meetings with Iowa State legislators and relevant agency personnel in Des Moines, Iowa, to observe how policies move into practice in agency offices. Prerequisites: SEES:1070 or POLI:3111 or SEES:3780. Requirements: junior or higher standing.

SEES:3420 Sustainable and Green Building Concepts 3 s.h.
Green building and sustainable development trends and theories: water policy, ecosystem services, climate change, and public health; LEED certified building process and each of the associated credit categories (i.e., sustainable sites, energy and atmosphere, water efficiency); how knowledge of green building and sustainable development can help lessen the environmental impact of built environments, improve the bottom line, and better plan for great communities.

SEES:3500 Introduction to Environmental Remote Sensing 3 s.h.
Basic concepts and principles of remote sensing; sources of data; georegistration; digital processing and classification of remotely sensed images for extraction of environmental information; linkage of remote sensing techniques with GIS analysis. Same as IGPI:3500.

SEES:3510 Igneous and Metamorphic Petrology 4 s.h.
Nature, origin, and petrography of igneous and metamorphic rocks in hand specimen and thin-section. Offered spring semesters. Prerequisites: (MATH:1010 or MATH:0100 or MATH:1020 or MATH:1850) and (SEES:1050 or SEES:1030) and (CHEM:1110 or CHEM:1070) and SEES:2410.

SEES:3520 GIS for Environmental Applications 3 s.h.
Students learn new, more advanced techniques for the representation and study of human and natural systems using geographic information systems (GIS); application of this new knowledge to environmental management and problem solving. Prerequisites: SEES:2050. Same as IGPI:3520.

SEES:3539 History of Environmental (In)Justice in Latin America 3 s.h.
Introduction to history of environmental change in Latin America; examination of pre-Hispanic cultures and spaces; reshaping of landscapes due to colonialism; commodification of nature in early republics; consolidation of 19th-century agro-economies; land-tenure changes and integration of regional markets due to neoliberalism in 20th century; relationship between environmental problems (e.g., biotic invasions, soil exhaustion, biodiversity loss, pesticide contamination) and imperial domination; scientific racism, state formation, and income inequality. Same as HIST:3539.

SEES:3540 Geographic Visualization 3 s.h.
Concepts and techniques that underlie cartographic representation, interaction, and geovisualization; map symbolization and visual variables; spatiotemporal visualization, multivariate mapping, interactive cartography, animation, geovisual analytics, 3D visualization, virtual and augmented reality. Prerequisites: SEES:2050. Same as IGPI:3540.

SEES:3570 Light Detection and Ranging (LiDAR): Principles and Applications 3 s.h.
Basic principles and applications of Light Detection and Ranging (LiDAR); LiDAR as an essential technology for mapping and analyzing a vast range of topics, including hydrology flooding, transportation planning, and 3D modeling. Recommendations: SEES:2050.

SEES:3608 Planetary Geology 3 s.h.
Introduces geologic processes throughout our solar system from the formation of the solar system to the differentiation of planetary bodies up to current state of planets and exobiology. Prerequisites: SEES:1030 or SEES:1050.

SEES:3610 Ethical Collection and Use of Geospatial Information 3 s.h.
Ethical issues that arise during the collection and use of digital geospatial information; particular emphasis on privacy as well as willful and unintentional introduction of different types of errors of omission (e.g., sampling related errors) and commission (e.g., inappropriate map projections); readings provide theoretical background and illustrative practical examples.

SEES:3760 Hazards and Society 3 s.h.
Examination of the impact and societal responses to natural and technological hazards; using case studies from around the world, students explore relationships between extreme events, human behavior, disaster management, public policy, and technology to understand what makes people and places vulnerable to hazards. Same as GHS:3760.

SEES:3780 U.S. Energy Policy in Global Context 3 s.h.
Historical and contemporary aspects of U.S. governmental planning and policy on a wide range of energy issues in global context. Same as GHS:3780, HIST:3240, POLI:3431.

SEES:3800 Environmental Policy 3 s.h.
Reasons why markets fail in environmental realm (e.g., externalities, common pool resources, club goods, public goods); ecosystem services and techniques used for their valuation; revealed and stated preferences; cost-benefit analysis and role in policy-making process; tools to address environmental market failures, particularly command and control, taxes and subsidies, and mitigation markets; focus on air pollution, climate change, and water-related policies.

SEES:3840 Structural Geology 4 s.h.
Rock deformation; description, classification of geologic structures such as faults and folds; processes that generate geologic structures; solution of structural problems; interpretation of geologic maps. Prerequisites: SEES:1030 or SEES:1050.

SEES:3920 Planning Livable Cities 3 s.h.
Development of livable cities in the United States; economic, physical, environmental, and political forces that shape their growth; impact of planning, how it shapes the future of cities. Same as URP:3001.

SEES:3940 Transportation Economics 3 s.h.
Overview of transportation markets—intercity, rural, urban; transportation modes—rail, highway, air, water, pipeline, transit; issues in finance, policy, planning, management, physical distribution, and environmental, economic, and safety regulation. Recommendations: ECON:1100 and ECON:1200. Same as ECON:3750, URP:3350.

SEES:3992 Undergraduate Research arr.
Opportunity for undergraduate students to participate in faculty-led research projects.

SEES:4000 The United Nations Sustainable Development Goals: A Blueprint for a Sustainable Future 3 s.h.
Establishment of baseline competencies among students from diverse backgrounds; introduction to the United Nations sustainable development goals framework; foundational concepts for sustainable development (e.g., life-cycle analysis, systems thinking, data processing, visualization). Same as SDG:4000.

SEES:4001 Fourth-Year Field Trip for Earth and Environmental Sciences 2 s.h.
Application of core course learning to real-world examples; students develop a broader understanding of interrelated aspects of earth and environmental sciences as truly integrated scientific endeavors; multi-day fieldtrip to highlight a wide range of geoscience and environmental science studies and provide students an opportunity to apply all aspects of their training to the amazing geologic landscape; capstone field experience for students in their senior year. Prerequisites: SEES:2831. Requirements: geographical and sustainability sciences (GSS) or earth and environmental sciences (EES) major, and senior standing.

SEES:4010 Field Methods in Physical Geography 3 s.h.
Introduction to basic approaches to research design and of sampling environmental variables commonly used in environmental sciences; basic methods of sampling and lab analyses of vegetation, land cover, soils, and more.

SEES:4030 Senior Project Seminar 3 s.h.
Development of an independent research project, preparation of a research report, and presentation of the associated outcomes. Offered spring semesters.

SEES:4110 Global Biogeochemical Cycles 3 s.h.
Investigation of various physicochemical states oceans have assumed over the past 4 billion years of Earth history; use of isotope geochemistry as a proxy for ancient ocean conditions; focus on integrated Earth system science, paleoceanographic and paleoclimate modeling, role of chemical stratigraphy in deciphering past climate states of ocean-atmosphere system; relationship between chemical changes in ocean/atmosphere and biological systems of the Earth.

SEES:4150 Health and Environment: GIS Applications 3 s.h.
Introduction to how geographic information systems (GIS) and spatial statistics are used in the study of patterns of health and disease in space and time. Same as GHS:4150, IGPI:4150.

SEES:4200 Museum Object Preservation 3 s.h.
Detailed study of specific types of museum objects, their materials, and care; topics include care, storage, and preservation of paper, books, photographs, works of art, electronic media, textiles, furniture, archaeological artifacts, and natural history specimens; students complete a curatorial project and gain hands-on practice in basic object cleaning and making enclosures and supports; for students planning museum careers or taking care of collections as part of their professional responsibilities. Same as MUSM:4200.

SEES:4210 Sustainability as a System Science 3 s.h.
Investigation of social, environmental, and economic sustainability in systems across the planet with a focus on food, energy, and water nexus; geographical and temporal trade-offs, unintended consequences, impacts quantification, role of public and private sectors, conceptual modeling of key system drivers and their interactions, nested systems, and system relations.

SEES:4230 Special Topics 1-3 s.h.
Contemporary issues in School of Earth, Environment, and Sustainability research areas.

SEES:4310 Climate Change 3 s.h.
Physical science of climate change; impacts on human and natural systems; mitigation of and adaptation to climate change. Prerequisites: SEES:1020 or SEES:1080 or SEES:2013.

SEES:4410 Analytical Methods Seminar 2 s.h.
Theory and practice of analyzing chemical, isotopic, and mineralogical compositions of rocks, inorganic materials, and waters; use of modern analytical instruments. Offered spring semesters. Prerequisites: CHEM:1070 or CHEM:1110.

SEES:4470 Ecological Climatology 3 s.h.
Introduction to global energy, water, and carbon cycles; biosphere-atmosphere interactions across scales ranging from leaf to globe. Prerequisites: SEES:2310 or SEES:2374.

SEES:4490 Elements of Geochemistry 3 s.h.
Introduction to application of chemical principles to solution of geologic problems concerning earth and environmental processes; origin of elements, chemical differentiation of Earth and the solar system, geochronology, application of radiogenic and stable isotopes, chemical equilibrium, elementary thermodynamics and kinetics, carbonate and silicate stability relationships, chemical weathering, adsorption, trace element behavior, oxidation-reduction reactions, characterization of surface and ground waters, and ocean chemistry. Prerequisites: (SEES:1030 or SEES:1050) and (CHEM:1070 or CHEM:1110).

SEES:4500 Advanced Remote Sensing 4 s.h.
Theory and practice of remote sensing and digital image processing; practical applications to human-environment interactions. Requirements: SEES:3100 or SEES:3500 or CEE:3783. Same as IGPI:4500.

SEES:4520 GIS for Environmental Studies: Applications 3 s.h.
Project-driven course to advance student knowledge of geographic information systems (GIS); application of GIS to environmental change analysis, environmental assessment, hazard/risk analysis, and environmental decision-making. Prerequisites: SEES:3520. Same as IGPI:4520.

SEES:4540 Isotope Geochemistry 3 s.h.
Radiogenic and stable isotope systematics, applications to geological, cosmological, and environmental problems. Prerequisites: (SEES:1030 or SEES:1050) and (CHEM:1070 or CHEM:1110). Recommendations: SEES:2410.

SEES:4580 Introduction to Geographic Databases 3 s.h.
Introduction to basic building blocks of spatial database design, spatial data models, structures, relationships, queries (SQL), indexing, and geoprocessing; design and construction of various types of spatial databases, including relational and big data approaches such as ArcGIS geodatabase, PostGIS/PostgreSQL, and MongoDB. Prerequisites: SEES:2050. Same as IGPI:4581.

SEES:4600 Biogeography, Ecology, and Conservation of Mammals 4 s.h.
An overview of the class Mammalia. Topics include the evolution, diversity, functional morphology, behavior, ecology, biogeography, and conservation of mammals. Course follows a lecture/lab format and includes both field and classroom labs. Prerequisites: BIOL:1412 or SEES:2374.

SEES:4630 Hydrogeology 4 s.h.
Foundational concepts of physical hydrogeology including water cycle and hydrologic balance, hydrogeologic properties of porous media and fractured rock, Darcy's law, flow systems, and hydrogeologic characterization methods; students practice quantitatively evaluating groundwater flow problems through regular problem sets and hands-on labs. Prerequisites: MATH:1850 or MATH:1550.

SEES:4640 Contaminant Hydrogeology 3 s.h.
Introduction to controls on contaminant transport in groundwater systems (e.g., advection, dispersion, diffusion, reaction/transformation); variety of models used to practice quantitatively evaluating contaminant behavior; survey of common contaminants in groundwater through discussion of published case studies; overview of standard and leading edge characterization and remediation methods. Recommendations: SEES:4630 or CEE:4102.

SEES:4660 Groundwater Modeling 3 s.h.
Groundwater flow and contaminant transport modeling; numerical methods, applications of groundwater modeling to water supply, groundwater resources evaluation, remediation design using software; GMS (MODFLOW, MODPATH, and MT3D). Prerequisites: MATH:1860 and SEES:4630. Same as CEE:4104.

SEES:4680 Field Methods in Hydrologic Science 3 s.h.
Collection and interpretation of physical hydrology and hydraulics field measurements; basic data quality assurance and quality control; hands-on experience with field equipment and data collection. Prerequisites: SEES:4720 or SEES:2831 or SEES:3020 or SEES:3360 or SEES:3330 or SEES:3380 or ENGR:2510 or SEES:4800 or SEES:4630 or CEE:3371 or SEES:4790 or SEES:3390.

SEES:4720 Paleoclimatology 3 s.h.
Introduction to glaciers and glacial and interglacial Earth systems; linkages among glacial, oceanic, and atmospheric systems and their effects on landscapes and biota over the past 2 million years; how oceans, atmosphere, and glaciers interact and landscape effects of past glacial and interglacial cycles. Requirements: physical geology or physical geography or anthropology.

SEES:4750 Environmental Impact Analysis 3 s.h.
In-depth exposure to the history and evolution of the U.S. Environmental Impact Assessment (EIA) process; discussion of major court cases; ecological, economic, and political aspects of current environmental controversies; exposure to real-world scenarios that are crucial to understanding the EIA process in action; field trips to six or seven environmental control facilities in Iowa City and neighboring areas. Prerequisites: SEES:1070. Same as URP:4750.

SEES:4760 Mineral and Petroleum Exploration Geology 3 s.h.
Fundamentals of resource exploration philosophy and methods, with project-based presentation of techniques and strategies for mineral exploration and petroleum exploration; integration and evaluation of geological, geochemical, and geophysical techniques for mineral exploration; hydrocarbon systems and seismic interpretation for petroleum exploration. Corequisites: SEES:3510 and SEES:3840.

SEES:4770 Environmental Justice 3 s.h.
Introduction to the field of environmental justice; understanding and addressing the processes that lead poor and marginalized communities to face a disproportionate degree of environmental risks and hazards. Same as AFAM:4770, GHS:4770.

SEES:4780 Global Stratigraphy 3 s.h.
Types of stratigraphy (e.g., biostratigraphy, lithostratigraphy, sequence stratigraphy, chemostratigraphy, magnetostratigraphy, cyclostratigraphy, chronostratigraphy) that share a number of procedures and practices and how differences cloud understanding of Earth history; central role of stratigraphy in modern geoscience pursuits; issue of time in stratigraphic record as an organizing theme for investigation of comparative stratigraphy.

SEES:4790 Applied Environmental Geology 3 s.h.
Application of geology, water, and earth processes to civil and environmental engineering practice; physical properties of rock and soil, geologic mapping and surveying, groundwater supplies and wells, stream engineering, watershed management, site investigations for environmental assessment, and geologic hazards. Prerequisites: SEES:1050 or SEES:1080 or SEES:1030.

SEES:4800 Global Geophysics 3 s.h.
Geophysics is the broad geoscience field interested in discovering the unseen characteristics of the Earth and other planets, including the internal structure of the Earth, the current motions of tectonic plates, the sources and causes of geological disasters, and the locations of economic resources; methods to accomplish these goals include seismology, gravity and magnetic studies, geodesy, and measurements of heat; course offers a broad introduction to these topics that is rooted in current and growing fields of active research. Requirements: introductory geology or physics.

SEES:4820 Tectonics and Basin Analysis 3 s.h.
Dynamic processes responsible for crustal genesis, plate movements, mountain building; plate boundary zones; sedimentologic, structural, petrologic, geophysical characteristics of major tectonic settings; multidisciplinary approach; week-long field trip. Corequisites: SEES:3840.

SEES:4832 Geologic Field Analysis 3 s.h.
Structural, stratigraphic, and regional analysis of geology in the Rocky Mountains of Montana; emphasis on making reasonable geologic interpretations from field relationships; mapping projects in vicinity of Dillon, Montana that build on experience gained in SEES:2831; capstone experience dedicated to synthesizing the geology of a fold-and-thrust belt near Glacier National Park. Offered summer session. Prerequisites: SEES:3840 and SEES:2831.

SEES:4990 Senior Thesis 3 s.h.
Original research. Requirements: senior standing.

SEES:4995 Honors Thesis arr.
Original research. Requirements: honors standing.

SEES:5010 School of Earth, Environment, and Sustainability Foundations 3 s.h.
Overview of research in the School of Earth, Environment, and Sustainability (SEES).

SEES:5015 American Association of Petroleum Geologists Fall Field Trip 1 s.h.
Resource-related topics in mineral and hydrocarbon exploration; tectonic settings for resources. Requirements: AAPG student chapter member or graduate standing, and basic understanding of mineralogy, petrology, and structural geology.

SEES:5020 Research Resources 1 s.h.
Develop literature review skills; identify and synthesize key works in areas of study.

SEES:5050 Research and Writing 3 s.h.
Identification of research areas; research questions and hypotheses; methodological decisions; research proposal and paper writing.

SEES:5380 Process Geomorphology Seminar 1-3 s.h.
Topics in process geomorphology ranging from fluvial dynamics to mass movement to sediment transport and related environmental processes.

SEES:5530 Geochronology 3 s.h.
How to evaluate published ages, and assumptions/errors involved; how to select and sample suitable materials for dating, and choose a suitable dating method and analytical technique; opportunity to develop skills for research and professional careers. Prerequisites: SEES:4490 or SEES:4540.

SEES:5800 Environmental Policy: Theory and Practice 3 s.h.
Various types of approaches to environmental policy, with a focus on the differences between market-based (taxes and regulatory markets) and command and control (regulations and bans); assessment of approaches in terms of efficacy, efficiency, and equity; key United States and international environmental policies such as the Clean Water Act, the Endangered Species Act, and the Paris Agreement; role of technology, research, and development in addressing environmental problems. Same as PBAF:5800, URP:5800.

SEES:6100 Seminar in Health and Environment 3 s.h.
Research on health and environment.

SEES:6190 Graduate Directed Study arr.
Independent research.

SEES:6230 Special Topics 1-3 s.h.
Contemporary issues in School of Earth, Environment, and Sustainability research areas.

SEES:6250 Paleontology Seminar 1-3 s.h.
Current controversial issues in paleontology. Recommendations: SEES:3210.

SEES:6300 Seminar in Environment, Conservation, and Land Use 1-3 s.h.
Research on land use, water resources, conservation.

SEES:6390 Advanced Watershed Analysis Seminar 1-3 s.h.
Integration of existing knowledge of physical, hydrological, and environmental processes with management issues and challenges in water resources and environmental management; aspects of water quantity and quality, water use and treatment, and basin management issues related to forestry, agriculture, urbanization, floods, droughts.

SEES:6500 Seminar in Spatial Analysis and Modeling 1-3 s.h.
Research themes in spatial analysis, GIScience, simulation, remote sensing. Same as IGPI:6501.

SEES:6570 Earth and Planetary Science Seminar 1-2 s.h.
Topics in earth and planetary science.

SEES:7000 School of Earth, Environment, and Sustainability Research Colloquium 1 s.h.

SEES:7270 Orientation, Scholarly Integrity, and Responsible Conduct of Research 1 s.h.
Introduction to the School of Earth, Environment, and Sustainability (SEES) and provides training in the responsible conduct of research (RCR) in the earth and environmental sciences. Introduction to degree requirements, departmental programs, departmental and university facilities, and local geology; overview of research and scholarship, funding mechanisms, publication process, professional and industry considerations, conflict of interest, and intellectual property. Review and explore a broad spectrum of ethics and scholarly integrity in SEES during formulation, performance, and reporting of both basic and applied research.

SEES:7559 Race, Science, and Nature in Latin America **arr.**
Analysis of the history of United States and Latin America relations in the 20th century through the lens of scientific and agricultural change; how plant breeding, agrochemicals, heavy machinery, and irrigation systems set in motion trends that made the 20th century exceptional; possibility of feeding an unprecedented growing global population and transition of human species from being primarily rural to primarily urban in less than a hundred years; analysis of how a network of scientists, businesses, and governments made proliferation of agribusinesses possible to emphasize Indigenous and Mestizo peasants' role in that process. Same as AMST:7559, HIST:7559.

SEES:7604 Principles of Scholarly Integrity **0 s.h.**
Training in responsible conduct of research and scholarly activities; student/mentor responsibilities, authorship, plagiarism/falsification/fabrication of data, intellectual property, conflict of interest; fiscal, institutional, and societal; data handling. Requirements: Postdoctoral standing in Geoscience or Geography.

SEES:7990 Graduate Research **arr.**
Independent research related to theses or dissertations.

SEES:7999 Graduate Thesis **arr.**

Earth and Environmental Sciences, BA

Earth and environmental sciences majors study the planet's geologic materials, water, air, and biota with an emphasis on local and global interactions between these spheres in the present and over deep time. Students examine planetary evolution, including Earth's interior and landform processes, life and ecosystems, and the complex interactions between Earth systems over time and space. The program also emphasizes human interactions with Earth's water, air, and biota, and the present and future outcomes of those modifications. The integrated biological, chemical, physical, and geological components of the BA program offer students flexibility and exposure to the entire geoscience and environmental discipline while at the university, but with fewer supporting science and math requirements and more electives than the BS program.

The BA in earth and environmental science is intended for students who are interested in the fundamentals of geology or earth science and is most applicable as a second degree to students pursuing allied sciences, such as the School of Earth, Environment, and Sustainability's environmental policy and planning or geographic and sustainability sciences majors, or an associated degree in the colleges of Education and Liberal Arts and Sciences, or another unit.

Learning Outcomes

Graduates will:

- understand planetary and ecosystem processes across diverse spatial and temporal scales;
- understand past and present interactions within the Earth-life system, including human interactions and interventions;
- develop the ability to collect and interpret environmental field data within a focused subdiscipline of earth and environmental sciences; and
- develop an analytical skill set to integrate the diverse array of earth sciences and related disciplines.

Requirements

The Bachelor of Arts with a major in earth and environmental sciences requires a minimum of 120 s.h., including at least 55 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Transfer students must complete a minimum of 15 s.h. of School of Earth, Environment, and Sustainability coursework in the major.

The BA with a major in earth and environmental sciences requires the following coursework.

Requirements	Hours
Foundation Courses	40
Electives	15

Foundation Courses

Course #	Title	Hours
All of these:		
SEES:1050	Introduction to Geology	4
SEES:1070	Contemporary Environmental Issues	3
SEES:1085	Fundamentals of Environmental Science	4
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:2050	Foundations of GIS	4
SEES:2673/ BIOL:2673	Ecology	3
SEES:3020	Earth Surface Processes	3
BIOL:1411	Foundations of Biology	4
BIOL:1412	Diversity of Form and Function	4
CHEM:1110	Principles of Chemistry I	4
STAT:2010	Statistical Methods and Computing	3
or STAT:3510/ IGPI:3510	Biostatistics	
One of these:		
SEES:2310	Introduction to Climatology	3
SEES:3320	Earth's Climate System	3

Electives

Students must complete at least 15 s.h. in courses from at least two elective categories. Elective categories and their corresponding courses can be found in the BS in earth and environmental sciences [p. 385] section of the catalog.

Combined Programs

BA/MAT

Students interested in pursuing a graduate degree in teaching may apply to the combined Bachelor of Arts/Master of Arts in Teaching with a science education subprogram offered by the College of Liberal Arts and Sciences and the College of Education. The combined program enables students to earn a BA in geoscience and an MAT in five years by beginning to earn graduate credit during their fourth year of undergraduate study and by counting up to 19 s.h. of qualifying credit toward both degrees. For more information, see Science Education in the Master of Arts in Teaching (College of Education) section of the catalog. Interested students should consult an advisor.

Honors

Graduating with departmental honors and graduating with university honors are two opportunities available to high-achieving undergraduate students, each with specific and distinct requirements. Some students pursue both options while others pursue one or the other.

Honors in the Major

Within the College of Liberal Arts and Sciences, each major develops its own requirements to achieve honors in the major. In order to graduate with honors in the major, students in the School of Earth, Environment, and Sustainability (SEES) pursue study beyond the typical undergraduate level. They work under the direction of a faculty member to conduct original research and then prepare and present a written honors thesis based on their work.

Potential honors students must complete an honors thesis contract with their advisor and obtain approval from the

department's undergraduate committee by the first semester of their senior year or earlier. They are also required to register for SEES:4995 Honors Thesis as they work to complete their thesis, where they must earn a grade of B or higher. Additionally, SEES honors students must maintain a cumulative grade-point average of at least 3.33 in all University of Iowa and SEES coursework.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the earth and environmental sciences major.

Career Advancement

Graduates with degrees in earth and environmental sciences find jobs and careers with a variety of public, private, and nonprofit organizations with roles ranging from research to outreach. Completing the minimum requirements for this degree may not adequately prepare a student for an entry-level professional job in geology or the environmental sciences.

Possible careers include, but are not limited to environmental science consultant, state or U.S. Geological Survey scientist, state regulatory agency scientist, Environmental Protection Agency scientist, National Resource Conservation Service scientist, academic researcher (requires graduate school), environmental education teacher, K–12 education teacher, land manager or steward, museum curator, natural hazard assessment and mitigation scientist or manager, renewable energy scientist or manager, science writer and communication specialist, National Park Service guide, resource exploration and extraction scientist, nature facility scientist and program manager, and restoration designer and manager.

Academic Plans

Sample Plans

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Earth and Environmental Sciences, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b]	4
SEES:1085	Fundamentals of Environmental Science [b]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Social Sciences [c]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
SEES:1050	Introduction to Geology [b]	4
SEES:1070	Contemporary Environmental Issues [b]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
Elective course [d]		3
	Hours	**16-17**
Second Year		
Fall		
BIOL:1411	Foundations of Biology [b]	4
SEES:2010	Interdisciplinary Environmental Seminar	1
Major: earth and environmental sciences elective course [e]		3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
	Hours	**15-17**
Spring		
BIOL:1412	Diversity of Form and Function [b]	4
Major: earth and environmental sciences elective course [e]		3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
	Hours	**14-16**
Third Year		
Fall		
SEES:2050	Foundations of GIS	4
SEES:3020	Earth Surface Processes	3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]		4 - 5
Elective course [d]		2
	Hours	**16-17**
Spring		
SEES:2310 or SEES:3320	Introduction to Climatology or Earth's Climate System	3
SEES:2673	Ecology	3
GE CLAS Core: Values and Society [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
	Hours	**16-17**
Fourth Year		
Fall		
STAT:2010 or STAT:3510 [g]	Statistical Methods and Computing or Biostatistics	3
Major: earth and environmental sciences elective course [e]		3 - 4
GE CLAS Core: Historical Perspectives [c]		3

Elective course [d]	3
Elective course [d]	3
Hours	**15-16**
Spring	
Major: earth and environmental sciences elective course [e]	3 - 4
Major: earth and environmental sciences elective course [e]	3 - 4
GE CLAS Core: Quantitative or Formal Reasoning or elective course [d, h]	3
Elective course [d]	3
Elective course [d]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]	
Hours	**15-17**
Total Hours	**122-133**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Students must complete at least 15 s.h. in courses from at least two elective categories. Elective categories and their corresponding courses can be found in the BS in earth and environmental sciences section of the General Catalog.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g STAT:2010 satisfies both the GE CLAS Core Quantitative or Formal Reasoning requirement and the statistics foundation course requirement for the major.

h Students who completed STAT:2010 have already satisfied the GE CLAS Core Quantitative or Formal Reasoning requirement.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Environmental Policy and Planning, BA

Learning Outcomes

Graduates will:

- recognize the connections and relationships between human and environmental activities and outcomes across space and time;
- identify key stakeholders and sources of information in the natural and social sciences to consider in developing solutions to environmental problems;
- be able to explain the role of policy and planning in addressing environmental issues locally, regionally, and globally;
- be capable of working collaboratively in interdisciplinary teams to design approaches to managing environmental problems; and
- understand and be able to implement key tools and methods for environmental planning and policy making.

Requirements

The Bachelor of Arts with a major in environmental policy and planning requires a minimum of 120 s.h., including at least 55 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Transfer students must complete a minimum of 15 s.h. of School of Earth, Environment, and Sustainability coursework in the major.

The BA with a major in environmental policy and planning requires the following coursework.

Requirements	Hours
Shared Courses	43-45
Track Courses	12

Shared Courses

Course #	Title	Hours
Introductory Courses		
All of these:		
SEES:1035	Our Digital Earth	3
SEES:1070	Contemporary Environmental Issues	3
SEES:1085	Fundamentals of Environmental Science	4
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:2013/ BUS:2013/ URP:2013	Introduction to Sustainability	3
SEES:2050	Foundations of GIS	4
ANTH:2261	Human Impacts on the Environment	3
ECON:1100	Principles of Microeconomics	4
Intermediate Courses		
This course:		
POLI:3111	American Public Policy	3
One of these:		
AMST:1290/ GHS:1290/ HIST:1290/ NAIS:1290	Native American Foods and Foodways	3
ANTH:3103	Environment and Culture	3
One of these:		
SEES:2950	Environmental Conservation	4
SEES:3350	Urban Ecology	3
Methods Courses		
One of these:		
PSQF:4143/ STAT:4143	Introduction to Statistical Methods	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:2010	Statistical Methods and Computing	3
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:3510/ IGPI:3510	Biostatistics	3
Communications Courses		
One of these:		
CNW:3664/ ENGL:3764	Writing About Science	3
JMC:1800	Environmental Communication	3
JMC:3185	Topics in Understanding Media	3
Research and Experiential Learning		
At least one of these (for a total of 3 hours):		3
SEES:3400	Iowa Environmental Policy in Practice	3
SEES:3992	Undergraduate Research (Or ICIGO)	1-3
SEES:4995	Honors Thesis	arr.
CCP:1201	Academic Internship	1-3

Tracks

Students must complete one of two tracks: planning or policy. Each track consists of two required courses and at least 6 s.h. in elective courses. Students may not use any course to satisfy more than one requirement.

Planning Track

Course #	Title	Hours
Both of these:		
SEES:3920/ URP:3001	Planning Livable Cities	3
SEES:4750/ URP:4750	Environmental Impact Analysis	3
At least 6 s.h. from these:		
SEES:2930	Water Resources	3
SEES:3250/ CPH:3400	Health, Work, and the Environment	3
SEES:3315	Ecosystem Ecology	4
SEES:3350	Urban Ecology	3

SEES:3400	Iowa Environmental Policy in Practice	3
SEES:3520/ IGPI:3520	GIS for Environmental Applications	3
SEES:3540/ IGPI:3540	Geographic Visualization	3
SEES:3760/ GHS:3760	Hazards and Society	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3
SEES:3800	Environmental Policy	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
HIST:3230	American Environmental History	3
URP:3134/ ECON:3640	Regional and Urban Economics	3
URP:3350/ ECON:3750/ SEES:3940	Transportation Economics	3

Policy Track

Course #	Title	Hours
Both of these:		
SEES:3800	Environmental Policy	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
At least 6 s.h. from these:		
SEES:3250/ CPH:3400	Health, Work, and the Environment	3
SEES:3400	Iowa Environmental Policy in Practice	3
SEES:3520/ IGPI:3520	GIS for Environmental Applications	3
SEES:3540/ IGPI:3540	Geographic Visualization	3
SEES:3760/ GHS:3760	Hazards and Society	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3
SEES:3920/ URP:3001	Planning Livable Cities	3
SEES:4750/ URP:4750	Environmental Impact Analysis	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3
HIST:3230	American Environmental History	3
PBAF:3117/ POLI:3117	Bureaucratic Politics and Public Administration	3
POLI:2417	Comparative Environmental Policy	3
POLI:3100	American State Politics	3
POLI:3102	The U.S. Congress	3
POLI:3110	Local Politics	3
POLI:3118	Interest Groups	3
POLI:3424	Global Development	3
POLI:3430/ NAIS:3430	Environmental Politics and Indigeneity	3
POLI:3432/ NAIS:3432	Agriculture Politics and Policy	3

Honors

Graduating with departmental honors and graduating with university honors are two opportunities available to high-achieving undergraduate students, each with specific and distinct requirements. Some students pursue both options while others pursue one or the other.

Honors in the Major

Within the College of Liberal Arts and Sciences, each major develops its own requirements to achieve honors in the major. In order to graduate with honors in the major, students in the School of Earth, Environment, and Sustainability (SEES) pursue study beyond the typical undergraduate level. They work under the direction of a faculty member to conduct original research and then prepare and present a written honors thesis based on their work.

Potential honors students must complete an honors thesis contract with their advisor and obtain approval from the department's undergraduate committee by the first semester of their senior year or earlier. They are also required to register for SEES:4995 Honors Thesis as they work to complete their thesis, where they must earn a grade of B or higher. Additionally, SEES honors students must maintain a cumulative grade-point average of at least 3.33 in all University of Iowa and SEES coursework.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the environmental policy and planning major.

Academic Plans

Sample Plans

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Environmental Policy and Planning, BA

- Planning Track [p. 379]
- Policy Track [p. 380]

Planning Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
SEES:1070	Contemporary Environmental Issues [b]	3
SEES:1085	Fundamentals of Environmental Science [b]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
CSI:1600	Success at Iowa	1
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
	Hours	**15-17**
Spring		
ANTH:2261	Human Impacts on the Environment [b]	3
SEES:1035	Our Digital Earth [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		2
	Hours	**15-17**
Second Year		
Fall		
ECON:1100	Principles of Microeconomics [b]	4
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:2013	Introduction to Sustainability [b]	3
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
	Hours	**15-16**
Spring		
JMC:1800	Environmental Communication [b, f]	3
SEES:2050	Foundations of GIS	4
GE CLAS Core: Natural Sciences without Lab [e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
Elective course [d]		2
	Hours	**16-17**
Third Year		
Fall		
ANTH:3103	Environment and Culture [g]	3
SEES:3920	Planning Livable Cities	3
STAT:1020	Elementary Statistics and Inference [b, h]	3
GE CLAS Core: Historical Perspectives [e]		3
Elective course [d]		3
	Hours	**15**
Spring		
POLI:3111	American Public Policy	3
SEES:2950 or SEES:3350	Environmental Conservation or Urban Ecology	3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15-16**
Fourth Year		
Fall		
Major: planning track elective course [i]		3
Major: planning track elective course [i]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
SEES:4750	Environmental Impact Analysis	3
Major: research and experiential learning course [j]		1 - 3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15-17**
	Total Hours	**121-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students can opt to take either CNW:3664 or JMC:3185 instead of JMC:1800, but would also need to take an

additional course to satisfy the GE CLAS Core Values and Society requirement.

g Students can opt to take AMST:1290 instead of ANTH:3103.

h Students can opt to take PSQF:4143, STAT:1030, STAT:2010, STAT:2020, or STAT:3510 instead of STAT:1020, but may also need to take an additional course to satisfy the GE CLAS Core Quantitative or Formal Reasoning requirement.

i See the General Catalog for list of approved courses.

j Choose from SEES:3400, SEES:3992, SEES:4995, CCP:1201.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Policy Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
SEES:1070	Contemporary Environmental Issues [b]	3
SEES:1085	Fundamentals of Environmental Science [b]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
CSI:1600	Success at Iowa	1
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
	Hours	**15-17**
Spring		
ANTH:2261	Human Impacts on the Environment [b]	3
SEES:1035	Our Digital Earth [b]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		2
	Hours	**15-17**
Second Year		
Fall		
ECON:1100	Principles of Microeconomics [b]	4
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:2013	Introduction to Sustainability [b]	3
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
	Hours	**15-16**
Spring		
POLI:3111	American Public Policy	3
SEES:2050	Foundations of GIS	4
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
Elective course [d]		2
	Hours	**16-17**
Third Year		
Fall		
ANTH:3103	Environment and Culture [f]	3
SEES:3350 or SEES:2950	Urban Ecology or Environmental Conservation	4
STAT:1020	Elementary Statistics and Inference [b, g]	3
Elective course [d]		3
Elective course [d]		2
	Hours	**15**
Spring		
JMC:1800	Environmental Communication [b, h]	3
SEES:3800	Environmental Policy	3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Fourth Year		
Fall		
ECON:3625	Environmental and Natural Resource Economics	3
Major: policy track elective course [i]		3
GE CLAS Core: Natural Sciences without Lab [e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
Major: policy track elective course [i]		3
Major: research and experiential learning course [j]		1 - 3
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15-17**
	Total Hours	**121-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course.

Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students can opt to take AMST:1290 instead of ANTH:3103.

g Students can opt to take PSQF:4143, STAT:1030, STAT:2010, STAT:2020, or STAT:3510 instead of STAT:1020, but may also need to take an additional course to satisfy the GE CLAS Core Quantitative or Formal Reasoning requirement.

h Students can opt to take either CNW:3664 or JMC:3185 instead of JMC:1800, but would also need to take an additional course to satisfy the GE CLAS Core Values and Society requirement.

i See the General Catalog for list of approved courses.

j Choose from SEES:3400, SEES:3992, SEES:4995, CCP:1201.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Geographical and Sustainability Sciences, BA

Learning Outcomes

Graduates will:

- understand the role of spatial information and data in addressing social and environmental questions and the role of geography as a linchpin discipline that bridges social and biophysical sciences;
- understand the connections and relationships between human and environmental activities and outcomes across space and time;
- assess various points of view and perspectives while assessing complex social and environmental problems, to evaluate the factual basis of assertions, and to understand tradeoffs;
- be able to formulate testable hypotheses, apply quantitative or qualitative approaches and methodological tools to pertinent questions, and acquire secondary data or construct primary data sets when applicable;
- be able to communicate complex geographical and technical concepts using an appropriate vocabulary to a broad spectrum of audiences.

Requirements

The Bachelor of Arts with a major in geographical and sustainability sciences requires a minimum of 120 s.h., including at least 55 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Transfer students must complete a minimum of 15 s.h. of School of Earth, Environment, and Sustainability coursework in the major.

The BA with a major in geographical and sustainability sciences requires the following coursework.

Requirements	Hours
Foundation Courses	34-37
Elective Courses	21

Foundation Courses

Course #	Title	Hours
All of these:		
SEES:1035	Our Digital Earth	3
SEES:1070	Contemporary Environmental Issues	3
SEES:1085	Fundamentals of Environmental Science	4
SEES:1090	Globalization and Geographic Diversity	3
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:2013/ BUS:2013/ URP:2013	Introduction to Sustainability	3
SEES:2050	Foundations of GIS	4
SEES:2110/ GHS:2110	Eight Billion and Counting: Introduction to Population Dynamics	3
One of these:		
SEES:2310	Introduction to Climatology	3
SEES:2950	Environmental Conservation	4
One of these:		
CS:1110	Introduction to Computer Science	3
STAT:2010	Statistical Methods and Computing	3
STAT:3200/ DATA:3200/ IGPI:3200/ISE:3760	Applied Linear Regression	3
One of these:		
SEES:3400	Iowa Environmental Policy in Practice	3
SEES:3992	Undergraduate Research (or ICIGO)	1-3
CCP:1201	Academic Internship	1-3
One of these:		
SEES:4030	Senior Project Seminar	3
SEES:4995	Honors Thesis	3

Elective Courses

Students complete at least 21 s.h. of electives with at least one course chosen from each of four categories: environment, methods, society, and sustainability.

Environment Electives

Course #	Title	Hours
At least one of these:		
SEES:3315	Ecosystem Ecology	4
SEES:4310	Climate Change	3
SEES:4470	Ecological Climatology	3

Methods Electives

Course #	Title	Hours
At least one of these:		
SEES:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3
SEES:3520/ IGPI:3520	GIS for Environmental Applications	3
SEES:3540/ IGPI:3540	Geographic Visualization	3
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
SEES:4010	Field Methods in Physical Geography	3
SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3
SEES:4500/ IGPI:4500	Advanced Remote Sensing	4
SEES:4520/ IGPI:4520	GIS for Environmental Studies: Applications	3

Society Electives

Course #	Title	Hours
At least one of these:		
SEES:3090/ GHS:3070	Hungry Planet: Global Geographies of Food	3
SEES:3110/ GHS:3111	Geography of Health	3
SEES:3760/ GHS:3760	Hazards and Society	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3

Sustainability Electives

Course #	Title	Hours
At least one of these:		
SEES:3340	Ecosystem Services	3
SEES:3350	Urban Ecology	3
SEES:3920/ URP:3001	Planning Livable Cities	3
SEES:4210	Sustainability as a System Science	3
SEES:4750/ URP:4750	Environmental Impact Analysis	3

Honors

Graduating with departmental honors and graduating with university honors are two opportunities available to high-achieving undergraduate students, each with specific and distinct requirements. Some students pursue both options while others pursue one or the other.

Honors in the Major

Within the College of Liberal Arts and Sciences, each major develops its own requirements to achieve honors in the major. In order to graduate with honors in the major, students in the School of Earth, Environment, and Sustainability (SEES) pursue study beyond the typical undergraduate level. They work under the direction of a faculty member to conduct original research and then prepare and present a written honors thesis based on their work.

Potential honors students must complete an honors thesis contract with their advisor and obtain approval from the department's undergraduate committee by the first semester of their senior year or earlier. They are also required to register for SEES:4995 Honors Thesis credits as they work to complete their thesis, where they must earn a grade of B or higher. Additionally, SEES honors students must maintain a cumulative grade-point average of at least 3.33 in all University of Iowa and SEES coursework.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the geographical and sustainability sciences major.

Career Advancement

Graduates with degrees in geographical and sustainability sciences find jobs and careers with a variety public, private, and nonprofit organizations with roles ranging from research to outreach. Possible careers include GIS technician, sustainability coordinator/specialist in the private or public sector, state regulatory agency scientist, Environmental Protection Agency scientist, National Resource Conservation Service scientist, academic researcher (requires graduate school), social science teacher, K–12 education teacher, land manager or steward, city planner, natural hazard assessment and mitigation scientist or manager, renewable energy scientist or manager, science writer and communication specialist, water industry researcher, carbon management policy specialist, nature facility scientist and program manager, and restoration designer and manager.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Geographical and Sustainability Sciences, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
SEES:1085	Fundamentals of Environmental Science [b]	4
SEES:1090	Globalization and Geographic Diversity [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**15-17**
Spring		
SEES:1035	Our Digital Earth [b]	3
SEES:1070	Contemporary Environmental Issues [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [c]		2
	Hours	**15-17**

Second Year

Fall

SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:2110	Eight Billion and Counting: Introduction to Population Dynamics [b]	3
SEES:2310 or SEES:2950	Introduction to Climatology or Environmental Conservation	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
	Hours	**14-16**

Spring

SEES:2013	Introduction to Sustainability [b]	3
SEES:2050	Foundations of GIS	4
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [c]		2
	Hours	**16-17**

Third Year

Fall

STAT:2010 or CS:1110 or STAT:3200	Statistical Methods and Computing or Introduction to Computer Science or Applied Linear Regression	3
Major: environment track elective course [e]		3 - 4
GE CLAS Core: Historical Perspectives [d]		3
Elective course [c]		3
Elective course [c]		4
	Hours	**16-17**

Spring

CCP:1201 or SEES:3992 or SEES:3400	Academic Internship or Undergraduate Research or Iowa Environmental Policy in Practice	1 - 3
Major: methods track elective course [e]		3 - 4
Major: society track elective course [e]		3
GE CLAS Core: Values and Society [d]		3
Elective course [c]		3
Elective course [c]		1 - 2
	Hours	**14-18**

Fourth Year

Fall

Major: sustainability track elective course [e]		3
Major: track elective course (from any category) [e]		3 - 4
Major: track elective course (from any category) [e]		3 - 4
GE CLAS Core: Natural Sciences without Lab [d]		3
Elective course [c]		3
	Hours	**15-17**

Spring

SEES:4030 or SEES:4995	Senior Project Seminar or Honors Thesis	3
Major: track elective course (from any category) [e]		3 - 4
Elective course [c]		3
Elective course [c]		3
Elective course [c]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [f]		
	Hours	**15-16**
	Total Hours	**120-135**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students complete at least 21 s.h. in track electives including at least one course from each of four categories: environment, methods, society, and sustainability. See the General Catalog for list of approved courses.

f Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Earth and Environmental Sciences, BS

Earth and environmental sciences majors study the geologic, hydrologic, atmospheric, and biotic systems that make up the dynamic Earth, with an emphasis on local and global interactions between these systems in the present and over deep time. The major comprises three tracks: earth and planetary science, environmental bioscience, and environmental geoscience. Within these tracks, students examine planetary and ecological processes emphasizing how planets, their environments, and life have evolved and continue to evolve; how recent human actions interact with surface processes to support or distress living organisms, air, and water; how altered ecosystem structure and function impacts population and community dynamics across diverse spatial and temporal scales; and how past and present changes within the Earth's systems, both big and small, may inform expectations around, and solutions to, future change. The integrated biological, chemical, physical, and geological components of the degree program offer students flexibility and exposure to the entire geoscience and environmental discipline while at the university and prepare them for either employment directly following graduation or continuation to graduate school.

Learning Outcomes

Graduates will:

- understand planetary and ecosystem processes across diverse spatial and temporal scales;
- understand past and present interactions within the Earth-life system, including human interactions and interventions;
- develop the ability to collect and interpret environmental field data within a focused sub-discipline of earth and environmental sciences; and
- develop a quantitative, analytical skill set to integrate the diverse array of earth sciences and related disciplines.

Requirements

The Bachelor of Science with a major in earth and environmental sciences requires a minimum of 120 s.h., including 72–82 s.h. of work for the major, depending on the student's chosen track (earth and planetary science, environmental bioscience, or environmental geoscience). Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core. Transfer students must complete a minimum of 15 s.h. of School of Earth, Environment, and Sustainability coursework in the major.

The BS with a major in earth and environmental sciences requires the following coursework.

Requirements	Hours
Foundation Courses	23
Track Courses	31-50
Electives	9-18

Foundation Courses

Course #	Title	Hours
All of these:		
SEES:1070	Contemporary Environmental Issues	3
SEES:1085	Fundamentals of Environmental Science	4
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:2050	Foundations of GIS	4
CHEM:1110	Principles of Chemistry I	4
MATH:1850	Calculus I	4
One of these:		
CS:1110	Introduction to Computer Science	3
STAT:2010	Statistical Methods and Computing	3
STAT:3510/ IGPI:3510	Biostatistics	3

Tracks

Students must complete one of three tracks: earth and planetary science [p. 385], environmental bioscience [p. 386], or environmental geoscience [p. 386]. Courses taken to complete a track requirement may not also be used to satisfy the electives requirement.

Earth and Planetary Science Track

Students in the earth and planetary science track must complete 45—46 s.h. in earth and planetary science track courses, a 3—4 s.h. allied math or science course, and 9 s.h. in elective courses.

Earth and Planetary Science Track Courses

Course #	Title	Hours
All of these:		
SEES:1040	Evolution and the History of Life (with laboratory)	4
SEES:1050	Introduction to Geology	4
SEES:2200	Historical Geology	4
SEES:2410	Mineralogy	4
SEES:2831	Geologic Field Methods	3
SEES:3330	Sedimentary Geology	4
SEES:3510	Igneous and Metamorphic Petrology	4
SEES:3840	Structural Geology	4
SEES:4832	Geologic Field Analysis	3
CHEM:1120	Principles of Chemistry II	4
PHYS:1511	College Physics I	4
or PHYS:1611	Introductory Physics I	
One of these:		
SEES:3210	Principles of Paleontology	3
SEES:3608	Planetary Geology	3
SEES:4490	Elements of Geochemistry	3
SEES:4630	Hydrogeology	4
SEES:4790	Applied Environmental Geology	3
SEES:4800	Global Geophysics	3

Allied Math or Science Course

Course #	Title	Hours
One of these:		
a biology course (prefix BIOL)		4
a chemistry course (prefix CHEM) numbered above 1120		3-4
a mathematics course (prefix MATH) numbered 1860 or above		3-4
a statistics course (prefix STAT) numbered 2000 or above		3-4
PHYS:1512	College Physics II	4
PHYS:1612	Introductory Physics II	4

Students with an interest in paleontology are encouraged to take BIOL:1411 Foundations of Biology and BIOL:1412 Diversity of Form and Function.

Earth and Planetary Science Track Electives

Students in this track must complete an additional 9 s.h. in elective courses. At least 9 s.h. of the elective courses must be in School of Earth, Environment, and Sustainability Studies (prefix SEES) numbered 3000 or above. Refer to the "Electives" section that follows to see electives categories and their corresponding courses.

Students may not use any course to satisfy more than one requirement.

Environmental Bioscience Track

Students in the environmental bioscience track must complete 31—33 s.h. in environmental bioscience track courses and 18 s.h. in elective courses.

Environmental Bioscience Track Courses

Course #	Title	Hours
All of these:		
SEES:2673/ BIOL:2673	Ecology	3
SEES:3020	Earth Surface Processes	3
SEES:3315	Ecosystem Ecology	4
BIOL:1411	Foundations of Biology	4
BIOL:1412	Diversity of Form and Function	4
CHEM:1120	Principles of Chemistry II	4
One of these:		
SEES:2374/ BIOL:2374	Biogeography	3
SEES:2950	Environmental Conservation	4
SEES:3070	Marine Ecosystems and Conservation	3
One of these:		
SEES:2310	Introduction to Climatology	3
SEES:3320	Earth's Climate System	3
One of these:		
SEES:3220	Evolution of the Vertebrates	4
BIOL:1261	Introduction to Botany	4
BIOL:2246	Entomology Lab	4
An approved organismal course at the Iowa Lakeside Laboratory (prefix IALL)		3-4

Environmental Bioscience Track Electives

Students in this track must complete at least 18 s.h. in elective courses, including at least one course from the field study category and one course from each of three other categories. At least 9 s.h. of the elective courses must be numbered 3000 or above. Refer to the "Electives" section that follows to see electives categories and their corresponding courses.

Students may not use any course to satisfy more than one requirement.

Environmental Geoscience Track

Students in the environmental geoscience track must complete 43 s.h. in environmental geoscience track courses and 12 s.h. in elective courses.

Environmental Geoscience Track Courses

Course #	Title	Hours
All of these:		
SEES:1050	Introduction to Geology	4
SEES:2673/ BIOL:2673	Ecology	3
SEES:3020	Earth Surface Processes	3
SEES:3330	Sedimentary Geology	4
SEES:3360	Soil Genesis and Geomorphology	3
SEES:4630	Hydrogeology	4
SEES:4790	Applied Environmental Geology	3
CHEM:1120	Principles of Chemistry II	4
MATH:1860	Calculus II	4
One of these sequences:		
PHYS:1511 & PHYS:1512	College Physics I and College Physics II	8
PHYS:1611 & PHYS:1612	Introductory Physics I and Introductory Physics II	8
One of these:		
SEES:2310	Introduction to Climatology	3
SEES:3320	Earth's Climate System	3

Environmental Geoscience Track Electives

Students in this track must complete at least 12 s.h. in elective courses, including at least one course from the field study category and one from each of three other categories. At least 9 s.h. of the elective courses must be numbered 3000 or above. Refer to the "Electives" section that follows to see electives categories and their corresponding courses.

Students may not use any course to satisfy more than one requirement.

Electives

Elective courses each fall into one of five categories: chemistry [p. 387], earth systems [p. 387], ecology and the biosphere [p. 387], field study [p. 387], or research and internships [p. 387]. All students must complete at least 3 s.h. from the field study category except for students in the earth and planetary science track. Students in the environmental bioscience or environmental geoscience track must select courses from at least three additional elective categories. At least three of the elective courses must be numbered 3000 or above.

Field Study Electives

Course #	Title	Hours
At least 3 s.h. from these:		
SEES:1179 & SEES:1180	Geology of National Parks: Preparation and Planning and Geology of National Parks: Field Trip	3
SEES:2001	Second-Year Field Trip for Earth and Environmental Sciences	1
SEES:2831	Geologic Field Methods	3
SEES:3001	Third-Year Field Trip for Earth and Environmental Sciences	1
SEES:3095	Field Ecology	4
SEES:3096	Winter Ecology	2
SEES:3097	Introduction to Bird Study	2
SEES:3160	Field Trip	1-3
SEES:3230	Prairie Restoration	3
SEES:4001	Fourth-Year Field Trip for Earth and Environmental Sciences	2
SEES:4010	Field Methods in Physical Geography	3
SEES:4680	Field Methods in Hydrologic Science	3
SEES:4832	Geologic Field Analysis	3
Approved Iowa Lakeside Laboratory courses (prefix IALL)		

Chemistry Electives

Course #	Title	Hours
SEES:4110	Global Biogeochemical Cycles	3
SEES:4490	Elements of Geochemistry	3
CEE:4150/CBE:4420	Environmental Chemistry	3
CEE:4158/ OEH:4920	Solid and Hazardous Wastes	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CHEM:2021	Fundamentals of Chemical Measurements	3
CHEM:2210	Organic Chemistry I	3
CHEM:3110	Equilibria and Electrochemistry	3
CHEM:3120	Spectroscopy and Separations	3
CHEM:3430	Analytical Measurements	3

Earth Systems Electives

Course #	Title	Hours
SEES:1050	Introduction to Geology	4
SEES:2200	Historical Geology	4
SEES:2310	Introduction to Climatology	3
SEES:2410	Mineralogy	4
SEES:3020	Earth Surface Processes	3
SEES:3080	Introduction to Oceanography	2
SEES:3320	Earth's Climate System	3
SEES:3330	Sedimentary Geology	4
SEES:3360	Soil Genesis and Geomorphology	3
SEES:3380/ CEE:3328	Fluvial Geomorphology	3
SEES:3390	Integrated Watershed Analysis	3
SEES:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3
SEES:3510	Igneous and Metamorphic Petrology	4
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
SEES:3608	Planetary Geology	3
SEES:3840	Structural Geology	4
SEES:4310	Climate Change	3
SEES:4500/ IGPI:4500	Advanced Remote Sensing	4
SEES:4630	Hydrogeology	4
SEES:4640	Contaminant Hydrogeology	3
SEES:4720	Paleoclimatology	3
SEES:4760	Mineral and Petroleum Exploration Geology	3
SEES:4780	Global Stratigraphy	3
SEES:4790	Applied Environmental Geology	3
SEES:4820	Tectonics and Basin Analysis	3

Ecology and the Biosphere Electives

Course #	Title	Hours
SEES:2374/ BIOL:2374	Biogeography	3
SEES:2950	Environmental Conservation	4
SEES:3070	Marine Ecosystems and Conservation	3
SEES:3210	Principles of Paleontology	3
SEES:3220	Evolution of the Vertebrates	4
SEES:3315	Ecosystem Ecology	4
SEES:3350	Urban Ecology	3
SEES:4470	Ecological Climatology	3
SEES:4600	Biogeography, Ecology, and Conservation of Mammals	4
BIOL:1261	Introduction to Botany	4
BIOL:2246	Entomology Lab	4
BIOL:2663	Plant Response to the Environment	3
BIOL:3244	Animal Behavior	3

Research and Internship Electives

Course #	Title	Hours
SEES:3190	Undergraduate Directed Study	1-3
SEES:3992	Undergraduate Research	1-3
SEES:4995	Honors Thesis	arr.
BIOL:3994	Introduction to Research	1-3
BIOL:4999	Honors Research in Biology	arr.
CCP:1201	Academic Internship	1-3

Honors

Graduating with departmental honors and graduating with university honors are two opportunities available to high-achieving undergraduate students, each with specific and distinct requirements. Some students pursue both options while others pursue one or the other.

Honors in the Major

Within the College of Liberal Arts and Sciences, each major develops its own requirements to achieve honors in the major. In order to graduate with honors in the major, students in the School of Earth, Environment, and Sustainability (SEES) pursue study beyond the typical undergraduate level. They work under the direction of a faculty member to conduct original research and then prepare and present a written honors thesis based on their work.

Potential honors students must complete an honors thesis contract with their advisor and obtain approval from the department's undergraduate committee by the first semester of their senior year or earlier. They are also required to register for SEES:4995 Honors Thesis as they work to complete their thesis, where they must earn a grade of B or higher. Additionally, SEES honors students must maintain a cumulative grade-point average of at least 3.33 in all University of Iowa and SEES coursework.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the earth and environmental sciences major.

Career Advancement

Graduates with degrees in earth and environmental sciences find jobs and careers with a variety of public, private, and nonprofit organizations with roles ranging from research to outreach. Possible careers include environmental science consultant, state or U.S. Geological Survey scientist, state regulatory agency scientist, Environmental Protection Agency scientist, National Resource Conservation Service scientist, academic researcher (requires graduate school), environmental education teacher, K–12 education teacher, land manager or steward, museum curator, natural hazard assessment and mitigation scientist or manager, renewable energy scientist or manager, science writer and communication specialist, National Park Service guide, resource exploration and extraction scientist, nature facility scientist and program manager, and restoration designer and manager.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Earth and Environmental Sciences, BS

- Earth and Planetary Science Track [p. 388]
- Environmental Bioscience Track [p. 389]
- Environmental Geoscience Track [p. 390]

Earth and Planetary Science Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b]	4
SEES:1050	Introduction to Geology [b]	4
SEES:1085	Fundamentals of Environmental Science [b]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
CSI:1600	Success at Iowa	1
	Hours	**16-17**
Spring		
CHEM:1120	Principles of Chemistry II [b]	4
SEES:1040	Evolution and the History of Life [b]	4
SEES:2200	Historical Geology	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
	Hours	**15-16**
Second Year		
Fall		
MATH:1850	Calculus I [b]	4
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:2410	Mineralogy	4
GE CLAS Core: Social Sciences [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
	Hours	**16-17**
Spring		
SEES:1070	Contemporary Environmental Issues [b]	3
SEES:3510	Igneous and Metamorphic Petrology	4
Major: earth and planetary science track elective course (prefix SEES, numbered 3000 or above)		3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
Elective course [e]		1
	Hours	**15-17**
Summer		
SEES:2831	Geologic Field Methods	3
	Hours	**3**

Third Year		
Fall		
PHYS:1611 or PHYS:1511	Introductory Physics I [b] or College Physics I	4
SEES:3330	Sedimentary Geology	4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
	Hours	**15-16**
Spring		
SEES:2050	Foundations of GIS	4
SEES:3840	Structural Geology	4
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
	Hours	**15-16**
Summer		
SEES:4832	Geologic Field Analysis	3
	Hours	**3**
Fourth Year		
Fall		
STAT:2010 or STAT:3510 or CS:1110	Statistical Methods and Computing or Biostatistics or Introduction to Computer Science	3
Major: "one of these" earth and planetary track course [f]		3 - 4
Major: earth and planetary science track elective course (prefix SEES, numbered 3000 or above) [g]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
Elective course [e]		3
	Hours	**15-17**
Spring		
Major: allied math or science course [h]		3 - 4
Major: earth and planetary science track elective course (prefix SEES, numbered 3000 or above) [g]		3 - 4
GE CLAS Core: Values and Society [c]		3
Elective course [e]		3
Elective course [e]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**14-16**
	Total Hours	**127-138**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Select one course from SEES: 3210, SEES:3608, SEES:4490, SEES:4630, SEES:4790, SEES:4800

g Students must complete at least 9 s.h. in elective courses from the School of Earth, Environmental, and Sustainability Studies (prefix SEES) numbered 3000 or above. See the General Catalog for list of approved courses.

h See the General Catalog for additional math or supporting science course options.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Environmental Bioscience Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b]	4
SEES:1085	Fundamentals of Environmental Science [b]	4
SEES:1070	Contemporary Environmental Issues [b]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
CHEM:1120	Principles of Chemistry II [b]	4
MATH:1850	Calculus I [b]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
Elective course [d]		2
	Hours	**16-17**
Second Year		
Fall		
BIOL:1411	Foundations of Biology [b]	4
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:3020	Earth Surface Processes	3

GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
Elective course [d]		3
	Hours	**15-16**
Spring		
BIOL:1412	Diversity of Form and Function [b]	4
Major: environmental bioscience track elective course [f]		3 - 4
GE CLAS Core: Social Sciences [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
Elective course [d]		1
	Hours	**15-17**
Third Year		
Fall		
STAT:2010 or CS:1110 or STAT:3510	Statistical Methods and Computing or Introduction to Computer Science or Biostatistics	3
SEES:2950 or SEES:3070 or SEES:2374	Environmental Conservation or Marine Ecosystems and Conservation or Biogeography	3 - 4
SEES:3220 or BIOL:2246 or BIOL:1261	Evolution of the Vertebrates [g] or Entomology Lab or Introduction to Botany	4
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
	Hours	**17-19**
Spring		
SEES:2050	Foundations of GIS	4
SEES:3320 or SEES:2310	Earth's Climate System or Introduction to Climatology	3
SEES:2673	Ecology	3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
	Hours	**17-18**
Fourth Year		
Fall		
SEES:3315	Ecosystem Ecology	4
Major: environmental bioscience track elective course (numbered 3000 or above) [f]		3 - 4
Major: environmental bioscience track elective course [f]		3 - 4
GE CLAS Core: Values and Society [c]		3
Elective course [d]		3
	Hours	**16-18**
Spring		
Major: environmental bioscience track elective course (numbered 3000 or above) [f]		3 - 4
Major: environmental bioscience track elective course (numbered 3000 or above) [f]		3 - 4
Major: environmental bioscience track elective course [f]		3 - 4
Elective course [d]		3
Elective course [d]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**14-17**
	Total Hours	**125-138**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Students must complete at least 18 s.h. in elective courses, including at least one course from the field study category and one course from each of three other categories; at least 9 s.h. must be numbered 3000 or above. See the General Catalog for list of approved courses.

g May also complete an approved organismal course (3-4 s.h.) at the Iowa Lakeside Laboratory (prefix IALL).

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Environmental Geoscience Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
SEES:1070	Contemporary Environmental Issues [b]	3
SEES:1085	Fundamentals of Environmental Science [b]	4
MATH:1850	Calculus I [b]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4

CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
SEES:1050	Introduction to Geology [b]	4
MATH:1860	Calculus II	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
Elective course [d]		2
	Hours	**16-17**
Second Year		
Fall		
CHEM:1110	Principles of Chemistry I [b]	4
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:3020	Earth Surface Processes	3
GE CLAS Core: Social Sciences [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
	Hours	**15-16**
Spring		
CHEM:1120	Principles of Chemistry II	4
SEES:2310 or SEES:3320	Introduction to Climatology or Earth's Climate System	3
SEES:2673	Ecology	3
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
Elective course [d]		2
	Hours	**16-17**
Third Year		
Fall		
PHYS:1611 or PHYS:1511	Introductory Physics I [b] or College Physics I	4
SEES:2050	Foundations of GIS	4
SEES:3330	Sedimentary Geology	4
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
	Hours	**16-17**
Spring		
PHYS:1612 or PHYS:1512	Introductory Physics II [b] or College Physics II	4
SEES:3360	Soil Genesis and Geomorphology	3
Major: environmental geoscience track elective course [f]		3 - 4
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
	Hours	**17-19**
Fourth Year		
Fall		
SEES:4630	Hydrogeology	4
SEES:4790	Applied Environmental Geology	3
Major: environmental geoscience track elective course (numbered 3000 or above) [f]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
Elective course [d]		3
	Hours	**16-17**
Spring		
CS:1110 or STAT:2010 or STAT:3510	Introduction to Computer Science or Statistical Methods and Computing or Biostatistics	3
Major: environmental geoscience track elective course (numbered 3000 or above) [f]		3 - 4
Major: environmental geoscience track elective course (numbered 3000 or above) [f]		3 - 4
GE CLAS Core: Values and Society [c]		3
Elective course [d]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [g]		
	Hours	**14-16**
	Total Hours	**125-135**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Students must complete at least 12 s.h. in elective courses, including at least one course from the field study category and one course from each of three other categories; at least 9 s.h. must be numbered 3000 or above. See the General Catalog for list of approved courses.

g Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Geographical and Sustainability Sciences, BS

Learning Outcomes

Graduates will:

- understand the complex processes that connect humans to natural systems and the analytical and methodological tools used to model them and assess them;
- develop fundamental spatial thinking and real-world problem-solving skills using spatial thinking and GIS concepts and methods;
- analyze the potential impact of decisions given competing information, perceptions, and goals using interdisciplinary science-based methods and approaches;
- be able to use and develop techniques and software tools necessary for professional practice while observing ethical standards in regard to privacy, security, and communication;
- engage with stakeholders in the co-production and creation of appropriate solutions to sustainability challenges.

Requirements

The Bachelor of Science with a major in geographical and sustainability sciences requires a minimum of 120 s.h., including 69–75 s.h. of work for the major depending on a student's choice of track (geographic information science or sustainability science). Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Transfer students must complete a minimum of 15 s.h. of School of Earth, Environment, and Sustainability coursework in the major.

The BS with a major in geographical and sustainability sciences requires the following coursework.

Requirements	Hours
Foundation Courses	27-28
Track Requirements	42-47

Foundation Courses

Course #	Title	Hours
All of these:		
SEES:1070	Contemporary Environmental Issues	3
SEES:1085	Fundamentals of Environmental Science	4
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:2050	Foundations of GIS	4
One of these:		
SEES:2310	Introduction to Climatology (sustainability science track students may not select this option)	3
SEES:2374/ BIOL:2374	Biogeography	3
SEES:2930	Water Resources	3
SEES:2950	Environmental Conservation (sustainability science track students may not select this option)	4
SEES:3320	Earth's Climate System	3
One of these:		
SEES:1090	Globalization and Geographic Diversity	3
SEES:2110/ GHS:2110	Eight Billion and Counting: Introduction to Population Dynamics (sustainability science track students may not select this option)	3
SEES:2910	The Global Economy	3
One of these:		
CS:1110	Introduction to Computer Science	3
STAT:2010	Statistical Methods and Computing	3
STAT:3200/ DATA:3200/ IGPI:3200/ISE:3760	Applied Linear Regression	3
At least one of these (for a total of 3 sh):		
SEES:3400	Iowa Environmental Policy in Practice	3
SEES:3992	Undergraduate Research (or ICIGO)	1-3
CCP:1201	Academic Internship	1-3
One of these:		
SEES:4030	Senior Project Seminar	3
SEES:4995	Honors Thesis	3

Tracks

Students must complete one of two tracks: geographic information science or sustainability science. Students may not use any course to satisfy more than one requirement.

Geographic Information Science Track

Students in the geographic information science track complete 30—31 s.h. in common track courses and at least 12 s.h. in elective courses.

Geographic Information Science Track Courses

Course #	Title	Hours
All of these:		
SEES:1020	The Global Environment	3
SEES:1035	Our Digital Earth	3
SEES:3050/ IGPI:3050	Geospatial Programming	3
SEES:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3
SEES:3520/ IGPI:3520	GIS for Environmental Applications	3
SEES:3540/ IGPI:3540	Geographic Visualization	3

SEES:4010	Field Methods in Physical Geography	3
SEES:4580/ IGPI:4581	Introduction to Geographic Databases	3
Two of these:		
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3
SEES:4500/ IGPI:4500	Advanced Remote Sensing	4
SEES:4520/ IGPI:4520	GIS for Environmental Studies: Applications	3

Geographic Information Science Track Electives

Students in the geographic information science track complete at least 12 s.h. in track electives, including at least 3 s.h. selected from each of three categories: computer science; math and statistics; and society, environment, and sustainability.

Computer Science Elective Courses

Course #	Title	Hours
At least one of these:		
CS:1210	Computer Science I: Fundamentals	4
CS:2110	Programming for Informatics	4
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
CS:3210	Programming Languages and Tools	arr.

Mathematics and Statistics Elective Courses

Course #	Title	Hours
At least one of these:		
MATH:1010	Trigonometry	3
STAT:2010	Statistical Methods and Computing	3
STAT:3200/ DATA:3200/ IGPI:3200/ISE:3760	Applied Linear Regression	3
STAT:3510/ IGPI:3510	Biostatistics	3

Society, Environment, and Sustainability Elective Courses

Course #	Title	Hours
At least one of these:		
SEES:3090/ GHS:3070	Hungry Planet: Global Geographies of Food	3
SEES:3110/ GHS:3111	Geography of Health	3
SEES:3315	Ecosystem Ecology	4
SEES:3340	Ecosystem Services	3
SEES:3350	Urban Ecology	3
SEES:3760/ GHS:3760	Hazards and Society	3
SEES:3920/ URP:3001	Planning Livable Cities	3
SEES:4210	Sustainability as a System Science	3
SEES:4310	Climate Change	3
SEES:4470	Ecological Climatology	3
SEES:4750/ URP:4750	Environmental Impact Analysis	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3

Sustainability Science Track

Students in the sustainability science track complete 24—26 s.h. in common track courses and at least 21 s.h. in elective courses.

Sustainability Science Track Courses

Course #	Title	Hours
All of these:		
SEES:2013/ BUS:2013/ URP:2013	Introduction to Sustainability	3
SEES:2110/ GHS:2110	Eight Billion and Counting: Introduction to Population Dynamics	3
SEES:2310	Introduction to Climatology	3
SEES:3800	Environmental Policy	3
SEES:4210	Sustainability as a System Science	3
One of these:		
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3
POLI:2417	Comparative Environmental Policy	3
One of these:		
SEES:2673/ BIOL:2673	Ecology	3
SEES:3315	Ecosystem Ecology	4
One of these:		
SEES:2950	Environmental Conservation	4
SEES:3350	Urban Ecology	3

Sustainability Science Track Electives

Students in the sustainability science track complete at least 21 sh. in track electives, including at least 3 s.h. selected from each of five categories: communications, human systems, integrated natural and human systems, methods, and natural systems. Courses taken to complete a foundation course or track requirement may not also be used to satisfy the electives requirement.

Communications Elective Courses

Course #	Title	Hours
At least one of these:		
CNW:3664/ ENGL:3764	Writing About Science	3
JMC:1800	Environmental Communication	3
JMC:3185	Topics in Understanding Media	3

Human Systems Elective Courses

Course #	Title	Hours
At least one of these:		
SEES:3300/ GHS:3300	Envisioning Future Worlds: Sustainable Development and Its Alternatives	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3
SEES:3920/ URP:3001	Planning Livable Cities	3
SEES:4750/ URP:4750	Environmental Impact Analysis	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3
ECON:3650	Policy Analysis	3
ENTR:3700	Sustainable Innovation and Management	3
POLI:2417	Comparative Environmental Policy	3

Integrated Natural and Human Systems Elective Courses

Course #	Title	Hours
At least one of these:		
SEES:2930	Water Resources	3
SEES:2950	Environmental Conservation	4
SEES:3331	Human Dimensions of Climate	3
SEES:3760/ GHS:3760	Hazards and Society	3
SEES:4310	Climate Change	3
ANTH:2261	Human Impacts on the Environment	3

Methods Elective Courses

Course #	Title	Hours
At least one of these:		
SEES:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3
SEES:3520/ IGPI:3520	GIS for Environmental Applications	3
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
SEES:4010	Field Methods in Physical Geography	3
SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3
SEES:4500/ IGPI:4500	Advanced Remote Sensing	4
SEES:4520/ IGPI:4520	GIS for Environmental Studies: Applications	3

Natural Systems Elective Courses

Course #	Title	Hours
At least one of these:		
SEES:2673/ BIOL:2673	Ecology	3
SEES:3070	Marine Ecosystems and Conservation	3
SEES:3080	Introduction to Oceanography	2
SEES:3095	Field Ecology	4
SEES:3315	Ecosystem Ecology	4
SEES:3350	Urban Ecology	3
SEES:3360	Soil Genesis and Geomorphology	3
SEES:4110	Global Biogeochemical Cycles	3
SEES:4470	Ecological Climatology	3
SEES:4600	Biogeography, Ecology, and Conservation of Mammals	4
Iowa Lakeside Laboratory course (prefix IALL) approved by advisor		

Honors

Graduating with departmental honors and graduating with university honors are two opportunities available to high-achieving undergraduate students, each with specific and distinct requirements. Some students pursue both options while others pursue one or the other.

Honors in the Major

Within the College of Liberal Arts and Sciences, each major develops its own requirements to achieve honors in the major. In order to graduate with honors in the major, students in the School of Earth, Environment, and Sustainability (SEES) pursue study beyond the typical undergraduate level. They work under the direction of a faculty member to conduct original research and then prepare and present a written honors thesis based on their work.

Potential honors students must complete an honors thesis contract with their advisor and obtain approval from the department's undergraduate committee by the first semester of their senior year or earlier. They are also required to register for SEES:4995 Honors Thesis as they work to complete their thesis, where they must earn a grade of B or higher. Additionally, SEES honors students must maintain a cumulative grade-point average of at least 3.33 in all University of Iowa and SEES coursework.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the geographical and sustainability sciences major.

Career Advancement

Graduates with degrees in geographical and sustainability sciences find jobs and careers with a variety of public,

private, and nonprofit organizations with roles ranging from research to outreach. Possible careers include GIS technician, sustainability coordinator/specialist in the private or public sector, state regulatory agency scientist, Environmental Protection Agency scientist, National Resource Conservation Service scientist, academic researcher (requires graduate school), social science teacher, K–12 education teacher, land manager or steward, city planner, natural hazard assessment and mitigation scientist or manager, renewable energy scientist or manager, science writer and communication specialist, water industry researcher, carbon management policy specialist, nature facility scientist and program manager, and restoration designer and manager.

Academic Plans

Sample Plans

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Geographical and Sustainability Sciences, BS

- Geographic Information Science Track [p. 395]
- Sustainability Science Track [p. 396]

Geographic Information Science Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
SEES:1020	The Global Environment [b]	3
SEES:1070	Contemporary Environmental Issues [b]	3
SEES:1085	Fundamentals of Environmental Science [b]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
CSI:1600	Success at Iowa	1
Elective course [c]		2
	Hours	**16-17**
Spring		
SEES:1035	Our Digital Earth [b]	3
SEES:1090 or SEES:2910 or SEES:2110	Globalization and Geographic Diversity [b, d] or The Global Economy or Eight Billion and Counting: Introduction to Population Dynamics	3
Major: mathematics and statistics track elective course [e]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
Elective course [c]		3
	Hours	**15-16**
Second Year		
Fall		
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:2050	Foundations of GIS	4
Major: foundation elective course [f]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
Elective course [c]		2
	Hours	**14-15**
Spring		
STAT:2010 or CS:1110 or STAT:3200	Statistical Methods and Computing or Introduction to Computer Science or Applied Linear Regression	3
SEES:3540	Geographic Visualization	3
GE CLAS Core: Understanding Cultural Perspectives [g]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [c]		3
	Hours	**16-17**
Third Year		
Fall		
SEES:3500	Introduction to Environmental Remote Sensing	3
Major: computer science track elective course [e]		3 - 4
GE CLAS Core: Historical Perspectives [g]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
Elective course [c]		2
	Hours	**15-17**
Spring		
SEES:3050	Geospatial Programming	3
SEES:3520	GIS for Environmental Applications	3
Major: society, environment, and sustainability track elective course [e]		3
GE CLAS Core: Literary, Visual, and Performing Arts [g]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
	Hours	**16-17**
Fourth Year		
Fall		
SEES:3400 or CCP:1201 or SEES:3992	Iowa Environmental Policy in Practice or Academic Internship or Undergraduate Research	3
SEES:4580	Introduction to Geographic Databases	3
Major: GIS track course [h]		3 - 4
GE CLAS Core: Social Sciences (if SEES:2110 8 Billion & Counting: Intro Pop Dynamics was not previously taken) [g]		3
Elective course [c]		3
	Hours	**15-16**

Spring		
SEES:4010	Field Methods in Physical Geography	3
SEES:4995 or SEES:4030	Honors Thesis or Senior Project Seminar	3
Major: GIS track course [h]		3 - 4
Major: track elective course (from any category) [e]		3
GE CLAS Core: Values and Society [g]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15-16**
	Total Hours	**122-131**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

d Note: SEES:2110 also satisfies the GE CLAS Core Social Sciences requirement.

e Students complete at least 12 s.h. in track electives including at least 3 s.h. selected from each of three categories: computer science; mathematics and statistics; and society, environment, and sustainability. See the General Catalog for list of approved courses.

f Complete one course from SEES:2310, SEES:2374, SEES:2930, SEES:2950, SEES:3320.

g GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

h Complete two courses from SEES:3570, SEES:4150, SEES:4500, SEES:4520.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Sustainability Science Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
SEES:1070	Contemporary Environmental Issues [b]	3
SEES:1085	Fundamentals of Environmental Science [b]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
CSI:1600	Success at Iowa	1
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
	Hours	**15-17**
Spring		
SEES:1090 or SEES:2910	Globalization and Geographic Diversity [b] or The Global Economy	3
SEES:2013	Introduction to Sustainability [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [c]		2
	Hours	**15-17**
Second Year		
Fall		
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:2050	Foundations of GIS	4
SEES:2110	Eight Billion and Counting: Introduction to Population Dynamics [b]	3
Major: communications track elective course [d]		3
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
	Hours	**18-19**
Spring		
SEES:2310	Introduction to Climatology	3
POLI:2417 or SEES:4770	Comparative Environmental Policy or Environmental Justice	3
Major: methods track elective course [d]		3 - 4
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
	Hours	**16-18**
Third Year		
Fall		
STAT:3200 or STAT:2010 or CS:1110	Applied Linear Regression [b, f] or Statistical Methods and Computing or Introduction to Computer Science	3
SEES:2930 or SEES:2374 or SEES:3320	Water Resources [g] or Biogeography or Earth's Climate System	3
Major: integrated natural and human systems track elective course [d]		3 - 4
GE CLAS Core: Values and Society [e]		3
Elective course [c]		3
	Hours	**15-16**
Spring		
SEES:2673 or SEES:3315	Ecology or Ecosystem Ecology	3 - 4
SEES:3800	Environmental Policy	3
Major: human systems track elective course [d]		3

GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
Elective course [c]		3
	Hours	**15-16**
Fourth Year		
Fall		
SEES:3992 or CCP:1201 or SEES:3400	Undergraduate Research or Academic Internship or Iowa Environmental Policy in Practice	3
SEES:4210	Sustainability as a System Science	3
Major: natural systems track elective course [d]		2 - 4
Major: track elective course (from any category) [d]		3
GE CLAS Core: Natural Sciences without Lab [e]		3
GE CLAS Core: Quantitative or Formal Reasoning (if either CS:1110 Introduction to Computer Science or STAT:2010 Statistical Methods and Computing not previously taken)		3
	Hours	**17-19**
Spring		
SEES:2950 or SEES:3350	Environmental Conservation [h] or Urban Ecology	3 - 4
SEES:4030 or SEES:4995	Senior Project Seminar or Honors Thesis	3
Major: track elective course (from any category) [d]		3
Elective course [c]		3
Elective course [c]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15-16**
	Total Hours	**126-138**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

d Students complete at least 21 s.h. in track electives including at least 3 s.h. selected from each of five categories: communications; human systems; integrated natural and human systems; methods; and natural systems. See the General Catalog for list of approved courses.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Note: CS:1110 or STAT:2010 can be taken to also satisfy the GE CLAS Core Quantitative or Formal Reasoning requirement.

g Students may take SEES:2950 to satisfy this foundation requirement if not planning to take the course later and count it toward the track requirements.

h Students must take SEES:3350 to satisfy this track requirement if they previously completed SEES:2950 as a foundation course.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Earth and Environmental Sciences, Minor

Requirements

The undergraduate minor in earth and environmental sciences requires a minimum of 15 s.h. selected from earth and environmental sciences BS courses. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

College-level courses in mathematics, physics, chemistry, and biology are usually required as collateral work for earth and environmental sciences students. Those seeking a minor in earth and environmental sciences should be sufficiently prepared in the areas of supporting sciences before they take advanced courses.

The minor in earth and environmental sciences is intended for students who are interested in the fundamentals of geology or earth science as it pertains to a primary major. It is most applicable to students pursuing allied sciences, such as the environmental policy and planning or geographic and sustainability sciences majors, or an associated degree in the colleges of Education, Engineering, Liberal Arts and Sciences, or another unit. Completing the minimum requirements for this minor may not adequately prepare a student for an entry-level professional job in geology or the environmental sciences.

The minor in earth and environmental sciences requires the following coursework.

Foundation Courses

Course #	Title	Hours
One of these for 4 s.h.:		
SEES:1030/ CEE:1030	Introduction to Earth Science	4
SEES:1050	Introduction to Geology	4
SEES:1080	Introduction to Environmental Science	4
SEES:1085	Fundamentals of Environmental Science	4
One of these:		
SEES:2673/ BIOL:2673	Ecology	3
SEES:3020	Earth Surface Processes	3

Electives

Students must complete at least 8 s.h. in elective courses.

Course #	Title	Hours
At least one of these:		
SEES:1040	Evolution and the History of Life	3-4
SEES:1050	Introduction to Geology	4
SEES:2200	Historical Geology	4
SEES:2310	Introduction to Climatology	3
SEES:2374/ BIOL:2374	Biogeography	3
SEES:2410	Mineralogy	4
SEES:2950	Environmental Conservation	4
SEES:3070	Marine Ecosystems and Conservation	3
SEES:3080	Introduction to Oceanography	2
SEES:3210	Principles of Paleontology	3
SEES:3220	Evolution of the Vertebrates	4
SEES:3315	Ecosystem Ecology	4
SEES:3320	Earth's Climate System	3
SEES:3330	Sedimentary Geology	4
SEES:3350	Urban Ecology	3
SEES:3360	Soil Genesis and Geomorphology	3
SEES:3380/ CEE:3328	Fluvial Geomorphology	3
SEES:3390	Integrated Watershed Analysis	3
SEES:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3
SEES:3510	Igneous and Metamorphic Petrology	4
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
SEES:3608	Planetary Geology	3
SEES:3840	Structural Geology	4
SEES:4110	Global Biogeochemical Cycles	3
SEES:4310	Climate Change	3
SEES:4490	Elements of Geochemistry	3
SEES:4500/ IGPI:4500	Advanced Remote Sensing	4
SEES:4600	Biogeography, Ecology, and Conservation of Mammals	4
SEES:4630	Hydrogeology	4
SEES:4640	Contaminant Hydrogeology	3
SEES:4720	Paleoclimatology	3
SEES:4760	Mineral and Petroleum Exploration Geology	3
SEES:4790	Applied Environmental Geology	3
SEES:4800	Global Geophysics	3
BIOL:1261	Introduction to Botany	4
BIOL:1411	Foundations of Biology	4
BIOL:1412	Diversity of Form and Function	4
BIOL:2246	Entomology Lab	4
CEE:4150/CBE:4420	Environmental Chemistry	3
CHEM:3120	Spectroscopy and Separations	3
CHEM:4760	Radiochemistry: Energy, Medicine, and the Environment	3
At least one of these:		
SEES:2001	Second-Year Field Trip for Earth and Environmental Sciences	1
SEES:2831	Geologic Field Methods	3

SEES:3001	Third-Year Field Trip for Earth and Environmental Sciences	1
SEES:3095	Field Ecology	4
SEES:3096	Winter Ecology	2
SEES:3097	Introduction to Bird Study	2
SEES:3230	Prairie Restoration	3
SEES:4001	Fourth-Year Field Trip for Earth and Environmental Sciences	2
SEES:4010	Field Methods in Physical Geography	3
SEES:4680	Field Methods in Hydrologic Science	3
CHEM:3430	Analytical Measurements	3
approved Iowa Lakeside Laboratory courses (prefix IALL)		

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Earth and Environmental Sciences, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in earth and environmental sciences requires a minimum of 15 s.h. selected from earth and environmental sciences BS courses.		
Students must maintain a GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework in the minor may not be taken pass/nonpass.		
	Hours	**0**
First Year		
Fall		
Minor: foundation course [a]		4
	Hours	**4**
Second Year		
Spring		
SEES:2673 or SEES:3020	Ecology [b] or Earth Surface Processes	3
	Hours	**3**
Third Year		
Fall		
Minor: earth and environmental sciences elective course [c]		3 - 4
	Hours	**3-4**
Spring		
Minor: earth and environmental sciences elective course [c]		3 - 4
	Hours	**3-4**
Fourth Year		
Fall		
Minor: field study course [c]		1 - 4
	Hours	**1-4**
	Total Hours	**14-19**

a Take one course from SEES:1030, SEES:1050, SEES:1080, SEES:1085.
b SEES:3020 is typically offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.
c Students must complete at least 8 s.h. of earth and environmental sciences electives. See the General Catalog for list of approved courses.

Environmental Policy and Planning, Minor

Requirements

The undergraduate minor in environmental policy and planning requires a minimum of 18 s.h., including 12 s.h. in University of Iowa courses numbered 3000 or above. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

The minor in environmental policy and planning requires the following coursework.

Requirements	Hours
Foundation Courses	9
Electives	9

Foundation Courses

Course #	Title	Hours
Both of these:		
SEES:1070	Contemporary Environmental Issues	3
POLI:3111	American Public Policy	3
One of these:		
AMST:1290/ GHS:1290/ HIST:1290/ NAIS:1290	Native American Foods and Foodways	3
ANTH:3103	Environment and Culture	3

Electives

Course #	Title	Hours
At least 9 s.h. from these:		
SEES:3250/ CPH:3400	Health, Work, and the Environment	3
SEES:3315	Ecosystem Ecology	4
SEES:3350	Urban Ecology	3
SEES:3400	Iowa Environmental Policy in Practice	3
SEES:3520/ IGPI:3520	GIS for Environmental Applications	3
SEES:3540/ IGPI:3540	Geographic Visualization	3
SEES:3760/ GHS:3760	Hazards and Society	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3
SEES:3800	Environmental Policy	3
SEES:3920/ URP:3001	Planning Livable Cities	3
SEES:3940/ ECON:3750/ URP:3350	Transportation Economics	3
SEES:4750/ URP:4750	Environmental Impact Analysis	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
HIST:3230	American Environmental History	3
PBAF:3117/ POLI:3117	Bureaucratic Politics and Public Administration	3
POLI:2417	Comparative Environmental Policy	3
POLI:3100	American State Politics	3
POLI:3102	The U.S. Congress	3
POLI:3110	Local Politics	3
POLI:3118	Interest Groups	3
POLI:3424	Global Development	3
URP:3134/ ECON:3640	Regional and Urban Economics	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Environmental Policy and Planning, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in environmental policy and planning requires a minimum of 18 s.h., including 12 s.h. in University of Iowa courses numbered 3000 or above.		
Students must maintain a GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework in the minor may not be taken pass/nonpass.		
	Hours	**0**
First Year		
Spring		
SEES:1070	Contemporary Environmental Issues	3
	Hours	**3**
Second Year		
Fall		
AMST:1290 or ANTH:3103	Native American Foods and Foodways or Environment and Culture	3
	Hours	**3**
Spring		
POLI:3111	American Public Policy	3
	Hours	**3**

Third Year	
Fall	
Minor: environmental policy and planning elective course [a]	3
Hours	**3**
Spring	
Minor: environmental policy and planning elective course [a]	3
Hours	**3**
Fourth Year	
Fall	
Minor: environmental policy and planning elective course [a]	3
Hours	**3**
Total Hours	**18**

a See the General Catalog for list of approved courses.

Geographic Information Science, Certificate

Requirements

The undergraduate Certificate in Geographic Information Science requires a minimum of 19 s.h. of credit, including at least 12 s.h. earned at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in work for the certificate. Courses taken pass/nonpass do not count toward the certificate.

The certificate is designed to provide the knowledge and skills needed to work with geographic information and prepare individuals to work in this growing profession. The certificate coursework helps build a knowledgeable geospatial workforce that understands how to use geographic information science properly and applies this understanding to improve transportation systems, improve water quality, or make companies more productive.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Students who are interested in a specialization in geographic information systems, in remote sensing, or those who seek a more general background may want to select certain options when they plan their certificate coursework. For more information, contact the School of Earth, Environment, and Sustainability.

Students must complete all of a course's prerequisites before they register for the course.

The Certificate in Geographic Information Science requires the following coursework.

Core Courses

Course #	Title	Hours
All of these:		
SEES:2050	Foundations of GIS	4
SEES:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3
SEES:3540/ IGPI:3540	Geographic Visualization	3

Geographic Analysis Electives

Course #	Title	Hours
At least one of these:		
SEES:3050/ IGPI:3050	Geospatial Programming	3
SEES:4500/ IGPI:4500	Advanced Remote Sensing	4
SEES:4580/ IGPI:4581	Introduction to Geographic Databases	3

Application Electives

Course #	Title	Hours
At least two of these:		
SEES:1035	Our Digital Earth	3
SEES:3520/ IGPI:3520	GIS for Environmental Applications	3
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Geographic Information Science, Certificate

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate certificate in geographic information science requires a minimum of 19 s.h. of credit, including at least 12 s.h. earned at the University of Iowa.		
Students must maintain a GPA of at least 2.00 in work for the certificate.		
Courses taken pass/nonpass do not count toward the certificate.		
	Hours	**0**
First Year		
Spring		
SEES:2050	Foundations of GIS	4
	Hours	**4**
Second Year		
Fall		
SEES:3500	Introduction to Environmental Remote Sensing	3
	Hours	**3**
Spring		
SEES:3540	Geographic Visualization	3
	Hours	**3**
Third Year		
Fall		
Certificate: geographic analysis elective [a]		3
	Hours	**3**
Spring		
Certificate: application elective [b]		3
	Hours	**3**
Fourth Year		
Fall		
Certificate: application elective [b]		3
	Hours	**3**
	Total Hours	**19**

a Choose from SEES:3050, SEES:4500, SEES:4580.

b Choose from SEES:1035, SEES:3520, SEES:3570, SEES:4150.

Sustainability, Certificate

Requirements

The undergraduate Certificate in Sustainability requires at least 24 s.h. of credit. Students must maintain a grade-point average of at least 2.00 in work for the certificate. Certificate courses may not be taken pass/nonpass.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

A course may be used to satisfy only one certificate requirement.

The Certificate in Sustainability requires the following coursework.

Requirements	Hours
Introductory Core	12-13
Breadth Electives	9
Project/Integrative Systems	3

Introductory Core

Course #	Title	Hours
Both of these:		
SEES:1070	Contemporary Environmental Issues	3
SEES:2013/ BUS:2013/ URP:2013	Introduction to Sustainability	3
One of these:		
ENGL:1510	Introduction to Environmental Literature	3
JMC:1800	Environmental Communication	3
One of these:		
SEES:1080	Introduction to Environmental Science	3-4
SEES:1085	Fundamentals of Environmental Science	4

Breadth Electives

Students complete at least 3 s.h. in each of three breadth areas: communication, ethics, and interpretation; dynamics of human systems; and dynamics of natural systems.

Communication, Ethics, and Interpretation

Course #	Title	Hours
At least 3 s.h. from these:		
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3
AFAM:2770/ GHS:2770/ SOC:2770	Black and White Community Politics	3
CNW:2740	The Art and Craft of Writing about the Environment	3
ENGL:2329	Topics in Modern British Literature Before 1900 (when topic is British literature and environmental history)	3
ENGL:3565	Literature and the Environment	3
ENTR:3500	Social Entrepreneurship	3
FREN:1007	Nature/Ecology French Philosophy and Fiction	3
HIST:3230	American Environmental History	3
JMC:3185	Topics in Understanding Media (when topic is risk communication)	3
LAW:8622	International Environmental Law	3
MGMT:2000	Introduction to Law	3
RHET:3700	Advocacy and Sustainability: Crafting Stories of People, Place, and Resilience	3
SCLP:3895	Topics in Sculpture (when topic is art at the edge of the landfill)	4
URP:6273/ PBAF:6273	Community Development Through Creative Placemaking	3

Dynamics of Human Systems

Course #	Title	Hours
At least 3 s.h. from these:		
SEES:1046/ ANTH:1046/ GWSS:1046/ SJUS:1046	Environmental Politics in India	3
SEES:1090	Globalization and Geographic Diversity	3
SEES:1115/ HIST:1115	The History of Oil	3
SEES:2110/ GHS:2110	Eight Billion and Counting: Introduction to Population Dynamics	3
SEES:2910	The Global Economy	3
SEES:3090/ GHS:3070	Hungry Planet: Global Geographies of Food	3
SEES:3250/ CPH:3400	Health, Work, and the Environment	3
SEES:3300/ GHS:3300	Envisioning Future Worlds: Sustainable Development and Its Alternatives	3
SEES:3420	Sustainable and Green Building Concepts	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3
SEES:3800	Environmental Policy	3
SEES:3920/ URP:3001	Planning Livable Cities	3
SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3

SEES:4750/ URP:4750	Environmental Impact Analysis	3
SEES:4790	Applied Environmental Geology	3
AMST:1154	Food in America	3
AMST:1290/ GHS:1290/ HIST:1290/ NAIS:1290	Native American Foods and Foodways	3
ANTH:2100	Anthropology and Contemporary World Problems	3
ANTH:2261	Human Impacts on the Environment	3
ANTH:3103	Environment and Culture	3
ANTH:3240/ NAIS:3240	Cultural Resources Management Archaeology: Practice and Practicalities	3
ANTH:3260	Pleistocene Peopling of the Americas	3
ARTH:3090	Contemporary Architecture	3
CBE:2030	Energy and Society	3
CEE:3790	Resilient Infrastructure and Emergency Response	3
CEE:4158/ OEH:4920	Solid and Hazardous Wastes	3
CEE:4159/ CBE:4459/IGPI:4159	Air Pollution Control Technology	3
CHEM:1050	Chemistry of Our World	3
CPH:2200	Climageddon: Understanding Climate Change and Associated Impacts on Health	3
CPH:3500/ GHS:3500	Global Public Health	3
CPH:4200	Agriculture, Food Systems, and Sustainability	3
ECE:5630	Sustainable Energy Conversion	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ECON:3650	Policy Analysis	3
GHS:3560	Global Garbage and Global Health	3
ME:4048	Energy Systems Design	4
POLI:1400	Introduction to Comparative Politics	3
POLI:1500	Introduction to International Relations	3
POLI:2417	Comparative Environmental Policy	3
POLI:3424	Global Development	3
SOC:1040	Energy, Sustainability, and Society	3
TDSN:3200	Product Design	4
TDSN:4010	Wood Furniture Design	4
URP:2020/ PBAF:2020	Environment and Society: Sustainability, Policy, and Politics	3
URP:6253/ PBAF:6253	Designing Sustainable and Healthy Cities	1-3
URP:6256/ PBAF:6256	Environmental Policy	3

Dynamics of Natural Systems

Course #	Title	Hours
At least 3 s.h. from these:		
SEES:1020	The Global Environment	3
SEES:1040	Evolution and the History of Life	3-4
SEES:1290	Energy and the Environment	3
SEES:1400	Natural Disasters	3
SEES:2310	Introduction to Climatology	3
SEES:2374/ BIOL:2374	Biogeography	3
SEES:2673/ BIOL:2673	Ecology	3
SEES:2950	Environmental Conservation	4
SEES:3070	Marine Ecosystems and Conservation	3
SEES:3340	Ecosystem Services	3
SEES:4630	Hydrogeology	4
CBE:2040	Environment, Energy, and Climate Change	3
CBE:2050/CEE:2050	Severe and Unusual Weather	3
CBE:3405	Green Chemical and Energy Technologies	3
CBE:5425/CEE:5115	Atmospheric Chemistry and Physics	3
CEE:4102	Groundwater	3
CHEM:4873	Atmospheric and Environmental Chemistry	3
IALL:3131	Ecology	4
Or both of these:		
SEES:2010	Interdisciplinary Environmental Seminar	1
SEES:3080	Introduction to Oceanography	2

Project/Integrative Systems

Course #	Title	Hours
At least 3 s.h. from these:		
SEES:2930	Water Resources	3
SEES:3150	Sustainability Project	arr.
SEES:3230	Prairie Restoration	3
SEES:3400	Iowa Environmental Policy in Practice	3
SEES:3760/ GHS:3760	Hazards and Society	3
ABRD:3049	Sustainable Chemistry	arr.
ABRD:3445	India Winterim (when topic is water poverty or sustainable development)	arr.
ANTH:2261	Human Impacts on the Environment	3
CEE:4107/CBE:4410	Sustainable Systems	3
CNW:3660/ ENGL:3760	Multimedia Writing (when topic is environmental writing and filmmaking)	3

ENTR:3700	Sustainable Innovation and Management	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
EVNT:3180	Sustainable Events	3
GHS:4100	Topics in Global Health (when topic is sustainability)	1-3
MKTG:4250	Marketing and Sustainability	3
TDSN:3260	Design for Production (when topic is special issues and topics in design)	4
URP:6256/ PBAF:6256	Environmental Policy	3
URP:6273/ PBAF:6273	Community Development Through Creative Placemaking	3

Geography, MA

Learning Outcomes

Thesis Program

Students who successfully complete the MA program with a thesis in geography will demonstrate:

- both broad knowledge of the field of geography and deep knowledge in their area of research concentration;
- an ability to communicate their research concisely and effectively to both general and specialist audiences in written and verbal formats;
- an ability to formulate research questions; select, design, and apply appropriate research methods (e.g., testable hypotheses, data collection, management, analytical techniques); and utilize critical thinking skills to build knowledge, theory, and/or practice in their area of research concentration;
- competence in teaching geography, environmental, or sustainability-related courses; and
- understanding of and an ability to operate under professional standards of ethical conduct.

Requirements

The Master of Arts in geography requires a minimum of 30 s.h. of graduate credit with thesis and 32 s.h. of graduate credit without thesis. Students must maintain a Graduate College program grade-point average of at least 3.00. The MA is designed to be completed in four semesters.

Thesis students must earn 15 s.h. of credit in courses numbered 3000 or above. These hours include up to 6 s.h. of thesis credit and 2 s.h. earned in SEES:7000 School of Earth, Environment, and Sustainability Research Colloquium. Students who earn more than 30 s.h. may use the additional work to increase their breadth of knowledge in their field and to tailor their program of study to their individual interests.

Nonthesis students build skills across a range of topics in geographical and sustainability sciences during their first year and develop skills in particular application areas during their second year. They must earn 15 s.h. of credit in School of Earth, Environment, and Sustainability Sciences courses (prefix SEES) numbered 5000 and above.

Students demonstrate competence by completing appropriate coursework and completing and defending an MA thesis (for thesis students) or completing a portfolio of finished work and having it reviewed (nonthesis students).

More information is available on the School of Earth, Environment, and Sustainability website.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Application information can be found on the School of Earth, Environment, and Sustainability website.

A bachelor's degree with a major in geography is not required, but applicants must have an undergraduate background relevant to the field. Strength in social science, environmental science, or geographic information science and interest in exploring the spatial perspectives that characterize modern geography are important in admission decisions.

Career Advancement

Graduates hold a wide variety of positions with colleges and universities, private research organizations, and business and government and frequently go on to complete doctoral studies. The degree also provides a solid background for professions including law, health care, environmental engineering, and business.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Geography, MA

Course	Title	Hours
Academic Career		
Any Semester		
32 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
Required course [b]		3
Required course [b]		3
Required course [b]		3
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium [c]	1
	Hours	**10**
Spring		
Required course [b]		3
Elective course [d]		3
Elective course [d]		2
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium [c]	1
	Hours	**9**
Second Year		
Fall		
Required course [b]		3
Elective course [d]		3
Elective course [d]		2
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium [c]	1
	Hours	**9**
Spring		
Elective course [d]		3
Elective course [d]		2

SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium [c]	1
Final Exam [e]		
	Hours	**6**
	Total Hours	**34**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Must earn 15 s.h. of credit in Geographical and Sustainability Sciences courses numbered 5000 or above. Work with faculty advisor to determine appropriate graduate level coursework and sequence.
c Required every semester; may count 2 s.h. earned in SEES:7000 toward the degree.
d Work with faculty advisor to determine appropriate elective coursework and sequence.
e Completed and approved portfolio of finished work.

Geoscience, MS

The MS in geoscience is regarded by most hiring agencies as the working degree. The master's program in geoscience prepares students for employment in industry or for doctoral study.

Learning Outcomes

Graduates will demonstrate the ability to:

- develop subject matter expertise and broad knowledge in the field of geoscience;
- conduct research under the direction of a faculty member and interact successfully with other members of a research team;
- effectively communicate research findings in both written and oral formats;
- conduct all aspects of research and teaching with the highest ethical standards; and
- be prepared for career options in academia, industry, government, or other relevant fields.

Requirements

The Master of Science in geoscience requires a minimum of 30 s.h. of graduate credit. The MS is designed to be completed in two years, and students must maintain a Graduate College program grade-point average of at least 3.00. Students may count up to 8 s.h. of research credit toward the 30 s.h. required for the degree. They must earn at least 24 s.h. toward the degree in University of Iowa courses taken after they enroll in the program.

All entering students are required to enroll in SEES:7270 Orientation, Scholarly Integrity, and Responsible Conduct of Research during the fall semester of their first year in the graduate program.

During the second semester of study, each student should propose an advisory committee of at least three faculty members to the department chair for approval. Thesis students are responsible for obtaining their advisory committee's approval of a suitable program of coursework and for satisfactory development of research plans as outlined in a thesis proposal, which should be completed and approved by the department chair before the end of the second semester of full-time study. The thesis typically has depth and breadth similar to those of a published research paper. Thesis students must deliver a half-hour public presentation of their thesis followed by an oral defense.

Admission

Applicants for admission to the MS in geoscience should have a bachelor's degree in geoscience, earth science, or a related discipline relevant to the field. Depending on their prior training, graduate students may be required to take courses that are prerequisites for coursework in their chosen area of graduate study. For application information, contact the School of Earth, Environment, and Sustainability or visit their website.

All geoscience graduate students must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. They also should acquaint themselves with the university calendar and application deadlines within the School of Earth, Environment, and Sustainability.

Career Advancement

Career opportunities are readily available for geoscience graduates. Professional geoscientists work in environmental companies, resource companies, educational institutions, conservation agencies, state and federal agencies, and government resource and research organizations.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Geoscience, MS

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
CLAS:5100	Practicum: College Teaching and Professional Development for Teaching Assistants	1
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium	1
SEES:7270	Orientation, Scholarly Integrity, and Responsible Conduct of Research [c]	1
Elective course [d]		3
Elective course [d]		2
	Hours	**8**
Spring		
SEES:5010	School of Earth, Environment, and Sustainability Foundations	3
SEES:5020	Research Resources	1
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium	1
Elective course [d]		3
	Hours	**8**
Second Year		
Fall		
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium	1
SEES:7990	Graduate Research [e]	4
Elective course [d]		2
	Hours	**7**

Spring		
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium	1
SEES:7990	Graduate Research [e]	4
Elective course [d]		2
Exam: Master's Final Exam [f]		
	Hours	**7**
	Total Hours	**30**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Complete during first year fall semester.

d Courses selected should reflect the individual needs, interests, and talents of the student; work with faculty advisor to determine appropriate graduate elective coursework and sequence.

e Students may count up to 8 s.h. of research credit toward the 30 s.h. required for the degree.

f Consists of a half-hour public presentation of thesis followed by an oral defense.

Geography, PhD

Learning Outcomes

Students who successfully complete the geography doctoral program in the School of Earth, Environment, and Sustainability will demonstrate:

- both broad knowledge of the field of geography and deep knowledge in their area of research concentration;
- an ability to communicate their research concisely and effectively to both general and specialist audiences in written and verbal formats;
- an ability to formulate research questions; select, design, and apply appropriate research methods (e.g., testable hypotheses, data collection, management, analytical techniques); and utilize critical thinking skills to build knowledge, theory, and/or practice in their area of research concentration;
- competence in teaching geography, environmental, or sustainability-related courses; and
- understanding of and an ability to operate under professional standards of ethical conduct.

Requirements

The Doctor of Philosophy in geography requires 72 s.h. of graduate credit and is designed to be completed in four or five years. Students must maintain a Graduate College program grade-point average of at least 3.00.

All PhD students take the following courses. They take SEES:7000 School of Earth, Environment, and Sustainability Research Colloquium each semester they are in residence.

Course #	Title	Hours
SEES:5010	School of Earth, Environment, and Sustainability Foundations	3
SEES:5050	Research and Writing	3
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium (taken each semester)	1

Students complete a set of research milestones, including a research paper, an area of concentration bibliography, and a written qualifying examination in the discipline. With the approval of the dissertation advisor, each student submits a dissertation proposal to the dissertation committee for critical comments, oral questioning, and approval. Once the dissertation is completed, an oral defense of the dissertation is held.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Application information can be found on the School of Earth, Environment, and Sustainability website.

A previous degree in geography is not required, but applicants must have an academic background relevant to the field. Strength in social science, environmental science, geographic information science, or another relevant field and interest in exploring the spatial perspectives that characterize modern geography are important in admission decisions.

Career Advancement

The Doctor of Philosophy program prepares students to carry on creative and productive research in geography and related fields. University of Iowa graduates hold positions in college and university faculties, private research organizations, and business and government.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Geography, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
SEES:5010	School of Earth, Environment, and Sustainability Foundations	3
Geography course [b]		3
Elective course [c]		3
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium [d]	1
	Hours	**10**
Spring		
SEES:5050	Research and Writing	3
Geography course [b]		3
Elective course [c]		3
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium [d]	1
	Hours	**10**
Second Year		
Fall		
Elective course [c]		3
Elective course [c]		3
Elective course [c]		3
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium [d]	1
	Hours	**10**
Spring		
Elective course [c]		3
Elective course [c]		3

Elective course [c]		3
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium [d]	1
	Hours	**10**
Third Year		
Fall		
Qualifying Exam [e]		
Elective course [c]		3
Elective course [c]		3
Geography research seminar [f]		3
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium [d]	1
	Hours	**10**
Spring		
Oral Comprehensive Exam and Dissertation Prospectus [g]		
Elective course [c]		3
Elective course [c]		3
Geography research seminar [f]		3
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium [d]	1
	Hours	**10**
Fourth Year		
Fall		
Elective course [c]		1
SEES:7999	Graduate Thesis	3
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium [d]	1
	Hours	**5**
Spring		
SEES:7999	Graduate Thesis	6
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium [d]	1
Exam: Doctoral Final Exam [h]		
	Hours	**7**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Must be numbered SEES:5XXX or above.
c Work with faculty advisor to determine appropriate elective coursework and sequence.
d Required every semester.
e Written exam typically taken by the end of the fifth semester; refer to the Graduate Handbook for specifics.
f Choose from courses numbered 6500 through 6900.
g Typically completed by the end of the sixth semester.
h Dissertation defense.

Geoscience, PhD

A PhD in geoscience is designed to bring students to the forefront of a specialized area of geoscience for future employment in higher education, industry, or government research.

Learning Outcomes

Graduates will demonstrate the ability to:

- develop broad knowledge in the field of geoscience and identify important research problems through the development of subject matter expertise;
- develop a research framework including testable hypotheses, and conduct original independent research that contributes new knowledge to the field of study;
- effectively communicate research findings in both written and oral formats;
- conduct all aspects of research and teaching with the highest ethical standards; and
- be prepared for career options in academia, industry, government, or other relevant fields.

Requirements

The Doctor of Philosophy program in geoscience requires a minimum of 72 s.h. of graduate credit. Throughout their graduate study, PhD students must maintain a grade-point average of at least 3.00 in all coursework required for their degree.

The PhD requires a dissertation, which has the approximate research content of three published papers. Students demonstrate competence by completing appropriate coursework and defending their dissertation.

Entering students must consult with a research advisor or the department's director of graduate study before they enroll in courses. By the first month of their second semester of doctoral study, all students must select an advisor. Each student must also select a thesis topic and forward it to the department chair for approval by the end of the first month of the second semester of doctoral study.

During the second semester of doctoral study, each student should propose an advisory committee of at least five faculty members to the department chair for approval. Before the end of the second semester, students must obtain their committee's approval of a suitable plan of study to be submitted to the department chair for approval. In consultation with the advisor and other faculty members, each doctoral candidate prepares a formal dissertation proposal approved by their committee and submitted to the department chair for approval by the end of the candidate's third semester of doctoral study.

Students are required to include in their plan of study at least 18 s.h. of regular coursework taught by tenured or tenure-track faculty in the School of Earth, Environment, and Sustainability. Students must earn the 18 s.h. after being admitted to and enrolling in the PhD program. Directed study and research credit do not count toward the required 18 s.h.

All entering students are required to enroll in SEES:7270 Orientation, Scholarly Integrity, and Responsible Conduct of Research during the fall semester of their first year in the graduate program.

After earning their first 24 s.h. of graduate credit, students must be enrolled at least two consecutive semesters in full-time study (at least 9 s.h. per semester) at the University of Iowa; or they must be enrolled three consecutive semesters for at least 6 s.h. per semester at the university, during which they hold at least a one-quarter-time assistantship that is certified by the department as contributing to their doctoral program.

Students should complete most of their coursework before taking their comprehensive examination, which consists of both written and oral portions and which must be passed before the end of the fourth semester of doctoral study.

Once candidates have passed the comprehensive examination, they are required to register each semester until they receive the degree. Those who have completed their plan of study may register for GRAD:6002 Doctoral Continuous Registration or GRAD:6003 Doctoral Final Registration.

Students must submit their written dissertation to the committee at least two weeks before the final examination. All candidates must deliver a one-hour public presentation associated with the dissertation defense. They are also required to submit a manuscript presenting the results of their graduate research to a refereed journal or other publication approved by the department chair before they may defend their dissertation.

Admission

Applicants for admission to the Geoscience PhD program should have a bachelor's degree in geoscience, earth science, or a related discipline relevant to the field. An MS degree in geoscience, earth science, or a related discipline relevant to the field is not required for admission to the PhD program but is typical of most students and is strongly encouraged. Depending on their prior training, graduate students may be required to take courses that are prerequisites for coursework in their chosen area of graduate study. For application information, contact the School of Earth, Environment, and Sustainability or visit its website.

All geoscience graduate students must meet the admission and degree requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. They also should acquaint themselves with the university calendar and application deadlines within the School of Earth, Environment, and Sustainability.

Career Advancement

The doctoral degree is required for college and university faculty positions and for some research positions in industry.

Career opportunities are readily available for geoscience graduates. Professional geoscientists work in environmental companies, resource companies, educational institutions, conservation agencies, state and federal agencies, and government resource and research organizations.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and

should be discussed with an academic advisor. For additional sample plans, see MyUI.

Geoscience, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CLAS:5100	Practicum: College Teaching and Professional Development for Teaching Assistants	1
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium	1
SEES:7270	Orientation, Scholarly Integrity, and Responsible Conduct of Research [b]	1
SEES regular course [c]		3
Elective course [d]		4
Elective course [d]		3
	Hours	**13**
Spring		
SEES:5010	School of Earth, Environment, and Sustainability Foundations	3
SEES:5020	Research Resources	1
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium	1
SEES regular course [c]		3
Elective course [d]		4
	Hours	**12**
Second Year		
Fall		
SEES:5050	Research and Writing	3
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium	1
SEES regular course [c]		3
SEES regular course [c]		3
Elective course [d]		3
	Hours	**13**
Spring		
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium	1
SEES regular course [c]		3
SEES regular course [c]		3
Elective course [d]		3
Elective course [d]		3
Exam: Doctoral Comprehensive Exam [e]		
	Hours	**13**
Third Year		
Fall		
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium	1
SEES:7990	Graduate Research	5
	Hours	**6**
Spring		
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium	1
SEES:7990	Graduate Research	4
	Hours	**5**
Fourth Year		
Fall		
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium	1
SEES:7990	Graduate Research	4
	Hours	**5**
Spring		
SEES:7000	School of Earth, Environment, and Sustainability Research Colloquium	1
SEES:7990	Graduate Research	4
Exam: Doctoral Final Exam [f]		
	Hours	**5**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Complete during first year fall semester.

c Complete at least 18 s.h. of regular coursework (excluding directed study and research credit) taught by tenured or tenure-track faculty members in the School of Earth, Environment, and Sustainability; work with faculty advisor to determine appropriate graduate coursework and sequence.

d Courses selected should reflect the individual needs, interests, and talents of the student; work with faculty advisor to determine appropriate graduate elective coursework and sequence.

e Consists of both written and oral portions and which must be passed before the end of the fourth semester of doctoral study.

f Students must submit their written dissertation to the committee at least two weeks before the final examination. All candidates must deliver a one-hour public presentation associated with the dissertation defense. They are also required to submit a manuscript presenting the results of their graduate research to a refereed journal or other publication approved by the department chair before they may defend their dissertation.

English

Chair

- Loren Glass

Undergraduate majors: English (BA); English and creative writing (BA)

Undergraduate minor: English

Graduate degrees: MA in English; MFA in English (creative writing, nonfiction writing); PhD in English

Faculty: https://english.uiowa.edu/people

Website: https://english.uiowa.edu

The Department of English offers courses in literature, cultural studies, language, and critical and creative writing. In these courses, students read poetry, fiction, essays, criticism, and theory to acquire methods for understanding literature and culture and responding creatively to texts. In addition to providing these essential elements of a liberal arts and sciences education, the department's courses can augment students' specialized interests in other fields. Visit the Department of English website to learn more about courses and upcoming events.

Many undergraduate and graduate students enroll in the department's degree programs. Most PhD students in English are preparing for careers as teachers and scholars, and many MFA students in the creative writing program and the nonfiction writing program are preparing for lives as published writers. The BA and MA programs provide valuable training for careers in a variety of fields. Students who have earned English degrees from the University of Iowa write for advertising firms, newspapers, the entertainment industry, and book publishers; teach in primary and secondary schools; practice law and medicine; work in business, industry, and nonprofits; and participate in state and federal government. Many students who earn a BA go on to pursue an MFA in creative writing fields. As much as possible, each student's course of study is arranged to meet individual needs and objectives.

The Department of English participates in several of the university's interdisciplinary units: the departments of American Studies, Cinematic Arts, and Gender, Women's, and Sexuality Studies; the African American Studies and Native American and Indigenous Studies programs; and the Center for the Book.

Creative Writing Programs

For the past 75 years, the University of Iowa has been a national leader in all areas of creative writing. The university offers graduate degrees in creative writing with specializations in fiction, nonfiction, and poetry. Undergraduate students may declare a major in English and creative writing. All qualified undergraduates in other majors may enroll in many of the creative writing courses offered by the Department of English.

View creative writing courses (prefixes CW, CNW, and ENGL) under Courses [p. 415] in this section of the catalog. See which ones are offered in certain semesters by searching for course subjects CW, CNW, and ENGL on MyUI.

Department of English Opportunities

Several periodicals are published under the department's aegis. The Iowa Review, Walt Whitman Quarterly Review, and Philological Quarterly offer opportunities for especially qualified graduate students to work as research assistants or editorial associates, and for some undergraduates to pursue volunteer opportunities.

The Department of English, the Nonfiction Writing Program, and the Iowa Writers' Workshop sponsor a rich and extensive series of readings and lectures by poets, fiction writers, and scholars, all open to students in the department.

The English Society, a student organization for those focusing on literature in English, creative writing, and related areas, is open to all students and organizes events of interest throughout the year. The Department of English also collaborates with Alpha Tau Iota, the University of Iowa chapter of Sigma Tau Delta, and the International English Honors Society. Sigma Tau Delta's central purpose is to confer distinction for high achievement in English language, literature, and writing.

The Association of Graduate Students in English sponsors social and intellectual events during the year and provides a forum for student opinion. All graduate students in the department are members.

Programs

Undergraduate Programs of Study

Majors

- Major in English (Bachelor of Arts) [p. 427]
- Major in English and Creative Writing (Bachelor of Arts) [p. 434]

Minor

- Minor in English [p. 441]

Graduate Programs of Study

- Master of Arts in English [p. 442]
- Master of Fine Arts in English (creative writing) [p. 323]
- Master of Fine Arts in English (nonfiction writing) [p. 447]
- Doctor of Philosophy in English [p. 449]

Facilities

The University of Iowa Libraries collection is strong in all areas of English and American literature. Partly because of the influence of the Iowa Writers' Workshop, University Libraries has particular strengths in 20th-century fiction and poetry, including manuscript collections of 20th-century authors.

Courses

- English Courses [p. 416]
- Creative Nonfiction Writing Courses [p. 422]
- Creative Writing–Writers' Workshop Courses [p. 424]

English Courses

Detailed descriptions for most English courses are not included because content and emphasis may vary considerably from one semester to the next. For detailed descriptions of each semester's courses, visit MyUI.

English department courses are open to all undergraduates who have satisfied the rhetoric requirement.

The courses ENGL:3148 Literary Editing, ENGL:4000 English Honors Literature Seminar, ENGL:4040 Honors Project in Literary Studies, and ENGL:4010 Special Project for Undergraduates may be repeated. Most courses with the prefix ENGL may not be repeated. Occasionally, with written consent from the department's Undergraduate Advising Office, a student may repeat a course if the course's subject matter is different from that of a course the student already has taken.

ENGL:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

ENGL:1100 City of Literature 3 s.h.
Literary history of Iowa City from the founding of Writers' Workshop to its designation as a UNESCO City of Literature. GE: Literary, Visual, and Performing Arts.

ENGL:1200 The Interpretation of Literature 3 s.h.
Ways of reading; focus on reader, text, contexts; poetry, short fiction, drama, novels. GE: Interpretation of Literature.

ENGL:1350 Literature and Sexualities 3 s.h.
Works from various genres, time periods, cultures that reflect and construct a wide range of sexual identities. Prerequisites: ENGL:1200. Requirements: successful completion of GE CLAS Core Rhetoric and then ENGL:1200.

ENGL:1410 Sex and Popular Culture in America 3 s.h.
Critical and historical introduction to representation of human sexuality in American popular culture from World War II to the present. GE: Values and Society. Same as AMST:1060, GWSS:1060.

ENGL:1510 Introduction to Environmental Literature 3 s.h.
Introduction to diverse ways writers have conveyed humans' interaction with the environment.

ENGL:2001 English Unbound arr.
Introduction to the English department; resources to help students navigate their major; chance to meet faculty and staff, and build community with other students. Requirements: undergraduate standing, English major or English and Creative Writing major.

ENGL:2010 Foundation of the English Major: Histories, Literatures, Pleasures 3 s.h.
History and practice of English as a discipline; four central aspects of literary study. GE: Interpretation of Literature.

ENGL:2012 Reading and Writing About the Novel 3 s.h.
Introduction to literary genre that teaches close reading, analytical writing, and literary criticism.

ENGL:2013 Reading and Writing About Poetry 3 s.h.
Introduction to literary genre that teaches close reading, analytical writing, and literary criticism.

ENGL:2014 Reading and Writing About the Short Story 3 s.h.
Introduction to literary genre that teaches close reading, analytical writing, and literary criticism.

ENGL:2015 Reading and Writing About Drama 3 s.h.
Introduction to literary genre that teaches close reading, analytical writing, and literary criticism.

ENGL:2016 Reading and Writing About the Essay 3 s.h.
Introduction to literary genre that teaches close reading, analytical writing, and literary criticism.

ENGL:2020 Foundations of Creative Writing: Craft, Practice, Pleasure 3 s.h.
Introduction to discipline of creative writing: fiction, poetry, and creative nonfiction.

ENGL:2030 Literary Readings Attendance 1 s.h.
Attendance at diverse literary readings and scholarly presentations on the University of Iowa campus and in Iowa City, featuring visiting, local, and University of Iowa writers and scholars.

ENGL:2040 English at Work 1 s.h.
What can be done with an English degree; knowledge and skills gained as an English major that are in high demand among a wide variety of employers; important steps taken as a student that translate unique career dreams into reality; work with Pomerantz Career Center staff.

ENGL:2100 Introduction to Criticism and Theory 3 s.h.
Selected topics within literary criticism and theory.

ENGL:2191 Modern Fiction 3 s.h.
The craft of fiction writing in modern literature.

ENGL:2192 Postmodern Fiction 3 s.h.
The craft of fiction in postmodern literature.

ENGL:2194 Lyric Structures 3 s.h.
In-depth inquiry into the lyric.

ENGL:2206 Classical and Biblical Literature 3 s.h.
Study of Classical and Biblical literature.

ENGL:2216 Selected Works of the Middle Ages 3 s.h.
Historical context of literature from the Middle Ages.

ENGL:2236 Selected Early Authors 3 s.h.
Selected authors of the Medieval and Early Modern periods.

ENGL:2309 Selected British Authors Before 1900 3 s.h.
Focus on literature by British authors before 1900.

ENGL:2310 Selected British Authors After 1900 3 s.h.
Literature by British authors after 1900.

ENGL:2329 Topics in Modern British Literature Before 1900 3 s.h.
Modern British literature and culture before 1900.

ENGL:2330 Topics in Modern British Literature After 1900 3 s.h.
Modern British literature and culture after 1900.

ENGL:2338 Eighteenth-Century British Literature 3 s.h.
British literature of the 18th century.

ENGL:2348 British Romanticism 3 s.h.
British literature of the Romantic period.

ENGL:2359 Victorian Literature 3 s.h.
British literature of the Victorian period.

ENGL:2360 Twentieth-Century British Literature 3 s.h.
British literature of the 20th century.

ENGL:2361 Twenty-first-Century British Literature 3 s.h.
British literature of the 21st century.

ENGL:2409 Selected American Authors Before 1900 **3 s.h.**
American literature by authors before 1900.

ENGL:2410 Selected American Authors After 1900 **2-3 s.h.**
American literature by authors after 1900.

ENGL:2420 American Literary Classics **3 s.h.**
Classics of American literature.

ENGL:2425 American Poetry **3 s.h.**
Study of American poetry.

ENGL:2438 American Novel Before 1900 **3 s.h.**
Study of the American novel before 1900.

ENGL:2440 American Novel After 1900 **3 s.h.**
Study of the American novel after 1900.

ENGL:2450 American Short Story **3 s.h.**

ENGL:2463 Topics in African American Literature **3 s.h.**
Selected topics in African American literature. Same as AFAM:2463.

ENGL:2465 Selected African American Authors **3 s.h.**
Literary works by selected African American authors. Same as AFAM:2465.

ENGL:2475 Asian American Literature **3 s.h.**
Selected topics in Asian American literature.

ENGL:2505 Introduction to Postcolonial Studies **3 s.h.**
Introduction to theories, topics, and literature within postcolonial studies.

ENGL:2510 Selected Transnational Authors **3 s.h.**
Literature by selected transnational authors.

ENGL:2560 Topics in Culture and Identity **3 s.h.**
Topics in culture and identity in literature.

ENGL:2570 Love, War, Activism: Stories About Women From Across the World **3 s.h.**
Literary and cinematic representations of gender in works by authors and directors from the Global South; development of historical and cultural lines of inquiry to examine artistic representations of love, sexuality, friendship, and parenting; shifts in gender identities and relations that result from social and political crises. Same as GWSS:2500, SJUS:2500.

ENGL:2571 Visualizing Human Rights **3 s.h.**
Cinematic representations of human rights issues in films by directors from the Global South; development of historical and cultural lines of inquiry to examine artistic representations of race relations in colonial and postcolonial societies; public health issues, specifically women's and children's rights in context of the HIV/AIDS pandemic. Same as GWSS:2571, SJUS:2571.

ENGL:2593 Literature, Culture, and Women **3 s.h.**
Studies in the intersections between literature, culture, and women. Same as GWSS:2193.

ENGL:2601 Topics in British Culture and Identity **3 s.h.**
How culture and identity of British society are created and reflected through literature and other discursive systems; focus on a specific topic and area.

ENGL:2730 The Art and Craft of Creative Nonfiction **3 s.h.**
How we tell stories: every time people talk about themselves, someone they know, places visited or events experienced; creation of a story with intention to entertain and inform a particular audience; how to create compelling, thought-provoking, and resonant texts from raw material of daily life; exploration of three fundamentals of great storytelling: taking emotional and intellectual risks, being imaginatively rigorous, and revising, revising, revising. GE: Engineering Be Creative. Same as CNW:2680.

ENGL:2741 Publishing I: Introduction to Literary Publishing **3 s.h.**
Laboratory-style class offering step-by-step breakdown of fundamental professional and creative skills needed for jobs in the literary publishing world. Become familiar with key roles and responsibilities, such as identifying and defining a corner of the market, soliciting commissions, and assuming editorial oversight through copyediting, design, budgeting, and deadline management, while simultaneously practicing each of these roles to bring individual bespoke publications to press by semester's end. Hands-on, experiential learning. Same as CNW:2991, WRIT:2991.

ENGL:2742 Publishing II: Advanced Literary Publication **3 s.h.**
Supervised, extended practice of the skills core to landing possible literary publishing jobs. Working collectively, as if part of a professional publishing house, bring a single,themed book to publication. Handle all aspects of the publication process, assuming the roles of writers, editors, art directors, designers, and marketers, culminating in a book launch. Hands-on, real-life work experience combined with exploration of inner workings of the industry, such as how agenting works to preparing for the first internship. Prerequisites: CNW:2991. Same as CNW:2992, WRIT:2992.

ENGL:2900 Book Design for Publishing **3 s.h.**
Introduction to the major aspects of book design, including typography, layout, standard industry software, discussion of trends in the field. Same as ARTS:2900, UICB:2900, WRIT:2900.

ENGL:2901 The Book in Global History **3 s.h.**
Introduction to history of the book and book arts in diverse global contexts; histories of visual and verbal media, cross-cultural exchange, and the book's impact across time and space; hands-on work with historical books and book arts including papermaking, woodblock and letterpress printing, and binding. GE: Historical Perspectives. Same as HIST:2190, UICB:2190.

ENGL:3010 Children's Literature **3 s.h.**
Classic children's literature and contemporary critical approaches to the genre.

ENGL:3100 Topics in Criticism and Theory **3 s.h.**
Selected topics in literary criticism and theory.

ENGL:3102 Topics in Poetry and Poetics **3 s.h.**
Selected topics in poetry and poetics.

ENGL:3130 Topics in Film and Literature **3 s.h.**
Selected topics in film and literature.

ENGL:3140 Literature and the Book **3 s.h.**
The relationship between literature and the book as a medium. Same as UICB:3140.

ENGL:3142 Topics in Book History **3 s.h.**
Authorship, publishing, etc. within specific historical and cultural contexts. Same as UICB:3142.

ENGL:3145 Editorial Practice 3 s.h.
Exploration of literary practice in relation to contemporary literature.

ENGL:3148 Literary Editing 3 s.h.
Exploration of history and practice of editing.

ENGL:3150 Literature and Philosophic Thought 3 s.h.
Study of literature as it intersects with philosophic thought.

ENGL:3155 Literature and Art 3 s.h.
Study of literature as it intersects with art.

ENGL:3160 Literary Genres and Modes 3 s.h.
Study of literary genres and modes.

ENGL:3181 Digital Media and Poetics 3 s.h.
Theory and practice of one or more varieties of digital composition; digital art analyzed and created in specific forms, such as radio drama, interactive fiction, and procedural and constructivist poetics.

ENGL:3182 Digital Cultures and Literacies 3 s.h.
Study of digital cultures and literacies as they relate to literature.

ENGL:3186 Science Fiction 3 s.h.
Study of science fiction literature.

ENGL:3190 Language and Learning 2-3 s.h.
How language reflects and constructs learners' identities and cultures; readings related to oral and written language, native and second language development, linguistic diversity; discussion of the relationship of language theory to schools of language instruction. Same as EDTL:3382.

ENGL:3191 Reading and Teaching Adolescent Literature 3 s.h.
Reading and evaluation of literature suitable for junior and senior high school students. Same as EDTL:3393.

ENGL:3216 Topics in Medieval and Renaissance Literature 3 s.h.
Selected topics in Medieval and Renaissance literature.

ENGL:3226 Literature and Culture of the Middle Ages 3 s.h.
Study of literature and culture of the Middle Ages. Same as MDVL:3226.

ENGL:3236 Literature and the Culture of the Renaissance 3 s.h.
Study of the literature and culture of the Renaissance.

ENGL:3237 Literature and Culture of Seventeenth-Century England 3 s.h.
Study of the literature and culture of 17th-century England.

ENGL:3246 16th- and 17th-Century Poetry 3 s.h.
Study of poetry from the 16th and 17th centuries.

ENGL:3247 The English Bible 3 s.h.
Study of the Hebrew Bible and Christian New Testament; students become familiar with its legacies in English language and literature.

ENGL:3256 Old English Language and Literature 3 s.h.
Reading knowledge of Old English; introduction to Anglo-Saxon literature and culture.

ENGL:3257 Old English Beowulf 3 s.h.
Study of Beowulf in Old English. Prerequisites: ENGL:3256.

ENGL:3266 Medieval Celtic Literature 3 s.h.
Study of Medieval Celtic literature.

ENGL:3267 Medieval Norse Literature 3 s.h.
Study of Medieval Norse literature.

ENGL:3276 Medieval Drama 3 s.h.
Study of drama in the Medieval period. Same as THTR:3276.

ENGL:3277 English Renaissance Drama 3 s.h.
Dramatic literature of the English Renaissance. Same as THTR:3277.

ENGL:3286 Chaucer 3 s.h.
The works of medieval writer Geoffrey Chaucer.

ENGL:3287 Shakespeare 3 s.h.
The literature of Early Modern author William Shakespeare.

ENGL:3288 Shakespeare's Romans: The Ancient World Meets the Elizabethan Stage arr.
London was a distant outpost of the Roman Empire, but the Romans had an outsized influence on Shakespeare's plays and poems; students explore those works and their sources in classical authors, including Ovid and Plutarch. Same as CLSA:3288.

ENGL:3296 Milton 3 s.h.
Literature of Early Modern writer John Milton.

ENGL:3320 Modern British Drama 3 s.h.
Dramatic literature of modern Britain.

ENGL:3329 Literature and Culture of Eighteenth-Century Britain 3 s.h.
British literature and culture of the 18th century.

ENGL:3338 Literature and Culture of the Romantic Period 3 s.h.
Literature and culture of the Romantic period in Britain.

ENGL:3339 Literature and Culture of Nineteenth-Century Britain 3 s.h.
British literature and culture of the 19th century.

ENGL:3350 Literature and Culture of 20th- and 21st-Century Britain 3 s.h.
British literature and culture of the 20th and 21st centuries.

ENGL:3355 British Poetry 3 s.h.
Poetry in British literature.

ENGL:3360 British Fiction 3 s.h.
British fiction written since 1700.

ENGL:3401 Literature and Book History 3 s.h.
Same as UICB:3401.

ENGL:3418 Literature and Culture of America Before 1800 3 s.h.
American literature and culture before 1800.

ENGL:3419 Literature and Culture of Nineteenth-Century America 3 s.h.
American literature and culture of the 19th century.

ENGL:3420 Literature and the Culture of Twentieth-Century America 3 s.h.
American literature and culture of the 20th century.

ENGL:3429 Topics in American Literature Before 1900 3 s.h.
Selected topics in American literature before 1900.

ENGL:3430 Topics in American Literature After 1900 3 s.h.
Selected topics in American literature after 1900.

ENGL:3431 American Novel Since 1945 3 s.h.
Study of the American novel after 1945.

ENGL:3439 American Drama Before 1900 3 s.h.
American playwrights and plays before 1900.

ENGL:3440 American Drama Since 1900 3 s.h.
American playwrights and plays after 1900. Same as THTR:3440.

ENGL:3441 Native American Literature 3 s.h.
Native American literature and culture. Same as NAIS:3441.

ENGL:3444 Literatures of the American Peoples 3 s.h.
Various literatures of the American peoples.

ENGL:3450 American Regional Literatures 3 s.h.
Regional literatures of the United States.

ENGL:3455 Jewish American Literature 3 s.h.
Jewish American literature and culture.

ENGL:3459 African American Literature Before 1900 3 s.h.
African American literature before 1900. Same as AFAM:3459.

ENGL:3460 African American Literature After 1900 3 s.h.
African American literature after 1900. Same as AFAM:3460.

ENGL:3461 Twenty-First Century African American Literature 3 s.h.
African American literature from 20th- and 21st-century writers; African American experience(s) of race, sexuality, gender, class, and privilege in contemporary era; various ways poets, rappers, authors tackle these themes within literary forms (i.e., fiction, creative nonfiction, autobiography, poems, songs); societal structures of power. Same as AFAM:3461.

ENGL:3462 African American Drama 3 s.h.
African American dramatic literature. Same as AFAM:3462, THTR:3462.

ENGL:3465 African American Autobiography 3 s.h.
The autobiography by African American writers. Same as AFAM:3465.

ENGL:3467 Latina/o/x Literatures and Cultures 3 s.h.
Exploration of major themes and research topics in Latina/o/x literatures and cultures. Same as LATS:3467.

ENGL:3470 Gender, Sexuality, and American Literature 3 s.h.
Intersection of gender and sexuality with American literature.

ENGL:3510 Topics in Transnational Literature 3 s.h.
Selected topics in transnational literature.

ENGL:3515 Topics in Postcolonial Studies 3 s.h.
Selected topics in postcolonial studies.

ENGL:3520 Literature and Culture of the 20th and 21st Century 3 s.h.
Literature and culture of the 20th and 21st centuries.

ENGL:3525 Literature and Culture of the Americas 3 s.h.
Literature and culture of North and South America.

ENGL:3535 Topics in Literature and Culture of the Americas 3 s.h.
Selected topics in literature and cultures of the Americas. Same as LAS:3535.

ENGL:3540 Literature of the Indian Subcontinent 3 s.h.
Literature from the Indian subcontinent.

ENGL:3550 African Literature 3 s.h.
Literature by African writers. Same as AFAM:3550.

ENGL:3555 Topics in African Cinema 3 s.h.
African cinema and literature. Same as AFAM:3555.

ENGL:3565 Literature and the Environment 3 s.h.
Literary studies within the contexts of environmental history and ecological concerns.

ENGL:3570 Transnational and Postcolonial Writing by Women 3 s.h.
Study of postcolonial and transnational writing by women. Same as GWSS:3570.

ENGL:3571 Higher Education and Social Justice 3 s.h.
Reflection of students' place within educational systems; development of rhetorical tools for successful advocacy; advocation through writing for change within higher education and the UI; student loans, racial segregation, social and economic immobility, free speech, data insecurity, sexual assault. Same as GWSS:3171, SJUS:3171.

ENGL:3572 Literature and Social Justice 3 s.h.
How literature from various time periods—American and global—has enacted, represented, depicted, or encouraged forms and acts of social justice; students study various genres (e.g., essay, poem, autobiography, short story, fiction) and learn how literature has been used to conceptualize social justice, address national and global inequities, and take up complex and intersecting issues of power and privilege. Same as SJUS:3250.

ENGL:3573 Gender, Sexuality, and Literature 3 s.h.
Representations of gender, class, and sexuality in British, American, or postcolonial literature. Same as GWSS:3173.

ENGL:3580 Identity and Social Issues 3 s.h.
Study of identity and social issues in literature.

ENGL:3581 Topics in Popular Culture 3 s.h.
Pop culture as a context through which to view literature.

ENGL:3595 International Literature Today 1,3 s.h.
Same as IWP:3191, TRNS:3191, WLLC:3191.

ENGL:3610 Literature and Society 3 s.h.
How literary works as products of historical forces shape and reflect society.

ENGL:3700 Topics in Craft and Method 3 s.h.
Reading and creative writing; topics vary; taught by faculty. Prerequisites: ENGL:2010. Requirements: undergraduate standing, English major or English and Creative Writing major.

ENGL:3721 Writers' Seminar: Fiction 3 s.h.
In-depth exploration and analysis of creative works in fiction. Requirements: English major, admission to Undergraduate Creative Writing track, or English and Creative Writing major.

ENGL:3722 Writers' Seminar: Poetry 3 s.h.
In-depth exploration and analysis of creative works in poetry. Requirements: English major, admission to Undergraduate Creative Writing track, or English and Creative Writing major.

ENGL:3723 Writers' Seminar: Nonfiction 3 s.h.
Rigorous exploration and analysis of a range of nonfiction creative works. Requirements: English major, admission to Undergraduate Creative Writing track, or English and Creative Writing major.

ENGL:3724 Writers' Seminar: Literary Translation 3 s.h.
Rigorous exploration and analysis of a range of creative works in literary translation. Requirements: English major, admission to Undergraduate Creative Writing track, or English and Creative Writing major.

ENGL:3725 Writers' Seminar: Playwriting 3 s.h.
Rigorous exploration and analysis of a range of creative works in drama. Requirements: English major, admission to Undergraduate Creative Writing track, or English and Creative Writing major.

ENGL:3730 Advanced Nonfiction Writing 3 s.h.
Essay writing; focus on workshop environment. Prerequisites: CNW:2830 or CNW:2720 or CNW:2840 or CNW:2710 or CNW:2700 or CNW:2760 or CNW:2910 or CNW:2780 or CNW:2730 or CNW:2740 or CNW:2770 or CNW:2680 or CNW:2790. Requirements: undergraduate standing. Same as CNW:3630.

ENGL:3732 Prose Style 3 s.h.
Sentences: how they work, what they do; how sentences can help writing, expand understanding of prose style, stretch options. GE: Engineering Be Creative. Same as CNW:3632, WRIT:3632.

ENGL:3733 Personal Writing 3 s.h.
Study of personal writing. Same as CNW:3633.

ENGL:3760 Multimedia Writing 3 s.h.
Multidisciplinary sessions mixing media production, creative nonfiction, and literary theory; topics ranging from hypertext authoring and electronic magazine publishing to sound art and digital video; principles and practices of writing for alternative media, theoretical understanding of how various media frame the situation; radio essay, video essay, interactive animation, web authoring, electronic magazine publishing. Same as CNW:3660.

ENGL:3761 Film and Writing 3 s.h.
Writers' introduction to digital video; compelling forms of nonfiction filmmaking from the film essay to the environmental documentary; how to convert texts into film, conduct interviews, and shoot and edit digital video. Same as CNW:3661.

ENGL:3764 Writing About Science 3 s.h.
Writing about science and technology from neurobiology to astrophysics; exploration of classic literary nonfiction on the sciences; focus on various stylistic practices for making complex topics compelling for a general audience and developing a clear and readable prose style. Same as CNW:3664.

ENGL:3800 Issues in Creative Nonfiction 3 s.h.
Exploration and discussion of a single topic in creative nonfiction through a variety of reading assignments and creative writing exercises. Same as CNW:3600.

ENGL:3850 Undergraduate Translation Workshop 3 s.h.
Translation exercises, discussion of translation works in progress; alternative strategies for translation projects. Same as CLSA:3979, TRNS:3179.

ENGL:4000 English Honors Literature Seminar 3 s.h.
Honors seminar in literature. Prerequisites: ENGL:2010. Requirements: undergraduate standing and English major GPA of 3.33.

ENGL:4001 Honors Literature Seminar: American Literature, 20th/21st Century 3 s.h.
American literature of the 20th and 21st centuries. Prerequisites: ENGL:2010. Requirements: undergraduate standing and English major GPA of 3.33.

ENGL:4002 Honors Literature Seminar: British Literature, 20th/21st Century 3 s.h.
British literature of the 20th and 21st centuries. Prerequisites: ENGL:2010. Requirements: undergraduate standing and English major GPA of 3.33.

ENGL:4003 Honors Literature Seminar: Literary Theory and Interdisciplinary Studies, 20th/21st Century 3 s.h.
Literary theory and interdisciplinary studies of the 20th and 21st centuries. Prerequisites: ENGL:2010. Requirements: undergraduate standing and English major GPA of 3.33.

ENGL:4004 Honors Literature Seminar: Transnational and Postcolonial Literature, 20th/21st Century 3 s.h.
Transnational and postcolonial literature of the 20th and 21st centuries. Prerequisites: ENGL:2010. Requirements: undergraduate standing and English major GPA of 3.33.

ENGL:4005 Honors Literature Seminar: American Literature, 18th/19th Century 3 s.h.
American literature of the 18th and 19th centuries. Prerequisites: ENGL:2010. Requirements: undergraduate standing and English major GPA of 3.33.

ENGL:4006 Honors Literature Seminar: British Literature, 18th/19th Century 3 s.h.
British literature of the 18th and 19th centuries. Prerequisites: ENGL:2010. Requirements: undergraduate standing and English major GPA of 3.33.

ENGL:4009 Honors Literature Seminar: Medieval and Early Modern Literature, Early Literature/17th Century 3 s.h.
Medieval and Early Modern literature through the 17th century. Prerequisites: ENGL:2010. Requirements: undergraduate standing and English major GPA of 3.33.

ENGL:4010 Special Project for Undergraduates arr.

ENGL:4011 Honors Workshop: Creative Writing 3 s.h.
Creative writing workshop for English and Creative Writing majors. Prerequisites: ENGL:2010 and ENGL:2020. Requirements: English and Creative Writing major, undergraduate standing, and English major GPA of 3.33.

ENGL:4012 Honors Workshop: Fiction 3 s.h.
Fiction workshop for English and Creative Writing majors. Prerequisites: ENGL:2010 and ENGL:2020. Requirements: undergraduate standing, English and Creative Writing major, and submission of portfolio.

ENGL:4013 Honors Workshop: Poetry 3 s.h.
English and Creative Writing majors may apply this course to the advanced creative writing requirement. Prerequisites: ENGL:2010 and ENGL:2020. Requirements: undergraduate standing, English and Creative Writing major, and submission of portfolio.

ENGL:4014 Honors Workshop: Creative Nonfiction 3 s.h.
Creative nonfiction workshop for English and Creative Writing majors. Prerequisites: ENGL:2010 and ENGL:2020. Requirements: undergraduate standing, English and Creative Writing major, and submission of portfolio.

ENGL:4020 Honors Thesis Workshop 3 s.h.
Requirements: English major or English and Creative Writing major, and GPA of 3.33.

ENGL:4030 Undergraduate Honors Project in Creative Writing 1-3 s.h.
Independent study under faculty guidance for the creation of an honors project in creative writing. Prerequisites: ENGL:2010 and ENGL:2020. Requirements: admission to English honors program.

ENGL:4040 Honors Project in Literary Studies 1-3 s.h.
Requirements: admission to English honors program.

ENGL:4050 Internship for Majors arr.
An internship, found by the student, and related to their career goals or exploration. Requirements: English major or English and Creative Writing Major.

ENGL:4100 Advanced Literary Seminar 3 s.h.
Literary seminar. Prerequisites: ENGL:2010. Requirements: undergraduate standing, English major or English and Creative Writing major.

ENGL:4150 Introduction to Book Studies 3 s.h.
Theory and practice of book studies; meanings of word and image in the book format; comparative study of other media, applied study of the codex as a physical artifact. Same as SLIS:4150, UICB:4150.

ENGL:4172 London Performance Study 3 s.h.
Performance studies. Same as THTR:4630.

ENGL:4195 Interdisciplinary Studies 3 s.h.
Exploration of how readings of theory can be evaluated through discussions and readings in literature.

ENGL:4720 Advanced Creative Writing: Special Topic 3 s.h.
Reading and writing; topics vary. Prerequisites: ENGL:2010 and ENGL:2020. Requirements: English major, admission to Undergraduate Creative Writing track, or English and Creative Writing major.

ENGL:4721 Advanced Writers' Seminar: Fiction 3 s.h.
In-depth exploration and analysis of creative works in fiction. Prerequisites: ENGL:2010 and ENGL:2020. Requirements: English and Creative Writing major.

ENGL:4722 Advanced Writers' Seminar: Poetry 3 s.h.
In-depth exploration and analysis of creative works in poetry. Prerequisites: ENGL:2010 and ENGL:2020. Requirements: English and Creative Writing major.

ENGL:4723 Advanced Writers' Seminar: Nonfiction 3 s.h.
In-depth exploration and analysis of creative works in nonfiction. Prerequisites: ENGL:2010 and ENGL:2020. Requirements: English and Creative Writing major.

ENGL:4724 Advanced Writers' Seminar: Literary Translation 3 s.h.
Rigorous exploration and analysis of a range of creative works in literary translation. Prerequisites: ENGL:2010 and ENGL:2020. Requirements: English and Creative Writing major.

ENGL:4725 Advanced Writers' Seminar: Playwriting 3 s.h.
Rigorous exploration and analysis of a range of creative works in drama. Prerequisites: ENGL:2010 and ENGL:2020. Requirements: English and Creative Writing major.

ENGL:4731 Advanced Essay Workshop 3 s.h.
Experience working on new nonfiction projects, drafting and preparing one piece throughout a semester; individualized work to promote understanding of and creation in genres of nonfiction writing. Requirements: undergraduate standing and successful completion of one CNW course. Same as CNW:4631.

ENGL:4735 Advanced Creative Nonfiction Writing 3 s.h.
Close work with faculty and peers on advanced creative nonfiction writing projects. Requirements: one 2000- or 3000-level CNW course. Same as CNW:4635.

ENGL:4810 Learning to Teach Secondary English/ Language Arts and Field Experience 3 s.h.
Organizational techniques, methods, materials for teaching high school English; experience in simulated teaching situations during laboratory sessions, integrated with lectures and discussions. Prerequisites: EDTL:4314. Same as EDTL:4315.

ENGL:5000 Introduction to Graduate Study 3 s.h.

ENGL:5050 Professional Development Practicum 1 s.h.
Navigation of academic job market and exploration of professional development and career planning; writing cover letters, curriculum vitaes, dissertation abstracts, and teaching statements; application strategies for various jobs in research, liberal arts, community colleges, and outside academia; opportunity to practice interviews and other hands-on coaching; for advanced English department PhD, MA, and MFA students.

ENGL:5070 Writing for Academic and General Audiences 3 s.h.
Supportive, structured, publication-oriented workshop in which students draft, share, revise, and edit two pieces, one intended for an academic audience and one written for a general audience. A limited number of published readings provide models for the students' work. Requirements: MA or PhD standing.

ENGL:5990 MA Portfolio in Literary Studies arr.

ENGL:5999 MA Thesis in Literary Studies arr.

ENGL:6000 Introduction to Contemporary Theory 3 s.h.

ENGL:6020 Literature as Letters 3 s.h.

ENGL:6050 Critical Readings in Cultural Studies: Stuart Hall's Legacy and Influences 3 s.h.
Exploration of the scholarship of Stuart Hall along with theories, methods, and history of cultural studies; focus on major areas of Hall's work including Marxist thought and the political economy, diasporas and globalization, cultural production and popular culture, film and cinema studies, race, ethnicity, identity, and differánce; key theorists that influenced Stuart Hall (e.g., Marx, Foucault, Fanon, Gramsci, Althusser) and scholars in cultural studies that have made appropriate use of Hall's writings and theories in their own work; role of theory in everyday life and the critical role of public intellectuals. Same as AFAM:6500, AMST:6500.

ENGL:6080 New Media Poetics 3 s.h.

ENGL:6090 Topics in Interdisciplinary Studies 3 s.h.
Interdisciplinary approaches to literature and culture.

ENGL:6100 Readings in Medieval Literature and Culture 3 s.h.

ENGL:6110 Medieval Authors 3 s.h.

ENGL:6200 Sixteenth- and Seventeenth-Century Authors 3 s.h.

ENGL:6210 Readings in Sixteenth- and Seventeenth-Century Genres 3 s.h.

ENGL:6220 Shakespeare 3 s.h.

ENGL:6300 Restoration and Eighteenth-Century Literature 3 s.h.

ENGL:6315 MA Seminar: English Education arr.
Significant developments in English education; primary and collateral readings. Same as EDTL:6315.

ENGL:6400 Romantic Literature 3 s.h.

ENGL:6500 Victorian Literature 3 s.h.

ENGL:6601 Readings in American Literature 3 s.h.
American literature of the 18th century.

ENGL:6602 Readings in American Literature II 3 s.h.
Nineteenth-century American literature.

ENGL:6603 Readings in American Literature III 3 s.h.
Twentieth- and twenty-first-century American literature.

ENGL:6610 Studies in African American Literature 3 s.h.
Same as AFAM:6610.

ENGL:6620 Readings in Native American Literatures 3 s.h.
Same as NAIS:6620.

ENGL:6630 Readings in Latina/o/x Literary and Cultural Studies 3 s.h.
Survey of Latina/o/x literature and criticism to prepare for comprehensive exam; organized by thematic units that stress canonical and emerging research areas in Latina/o/x literary and cultural studies.

ENGL:6640 Readings in American Literary Genres 3 s.h.

ENGL:6670 American Literary Magazines 3 s.h.
Aspects of American literary magazines, from city journals to monthly periodicals, historical moment to marketplace demand.

ENGL:6720 Twentieth-Century Literatures 3 s.h.
Literatures of 20th century; varied topics (e.g., transnational approach, focus on particular theme, genre, or critical perspective).

ENGL:6730 Modernist Studies 3 s.h.

ENGL:6760 Topics in Contemporary Literature 3 s.h.

ENGL:6765 Literature, Culture, and Environment 3 s.h.
Introduction to theories and practices articulating relationship among literature, other cultural production, and environmental issues.

ENGL:6800 Readings in Postcolonial Literature and Theory 3 s.h.
Introduction to central concerns and questions of postcolonial theory; impact of imperial ideologies on formation of racial and ethnic identities; nationalist and pan-nationalist challenges to colonialism; postcolonial revisions of Western history; representations of gender and sexuality; diasporic and transnational cultural production; alternative versions of modernity; relationship between past and contemporary forms of globalization.

ENGL:6850 Topics in Creative Writing 3 s.h.
Engagement with different topics in creative writing.

ENGL:6900 Doctoral Workshop in English 1-2 s.h.

ENGL:6950 Colloquium: Teaching Foundations of the English Major 1 s.h.

ENGL:6960 Colloquium: Teaching Literature 2 s.h.
Professional development program for new ENGL:1200 teachers.

ENGL:6961 Teaching Literature II 1 s.h.
Professional development program for ENGL:1200 instructors in their second semester of teaching. Topics include grading, leading discussion, generative AI, scaffolding and giving feedback on major writing assignments, and strategies for making the class productive and enjoyable for students from all backgrounds and with various levels of preparation. Prerequisites: ENGL:6960.

ENGL:7000 Seminar: Cultural Studies arr.

ENGL:7010 Seminar: Literary Criticism and Theory 3 s.h.
Analysis of issues in current literary criticism and theory and of texts from related fields, such as aesthetics, cultural studies, political science, psychology, and philosophy.

ENGL:7050 Seminar: Performance Theory and Practice 3 s.h.
Foundational and recent work in interdisciplinary field of performance studies; focus on intersections of performance theory and theater and drama studies; production and reception of visual and participatory art, dance, music, and various forms of embodied activity.

ENGL:7100 Seminar: Medieval Literature and Culture arr.

ENGL:7200 Seminar: Early Modern Literature and Culture arr.

ENGL:7300 Seminar: Restoration and Eighteenth-Century Literature arr.

ENGL:7400 Seminar: Romantic Literatures arr.

ENGL:7500 Seminar: Victorian Literature arr.

ENGL:7600 Seminar: American Literature and Culture arr.

ENGL:7700 Seminar: Studies in the 20th and 21st Century arr.

ENGL:7800 Seminar: Postcolonial Studies 3 s.h.

ENGL:7900 Advanced Studies in an Author arr.

ENGL:7910 Advanced Studies in a Literary Period arr.

ENGL:7920 Advanced Studies in a Literary Form arr.

ENGL:7930 Advanced Studies in a Literary Genre arr.

ENGL:7940 Advanced Studies in a Literary Mode arr.

ENGL:7950 Advanced Studies in a Literary Movement arr.

ENGL:7960 Advanced Studies in a Literary Theme arr.

ENGL:7970 Advanced Studies in Literary Criticism arr.

ENGL:7980 Advanced Studies in an Interdisciplinary Subject arr.

ENGL:7990 Special Project for Graduate Students arr.

ENGL:7999 PhD Thesis arr.

Creative Nonfiction Writing Courses

The courses CNW:6654 Forms of the Essay, CNW:6650 Readings in Nonfiction, CNW:6610 Essay Writing Workshop, and CNW:6620 Nonfiction Writing Workshop may be repeated. Others may be repeated with the consent of the instructor and the director of graduate studies.

CNW:1620 Introduction to Creative Nonfiction 3 s.h.
Exploration of creative nonfiction genres through readings, discussion, and writing exercises; introduction to workshop environment. GE: Engineering Be Creative; Literary, Visual, and Performing Arts.

CNW:2680 The Art and Craft of Creative Nonfiction 3 s.h.
How we tell stories: every time people talk about themselves, someone they know, places visited or events experienced; creation of a story with intention to entertain and inform a particular audience; how to create compelling, thought-provoking, and resonant texts from raw material of daily life; exploration of three fundamentals of great storytelling: taking emotional and intellectual risks, being imaginatively rigorous, and revising, revising, revising. GE: Engineering Be Creative. Same as ENGL:2730.

CNW:2700 The Art and Craft of Personal Writing 3 s.h.
Moments of wonder, confusion, and blips in memory that can reveal deep and complicated truths in life; different kinds of personal writing with focus on strategies that writers employ to create rich and compelling stories; character, scene, voice, point of view, suspense, and timing. GE: Engineering Be Creative.

CNW:2710 The Art and Craft of Food Writing 3 s.h.
Vivid prose that evokes memories, moods, places, and events; creating a visceral bond with readers as powerful as in any other art form; basics of food writing; how to heighten awareness of physical world through exercises that focus on sensory details.

CNW:2720 The Art and Craft of Writing About Culture 3 s.h.
Writing about the culture surrounding us: literature, songs, movies, magazines, television, food, concerts, theater, commercials, billboards, comic books, internet, museums, sports, architecture; readings, field trips, and multiple approaches to writing. GE: Engineering Be Creative.

CNW:2730 The Art and Craft of Science Writing 3 s.h.
Introduction to science writing; development of a clear and engaging prose style through readings and workshops. GE: Engineering Be Creative.

CNW:2740 The Art and Craft of Writing about the Environment 3 s.h.
Tradition of nature writing and how it has inspired writers, artists, and activists to find more complicated and daring interpretations of what constitutes an environment; reading and writing that challenges assumptions and pushes boundaries of environmental writing and nonfiction. GE: Engineering Be Creative.

CNW:2760 The Art and Craft of Writing for Social Change 3 s.h.
How nonfiction writers have responded to tumultuous social, political, and cultural topics of their day through reading and writing.

CNW:2770 The Art and Craft of Writing for New Media 3 s.h.
Fundamental elements of new media; readings that celebrate and challenge today's newest experiments in podcasts, video games, internet, Twitter feeds, and Tumblr narratives; crafting and critiquing texts in these media. GE: Engineering Be Creative.

CNW:2780 The Art and Craft of Writing About Sports 3 s.h.
Introduction to sports writing through reading and writing. GE: Engineering Be Creative.

CNW:2790 The Art and Craft of Humor Writing 3 s.h.
How comedy functions as one of many tools writers have at their disposal through reading and writing. GE: Engineering Be Creative.

CNW:2830 The Art and Craft of Immersion Journalism 3 s.h.
Immersion in fieldwork, leading to nonfiction writing; writer-in-residence for a particular place, institution, or organization; observation and exploration of everything that happens within those boundaries. GE: Engineering Be Creative.

CNW:2840 The Art and Craft of Travel Writing 3 s.h.
How to capture a journey's details and sensations through explorations of character, scene, point of view, and timing; why a person does not need to be a world traveler to become a compelling "writer about place"; readings, field trips, multiple approaches to workshopping. GE: Engineering Be Creative.

CNW:2910 Writing for Applications and Awards 3 s.h.
Practical exploration of how to prepare applications for fellowships, awards, grants, and graduate schools; emphasis on composing and revising personal statements, project narratives, funding proposals; fundamentals of how to clearly, concisely, and compellingly present ideas to specialized and general audiences. GE: Engineering Be Creative.

CNW:2991 Publishing I: Introduction to Literary Publishing 3 s.h.
Laboratory-style class offering step-by-step breakdown of fundamental professional and creative skills needed for jobs in the literary publishing world. Become familiar with key roles and responsibilities, such as identifying and defining a corner of the market, soliciting commissions, and assuming editorial oversight through copyediting, design, budgeting, and deadline management, while simultaneously practicing each of these roles to bring individual bespoke publications to press by semester's end. Hands-on, experiential learning. Same as ENGL:2741, WRIT:2991.

CNW:2992 Publishing II: Advanced Literary Publication 3 s.h.
Supervised, extended practice of the skills core to landing possible literary publishing jobs. Working collectively, as if part of a professional publishing house, bring a single,themed book to publication. Handle all aspects of the publication process, assuming the roles of writers, editors, art directors, designers, and marketers, culminating in a book launch. Hands-on, real-life work experience combined with exploration of inner workings of the industry, such as how agenting works to preparing for the first internship. Prerequisites: CNW:2991. Same as ENGL:2742, WRIT:2992.

CNW:3600 Issues in Creative Nonfiction 3 s.h.
Exploration and discussion of a single topic in creative nonfiction through a variety of reading assignments and creative writing exercises. Same as ENGL:3800.

CNW:3630 Advanced Nonfiction Writing 3 s.h.
Essay writing; focus on workshop environment. Prerequisites: CNW:2830 or CNW:2720 or CNW:2840 or CNW:2710 or CNW:2700 or CNW:2760 or CNW:2910 or CNW:2780 or CNW:2730 or CNW:2740 or CNW:2770 or CNW:2680 or CNW:2790. Requirements: undergraduate standing. Same as ENGL:3730.

CNW:3632 Prose Style 3 s.h.
Sentences: how they work, what they do; how sentences can help writing, expand understanding of prose style, stretch options. GE: Engineering Be Creative. Same as ENGL:3732, WRIT:3632.

CNW:3633 Personal Writing 3 s.h.
Study of personal writing. Same as ENGL:3733.

CNW:3640 Writing for Business 3 s.h.
Foundational skills for careers in the humanities including building portfolios, résumés, cover letters, and interview skills for job searches; professional communication and protocol; and exploring career opportunities. GE: Engineering Be Creative.

CNW:3660 Multimedia Writing 3 s.h.
Multidisciplinary sessions mixing media production, creative nonfiction, and literary theory; topics ranging from hypertext authoring and electronic magazine publishing to sound art and digital video; principles and practices of writing for alternative media, theoretical understanding of how various media frame the situation; radio essay, video essay, interactive animation, web authoring, electronic magazine publishing. Same as ENGL:3760.

CNW:3661 Film and Writing 3 s.h.
Writers' introduction to digital video; compelling forms of nonfiction filmmaking from the film essay to the environmental documentary; how to convert texts into film, conduct interviews, and shoot and edit digital video. Same as ENGL:3761.

CNW:3664 Writing About Science 3 s.h.
Writing about science and technology from neurobiology to astrophysics; exploration of classic literary nonfiction on the sciences; focus on various stylistic practices for making complex topics compelling for a general audience and developing a clear and readable prose style. Same as ENGL:3764.

CNW:4355 Approaches to Teaching Writing 3 s.h.
Theories, practices, strategies, and history of writing and teaching writing. GE: Engineering Be Creative. Same as EDTL:4355.

CNW:4631 Advanced Essay Workshop 3 s.h.
Experience working on new nonfiction projects, drafting and preparing one piece throughout a semester; individualized work to promote understanding of and creation in genres of nonfiction writing. Requirements: undergraduate standing and successful completion of one CNW course. Same as ENGL:4731.

CNW:4635 Advanced Creative Nonfiction Writing 3 s.h.
Close work with faculty and peers on advanced creative nonfiction writing projects. Requirements: one 2000- or 3000-level CNW course. Same as ENGL:4735.

CNW:4690 Undergraduate Project in Nonfiction Writing arr.

CNW:5375 Teaching in a Writing Center 3 s.h.
Seminar/practicum to prepare graduate students to teach in the University of Iowa Writing Center or similar settings; seminar component on writing and reading processes, tutoring strategies, English-as-a-second-language issues; practicum experience tutoring in the Writing Center. Same as RHET:5375.

CNW:6400 Nonfiction Writing Program Salon 4 s.h.
Contemporary issues in the field of literary nonfiction, including discussions of genre, hybridity, and facticity; occasional generative writing exercises; periodic discussions and questions and answers with visiting writers and scholars from around campus. Requirements: must be taken in the third year in the Nonfiction Writing Program without exception.

CNW:6600 Teaching Nonfiction 3 s.h.
Theories and practices of teaching nonfiction writing; writing workshop approaches, strategies to encourage response and revision, connections between reading and writing, diversity of form, language, and assessment.

CNW:6610 Essay Writing Workshop 3 s.h.

CNW:6620 Nonfiction Writing Workshop arr.
Intensive workshop focusing on student work; students will have an essay critiqued and a conference with the advisor; wide-ranging discussion dealing with various aspects of this multi-faceted genre and new trends in contemporary nonfiction.

CNW:6630 Graduate Thesis Workshop 4 s.h.
Thesis work in supportive workshop environment. Prerequisites: CNW:6610 and CNW:6620.

CNW:6650 Readings in Nonfiction 3 s.h.

CNW:6651 A History of the Essay 4 s.h.
Survey of the roots of the creative essay and its development through literary history; periodic lectures, discussion, and class presentations on the ways cultures have employed the essay throughout that history, and the formal innovations that have been introduced to the genre along the way. Requirements: must be taken in the first year in the Nonfiction Writing Program without exception.

CNW:6654 Forms of the Essay arr.

CNW:6656 Approaches to Nonfiction 3 s.h.
Investigation into forms of nonfiction writing.

CNW:6660 Twenty-first-Century Nonfiction arr.

CNW:6666 Performance and Profession 3 s.h.
Making and maintaining a writing career, with lessons on navigating the writer's job market; developing cover letters and curriculum vitaes, interviewing, finding an agent, negotiating with publishers, handling social media, and delivering a reading.

CNW:7073 Ethnographic Methods, Theories, and Texts 3 s.h.
Practical and theoretical background for conducting ethnographic field studies in literacy, schooling, language, or a field of student's choice; methods, methodologies, and perspectives from anthropology, sociology, folklore, journalism, literary criticism, cultural, critical, and composition theory; read historical and contemporary ethnography, consider ethnographic forms of expression (films, graphics, fiction, poems); roles, responsibilities, and ethics of writer, reader, viewer, and informant; tools, methods, and writer's techniques to develop an ethnographic portfolio. Prerequisites: PSQF:7331 or EDTL:7070 or CSED:7338 or EPLS:7373. Same as EDTL:7073.

CNW:7900 Special Project in Nonfiction Writing arr.

CNW:7950 Thesis in Nonfiction Writing arr.

Creative Writing—Writers' Workshop Courses

The course CW:1800 Creative Writing Studio Workshop does not count toward the English major or minor.

CW:1800 Creative Writing Studio Workshop 3 s.h.
Experience reading and writing fiction, poetry, and personal narrative in a workshop setting; study of published work and critical discussion from a writer's standpoint; critique of class members' work. GE: Literary, Visual, and Performing Arts.

CW:2100 Creative Writing 3 s.h.
Guidance in the process of writing fiction and poetry; writing as exploration; development of students' critical skills as readers; application of new knowledge and skills to students' own writing. GE: Engineering Be Creative.

CW:2600 Special Topics Workshop 3 s.h.
Writing workshops on special topics (e.g., writing weird tales, world building, writing place); students dive into the intricacies of craft in context of a particular topic, practice a particular set of skills, and develop new creative work.

CW:2870 Fiction Writing 3 s.h.
Analysis of works of accomplished fiction writers; critique of class members' short stories, in writing and in class; discussion of how class members use language, characterization, point of view, other elements of fiction in their work. GE: Engineering Be Creative.

CW:2875 Poetry Writing 3 s.h.
Careful writing of poems, reading of poetry by class members as well as established poets; supportive workshop context. GE: Engineering Be Creative.

CW:3000 Writing and Reading Romance Fiction 3 s.h.
How constraints and parameters in which romance fiction is created are a useful lens through which to explore the layers of craft and technique that underlie all great creative writing; opportunity to hone understanding of genre; exploration of specific craft techniques; development of a broader understanding of the fiction landscape.

CW:3002 Writing and Reading Young Adult Fiction 0,3 s.h.
Constraints and parameters in which young adult fiction is created and a useful lens through which to explore the layers of craft and technique that underlie all great creative writing; opportunity for students to hone their understanding of genre, explore specific craft techniques, and develop a broader understanding of the fiction landscape.

CW:3003 Writing and Reading Science Fiction 3 s.h.
Science fiction literature as an ongoing conversation about the possible; exploration of world boundaries we have by imagining worlds that we don't (yet); alien encounters that consider ways we react to beings we see as unlike ourselves; alternate histories to illuminate what might have been; transhumanist fiction to explore what we may become; issues of composition and craft that underlie all effective fiction; students write and revise works of science fiction and engage in constructive discussion of each other's work. GE: Engineering Be Creative.

CW:3004 Writing and Reading Fantasy Fiction 3 s.h.
Exploration of rules and boundaries of fantasy writing; interrogation of strategies and approaches that make writing fantasy distinct from other genres of fiction.

CW:3005 Professional and Creative Business Communication 3 s.h.
Solid foundation for creative and professional communication in today's modern work world; exploration of techniques, strategies, and craft of writing résumés, letters of interest, email and its related etiquette, and organization of ideas into presentable form; semester-long creative project that builds a bridge between office and the world using modern technology and social media; readings and discussions of literature to better understand issues of ethics, leadership, conflict, moral judgment, decision-making, and human nature; how to navigate and succeed in business or any professional field. GE: Engineering Be Creative. Same as INTD:3005, WRIT:3005.

CW:3010 Writing and Reading Children's Fiction 3 s.h.
Immersion in the particular problems of creating artful and compelling written texts for children while developing a versatile literary voice of one's own.

CW:3105 Writing From Life 3 s.h.
Introduction to literary art of journal writing through close readings of celebrated writers' journals, fiction related to journaling, and a series of journaling exercises; students build skills in communication, observation, voice, and literary expression.

CW:3107 Creative Writing for the Health Professions 3 s.h.
GE: Engineering Be Creative. Same as INTD:3107.

CW:3215 Creative Writing and Popular Culture 3 s.h.
Creative writing through the lens of popular culture; topics include television, film writing, adaptations, commercials, advertising, magazines, newspapers, comic books, song lyrics, billboards, and backs of cereal boxes. GE: Engineering Be Creative. Same as INTD:3300.

CW:3218 Creative Writing for New Media 3 s.h.
Prepares creative writers for evolving marketplace of electronic text and media; experience writing in varied media (e.g., internet, e-books, video games, mobile devices, emergent social narratives). GE: Engineering Be Creative. Same as INTD:3200.

CW:3400 Working Writers in Conversation 3 s.h.
Exposure to work of established contemporary writers who plan to visit the University of Iowa campus; students engage with each writer directly through class visits and reading attendance.

CW:3870 Advanced Fiction Writing 3 s.h.
Analysis of accomplished fiction writers' work; critique of class members' short stories, in writing and in class; discussion of how class members use language, characterization, point of view, other elements of fiction in their work. Prerequisites: CW:2870.

CW:3875 Advanced Poetry Writing 3 s.h.
Writing poems, reading poetry by class members and established poets; workshop context. Prerequisites: CW:2875.

CW:4745 The Sentence: Strategies for Writing 3 s.h.
Writing dynamic, cogent, and grammatically correct sentences; effectively communicating ideas; writing with clarity and confidence; review of grammar and various types of sentences; building complexity by adding adverbial, subordinate, and connective clauses to simple sentences; how rhythm, syntax, and word order expand the meaning of a sentence; application and appreciation. GE: Engineering Be Creative. Same as WRIT:4745.

CW:4751 Creative Writing for the Musician 3 s.h.
Better writing by focused appreciation of classical and popular music; musical forms and storytelling; music as a source of inspiration, performance of free-form writing exercises set to different soundtracks; what music can teach about language; scansion; methods for applying musical techniques in word form; how punctuation and grammar create rhythm; tone and diction used to create and modify dynamics of prose; multimedia project incorporating written, visual, and audio storytelling techniques. GE: Engineering Be Creative.

CW:4760 The Art of Revision: Rewriting Prose for Clarity and Impact 3 s.h.
Writing and rewriting of short stories and essays; specific choices to help writing reach its full potential; examination of first drafts and making strategic or radical decisions on what needs to happen in subsequent drafts in order for writing to better match original intentions; students gain insight from peers on where first drafts are succeeding or falling short, and write second and third drafts of short stories and personal narratives; structural and aesthetic choices. GE: Engineering Be Creative. Same as WRIT:4760.

CW:4870 Undergraduate Writers' Workshop: Fiction arr.

CW:4875 Undergraduate Writers' Workshop: Poetry arr.

CW:4885 Undergraduate Writers' Seminar arr.
Exploration of literature to develop substance and craft; craft sessions designed around topic chosen by instructor; modeled after Iowa Writers' Workshop graduate reading seminars. Prerequisites: ENGL:2020.

CW:4894 Undergraduate Project in Creative Writing arr.

CW:4897 Novel Writing 3 s.h.
Introduction to the process of writing a novel through focused lessons on character, perspective, plot, scene, and dialogue; organizing a longer work; creating notes and sections of a novel with progression towards completing a draft. Requirements: creative writing or fiction writing course.

CW:7810 Form of Fiction 3 s.h.

CW:7820 Form of Poetry 3 s.h.

CW:7830 Seminar: Problems in Modern Fiction arr.

CW:7840 Seminar: Problems in Modern Poetry arr.

CW:7870 Fiction Workshop arr.

CW:7875 Poetry Workshop arr.

CW:7878 Special Topics Seminar 3 s.h.
Seminar topics vary.

CW:7880 Teaching Assistant Pedagogy Colloquium 1-2 s.h.
Training and support for graduate students in the Creative Writing Program. Corequisites: CW:7870 or CW:7875. Requirements: enrollment in creative writing graduate program.

CW:7890 Graduate Project in Creative Writing arr.

CW:7895 MFA Thesis arr.

English, BA

The English major provides instruction in and opportunities for writing in all of its classes. The department also offers an honors program in which students work closely with a faculty member to complete a major critical or creative project. See Honors [p. 431] in this section of the catalog.

Students interested in the English major should consult the academic advisor in the English undergraduate advising office.

Learning Outcomes

The goal is for students who graduate from the Department of English to demonstrate the skills of reflective reading, critical thinking, effective speaking, compelling writing, and engaged citizenship.

Reflective Readers

- Analyze literary and cultural texts through close reading.
- Gain broad knowledge of several fields of literature.
- Grasp formal elements of key literary genres.
- Learn to read comparatively to illuminate the aesthetic, social, and cultural contributions of texts.

Critical Thinkers

- Approach texts with a spirit of critical inquiry and flexibility.
- Formulate productive questions.
- Use textual evidence to support individual interpretations.
- Draw upon several different critical approaches to literature in English.

Effective Speakers

- Express opinions about the texts they read through discussion and written assignments.
- Listen respectfully to others' opinions.
- Work in class—whether through active listening or discussion—to learn by synthesizing a range of texts, insights, and opinions.

Compelling Writers

- Express their ideas in clear, fluent, and lively prose.
- Organize their ideas effectively.
- Use textual evidence to illustrate and support their insights and arguments.
- Demonstrate the ability to write in different modes that are appropriate to particular contexts.
- Engage properly with relevant scholarship and creative work.
- Use research skills that include an understanding of methods, technology, and conventions.

Engaged World Citizens

- Communicate respect and understanding for the literatures and cultures of diverse historical periods, geographical regions, and cultures.
- Explore ethical issues raised by literature.
- Reflect on the ways that literature addresses issues of social justice.
- Use reading, speaking, and writing skills to engage with the ethical concerns raised by literature in their daily and professional lives.

Requirements

The Bachelor of Arts with a major in English requires a minimum of 120 s.h., including at least 36 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students must earn at least 21 s.h. of credit for the major at the University of Iowa. Transfer students may count a maximum of 15 s.h. of approved transfer credit toward the major.

Students earning a major in English may not earn a major in English and creative writing.

Students in the English major may fulfill the GE CLAS Core Interpretation of Literature requirement with the introductory course ENGL:2010 Foundation of the English Major: Histories, Literatures, Pleasures.

Students pursuing the BA in English can choose to complete the requirements for the publishing track; see the following section, "Publishing Track." For information about teaching English in elementary or secondary schools, see the section titled "Teacher Licensure."

The BA with a major in English requires the following coursework.

Requirements	Hours
Introductory Courses	6
Intermediate Courses	15
Advanced Course	3
Electives	12

Introductory Courses

All English majors must complete two introductory courses and are encouraged to enroll in them as soon as they declare the major.

Course #	Title	Hours
This course:		
ENGL:2010	Foundation of the English Major: Histories, Literatures, Pleasures	3
One of these:		
ENGL:2012	Reading and Writing About the Novel	3
ENGL:2013	Reading and Writing About Poetry	3
ENGL:2014	Reading and Writing About the Short Story	3
ENGL:2015	Reading and Writing About Drama	3
ENGL:2016	Reading and Writing About the Essay	3

Intermediate Courses

Intermediate coursework for the major (prefix ENGL, numbered 2021–3999) is divided into three areas. Students must complete at least two courses (6 s.h.) from the Historical

Contexts [p. 428] list; two courses (6 s.h.) from the Cultural Contexts [p. 428] list; and one course (3 s.h.) from the Craft and Method [p. 429] list.

Historical Contexts

English courses (prefix ENGL) numbered 2200–2450 and 3200–3440 may be used for this requirement.

Course #	Title	Hours
At least two of these:		
ENGL:2206	Classical and Biblical Literature	3
ENGL:2216	Selected Works of the Middle Ages	3
ENGL:2236	Selected Early Authors	3
ENGL:2309	Selected British Authors Before 1900	3
ENGL:2310	Selected British Authors After 1900	3
ENGL:2329	Topics in Modern British Literature Before 1900	3
ENGL:2330	Topics in Modern British Literature After 1900	3
ENGL:2338	Eighteenth-Century British Literature	3
ENGL:2348	British Romanticism	3
ENGL:2359	Victorian Literature	3
ENGL:2360	Twentieth-Century British Literature	3
ENGL:2361	Twenty-first-Century British Literature	3
ENGL:2409	Selected American Authors Before 1900	3
ENGL:2410	Selected American Authors After 1900	3
ENGL:2420	American Literary Classics	3
ENGL:2425	American Poetry	3
ENGL:2438	American Novel Before 1900	3
ENGL:2440	American Novel After 1900	3
ENGL:2450	American Short Story	3
ENGL:3216	Topics in Medieval and Renaissance Literature	3
ENGL:3226	Literature and Culture of the Middle Ages	3
ENGL:3236	Literature and the Culture of the Renaissance	3
ENGL:3237	Literature and Culture of Seventeenth-Century England	3
ENGL:3246	16th- and 17th-Century Poetry	3
ENGL:3247	The English Bible	3
ENGL:3256	Old English Language and Literature	3
ENGL:3257	Old English Beowulf	3
ENGL:3266	Medieval Celtic Literature	3
ENGL:3267	Medieval Norse Literature	3
ENGL:3276	Medieval Drama	3
ENGL:3277	English Renaissance Drama	3
ENGL:3286	Chaucer	3
ENGL:3287	Shakespeare	3
ENGL:3288	Shakespeare's Romans: The Ancient World Meets the Elizabethan Stage	3
ENGL:3296	Milton	3
ENGL:3320	Modern British Drama	3
ENGL:3329	Literature and Culture of Eighteenth-Century Britain	3
ENGL:3338	Literature and Culture of the Romantic Period	3
ENGL:3339	Literature and Culture of Nineteenth-Century Britain	3
ENGL:3350	Literature and Culture of 20th- and 21st-Century Britain	3
ENGL:3355	British Poetry	3
ENGL:3360	British Fiction	3
ENGL:3401	Literature and Book History	3
ENGL:3418	Literature and Culture of America Before 1800	3
ENGL:3419	Literature and Culture of Nineteenth-Century America	3
ENGL:3420	Literature and the Culture of Twentieth-Century America	3
ENGL:3429	Topics in American Literature Before 1900	3
ENGL:3430	Topics in American Literature After 1900	3
ENGL:3431	American Novel Since 1945	3
ENGL:3439	American Drama Before 1900	3
ENGL:3440	American Drama Since 1900	3

Cultural Contexts

English courses (prefix ENGL) numbered 2451–2699 and 3441–3699 may be used for this requirement.

Course #	Title	Hours
At least two of these:		
ENGL:2463	Topics in African American Literature	3
ENGL:2465	Selected African American Authors	3
ENGL:2475	Asian American Literature	3
ENGL:2505	Introduction to Postcolonial Studies	3
ENGL:2510	Selected Transnational Authors	3
ENGL:2560	Topics in Culture and Identity	3
ENGL:2570	Love, War, Activism: Stories About Women From Across the World	3
ENGL:2571	Visualizing Human Rights	3
ENGL:2593	Literature, Culture, and Women	3
ENGL:2601	Topics in British Culture and Identity	3
ENGL:3441	Native American Literature	3
ENGL:3444	Literatures of the American Peoples	3
ENGL:3450	American Regional Literatures	3

ENGL:3455	Jewish American Literature	3
ENGL:3459	African American Literature Before 1900	3
ENGL:3460	African American Literature After 1900	3
ENGL:3461	Twenty-First Century African American Literature	3
ENGL:3462	African American Drama	3
ENGL:3465	African American Autobiography	3
ENGL:3467	Latina/o/x Literatures and Cultures	3
ENGL:3470	Gender, Sexuality, and American Literature	3
ENGL:3510	Topics in Transnational Literature	3
ENGL:3515	Topics in Postcolonial Studies	3
ENGL:3520	Literature and Culture of the 20th and 21st Century	3
ENGL:3525	Literature and Culture of the Americas	3
ENGL:3535	Topics in Literature and Culture of the Americas	3
ENGL:3540	Literature of the Indian Subcontinent	3
ENGL:3550	African Literature	3
ENGL:3555	Topics in African Cinema	3
ENGL:3565	Literature and the Environment	3
ENGL:3570	Transnational and Postcolonial Writing by Women	3
ENGL:3571	Higher Education and Social Justice	3
ENGL:3572	Literature and Social Justice	3
ENGL:3573	Gender, Sexuality, and Literature	3
ENGL:3580	Identity and Social Issues	3
ENGL:3581	Topics in Popular Culture	3
ENGL:3595	International Literature Today	3

Craft and Method

English courses numbered ENGL:2100–ENGL:2199, ENGL:2700–ENGL:2799, ENGL:2900–ENGL:2999, ENGL:3010, ENGL:3100–ENGL:3199, ENGL:3700–ENGL:3899, and CNW:2000–CNW:4999 may be used for this requirement.

Course #	Title	Hours
At least one of these:		
ENGL:2100	Introduction to Criticism and Theory	3
ENGL:2191	Modern Fiction	3
ENGL:2192	Postmodern Fiction	3
ENGL:2194	Lyric Structures	3
ENGL:2900	Book Design for Publishing	3
ENGL:2901	The Book in Global History	3
ENGL:3010	Children's Literature	3
ENGL:3100	Topics in Criticism and Theory	3
ENGL:3102	Topics in Poetry and Poetics	3
ENGL:3130	Topics in Film and Literature	3
ENGL:3140	Literature and the Book	3
ENGL:3142	Topics in Book History	3
ENGL:3145	Editorial Practice	3
ENGL:3148	Literary Editing	3
ENGL:3150	Literature and Philosophic Thought	3
ENGL:3155	Literature and Art	3
ENGL:3160	Literary Genres and Modes	3
ENGL:3181	Digital Media and Poetics	3
ENGL:3182	Digital Cultures and Literacies	3
ENGL:3186	Science Fiction	3
ENGL:3190	Language and Learning	3
ENGL:3191	Reading and Teaching Adolescent Literature	3
ENGL:3700	Topics in Craft and Method	3
ENGL:3721	Writers' Seminar: Fiction	3
ENGL:3722	Writers' Seminar: Poetry	3
ENGL:3723	Writers' Seminar: Nonfiction	3
ENGL:3724	Writers' Seminar: Literary Translation	3
ENGL:3725	Writers' Seminar: Playwriting	3
ENGL:3850	Undergraduate Translation Workshop	3
CNW:2680/ ENGL:2730	The Art and Craft of Creative Nonfiction	3
CNW:2700	The Art and Craft of Personal Writing	3
CNW:2710	The Art and Craft of Food Writing	3
CNW:2720	The Art and Craft of Writing About Culture	3
CNW:2730	The Art and Craft of Science Writing	3
CNW:2740	The Art and Craft of Writing about the Environment	3
CNW:2760	The Art and Craft of Writing for Social Change	3
CNW:2770	The Art and Craft of Writing for New Media	3
CNW:2780	The Art and Craft of Writing About Sports	3
CNW:2790	The Art and Craft of Humor Writing	3
CNW:2830	The Art and Craft of Immersion Journalism	3
CNW:2840	The Art and Craft of Travel Writing	3
CNW:2910	Writing for Applications and Awards	3
CNW:2991/ ENGL:2741	Publishing I: Introduction to Literary Publishing	3
CNW:2992/ ENGL:2742	Publishing II: Advanced Literary Publication	3
CNW:3600/ ENGL:3800	Issues in Creative Nonfiction	3
CNW:3630/ ENGL:3730	Advanced Nonfiction Writing	3

CNW:3632/ ENGL:3732	Prose Style	3
CNW:3633/ ENGL:3733	Personal Writing	3
CNW:3640	Writing for Business	3
CNW:3660/ ENGL:3760	Multimedia Writing	3
CNW:3661/ ENGL:3761	Film and Writing	3
CNW:3664/ ENGL:3764	Writing About Science	3
CNW:4355	Approaches to Teaching Writing	3
CNW:4631/ ENGL:4731	Advanced Essay Workshop	3
CNW:4635/ ENGL:4735	Advanced Creative Nonfiction Writing	3
CNW:4690	Undergraduate Project in Nonfiction Writing	3

Advanced Courses

Students must complete at least 3 s.h. in advanced courses for the English major, including ENGL:4000–ENGL:4009, ENGL:4100, or ENGL:4150.

Course #	Title	Hours
At least one of these:		
ENGL:4000	English Honors Literature Seminar	3
ENGL:4001	Honors Literature Seminar: American Literature, 20th/21st Century	3
ENGL:4002	Honors Literature Seminar: British Literature, 20th/21st Century	3
ENGL:4003	Honors Literature Seminar: Literary Theory and Interdisciplinary Studies, 20th/21st Century	3
ENGL:4004	Honors Literature Seminar: Transnational and Postcolonial Literature, 20th/21st Century	3
ENGL:4005	Honors Literature Seminar: American Literature, 18th/19th Century	3
ENGL:4006	Honors Literature Seminar: British Literature, 18th/19th Century	3
ENGL:4009	Honors Literature Seminar: Medieval and Early Modern Literature, Early Literature/17th Century	3
ENGL:4100	Advanced Literary Seminar	3
ENGL:4150	Introduction to Book Studies	3

Electives

Students complete 12 s.h. in additional Department of English courses (prefixes ENGL or CNW) numbered above 2000; these may include ENGL:2030 Literary Readings Attendance, ENGL:2040 English at Work, ENGL:4010 Special Project for Undergraduates, and ENGL:4050 Internship for Majors. Students may count a maximum of 6 s.h. earned in creative writing courses (prefix CW) numbered 2000–4999 as part of these electives.

Publishing Track

The world of publishing includes many different careers: editors, designers, agents, and even sales representatives. Students who are interested in these careers may wish to pursue the publishing track. By selecting courses carefully, students may complete the track without adding additional semester hours to their total credit required for graduation. Students should consult the department's advisor for information about completing the English major with the publishing track.

Courses range across print and digital media, exposing students to the history and practice of literary publishing while developing their skills in editing, proofreading, and writing with clarity and purpose. Internships and hands-on class learning offer students the opportunity to produce their own publications and gain practical experience.

Students in the publishing track must complete the following.

Literary Publishing

Course #	Title	Hours
Both of these (6 s.h.):		
CNW:2991/ ENGL:2741	Publishing I: Introduction to Literary Publishing	3
CNW:2992/ ENGL:2742	Publishing II: Advanced Literary Publication	3

Editing and Book Design, History, or Revision

Course #	Title	Hours
One of these (3 s.h.):		
ENGL:2900	Book Design for Publishing	3
ENGL:2901	The Book in Global History	3
ENGL:3140	Literature and the Book	3
ENGL:3142	Topics in Book History	3
ENGL:3145	Editorial Practice	3
ENGL:3148	Literary Editing	3
ENGL:3181	Digital Media and Poetics	3
ENGL:3182	Digital Cultures and Literacies	3
ENGL:3430	Topics in American Literature After 1900 (when topic is in print/in person)	3
ENGL:4150	Introduction to Book Studies	3
CNW:3600/ ENGL:3800	Issues in Creative Nonfiction (when topic is how to be a writer)	3
CNW:3632/ ENGL:3732	Prose Style	3

Career Preparation

Course #	Title	Hours
One of these (1-3 s.h.):		
ENGL:2040	English at Work	1
ENGL:4050	Internship for Majors	arr.
CCP:1201	Academic Internship	1-3

Teacher Licensure

Students who plan to teach English in elementary or secondary schools should consult with an advisor in the College of Education as early as possible; contact the Office of Student Services. The BA in English education [p. 1454] requires that students choose particular courses in the English major in order to meet all related requirements; both degrees may be earned at the same time. Separate application to each degree program is required.

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in English and thereby enhance their course of study through honors seminars. All those interested in taking honors coursework are welcome to apply to the English Honors Program as soon as they qualify. The process begins with an online application; visit English Honors Programs on the Department of English website.

Students take three honors seminars and must achieve a University of Iowa grade-point average (GPA) of at least 3.33 and a major GPA of at least 3.50.

Each year the department offers between four and six scholarship and criticism seminars covering a wide range of subjects, authors, and methods. Limited to 16 students, honors seminars carry 3 s.h. of credit, meet three hours each week, and encourage class discussions that are lively and knowledgeable. Substantial reading and research are required and culminate in a 15–20 page essay. Students register for ENGL:4001–ENGL:4009. These courses cover different areas and historical periods, with possible focal points in American literature, British literature, literary theory, or transnational studies.

The third of the three honor seminars may be replaced with ENGL:4040 Honors Project in Literary Studies, a capstone project. For this independent study option, interested students should seek out possible mentors in their junior year.

To register for a scholarly seminar, students are encouraged to have a University of Iowa GPA of at least 3.33. In addition, they must have completed three English courses (not including introductory courses in nonfiction or creative writing) with an English major GPA of at least 3.33: ENGL:2010 Foundation of the English Major: Histories, Literatures, Pleasures; one course out of ENGL:2012–ENGL:2016; and a departmental course of their choosing.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the English major.

Career Advancement

The English major prepares students for a wide variety of career paths including teaching, medicine, law, graduate school, and jobs in private and nonprofit sectors where writing, organization, research, and communication are highly valued. Within a year of graduation, over 92% of Department of English students are employed or in graduate programs.

The department's advisor helps guide students in their career path. The Department of English partners with the Pomerantz Career Center to introduce career development strategies and offer resources to help students find internships and jobs. For more information, students are encouraged to explore Careers and Opportunities on the Department of English website or enroll in ENGL:2040 English at Work (1 s.h.).

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the fifth semester begins: at least two courses in the major.

Before the seventh semester begins: at least four more courses (total of six) in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least two more courses (total of eight) in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Iowa Degree in Three

University of Iowa majors who are strongly motivated can graduate with a degree in three years under the Iowa Degree in Three. The program is available to students who can complete more semester hours each term than they would on the Four-Year Graduation Plan.

Students sign an agreement during their first semester of enrollment; meet with an advisor at least once a semester to review their plans and progress; take courses during summer sessions, if necessary; meet specific course checkpoints; and maintain the grade-point average required for the major.

Students are allowed to bring Advanced Placement (AP), College Level Examination Program (CLEP), or transfer credit upon admission to reduce the number of semester hours required for their degree. They should consult their advisor about the program.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

English, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
Major: "Reading and Writing About" course (prefix ENGL numbered 2012-2016)		3
RHET:1030	Rhetoric: Writing and Communication	4
GE CLAS Core: Understanding Cultural Perspectives [b]		3
GE CLAS Core: Literary, Visual, and Performing Arts [b]		3
CSI:1600	Success at Iowa	1
	Hours	**14**
Spring		
ENGL:2010	Foundation of the English Major: Histories, Literatures, Pleasures [c]	3
ENGL:2030	Literary Readings Attendance [d]	1
GE CLAS Core: Quantitative or Formal Reasoning [b]		3
GE CLAS Core: Social Sciences [b]		3
GE CLAS Core: World Languages First Level Proficiency [e]		4 - 5
Elective course [f]		3
	Hours	**17-18**
Second Year		
Fall		
WRIT:1600	Fast Fixes: Improving Your Writing in Six Short Weeks [g]	1
Major: literature in cultural contexts course (prefix ENGL numbered 2451-2699 and 3441-3699)		3
GE CLAS Core: Natural Sciences with Lab [b]		4
GE CLAS Core: World Languages Second Level Proficiency [e]		4 - 5
Major: craft and methods course [h]		3
Elective course [f]		1
	Hours	**16-17**
Spring		
Major: literature in cultural contexts course (prefix ENGL numbered 2451-2699 and 3441-3699)		3
Major: english elective or honors seminar [i, j, k]		3
Elective course [f]		3
GE CLAS Core: Natural Sciences without Lab [b]		3
GE CLAS Core: World Languages Third Level Proficiency [e]		4 - 5
	Hours	**16-17**
Third Year		
Fall		
ENGL:2040	English at Work [d]	1
Major: literature in historical contexts (prefix ENGL numbered 2200-2450 and 3200-3440)		3
Major: advanced english course (prefix ENGL numbered 4000-4009 or ENGL:4100 Advanced Literary Seminar or ENGL:4150 Introduction to Book Studies)		3
GE CLAS Core: World Languages Fourth Level Proficiency [e]		4 - 5
Elective course [f]		3
	Hours	**14-15**
Spring		
Study Abroad (optional)		
Major: literature in historical contexts (prefix ENGL numbered 2200-2450 and 3200-3440)		3
GE CLAS Core: Historical Perspectives [b]		3
GE CLAS Core: International and Global Issues [b]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Fourth Year		
Fall		
GE CLAS Core: Values and Society [b]		3
Major: english elective or honors seminar [i, j, k]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		2
	Hours	**14**
Spring		
Major: elective course		3
Major: elective course		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**15**
	Total Hours	**121-125**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

c Major courses can be taken in any order as long as ENGL:2010 is taken before any 3000-level-course.

d This course is recommended to fulfill the English elective requirement.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g This course is recommended but not required for the BA in English.
h English courses numbered ENGL:21XX, 27XX, 29XX, ENGL:3010, ENGL:31XX, ENGL:37XX-38XX, and CNW:20XX-49XX may be used for the craft and method requirement.
i Students choose courses with the prefix ENGL, CNW, or CW numbered 2000 or above.
j Students may count up to 6 s.h. earned in courses with prefix CW toward the major.
k Students with honors in the major complete three seminars. Visit the Department of English website for more information on applying to the English Honors Program.
l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

English and Creative Writing, BA

The BA in English and creative writing enables students to experience the historical, traditional, and innovative aspects of literature in English and the relationship between critical reading and creative writing. The major provides the transferable skills important for a liberal arts major, including the ability to think deeply and creatively, read complex texts with comprehension, and master writing and speaking skills at an advanced level.

The English and creative writing major introduces students to the wealth of resources associated with the University of Iowa and the Iowa City writing communities. For over 75 years, the Department of English and the University of Iowa Writers' Workshop have been leaders in the area of writing. The MFA offered by the Nonfiction Writing Program and administered by the Department of English has been voted the top MFA program in creative nonfiction in the United States. Likewise, the MFA program in the Iowa Writers' Workshop is annually noted as the top graduate program in the country.

The international reputation of writing at Iowa is boosted by synergy across colleges, with the International Writing Program hosting published writers each fall from countries around the world and each spring traveling to other countries, taking Iowa writing on the road. This synergy helps the university and Iowa City draw writers of all ages and nationalities to its writing community. The community is bolstered by the strong readings series offered by the Nonfiction Writing Program, the Iowa Writers' Workshop, and Prairie Lights Books, with hundreds of readings archived by the Iowa Digital Library, creating a resource for future writers and scholars.

The status of Iowa City as a UNESCO City of Literature has also enriched the writing community, with people from across the Midwest visiting the city during the annual Book Festival. The Massive Open Online Courses (MOOCs) offered by the Department of English, "Every Atom: Walt Whitman's Song of Myself" and "Walt Whitman and the Civil War," as well as the International Writing Program's online series called "How Writers Write," have enrolled thousands of students and adult learners from around the world, enhancing the reputation of the University of Iowa as the "Writing University." The Iowa Summer Writing Festival, Iowa Young Writers' Studio, the Certificate in Writing, the Center for the Book, the Iowa Playwrights Workshop, and the Iowa Youth Writing Project all help to turn Iowa City into a destination for writers, who are drawn to the city for its heritage and for its current community of writers.

Learning Outcomes

The goal is for students who graduate from the Department of English to demonstrate the skills of reflective reading, critical thinking, effective speaking, compelling writing, and engaged citizenship.

Reflective Readers

- Analyze literary and cultural texts through close reading.
- Gain broad knowledge of several fields of literature.
- Grasp formal elements of key literary genres.
- Learn to read comparatively to illuminate the aesthetic, social, and cultural contributions of texts.

Critical Thinkers

- Approach texts with a spirit of critical inquiry and flexibility.
- Formulate productive questions.
- Use textual evidence to support individual interpretations.
- Draw upon several different critical approaches to literature in English.

Effective Speakers

- Express opinions about the texts they read through discussion and written assignments.
- Listen respectfully to others' opinions.
- Work in class—whether through active listening or discussion—to learn by synthesizing a range of texts, insights, and opinions.

Compelling Writers

- Express their ideas in clear, fluent, and lively prose.
- Organize their ideas effectively.
- Use textual evidence to illustrate and support their insights and arguments.
- Demonstrate the ability to write in different modes that are appropriate to particular contexts.
- Engage properly with relevant scholarship and creative work.
- Use research skills that include an understanding of methods, technology, and conventions.

Engaged World Citizens

- Communicate respect and understanding for the literatures and cultures of diverse historical periods, geographical regions, and cultures.
- Explore ethical issues raised by literature.
- Reflect on the ways that literature addresses issues of social justice.
- Use reading, speaking, and writing skills to engage with the ethical concerns raised by literature in their daily and professional lives.

Requirements

The Bachelor of Arts in English and creative writing requires a minimum of 120 s.h., including at least 36 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Students must earn at least 21 s.h. of credit for the major at the University of Iowa.

Students earning a major in English and creative writing may not earn a major in English.

Students in the English and creative writing major may fulfill the GE CLAS Core Interpretation of Literature requirement with the introductory course ENGL:2010 Foundation of the English Major: Histories, Literatures, Pleasures.

Students pursuing the BA in English and creative writing can choose to complete the requirements for the publishing track; see the section titled "Publishing Track" for information.

For information about teaching English in elementary or secondary schools, see the "Teacher Licensure" section.

The BA with a major in English and creative writing requires the following coursework.

Requirements	Hours
Introductory Courses	6
Intermediate Courses	15
Advanced Courses	3
Electives	12

Introductory Courses

Students must complete the two introductory courses before they enroll in advanced courses.

Course #	Title	Hours
Both of these:		
ENGL:2010	Foundation of the English Major: Histories, Literatures, Pleasures	3
ENGL:2020	Foundations of Creative Writing: Craft, Practice, Pleasure	3

Intermediate Courses

Intermediate coursework for the major (numbered 2021–3999) is divided into three areas. Students must complete at least one course (3 s.h.) from the Historical Contexts [p. 435] list; at least one course (3 s.h.) from the Cultural Contexts [p. 435] list; one additional course (3 s.h.) from either the Historical Contexts or Cultural Contexts list; and two courses (6 s.h.) from the Craft and Method [p. 436] list.

Historical Contexts

English courses (prefix ENGL) numbered 2200–2450 or 3200–3440 may be used for this requirement.

Course #	Title	Hours
At least one of these:		
ENGL:2206	Classical and Biblical Literature	3
ENGL:2216	Selected Works of the Middle Ages	3
ENGL:2236	Selected Early Authors	3
ENGL:2309	Selected British Authors Before 1900	3
ENGL:2310	Selected British Authors After 1900	3
ENGL:2329	Topics in Modern British Literature Before 1900	3
ENGL:2330	Topics in Modern British Literature After 1900	3
ENGL:2338	Eighteenth-Century British Literature	3
ENGL:2348	British Romanticism	3
ENGL:2359	Victorian Literature	3
ENGL:2360	Twentieth-Century British Literature	3
ENGL:2361	Twenty-first-Century British Literature	3
ENGL:2409	Selected American Authors Before 1900	3
ENGL:2410	Selected American Authors After 1900	3
ENGL:2420	American Literary Classics	3
ENGL:2425	American Poetry	3
ENGL:2438	American Novel Before 1900	3
ENGL:2440	American Novel After 1900	3
ENGL:2450	American Short Story	3
ENGL:3216	Topics in Medieval and Renaissance Literature	3
ENGL:3226	Literature and Culture of the Middle Ages	3
ENGL:3236	Literature and the Culture of the Renaissance	3
ENGL:3237	Literature and Culture of Seventeenth-Century England	3
ENGL:3246	16th- and 17th-Century Poetry	3
ENGL:3247	The English Bible	3
ENGL:3256	Old English Language and Literature	3
ENGL:3257	Old English Beowulf	3
ENGL:3266	Medieval Celtic Literature	3
ENGL:3267	Medieval Norse Literature	3
ENGL:3276	Medieval Drama	3
ENGL:3277	English Renaissance Drama	3
ENGL:3286	Chaucer	3
ENGL:3287	Shakespeare	3
ENGL:3288	Shakespeare's Romans: The Ancient World Meets the Elizabethan Stage	3
ENGL:3296	Milton	3
ENGL:3320	Modern British Drama	3
ENGL:3329	Literature and Culture of Eighteenth-Century Britain	3
ENGL:3338	Literature and Culture of the Romantic Period	3
ENGL:3339	Literature and Culture of Nineteenth-Century Britain	3
ENGL:3350	Literature and Culture of 20th- and 21st-Century Britain	3
ENGL:3355	British Poetry	3
ENGL:3360	British Fiction	3
ENGL:3401	Literature and Book History	3
ENGL:3418	Literature and Culture of America Before 1800	3
ENGL:3419	Literature and Culture of Nineteenth-Century America	3
ENGL:3420	Literature and the Culture of Twentieth-Century America	3
ENGL:3429	Topics in American Literature Before 1900	3
ENGL:3430	Topics in American Literature After 1900	3
ENGL:3431	American Novel Since 1945	3
ENGL:3439	American Drama Before 1900	3
ENGL:3440	American Drama Since 1900	3

Cultural Contexts

English courses (prefix ENGL) numbered 2451–2699 or 3441–3699 may be used for this requirement.

Course #	Title	Hours
At least one of these:		
ENGL:2463	Topics in African American Literature	3
ENGL:2465	Selected African American Authors	3
ENGL:2475	Asian American Literature	3
ENGL:2505	Introduction to Postcolonial Studies	3
ENGL:2510	Selected Transnational Authors	3
ENGL:2560	Topics in Culture and Identity	3
ENGL:2570	Love, War, Activism: Stories About Women From Across the World	3
ENGL:2571	Visualizing Human Rights	3
ENGL:2593	Literature, Culture, and Women	3
ENGL:2601	Topics in British Culture and Identity	3
ENGL:3441	Native American Literature	3
ENGL:3444	Literatures of the American Peoples	3
ENGL:3450	American Regional Literatures	3
ENGL:3455	Jewish American Literature	3
ENGL:3459	African American Literature Before 1900	3
ENGL:3460	African American Literature After 1900	3
ENGL:3461	Twenty-First Century African American Literature	3
ENGL:3462	African American Drama	3
ENGL:3465	African American Autobiography	3
ENGL:3467	Latina/o/x Literatures and Cultures	3
ENGL:3470	Gender, Sexuality, and American Literature	3
ENGL:3510	Topics in Transnational Literature	3
ENGL:3515	Topics in Postcolonial Studies	3
ENGL:3520	Literature and Culture of the 20th and 21st Century	3
ENGL:3525	Literature and Culture of the Americas	3
ENGL:3535	Topics in Literature and Culture of the Americas	3
ENGL:3540	Literature of the Indian Subcontinent	3
ENGL:3550	African Literature	3
ENGL:3555	Topics in African Cinema	3
ENGL:3565	Literature and the Environment	3
ENGL:3570	Transnational and Postcolonial Writing by Women	3
ENGL:3571	Higher Education and Social Justice	3
ENGL:3572	Literature and Social Justice	3
ENGL:3573	Gender, Sexuality, and Literature	3
ENGL:3580	Identity and Social Issues	3
ENGL:3581	Topics in Popular Culture	3
ENGL:3595	International Literature Today	3

Craft and Method

English courses numbered ENGL:2100–ENGL:2199, ENGL:2700–ENGL:2799, ENGL:2900–ENGL:2999, ENGL:3010, ENGL:3100–ENGL:3199, ENGL:3700–ENGL:3899, and CNW:2000–CNW:4999 may be used for this requirement.

Course #	Title	Hours
Two of these:		
ENGL:2100	Introduction to Criticism and Theory	3
ENGL:2191	Modern Fiction	3
ENGL:2192	Postmodern Fiction	3
ENGL:2194	Lyric Structures	3
ENGL:2900	Book Design for Publishing	3
ENGL:2901	The Book in Global History	3
ENGL:3010	Children's Literature	3
ENGL:3100	Topics in Criticism and Theory	3
ENGL:3102	Topics in Poetry and Poetics	3
ENGL:3130	Topics in Film and Literature	3
ENGL:3140	Literature and the Book	3
ENGL:3142	Topics in Book History	3
ENGL:3145	Editorial Practice	3
ENGL:3148	Literary Editing	3
ENGL:3150	Literature and Philosophic Thought	3
ENGL:3155	Literature and Art	3
ENGL:3160	Literary Genres and Modes	3
ENGL:3181	Digital Media and Poetics	3
ENGL:3182	Digital Cultures and Literacies	3
ENGL:3186	Science Fiction	3
ENGL:3190	Language and Learning	3
ENGL:3191	Reading and Teaching Adolescent Literature	3
ENGL:3700	Topics in Craft and Method	3
ENGL:3721	Writers' Seminar: Fiction	3
ENGL:3722	Writers' Seminar: Poetry	3
ENGL:3723	Writers' Seminar: Nonfiction	3
ENGL:3724	Writers' Seminar: Literary Translation	3
ENGL:3725	Writers' Seminar: Playwriting	3
ENGL:3850	Undergraduate Translation Workshop	3
CNW:2680/ ENGL:2730	The Art and Craft of Creative Nonfiction	3
CNW:2700	The Art and Craft of Personal Writing	3
CNW:2710	The Art and Craft of Food Writing	3
CNW:2720	The Art and Craft of Writing About Culture	3

CNW:2730	The Art and Craft of Science Writing	3
CNW:2740	The Art and Craft of Writing about the Environment	3
CNW:2760	The Art and Craft of Writing for Social Change	3
CNW:2770	The Art and Craft of Writing for New Media	3
CNW:2780	The Art and Craft of Writing About Sports	3
CNW:2790	The Art and Craft of Humor Writing	3
CNW:2830	The Art and Craft of Immersion Journalism	3
CNW:2840	The Art and Craft of Travel Writing	3
CNW:2910	Writing for Applications and Awards	3
CNW:2991/ ENGL:2741	Publishing I: Introduction to Literary Publishing	3
CNW:2992/ ENGL:2742	Publishing II: Advanced Literary Publication	3
CNW:3600/ ENGL:3800	Issues in Creative Nonfiction	3
CNW:3630/ ENGL:3730	Advanced Nonfiction Writing	3
CNW:3632/ ENGL:3732	Prose Style	3
CNW:3633/ ENGL:3733	Personal Writing	3
CNW:3640	Writing for Business	3
CNW:3660/ ENGL:3760	Multimedia Writing	3
CNW:3661/ ENGL:3761	Film and Writing	3
CNW:3664/ ENGL:3764	Writing About Science	3
CNW:4355	Approaches to Teaching Writing	3
CNW:4631/ ENGL:4731	Advanced Essay Workshop	3
CNW:4635/ ENGL:4735	Advanced Creative Nonfiction Writing	3
CNW:4690	Undergraduate Project in Nonfiction Writing	3

Advanced Courses

Advanced courses give students flexible choices so they can focus on fiction, nonfiction, poetry, or other genres of writing, and provide the opportunity to experiment across genres. Courses focus on the particulars of craft, tradition, and innovation. Most of the advanced courses are repeatable and most have prerequisites.

Students must complete at least 3 s.h. in advanced creative writing courses from the following.

Course #	Title	Hours
ENGL:4011	Honors Workshop: Creative Writing	3
ENGL:4012	Honors Workshop: Fiction	3
ENGL:4013	Honors Workshop: Poetry	3
ENGL:4014	Honors Workshop: Creative Nonfiction	3
ENGL:4020	Honors Thesis Workshop	3
ENGL:4030	Undergraduate Honors Project in Creative Writing	1-3
ENGL:4720	Advanced Creative Writing: Special Topic	3
ENGL:4721	Advanced Writers' Seminar: Fiction	3
ENGL:4722	Advanced Writers' Seminar: Poetry	3
ENGL:4723	Advanced Writers' Seminar: Nonfiction	3
ENGL:4724	Advanced Writers' Seminar: Literary Translation	3
ENGL:4725	Advanced Writers' Seminar: Playwriting	3
CNW:4631/ ENGL:4731	Advanced Essay Workshop (if not taken for Craft and Method requirement)	3
CNW:4635/ ENGL:4735	Advanced Creative Nonfiction Writing (if not taken for Craft and Method requirement)	3

Electives

Students complete 12 s.h. in additional Department of English courses (prefixes ENGL or CNW) numbered above 2000; these may include ENGL:2030 Literary Readings Attendance, ENGL:2040 English at Work, ENGL:4010 Special Project for Undergraduates, and ENGL:4050 Internship for Majors. Students may count a maximum of 6 s.h. from courses listed as creative writing electives in the following course list.

Creative Writing Electives

The creative writing electives give students flexible choices to focus on fiction, nonfiction, poetry, or other genres of writing, and allow students to experiment across genres. Courses focus on the particulars of craft, tradition, and innovation. Many of the courses are repeatable, enabling students to further develop in a particular writing form.

Students should be aware that some of these courses have prerequisites.

Course #	Title	Hours
Creative writing courses (prefix CW) numbered 2000-4999		
CINE:3361	Screenwriting: Short Form	3
CINE:3367	Screenwriting: Long Form	3
COMM:2077	Writing and Producing Sitcoms	3
SPAN:3060	Introductory Workshop on Creative Writing in Spanish	3
THTR:2301	Playwriting I	3
THTR:3301	Playwriting II	3
THTR:3310	Undergraduate Playwriting Workshop	3
THTR:3320	Writing for Film	3
THTR:3325	Iowa Writers' Room	3
THTR:6310	Special Topics in Playwriting	3
WLLC:2473	Cinderella	3

WLLC:3208	Classical Chinese Literature Through Translation	3

Publishing Track

The world of publishing includes many different careers: editors, designers, agents, and even sales representatives. Students who are interested in these careers may wish to pursue the publishing track. By selecting courses carefully, students may complete the track without adding additional semester hours to their total credit required for graduation. Students should consult the department's advisor for information about completing the English major with the publishing track.

Courses range across print and digital media, exposing students to the history and practice of literary publishing while developing their skills in editing, proofreading, and writing with clarity and purpose. Internships and hands-on class learning offer students the opportunity to produce their own publications and gain practical experience.

Students in the publishing track must complete the following.

Literary Publishing

Course #	Title	Hours
Both of these (6 s.h.):		
CNW:2991/ ENGL:2741	Publishing I: Introduction to Literary Publishing	3
CNW:2992/ ENGL:2742	Publishing II: Advanced Literary Publication	3

Editing and Book Design, History, or Revision

Course #	Title	Hours
One of these (3 s.h.):		
ENGL:2900	Book Design for Publishing	3
ENGL:2901	The Book in Global History	3
ENGL:3140	Literature and the Book	3
ENGL:3142	Topics in Book History	3
ENGL:3145	Editorial Practice	3
ENGL:3148	Literary Editing	3
ENGL:3181	Digital Media and Poetics	3
ENGL:3182	Digital Cultures and Literacies	3
ENGL:3430	Topics in American Literature After 1900 (when topic is in print/in person)	3
ENGL:4150	Introduction to Book Studies	3
CNW:3600/ ENGL:3800	Issues in Creative Nonfiction (when topic is how to be a writer)	3
CNW:3632/ ENGL:3732	Prose Style	3

Career Preparation

Course #	Title	Hours
One of these (1-3 s.h.):		
ENGL:2040	English at Work	1
ENGL:4050	Internship for Majors	arr.
CCP:1201	Academic Internship	1-3

Teacher Licensure

Students who plan to teach English should consult with an advisor in the College of Education as early as possible; contact the Office of Student Services. The BA in English education [p. 1454] requires that students choose particular courses in the English major in order to meet all related requirements; both degrees may be earned at the same time. Separate application to each degree program is required.

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in English and creative writing and thereby enhance their course of study through honors seminars. All those interested in taking honors coursework are welcome to apply to the English Honors Program as soon as they qualify. The process begins with an online application; visit English Honors Programs on the Department of English website.

Students take three honors seminars and must achieve a University of Iowa grade-point average (GPA) of at least 3.33 and a major GPA of at least 3.50.

Each year the department offers between four and six creative writing seminars covering a wide range of genres, modes, and styles. Small and often workshop-oriented, these honors courses are open only to English and creative writing majors who have completed at least 24 s.h. of college-level work. Seminars are limited to 16 students, carry 3 s.h. of credit, and meet three hours each week.

Two of the three honors seminars are chosen from these selective admission courses. Early in the previous semester, those interested apply with a portfolio of their creative work; no minimum GPA is required, and decisions are made in time for preregistration. Successful applicants then register for ENGL:4011–ENGL:4014. Students may apply for only one seminar per semester.

The second of the two creative writing seminars may be replaced by ENGL:4030 Undergraduate Honors Project in Creative Writing, a capstone project. For this independent study option, interested students should seek out possible mentors in their junior year.

The third required honors course is a scholarship and criticism seminar chosen from ENGL:4001–ENGL:4009, courses that offer a wide range of subjects, authors, methods, and eras. Limited to 16 students, these courses also carry 3 s.h. of credit, meet three hours each week, and encourage class discussions that are lively and knowledgeable. Substantial reading and research are required and culminate in a 15–20 page essay.

To register for a scholarly seminar, honors students in English and creative writing are encouraged to have a University of Iowa GPA of at least 3.33. They must also have completed at least three courses: ENGL:2010 Foundation of

the English Major: Histories, Literatures, Pleasures; ENGL:2020 Foundations of Creative Writing: Craft, Practice, Pleasure; and a third departmental course of their choosing.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the English and creative writing major.

Career Advancement

The English and creative writing major prepares students for a wide variety of career paths including teaching, medicine, law, graduate school, and jobs in private and nonprofit sectors where writing, organization, research, and communication are highly valued. Within a year of graduation, over 92% of Department of English students are employed or in graduate programs.

The department's advisor helps guide students in their career path. The Department of English partners with the Pomerantz Career Center to introduce career development strategies and offer resources to help students find internships and jobs. For more information, students are encouraged to explore Careers and Opportunities on the Department of English website or enroll in ENGL:2040 English at Work (1 s.h.).

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the fifth semester begins: at least six courses in the major, including ENGL:2010 Foundation of the English Major: Histories, Literatures, Pleasures; ENGL:2020 Foundations of Creative Writing: Craft, Practice, Pleasure; and an approved introduction to creative writing course (consult advisor).

Before the seventh semester begins: at least four more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least two more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

English and Creative Writing, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Any Semester		
ENGL:2010	Foundation of the English Major: Histories, Literatures, Pleasures [b]	3
ENGL:2020	Foundations of Creative Writing: Craft, Practice, Pleasure [c]	3
GE CLAS Core: Understanding Cultural Perspectives [d]		3
RHET:1030	Rhetoric: Writing and Communication	4
Major: creative writing elective [e]		3
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d, f]		3
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
ENGL:2030	Literary Readings Attendance [g]	1
Elective course [h]		3
CSI:1600	Success at Iowa [i]	1
	Hours	**30**
Second Year		
Any Semester		
Major: craft and methods course [j]		3
Major: craft and methods course [j]		3
Major: literature in cultural contexts course (prefix ENGL numbered 2451-2699 and 3441-3699)		3
Major: English elective or honors seminar [k, l, m]		3
GE CLAS Core: Natural Sciences without Lab [d]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
GE CLAS Core: Values and Society [d]		3
GE CLAS Core: World Languages First Level Proficiency [n]		4 - 5
GE CLAS Core: World Languages Second Level Proficiency [n]		4 - 5
Elective course [h]		2 - 3
Students with a second major in screenwriting arts should complete CINE:1300 Foundations of Screenwriting, CINE:1602 Introduction to Film Studies, and CINE:1834 Modes of Film and Video Production by the end of the second year to be on track for graduation with a double major.		
	Hours	**32-35**
Third Year		
Fall		
Major: English elective or honors seminar [k, l, m]		3
Major: Elective course [l, m]		3
GE CLAS Core: Social Sciences [d]		3
GE CLAS Core: World Languages Third Level Proficiency [n]		4 - 5
Elective course [h]		1
	Hours	**14-15**
Spring		
Study Abroad (optional)		

Major: literature in historical contexts (prefix ENGL numbered 2200-2450 and 3200-3440)		3
Major: a cultural context course or historical context course [o]		3
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency [n]		4 - 5
Elective course [h]		3
Elective course [h]		1
	Hours	**17-18**

Fourth Year

Fall

ENGL:2040	English at Work [g]	1
Major: advanced writing elective or creative writing honors course or approved independent study project (see advisor)		3
Major: elective writing or literature course [l]		3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		2
	Hours	**15**

Spring

Major: Elective course [l, m]		3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [p]		
	Hours	**12**
	Total Hours	**120-125**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Major courses can be taken in any order as long as ENGL:2010 is taken before any 3000-level course.

c Students must first complete ENGL:2010 and ENGL:2020 before they enroll in advanced courses for the major.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students with a second major in screenwriting arts or theatre arts will usually fulfill this elective with a writing course from that major.

f Recommended courses to fulfill this requirement: THTR:2301 or CW:1800

g This course is recommended to fulfill the English elective requirement.

h Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

i First-year and transfer students enrolling for summer or fall will take CSI:1600 course during the fall semester of their first year.

j English courses numbered ENGL:21XX, 27XX, 29XX, ENGL:3010, ENGL:31XX, ENGL:37XX-38XX, and CNW:20XX-49XX may be used for the craft and method requirement.

k Students with honors in the major complete three seminars. Visit the Department of English website for more information on applying to the English Honors Program.

l Students may count a maximum of 6 s.h. from courses listed as creative writing electives. See the General Catalog for a list of courses.

m Students choose courses with the prefix ENGL or CNW numbered 2000 or above.

n Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

o See the General Catalog for a list of courses.

p Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

English, Minor

Requirements

The undergraduate minor in English requires a minimum of 15 s.h. in English courses, including 12 s.h. in courses taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. Students may count a maximum of 3 s.h. of approved transfer credit toward the minor.

The minor in English requires the following coursework.

Course #	Title	Hours
At least 6 s.h. from these:		
English courses (prefix ENGL) numbered 2100-2699		
ENGL:3010	Children's Literature	3
ENGL:3140	Literature and the Book	3
ENGL:3142	Topics in Book History	3
ENGL:3150	Literature and Philosophic Thought	3
ENGL:3155	Literature and Art	3
ENGL:3160	Literary Genres and Modes	3
ENGL:3181	Digital Media and Poetics	3
ENGL:3182	Digital Cultures and Literacies	3
ENGL:3186	Science Fiction	3
ENGL:4150	Introduction to Book Studies	3

The remaining 9 s.h. may be selected from additional English courses (prefix ENGL) and writing courses (prefixes CNW and CW), with a maximum of 6 s.h. earned in courses with the prefix CW. Only courses numbered above 2000 count toward the English minor.

English, MA

The Master of Arts program in English introduces students to the professional study of literature.

The MA is appropriate for students who would like graduate training in English and who may have an undergraduate major in a different field or who may intend to earn a PhD at another institution. Students interested in careers in any area of book studies (professional writing, editing, web design, or publishing) may wish to earn the MA as a terminal degree, as may teachers seeking to enhance their credentials or students pursuing intellectual growth unrelated to a specific career.

MA and PhD students in English mix freely in graduate courses, share the same access to faculty, and meet the same standards of quality in their work.

Exam for the Master of Arts in Teaching

The department administers the English component of the exam for the Master of Arts in Teaching (MAT) in coordination with the College of Education. MAT students should contact the Department of Teaching and Learning (College of Education) for information.

Learning Outcomes

- Writing skills: proficiency in writing means publishable-quality writing (e.g., what one would expect from an article placed in a scholarly or creative journal).
- Historical knowledge: comprehensive historical knowledge of literary history, reflected in courses taken across a range of literary periods and national/international traditions.
- Critical theory and approaches: rigorous study of critical methodologies and interpretive strategies.
- Research skills: familiarity with library research into secondary scholarship on primary texts, archival research methods, and field research, where applicable.
- Teaching skills: ideally, students will move from foundations-based grading positions under the supervision of tenure track faculty (introduction to the major) to rhetoric/composition coursework (rhetoric), and then on to literary analysis-focused courses (general education literature). Students learn to build their own syllabi, develop a teaching portfolio, and manage their own courses independently.
- Professional development: this includes conference presentations, curriculum vitae and résumé building, and teaching statements, along with exposure to career tracks, both academic (e.g., tenure track jobs, liberal arts colleges, community colleges, etc.) and alternative professions (e.g., digital humanities, humanities organizations, publishing, etc.).

Requirements

The Master of Arts program in English requires a minimum of 31–60 s.h. of graduate credit. The program is offered with two options: the literary studies subprogram [p. 442] (31 s.h.) and without a subprogram [p. 444] (60 s.h.).The subprogram in literary studies is designed for students pursuing the MA as a standalone program or for U2G students. The MA in English without a subprogram only applies to students admitted to the English PhD program; there is no direct admission to this subprogram.

The MA in English requires the following coursework.

Literary Studies Subprogram

The Master of Arts in English with a subprogram in literary studies requires a minimum of 31 s.h. of graduate credit. Students may receive credit for up to 6 s.h. of transfer courses toward the MA. They must maintain a graduate college program grade-point average (GPA) of at least 3.00. Applicable transfer courses must be approved by the director of graduate studies.

Requirements	Hours
Required Courses	6
Seminars and Readings: Historical Distribution Courses	6
Additional Courses	6
Electives	12
Capstone	1

Required Courses, Literary Studies

The criticism and theory course must be taken on an A–F graded basis.

Course #	Title	Hours
This course:		
ENGL:5000	Introduction to Graduate Study	3
Criticism and Theory		
One of these:		
ENGL:6000	Introduction to Contemporary Theory	3
ENGL:6050	Critical Readings in Cultural Studies: Stuart Hall's Legacy and Influences	3
ENGL:7000	Seminar: Cultural Studies	3
ENGL:7010	Seminar: Literary Criticism and Theory	3
ENGL:7050	Seminar: Performance Theory and Practice	3

Seminars and Readings: Historical Distribution Courses

Students complete one course from two of the three historical areas for a total of 6 s.h. These courses must be taken on an A–F graded basis.

Course #	Title	Hours
Pre-1700		
ENGL:6100	Readings in Medieval Literature and Culture	3
ENGL:6110	Medieval Authors	3
ENGL:6200	Sixteenth- and Seventeenth-Century Authors	3
ENGL:6210	Readings in Sixteenth- and Seventeenth-Century Genres	3
ENGL:6220	Shakespeare	3
ENGL:7100	Seminar: Medieval Literature and Culture	3
ENGL:7200	Seminar: Early Modern Literature and Culture	3

1700-1900		
ENGL:6300	Restoration and Eighteenth-Century Literature	3
ENGL:6400	Romantic Literature	3
ENGL:6500	Victorian Literature	3
ENGL:7300	Seminar: Restoration and Eighteenth-Century Literature	3
ENGL:7400	Seminar: Romantic Literatures	3
ENGL:7500	Seminar: Victorian Literature	3
1900-Present		
ENGL:6720	Twentieth-Century Literatures	3
ENGL:6730	Modernist Studies	3
ENGL:6760	Topics in Contemporary Literature	3
ENGL:6800	Readings in Postcolonial Literature and Theory	3
ENGL:6850	Topics in Creative Writing	3
ENGL:7700	Seminar: Studies in the 20th and 21st Century	3
ENGL:7800	Seminar: Postcolonial Studies	3

Additional Courses

Students complete two additional seminar or readings courses for a total of 6 s.h. Courses must be taken on an A–F graded basis. A course applied to the historical distribution requirement may not also count toward this requirement.

Course #	Title	Hours
6 s.h. from these:		
ENGL:6020	Literature as Letters	3
ENGL:6080	New Media Poetics	3
ENGL:6090	Topics in Interdisciplinary Studies	3
ENGL:6100	Readings in Medieval Literature and Culture	3
ENGL:6110	Medieval Authors	3
ENGL:6200	Sixteenth- and Seventeenth-Century Authors	3
ENGL:6210	Readings in Sixteenth- and Seventeenth-Century Genres	3
ENGL:6220	Shakespeare	3
ENGL:6300	Restoration and Eighteenth-Century Literature	3
ENGL:6315	MA Seminar: English Education	3
ENGL:6400	Romantic Literature	3
ENGL:6500	Victorian Literature	3
ENGL:6601	Readings in American Literature	3
ENGL:6602	Readings in American Literature II	3
ENGL:6603	Readings in American Literature III	3
ENGL:6610	Studies in African American Literature	3
ENGL:6620	Readings in Native American Literatures	3
ENGL:6630	Readings in Latina/o/x Literary and Cultural Studies	3
ENGL:6640	Readings in American Literary Genres	3
ENGL:6670	American Literary Magazines	3
ENGL:6720	Twentieth-Century Literatures	3
ENGL:6730	Modernist Studies	3
ENGL:6760	Topics in Contemporary Literature	3
ENGL:6765	Literature, Culture, and Environment	3
ENGL:6800	Readings in Postcolonial Literature and Theory	3
ENGL:6850	Topics in Creative Writing	3
ENGL:7000	Seminar: Cultural Studies	3
ENGL:7010	Seminar: Literary Criticism and Theory	3
ENGL:7050	Seminar: Performance Theory and Practice	3
ENGL:7100	Seminar: Medieval Literature and Culture	3
ENGL:7200	Seminar: Early Modern Literature and Culture	3
ENGL:7300	Seminar: Restoration and Eighteenth-Century Literature	3
ENGL:7400	Seminar: Romantic Literatures	3
ENGL:7500	Seminar: Victorian Literature	3
ENGL:7600	Seminar: American Literature and Culture	3
ENGL:7700	Seminar: Studies in the 20th and 21st Century	3
ENGL:7800	Seminar: Postcolonial Studies	3

Electives

Students complete an additional 12 s.h. of English courses (prefix ENGL) numbered 5000–7899, excluding ENGL:5990 MA Portfolio in Literary Studies, ENGL:5999 MA Thesis in Literary Studies, ENGL:6950 Colloquium: Teaching Foundations of the English Major, and ENGL:6960 Colloquium: Teaching Literature. Elective courses must be taken on an A–F graded basis. With the permission of the program, students may select elective courses outside of the Department of English. Students may wish to explore opportunities for interdisciplinary study, language study, experience in theory and practice of writing, or specialization in a field of literary scholarship.

Department of English graduate courses are repeatable with the written approval of the department's director of graduate studies.

Capstone

Completion of the MA in English with a literary studies subprogram requires either a thesis or a portfolio. Students submit a written description of their choice to the director of the program before the semester in which they plan to graduate.

Course #	Title	Hours
One of these:		
ENGL:5990	MA Portfolio in Literary Studies	1
ENGL:5999	MA Thesis in Literary Studies	1

MA Thesis

The thesis entails a 25- to 35-page essay of literary criticism consonant in form and content with the variety of articles published in journals and periodicals. The essay may not be submission-ready; rather, it must be a body of writing that looks toward possible publication. If the essay originated in a course taken during the program, it should be substantially revised per input from the thesis director and possibly the original course instructor.

The thesis may also assume a form that diverges from a traditional literary critical article. Alternate thesis projects must be approved by the director of graduate studies.

Students who choose to write a thesis must submit a brief prospectus approved by their thesis director before they register for ENGL:5999 MA Thesis in Literary Studies and at least one semester before they submit the thesis. See Academic Plans [p. 445] in this section of the catalog for detailed timelines for the submission and defense process. The thesis committee consists of the thesis director, the director of the MA program, and one other faculty member. The thesis is evaluated by the committee as either satisfactory (S) or unsatisfactory (U).

A copy of the thesis must be presented to the Graduate College for approval. For information about Graduate College deadlines and policies, see the Manual of Rules and Regulations on the Graduate College website.

MA Portfolio

Near the end of their coursework, students who do not choose the thesis option must submit a portfolio of work to the MA examination committee, which consists of the director of the MA program and two other English faculty members. All three read the full portfolio. To pass, the candidate must have a majority vote of the committee members.

Students take the first step toward preparing to submit a portfolio by meeting with the director of the MA program to discuss the portfolio, early during the semester in which they plan to graduate. After fulfilling all distribution and eligibility requirements and clearing all incomplete grades, students present the director with a draft of the portfolio's introductory statement. Students planning to graduate at the end of the fall semester should present the statement by the first week of October; those who plan to graduate at the end of the spring semester should present the statement by the first week of March. Once the director approves the statement, the student must submit three copies of the full portfolio; the submission deadline is Nov. 1 for students planning to graduate at the end of the fall semester and April 1 for those who will graduate at the end of the spring semester.

The work in the portfolio should demonstrate the student's knowledge of literature as a broad historical and theoretical inquiry. Students submit approximately 50 pages (12,500 words) of their best work, along with a self-reflective introductory statement of five to seven pages. The body of the portfolio should contain revised versions of papers originally produced for classes. The introduction should detail the student's trajectory in the program and the literary-critical or methodological skills gained. It should also explain the contents of the portfolio, contextualize each paper, and give a brief overview of the writing. Students are expected to describe the research methods used in assembling their portfolios and the critical practices that ground their work.

MA Without Subprogram

The Master of Arts in English without a subprogram requires a minimum of 60 s.h. of graduate credit. Students may receive credit for up to 18 s.h. of transfer courses toward the degree. They must maintain a graduate college program GPA of at least 3.00.

There is no direct admission to this subprogram; it is only open to students accepted into the English PhD program.

Each student must satisfy a portion of the course requirements of the PhD program. For the MA, the students must have completed the coursework that would normally be expected by that point in the program.

Requirements	Hours
Introduction to Graduate Study	3
Historical Distribution and Upper-Level Courses	27
Electives	21
Additional Courses	9

Introduction to Graduate Study

Course #	Title	Hours
This course:		
ENGL:5000	Introduction to Graduate Study	3

Historical Distribution and Upper-Level Courses

Historical Distribution

Students complete one course from each of the three historical areas for 9 s.h. total. See the preceding list titled Seminars and Readings: Historical Distribution Courses [p. 442] for available courses. A grade of B-plus or above is required for each course.

Upper-Level English Courses

Students complete an additional 18 s.h. of English courses (prefix ENGL) numbered 5000–7899, excluding ENGL:5990 MA Portfolio in Literary Studies, ENGL:5999 MA Thesis in Literary Studies, ENGL:6950 Colloquium: Teaching Foundations of the English Major, and ENGL:6960 Colloquium: Teaching Literature. These courses must be taken on an A–F graded basis.

Seminars

Of the 18 s.h. in upper-level courses and 9 s.h. in historical distribution courses, 9 s.h. must come from seminars. A grade of B-plus or above is required for each seminar.

Course #	Title	Hours
ENGL:7000	Seminar: Cultural Studies	3
ENGL:7010	Seminar: Literary Criticism and Theory	3
ENGL:7050	Seminar: Performance Theory and Practice	3
ENGL:7100	Seminar: Medieval Literature and Culture	3
ENGL:7200	Seminar: Early Modern Literature and Culture	3

ENGL:7300	Seminar: Restoration and Eighteenth-Century Literature	3
ENGL:7400	Seminar: Romantic Literatures	3
ENGL:7500	Seminar: Victorian Literature	3
ENGL:7600	Seminar: American Literature and Culture	3
ENGL:7700	Seminar: Studies in the 20th and 21st Century	3
ENGL:7800	Seminar: Postcolonial Studies	3

Electives

Students complete 21 s.h. of elective coursework taken on an A–F graded basis.

In consultation with their advisor, students select English courses (prefix ENGL) numbered 3000 and above, excluding ENGL:5990 MA Portfolio in Literary Studies, ENGL:5999 MA Thesis in Literary Studies, ENGL:6950 Colloquium: Teaching Foundations of the English Major, ENGL:6960 Colloquium: Teaching Literature, ENGL:7910 Advanced Studies in a Literary Period, ENGL:7920 Advanced Studies in a Literary Form, and ENGL:7960 Advanced Studies in a Literary Theme.

Elective coursework also includes courses numbered 3000 or above from the following subjects.

Course #	Title	Hours
Africam American studies (prefix AFAM)		
American studies (prefix AMST)		
Arabic studies (prefix ARAB)		
Art (prefix ART)		
Art history (prefix ARTH)		
American sign language (ASL)		
Cinema studies (prefix CINE)		
Chinese (prefix CHIN)		
Latin (prefix CLSL)		
Creative nonfiction writing (prefix CNW)		
Creative writing, writers' workshop (prefix CW)		
Dance (prefix DANC)		
Education teaching and learning (prefix EDTL)		
Educational policy and leadership studies (EPLS)		
French (prefix FREN)		
Graduate studies (prefix GRAD)		
German (prefix GRMN)		
Gender, women, and sexuality studies (prefix GWSS)		
History (prefix HIST)		
Italian (prefix ITAL)		
Korean (prefix KORE)		
Japanese (JPNS)		
Latin American studies (LAS)		
Latina/o/x studies (prefix LATS)		
Linguistics (prefix LING)		
Music (prefix MUS)		
Philosophy (prefix PHIL)		
Portuguese (prefix PORT)		
Psychological and quantitative foundations (prefix PSQF)		
Rhetoric (prefix RHET), excluding RHET:5350		
Russian (prefix RUSS)		
Library and information science (prefix SLIS)		
Spanish (prefix SPAN)		
Swahili (prefix SWAH)		
Theatre arts (prefix THTR)		
Translation (prefix TRNS)		
Center for the Book (prefix UICB)		
World languages, literatures, and cultures (prefix WLLC)		

With the permission of the program, students may be able to select additional courses from other subjects.

Additional Courses

Students complete 9 s.h. of additional coursework that may be taken either on an A–F or satisfactory/unsatisfactory (S/U) graded basis. They are required to complete the following three comprehensive exam preparation courses, each for a minimum of 1 s.h.

Students consult with their advisor on the number of credits they are required to enroll in for each course. In consultation with their advisor, students may select courses from the preceding list of elective [p. 445] subjects to complete the 9 s.h. as needed.

Course #	Title	Hours
At least 1 s.h. from each of these:		
ENGL:7910	Advanced Studies in a Literary Period	1-3
ENGL:7920	Advanced Studies in a Literary Form	1-3
ENGL:7930	Advanced Studies in a Literary Genre	1-3

Admission

Applications and all supporting documents for graduate admission must be submitted electronically by Dec. 14. Applicants should submit their applications and supporting materials to the University of Iowa Admissions website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

The Master of Arts in English degree helps prepare students for careers in professional writing, editing, web design, and publishing. It is also desirable for teachers seeking to enhance their credentials.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

English, MA

Literary Studies Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; up to 6 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
ENGL:5000	Introduction to Graduate Study [c]	3
Criticism and theory course [d]		3
Historical distribution course [e]		3
	Hours	**9**
Spring		
Historical distribution course [e]		3
Additional seminar or readings course [f]		3
Elective course [g, h]		3
	Hours	**9**
Second Year		
Fall		
Additional seminar or readings course [f]		3
Elective course [g, h]		3
Elective course [g, h]		3
	Hours	**9**
Spring		
ENGL:5990	MA Portfolio in Literary Studies [i]	1
Elective course [g, h]		3
Exam: Master's Final Exam		
	Hours	**4**
	Total Hours	**31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

d Must be taken on an A-F graded basis. See the General Catalog for list of approved courses.

e Students complete one course from two of the three historical areas for a total of 6 s.h.; must be taken on an A-F graded basis. See the General Catalog for list of approved courses.

f Students must complete two additional seminar or readings courses for a total of 6 s.h.; must be taken on an A-F graded basis. See the General Catalog for list of approved courses. A course applied to the historical distribution requirement may not also count toward this requirement.

g Students complete an additional 12 s.h. of English courses (prefix ENGL) numbered 5000-7899, excluding ENGL:5990, ENGL:5999, ENGL:6950, and ENGL:6960; courses must be taken on an A-F graded basis.

h Students may wish to explore opportunities for interdisciplinary study, language study, experience in theory and practice of writing, or specialization in a field of literary scholarship. Work with faculty advisor to determine appropriate coursework and sequence.

i Present the director with a draft of the portfolio's introductory statement by the first week of March. Once the director approves the statement, the student must submit three copies of the full portfolio by April 1.

English (nonfiction writing), MFA

The Master of Fine Arts in English with a nonfiction writing subprogram (emphasis in creative nonfiction) is offered through the Nonfiction Writing Program, one of the few programs in the nation that offers a full range of graduate courses in nonfiction.

Learning Outcomes

Students will:

- develop a common understanding and appreciation of the history and range of traditions of nonfiction writing including forms such as the essay, lyric essay, memoir, journalism, and experimental writing;
- explore and practice the range of narrative strategies, prose styles, and approaches to stylistic analysis through workshop courses;
- develop familiarity and experience with a range of research skills necessary to support the rigorous practice of nonfiction, including major theoretical approaches, and engage in reading-intensive discussions exploring new fields of nonfiction, including new writing technologies and media;
- develop an individual teaching philosophy and practical skills for teaching creative nonfiction writing, including designing courses for different audiences, crafting syllabi, producing exercises, maintaining vibrant classroom discussions, and learning helpful strategies for providing constructive feedback to the writing of others;
- engage in outreach programs making nonfiction expertise and instruction available to various audiences through master classes and other public formats;
- develop an understanding of the practical aspects of a writer's professional life, including an understanding of the basic operations of the publishing world and the necessary protocols leading to publication; and
- craft a long-form project in nonfiction; write a thesis of at least 75 pages of publishable-quality prose, the capstone of a graduate student's career in the Nonfiction Writing Program.

Requirements

The Master of Fine Arts program in English with a nonfiction writing subprogram requires a minimum of 48 s.h. of graduate credit taken at the University of Iowa. Students must earn a minimum UI cumulative grade-point average of 2.75. The program is designed for accomplished students and writers of literary nonfiction; most complete it in three years.

In addition to coursework, students are required to complete a thesis. The thesis may be a single extended piece of nonfiction, a collection of shorter nonfiction pieces, or a collection of essays. Whatever the project, the thesis is expected to be of publishable quality. The program culminates in a thesis of at least 75 pages. Students have plentiful room in their schedules to take advantage of a variety of electives offered by the English department and all other University of Iowa departments.

Department of English graduate courses are repeatable with the written approval of the department's director of graduate studies.

The MFA in English with a nonfiction writing subprogram requires the following coursework.

Required Courses

Course #	Title	Hours
All of these:		
CNW:6400	Nonfiction Writing Program Salon	4
CNW:6630	Graduate Thesis Workshop	4
CNW:6651	A History of the Essay	4
CNW:6666	Performance and Profession	3

Essay Writing

Course #	Title	Hours
CNW:6610	Essay Writing Workshop (taken four times for 3 s.h. each)	12

Seminar Electives

Course #	Title	Hours
15 s.h. from these:		
CNW:5375	Teaching in a Writing Center	3
CNW:6600	Teaching Nonfiction	3
CNW:6650	Readings in Nonfiction	3
CNW:6654	Forms of the Essay	3
CNW:6656	Approaches to Nonfiction	3
CNW:6660	Twenty-first-Century Nonfiction	3
ENGL:6960	Colloquium: Teaching Literature	2
ENGL:6961	Teaching Literature II	1
RHET:5350	Colloquium: Teaching Rhetoric	3

Thesis

Course #	Title	Hours
CNW:7950	Thesis in Nonfiction Writing (taken two times for 3 s.h. each)	6

For more information, consult the director of the Nonfiction Writing Program.

Admission

Applications and all supporting documents for graduate admission must be submitted electronically by Dec. 14. Applicants should submit their applications and supporting materials to the University of Iowa Admissions website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

NWP Alum on the Department of English website provides information about Nonfiction Writing Program graduates.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

English (nonfiction writing), MFA

Course	Title	Hours
Academic Career		
Any Semester		
48 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CNW:5375	Teaching in a Writing Center [b, c]	3
CNW:6610	Essay Writing Workshop [d]	3
CNW:6651	A History of the Essay [c]	4
	Hours	**10**
Spring		
CNW:6610	Essay Writing Workshop [d]	3
Seminar elective course [c]		3
Seminar elective course [c]		3
	Hours	**9**
Second Year		
Fall		
CNW:6610	Essay Writing Workshop [d]	3
Seminar elective course [c]		3
Seminar elective course [c]		3
	Hours	**9**
Spring		
CNW:6610	Essay Writing Workshop [d]	3
CNW:6666	Performance and Profession [c]	3
	Hours	**6**
Third Year		
Fall		
CNW:6400	Nonfiction Writing Program Salon	4
CNW:6630	Graduate Thesis Workshop [d]	4
CNW:7950	Thesis in Nonfiction Writing [e]	3
	Hours	**11**
Spring		
CNW:7950	Thesis in Nonfiction Writing [e]	3
Exam: Master's Final Exam [f]		
	Hours	**3**
	Total Hours	**48**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Note: CNW:5375 is optional but required for future appointments in Writing Center; counts towards seminar requirement.

c Complete a total of 15 s.h. of seminar elective courses. See the General Catalog for list of approved courses.

d Take four times for 3 s.h. each.

e Take two times for 3 s.h. each.

f Successful defense of thesis.

English, PhD

The Doctor of Philosophy program in English is designed to prepare students for a lifetime of literary study, as well as for the wide range of professions that require well-developed reading, research, writing, teaching, and administrative skills. The program emphasizes individual initiative, careful choice, and creativity. Students may concentrate in one or more of several areas, including literary history, critical theory, cultural studies, the digital humanities, and pedagogy. The department offers a version of the PhD that incorporates book studies, including a certificate from the UI Center for the Book [p. 1721], as well as a combined program with the Master of Arts in library and information sciences; see Combined Programs [p. 451] in this section of the catalog.

Learning Outcomes

- Writing skills: proficiency in writing publishable academic and creative work of high quality.
- Historical knowledge: comprehensive historical knowledge of literary history, reflected in courses taken across a range of literary periods and national/international traditions.
- Critical theory and approaches: rigorous study of critical methodologies and interpretive strategies.
- Research skills: familiarity with library research into secondary scholarship on primary texts, archival research methods, and field research, where applicable.
- Teaching skills: ideally, students will move from foundations-based grading positions under the supervision of tenure track faculty (introduction to the major) to rhetoric/composition coursework (rhetoric), and then on to literary analysis-focused courses (general education literature). Students learn to build their own syllabi, develop a teaching portfolio, and manage their own courses independently.
- Professional development: preparing conference presentations, curriculum vitae, résumés, and teaching statements, as well as gaining exposure to career tracks, both academic (e.g., tenure track jobs, liberal arts colleges, community colleges, etc.) and alternative professions (e.g., digital humanities, humanities organizations, publishing, etc.).

Requirements

The Doctor of Philosophy in English requires a minimum of 72 s.h. of graduate credit. Students may receive credit for up to 18 s.h. of transfer courses. They must maintain a graduate college program grade-point average of at least 3.00. Students may focus in areas such as literary history and critical theory, as well as interdisciplinary areas such as cultural studies and transnational studies.

The PhD in English requires the following coursework.

Requirements	Hours
Required Courses	30
Electives	21
Additional Courses	21
Additional Requirements	

Required Courses

Introduction to Graduate Study

Course #	Title	Hours
This course:		
ENGL:5000	Introduction to Graduate Study	3

Historical Distribution Courses

Students complete one course from each of the following three historical areas for 9 s.h. total. A grade of B-plus or above is required for each course.

Course #	Title	Hours
Pre-1700		
ENGL:6100	Readings in Medieval Literature and Culture	3
ENGL:6110	Medieval Authors	3
ENGL:6200	Sixteenth- and Seventeenth-Century Authors	3
ENGL:6210	Readings in Sixteenth- and Seventeenth-Century Genres	3
ENGL:6220	Shakespeare	3
ENGL:7100	Seminar: Medieval Literature and Culture	3
ENGL:7200	Seminar: Early Modern Literature and Culture	3
1700-1900		
ENGL:6300	Restoration and Eighteenth-Century Literature	3
ENGL:6400	Romantic Literature	3
ENGL:6500	Victorian Literature	3
ENGL:7300	Seminar: Restoration and Eighteenth-Century Literature	3
ENGL:7400	Seminar: Romantic Literatures	3
ENGL:7500	Seminar: Victorian Literature	3
1900-Present		
ENGL:6720	Twentieth-Century Literatures	3
ENGL:6730	Modernist Studies	3
ENGL:6760	Topics in Contemporary Literature	3
ENGL:6800	Readings in Postcolonial Literature and Theory	3
ENGL:6850	Topics in Creative Writing	3
ENGL:7700	Seminar: Studies in the 20th and 21st Century	3
ENGL:7800	Seminar: Postcolonial Studies	3

Upper-Level English Courses

Students complete an additional 18 s.h. of English courses (prefix ENGL) numbered 5000–7899, excluding ENGL:5990 MA Portfolio in Literary Studies, ENGL:5999 MA Thesis in Literary Studies, ENGL:6950 Colloquium: Teaching Foundations of the English Major, and ENGL:6960 Colloquium: Teaching Literature; these courses must be taken on an A–F graded basis.

Seminars

Of the 18 s.h. in upper-level courses and 9 s.h. in historical distribution courses, 9 s.h. must come from seminars. A grade of B-plus or above is required for each seminar.

Course #	Title	Hours
ENGL:7000	Seminar: Cultural Studies	3
ENGL:7010	Seminar: Literary Criticism and Theory	3
ENGL:7050	Seminar: Performance Theory and Practice	3
ENGL:7100	Seminar: Medieval Literature and Culture	3
ENGL:7200	Seminar: Early Modern Literature and Culture	3
ENGL:7300	Seminar: Restoration and Eighteenth-Century Literature	3
ENGL:7400	Seminar: Romantic Literatures	3
ENGL:7500	Seminar: Victorian Literature	3
ENGL:7600	Seminar: American Literature and Culture	3
ENGL:7700	Seminar: Studies in the 20th and 21st Century	3
ENGL:7800	Seminar: Postcolonial Studies	3

Electives

Students complete 21 s.h. of coursework taken on an A-F graded basis. Students are encouraged to explore their interdisciplinary interests, including the opportunity to complete a graduate certificate in book arts and book studies.

In consultation with their advisor, students select English courses (prefix ENGL) numbered 3000 and above, excluding ENGL:5990 MA Portfolio in Literary Studies, ENGL:5999 MA Thesis in Literary Studies, ENGL:6950 Colloquium: Teaching Foundations of the English Major, ENGL:6960 Colloquium: Teaching Literature, ENGL:7910 Advanced Studies in a Literary Period, ENGL:7920 Advanced Studies in a Literary Form, and ENGL:7960 Advanced Studies in a Literary Theme. Coursework numbered 3000 or above from an array of subjects may also be used as electives; see "Electives" in the MA in English, no subprogram section [p. 442] of the catalog for a full list of approved course subjects.

With the permission of the program, students may be able to select additional courses from other subjects.

Additional Courses

Students complete 21 s.h. of additional coursework that may be taken either on an A–F or satisfactory/unsatisfactory (S/U) graded basis. They are required to complete the following three comprehensive exam preparation courses and the thesis course, each for a minimum of 1 s.h.

Students consult with their advisor on the number of credits they are required to enroll in for each course. In consultation with their advisor, students may select courses from the preceding list of elective [p. 450] subjects to complete the 21 s.h. as needed.

Course #	Title	Hours
At least 1 s.h. from each of these:		
ENGL:7910	Advanced Studies in a Literary Period	1-3
ENGL:7920	Advanced Studies in a Literary Form	1-3
ENGL:7960	Advanced Studies in a Literary Theme	1-3
ENGL:7999	PhD Thesis	1-18

Book Studies Specialization

The book studies specialization requires 72 s.h. in courses numbered 3000 or above. Of these, at least 24 s.h. must be in English courses (prefix ENGL) numbered 5000 or above, 15 s.h. must be in Center for the Book courses (prefix UICB) numbered 4000 or above (see Center for the Book [p. 1721] in the Graduate College section of the catalog), 12 s.h. may be in courses numbered 3000 or above in the Department of English or in another unit, and 9 s.h. must be in independent studies related to a comprehensive exam. The remaining 12 s.h. of post-comprehensive courses numbered 3000 or above may be taken as graded or independent study coursework

Additional Requirements

World Language

Students must fulfill the program's world language requirement, usually by taking a standardized test or completing an advanced undergraduate course numbered 3000 or above in a language other than English with a grade of B or higher.

Comprehensive Exam

The comprehensive examination consists of the following: a portfolio of five scholarly questions based on a period of literary history (usually British or American), a review essay and annotated bibliography in a special area of interest, two course syllabi or alternate materials pertaining to an academic-adjacent career, an article to be submitted for publication, and an introduction to the portfolio that synthesizes its parts in preparation for a two-hour oral exam. Students enroll in ENGL:7910 Advanced Studies in a Literary Period, ENGL:7920 Advanced Studies in a Literary Form, and ENGL:7960 Advanced Studies in a Literary Theme to prepare for the exam.

Dissertation

A dissertation is required. Students present their prospectus formally to a faculty committee and must undergo a final exam defending the dissertation. Students continuously enroll in ENGL:7999 PhD Thesis throughout the dissertation process, from developing the prospectus until completing the final exam.

Teaching

All doctoral candidates are strongly advised to gain teaching experience, preferably in the College of Liberal Arts and Sciences Department of Rhetoric and in GE CLAS Core [p. 22] literature courses.

Combined Programs

MA in Library and Information Science/PhD in English

The combined MA in library and information science/PhD in English program prepares students for careers in academic libraries as humanities subject specialists, reference and instruction librarians, first-year experience librarians, special collections librarians and curators, and archivists. It also enhances the research profiles and methodological toolboxes of digital humanists as well as archival historicists, in addition to improving pedagogical skills. Offered by the Graduate College and the College of Liberal Arts and Sciences; see the MA in library and information science [p. 1773] in the catalog.

Admission

Applications and all supporting documents for graduate admission must be submitted electronically by Dec. 14. Applicants should submit their applications and supporting materials to the University of Iowa Admissions website.

For application forms and a complete description of the PhD program, contact the department's graduate program academic coordinator.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Most PhD graduates seek employment at colleges and universities. Although the Department of English cannot guarantee such employment, it does supply vigorous assistance. Because there is no certainty that all doctoral graduates in English will find continuing academic employment, it is valuable to remain open to the opportunity of jobs outside the profession of teaching. A number of graduates are finding employment in academic administration, the digital humanities, business, and government.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

English, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. of graduate level coursework must be completed; up to 18 s.h. of graduate transfer credits from an accredited institution allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
	Hours	**0**
First Year		
Fall		
ENGL:5000	Introduction to Graduate Study [d]	3
ENGL:6950	Colloquium: Teaching Foundations of the English Major [e]	1
Historical distribution course [f, g]		3
Historical distribution course [f, g]		3
	Hours	**10**
Spring		
ENGL:6950	Colloquium: Teaching Foundations of the English Major [e]	1
Historical distribution course [f, g]		3
Upper-level English course [f, h]		3
Upper-level English course [f, h]		3
World language requirement [i]		
	Hours	**10**
Second Year		
Fall		
RHET:5350	Colloquium: Teaching Rhetoric [j]	3
Upper-level English course [f, h]		3
Elective course [k]		3
	Hours	**9**
Spring		
Upper-level English course [f, h]		3
Elective course [k]		3
Elective course [k]		3
	Hours	**9**
Third Year		
Fall		
Upper-level English course [f, h]		3
Elective course [k]		3
Elective course [k]		3
	Hours	**9**
Spring		
ENGL:6960	Colloquium: Teaching Literature [e, l]	2
Upper-level English course [f, h]		3
Elective course [k]		3
	Hours	**8**
Fourth Year		
Fall		
ENGL:7910	Advanced Studies in a Literary Period [e]	1 - 3
ENGL:7920	Advanced Studies in a Literary Form [e]	1 - 3
ENGL:7960	Advanced Studies in a Literary Theme [e]	1 - 3
Exam: Doctoral Comprehensive Exam [m]		
	Hours	**3-9**
Spring		
Dissertation Prospectus Defense		
ENGL:7999	PhD Thesis [e, n]	3
	Hours	**3**

Fifth Year		
Fall		
ENGL:7999	PhD Thesis [e, n]	3
	Hours	**3**
Spring		
ENGL:7999	PhD Thesis [e, n]	3
	Hours	**3**
Sixth Year		
Fall		
ENGL:7999	PhD Thesis [e, n]	3
	Hours	**3**
Spring		
ENGL:7999	PhD Thesis [e, n]	2
Exam: Doctoral Final Exam [o]		
	Hours	**2**
	Total Hours	**72-78**

a Students may pursue certificates (including the book arts and book studies certificate), in conjunction with completing the degree requirements for the PhD. For more information check with the Graduate Program Coordinator.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

e Students complete 21 s.h. of additional coursework that may be taken either on an A-F or satisfactory/unsatisfactory (S/U) graded basis. The three comprehensive exam preparation courses (ENGL:7910, ENGL:7920, ENGL:7960) and the thesis course (ENGL:7999), each for a minimum of 1 s.h. are required. ENGL:6950 and ENGL6960 can also be counted toward this requirement. Students consult with their advisor on the number of credits they are required to enroll in for each course and may select additional courses from the approved list of electives to complete the requirement.

f Of the 18 s.h. in upper-level English courses and 9 s.h. in historical distribution courses, 9 s.h. must come from seminars; a grade of B-plus or above is required for each seminar. See the General Catalog for list of approved courses.

g Students complete one course from each of three historical areas for 9 s.h. total; a grade of B-plus or above is required for each course. See the General Catalog for list of approved courses.

h Students must complete 18 s.h. of English courses (prefix ENGL) numbered 5000-7899, excluding ENGL:5990, ENGL:5999, ENGL:6950, and ENGL:6960; these courses must be taken on an A-F graded basis.

i Students must fulfill the program's world language requirement, usually by taking a standardized test or completing an advanced undergraduate course numbered 3000 or above in a language other than English with a grade of B or higher.

j RHET:5350 may be counted toward either the graded elective or additional coursework requirement.

k Students complete 21 s.h. of coursework taken on an A-F graded basis. In consultation with their advisor, students select English courses (prefix ENGL) numbered 3000 and above, excluding ENGL:5990, ENGL:5999, ENGL:6950, ENGL:6960, ENGL:7910, ENGL:7920, and ENGL:7960.

l Required for TA employment.

m Requires a portfolio of five scholarly questions based on a period of literary history (usually British or American), a review essay and annotated bibliography in a special area of interest, two course syllabi or alternate materials pertaining to an academic-adjacent career, an article to be submitted for publication, and an introduction to the portfolio that synthesizes its parts in preparation for a two-hour oral exam.

n Students continuously enroll in ENGL:7999 throughout the dissertation process, from developing the prospectus until completing the final exam.

o Students present their prospectus formally to a faculty committee and must undergo a final oral exam defending the dissertation.

Enterprise Leadership

Director, Division of Interdisciplinary Programs

- Cornelia C. Lang (Physics and Astronomy)

Codirectors, Enterprise Leadership

- David K. Hensley, Cornelia C. Lang

Undergraduate major: enterprise leadership (BA)

Website: https://enterpriseleadership.clas.uiowa.edu

The enterprise leadership major equips students with a distinctive blend of professional skills to prepare them to pursue careers across a wide range of industries and organizations. This innovative program integrates applied coursework in entrepreneurship, organizational leadership, professional communication, and business consulting. A hallmark of the major is its capstone experience, which provides students with hands-on, real-world experience and the opportunity to apply entrepreneurial strategies to address business and societal challenges.

Students benefit from an array of cocurricular programming designed to enhance their skills; connect them with successful alumni, entrepreneurs, and industry leaders; and explore career opportunities with existing organizations and new ventures. They learn from accomplished faculty who have founded and led successful organizations, blending academic theory with practical insights.

Through this program, enterprise leadership majors develop in-demand competencies such as problem-solving, critical thinking, innovation, leadership, teamwork, and effective communication—skills that are essential for success in businesses of all sizes, nonprofit organizations, and government agencies. Students are introduced to the latest business and leadership approaches and learn how executives leverage innovation to successfully build sustainable organizations.

The major successfully prepares students to launch their careers and quickly be promoted into management and leadership positions. It is also an outstanding double major option for students seeking to develop a unique skill set that sets them apart in a competitive marketplace.

The major in enterprise leadership is offered jointly by the College of Liberal Arts and Sciences and the John Pappajohn Entrepreneurial Center in the Tippie College of Business.

The degree is awarded by the College of Liberal Arts and Sciences. Enterprise Leadership is one of the academic units in the Division of Interdisciplinary Programs [p. 363].

Programs

Undergraduate Program of Study

Major

- Major in Enterprise Leadership (Bachelor of Arts) [p. 454]

Enterprise Leadership, BA

Enterprise leadership is an interdisciplinary major that focuses on developing entrepreneurial management, leadership, and professional communication skills. The major promotes problem-solving, critical thinking, creativity, and innovation through understanding how to strategically address complex issues to meet consumer and organizational needs. Students also learn how to effectively communicate effectively with colleagues across all levels of an organization and external audiences and how to successfully build and lead interdisciplinary teams. Students earning this degree are uniquely positioned to pursue a wide variety of career opportunities, and graduates have leveraged their education and professional development to quickly advance in their careers.

Learning Outcomes

Students will:

- develop an entrepreneurial mindset to successfully identify, evaluate, and seize upon opportunities throughout their professional careers;
- understand the role of creativity, innovation, and management practices across the functional areas of businesses and organizations;
- develop a personal leadership approach that promotes effective teamwork, encourages diverse perspectives, and yields ethical solutions that create sustainable social and economic value;
- demonstrate critical thinking and problem-solving skills to strategically address complex issues and develop innovative, holistic, and sustainable solutions;
- demonstrate effective written and oral communication skills to professionally communicate and present information and recommendations in a clear, logical, and persuasive manner;
- understand the value and impact of contributions from diverse populations on businesses, organizations, and communities; and
- develop a global mindset by understanding the key economic, social, and cultural issues that impact local, national, and international entrepreneurship.

Requirements

The Bachelor of Arts with a major in enterprise leadership requires a minimum of 120 s.h., including a minimum of 43 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The BA in enterprise leadership may be earned at the Iowa City campus or online; more online courses are added each year. Students who wish to enroll in an online course should register in an EX section.

Students may use transfer coursework to fulfill Entrepreneurship and Business Core requirements in place of ENTR:1350 Foundations in Entrepreneurship and ENTR:2000 Entrepreneurship and Innovation. A minimum of 27 s.h. toward the major must be taken at the University of Iowa.

Students may count a maximum of 6 s.h. earned for another major or minor toward the BA in enterprise leadership, with the exception of the business administration minor. Enterprise leadership majors may count a maximum of three courses toward their major and a business minor.

Enterprise leadership majors may not earn the Certificate in Entrepreneurial Management.

The BA with a major in enterprise leadership requires the following coursework.

Requirements	Hours
Foundation Courses	9-11
Entrepreneurship and Business Core	16
Leadership Courses	6
U.S. Cultural Diversity Course	3
Communication Courses	6
Capstone Experience	3

Foundation Courses

Foundation courses introduce students to the basic skills, tools, and concepts they will need for the major. See MyUI for section information regarding modality.

Mathematics or Statistics

Course #	Title	Hours
One of these:		
MATH:1020	Elementary Functions	4
MATH:1340	Mathematics for Business	4
MATH:1350	Quantitative Reasoning for Business	4
MATH:1440	Mathematics for the Biological Sciences	4
MATH:1460	Calculus for the Biological Sciences	4
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:3510/ IGPI:3510	Biostatistics	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Entrepreneurship

Course #	Title	Hours
This course:		
ENTR:1350	Foundations in Entrepreneurship	3

Sociology

Course #	Title	Hours
This course:		
SOC:1010	Introduction to Sociology	3-4

Entrepreneurship and Business Core

The entrepreneurship and business core supports students' understanding of the essence and operation of entrepreneurial enterprises.

Course #	Title	Hours
All of these:		
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3050	Professional Preparation for Enterprise Leadership and Entrepreneurship	1
ENTR:3100	Entrepreneurial Finance	3
ENTR:3200	Entrepreneurial Marketing	3
ENTR:4200	Entrepreneurship: Business Consulting	3
ENTR:4400	Managing the Growth Business	3

Leadership Courses

These courses help students reflect on the importance of leadership while developing their own leadership style and skills.

Course #	Title	Hours
6 s.h. from these:		
CLAS:3500	Fundamentals of Project Management Leadership	3
CLAS:3600	Advanced Topics in Project Management Leadership	3
ENTR:3800/ MGMT:3800	Entrepreneurial Leadership Academy I	3
LS:1020	Introduction to Leadership	3
LS:1024	Hawkeye Service Breaks	1-3
LS:2002	Career Leadership Academy Part 1: Leadership in Practice	3
LS:2020	Women in Leadership	3
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3
LS:3004	Perspectives on Leadership: Principles and Practices	3
LS:3012	Leadership Theory to Practice	3
SOC:1220	Principles of Social Psychology	3-4
SOC:3530	Social Psychology of Small Groups	3
SOC:3610	Organizations and Modern Society	3
SOC:3880	The Sociology of Networks	3
SOC:4225	The Social Psychology of Leadership	3

U.S. Cultural Diversity Course

The following courses provide an overview of the complexity of diversity in the United States and a comprehensive introduction to related issues.

Course #	Title	Hours
One of these:		3
AFAM:1020/ AMST:1030	Introduction to African American Culture	3
AFAM:1030	Introduction to African American Society	3
AFAM:2079/ SPST:2079	Race and Ethnicity in Sport	3
AFAM:2267/ HIST:2267	African American History to 1877	3
AFAM:3500/ HIST:3160/ RELS:3808	Malcolm X, King, and Human Rights	3
AMST:2025	Diversity in American Culture	3
ANTH:2165/ AMST:2165/ NAIS:2165	Native Peoples of North America	3
GWSS:1001	Introduction to Gender, Women's, and Sexuality Studies	3
GWSS:1002	Diversity and Power in the U.S.	3
HIST:1040	Diversity in History	3
HIST:3275/ AFAM:3275	History of Slavery in North America	3
JMC:1500	Introduction to Social Media	3
LATS:2280/ HIST:2280	Introduction to Latina/o/x Studies	3
RELS:2000	Engaging Religious Diversity for Leadership and Entrepreneurship	3
SOC:2810	Social Inequality	3
SPST:1074/ AMST:1074/ GWSS:1074	Inequality in American Sport	3

Communication Courses

The following courses help students develop an understanding of contemporary communication theory and how it is applied.

Oral Communication

Course #	Title	Hours
One of these:		
COMM:1112	Interpersonal Communication	3
COMM:1117	Advocacy and Argument	3
COMM:1130	The Art of Persuading Others	3
COMM:1170	Communication Theory in Everyday Life	3
MGMT:4100	Dynamics of Negotiations	3
RHET:2055	Persuasion and Advocacy	3
RHET:2065	Persuading Different Audiences: Launching a Successful Career	3
RHET:2085	Speaking Skills	3
THTR:2610/ RHET:2610	Acting for Success	3

Written Communication

Course #	Title	Hours
One of these:		
BUS:3800	Business Writing	3
CNW:3640	Writing for Business	3
CW:3218/ INTD:3200	Creative Writing for New Media	3
INTD:3005/ CW:3005/ WRIT:3005	Professional and Creative Business Communication	3

Capstone Experience

Students engage in an entrepreneurial leadership experience and apply their knowledge and skills through a business consulting/field study project or internship with an external business or nonprofit organization. The capstone experience should be related to a student's career goals and involve the development and application of professional business skills such as project management; market research, analysis, and planning; financial management and forecasting; operations management; sales; organizational leadership; or professional business communications. Students may also choose to plan and launch their own business to meet the capstone requirement.

Students are encouraged to complete multiple capstone courses to enhance their professional development and strengthen their professional résumé.

Course #	Title	Hours
At least 3 s.h. from these:		
ENTR:3000	Practicum in Entrepreneurship	3
ENTR:3575	Commercializing New Technology II	3
ENTR:3850/ MGMT:3850	Entrepreneurial Leadership Academy II	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact (may be taken more than once)	1-3
ENTR:4200	Entrepreneurship: Business Consulting (may be repeated)	3
ENTR:4300	Launching an Entrepreneurial Venture	3
ENTR:4900	Academic Internship	3
Another experiential learning course from a College of Liberal Arts and Sciences major, with prior approval from the director of enterprise leadership		

The John Pappajohn Entrepreneurial Center offers two innovative final-year experiences: the Entrepreneurial Leadership Academy (ELA) and the Commercializing New Technology Academy (CNTA). The two ELA courses, ENTR:3800 Entrepreneurial Leadership Academy I and ENTR:3850 Entrepreneurial Leadership Academy II, provide selected students with an advanced study of leadership, communications, and project management and include an advanced management consulting project. ENTR:3800 is a prerequisite for ENTR:3850; only ENTR:3850 may count toward the capstone requirement. The two CNTA courses, ENTR:3550 Commercializing New Technology I and ENTR:3575 Commercializing New Technology II, provide selected students with an advanced opportunity to learn the process of identifying technology solutions, developing business models, and preparing business plans and pitch decks. ENTR:3550 is a prerequisite for ENTR:3575; only ENTR:3575 may count toward the capstone requirement.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Students must earn a minimum of 46 s.h. of work for the major. They must maintain a University of Iowa cumulative grade-point average (GPA) of 3.50 and a GPA of at least 3.50 in all coursework for the major. Students must earn at least 6 s.h. of honors or honors-designated coursework for the major. They must also complete an honors thesis in ENTR:4999 Honors Thesis in Entrepreneurial Studies by creating original research in partnership with a full-time faculty member. In addition, students must complete the capstone experience required for the major.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the enterprise leadership major.

Career Advancement

Enterprise leadership students develop a solid foundation in entrepreneurial management, leadership, and professional communication skills that prepare them for a variety of career opportunities or to start their own business. Students are able to apply their innovative problem-solving and critical thinking skills to contemporary issues, develop strategies to seize opportunities, and build and lead successful teams.

Graduates find rewarding careers in general management, business analysis, business development, marketing and professional communications, management consulting, general or project management, sales, financial management, and as founders or executives in start-up businesses. Students are prepared to become entrepreneurial-minded leaders in large corporations, small- to medium-sized businesses, and nonprofit organizations.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the fifth semester begins: six courses in the major.

Before the seventh semester begins: four more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: four more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Enterprise Leadership, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
SOC:1010	Introduction to Sociology [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
GE CLAS Core: Values and Society [c]		3
CSI:1600	Success at Iowa	1
Elective course [d]		3
	Hours	**16-17**
Spring		
ENTR:1350	Foundations in Entrepreneurship	3
Major: mathematics or statistics course [e]		3 - 4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Natural Sciences with Lab [c]		4
Elective course [d]		3
	Hours	**16-18**
Second Year		
Fall		
ENTR:2000	Entrepreneurship and Innovation	3
GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
	Hours	**16-17**
Spring		
ENTR:3050	Professional Preparation for Enterprise Leadership and Entrepreneurship	1
ENTR:3200 or ENTR:3100	Entrepreneurial Marketing or Entrepreneurial Finance	3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
	Hours	**14-15**
Summer		
ENTR:4900	Academic Internship [g]	0 - 3
	Hours	**0-3**
Third Year		
Fall		
ENTR:3100 or ENTR:3200	Entrepreneurial Finance or Entrepreneurial Marketing	3
Major: entrepreneurial elective course [g]		3
GE CLAS Core: Natural Sciences without Lab [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
	Hours	**16-17**
Spring		
ENTR:4200	Entrepreneurship: Business Consulting	3
Major: U.S. cultural diversity course [h]		3
Major: leadership course [i]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
	Hours	**16-17**
Summer		
ENTR:4900	Academic Internship [g]	0 - 3
	Hours	**0-3**
Fourth Year		
Fall		
ENTR:4400	Managing the Growth Business	3
Major: communication course [j]		3 - 4
Major: entrepreneurial elective course [g]		3
Major: leadership course [i]		3
Elective course [d]		3
	Hours	**15-16**
Spring		
ENTR:4200	Entrepreneurship: Business Consulting [h]	3
Major: communication course [j]		3
Major: entrepreneurial elective course [g]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**124-138**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students

should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Students should choose a mathematics or statistics requirement that will also complete the GE CLAS Core Quantitative or Formal Reasoning requirement; see the General Catalog for list of approved courses.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g This course or experience is recommended not required.

h See the General Catalog for list of approved courses.

i Students must complete at least 6 s.h. in leadership courses; see the General Catalog for list of approved courses.

j Students must complete both oral and written communication courses (3.s.h. each for a total of 6 s.h.); see the General Catalog for lists of approved courses.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Ethics and Public Policy

Chair, Department of Philosophy

- Ali M. Hasan

Codirectors, Ethics and Public Policy

- Richard Fumerton (Philosophy), Diane Jeske (Philosophy)

Undergraduate major: ethics and public policy (BA)

Faculty: https://ethicspublicpolicy.uiowa.edu/people

Website: https://ethicspublicpolicy.uiowa.edu/

Ethics and public policy is an interdisciplinary major that presents perspectives on intersecting issues that connect the study of philosophy, economics, law, political science, and sociology. All of these disciplines involve a focus on practical questions concerning how individuals ought to behave and how they ought to regulate the behavior of others.

For example, law exists in order to regulate human behavior, enforce human ideals, and resolve human conflict. And, most people agree that what society should do depends in part on the actual or potential consequences of its actions, and some of the most important consequences of actions and policies are economic. So it is folly to try to reason clearly about how to rectify injustice without thinking long and hard about the economic impact of one’s plans. But law and social policy affect more than economics; they have a role in constructing the very fabric of society and the nature of the political state in which we want to live.

Students choose one field of specialization for the major and may find it easy to pursue a second major in another of the major's specialization fields, thus broadening their prospects for choosing graduate schools or beginning professional careers.

The departments of Philosophy, Political Science, and Sociology and Criminology (College of Liberal Arts and Sciences), and the Department of Economics (Tippie College of Business), collaborate to present the major in ethics and public policy; the major is administered by the Department of Philosophy [p. 880].

Programs

Undergraduate Program of Study

Major

- Major in Ethics and Public Policy (Bachelor of Arts) [p. 460]

Ethics and Public Policy, BA

Learning Outcomes

The general goals of the major in ethics and public policy are to:

- give students familiarity with the subject matter and methods of four closely related, but distinct disciplines—philosophy, economics, sociology, and political science—acquaintance with which is particularly important for those entering law, government and public service, and related fields;
- teach students to think critically, understand important distinctions, and present and defend positions;
- allow students to see the connections between problems that arise in the four fields that make up the cross-disciplinary major;
- encourage students to solve problems by drawing insights from different fields; and
- prepare students for postgraduate work in one or more of the fields, law school, or any of the many careers where the skills fostered in the major will be invaluable.

Ethics and Public Policy Initiatives

- Increase interactions among majors through events such as clubs and movie nights cosponsored by the Department of Philosophy and the ethics and public policy major.
- Encourage promising students to work individually with faculty on honors projects.
- Continue to improve advising.
- Continue to offer a 1 s.h. course that gives credit to students for participation in some of the programmed lectures, clubs, and film screenings, among other events.
- Advertise and encourage students to enroll in a 2–3 s.h. course that involves relevant internships.
- Review the department's current survey, which can provide more useful and fine-grained advice to improve the ethics and public policy major.

Requirements

The Bachelor of Arts with a major in ethics and public policy requires a minimum of 120 s.h., including at least 37 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The curriculum includes foundation courses and the work for one field of specialization.

The BA with a major in ethics and public policy requires the following coursework.

Requirements	Hours
Philosophy Foundation Courses	6
Economics Foundation Courses	7-8
Political Science Foundation Courses	6
Sociology Foundation Courses	6-7
Field of Specialization Courses	12

Foundation Courses

Foundation courses introduce students to each of the disciplines that participate in the major: philosophy, economics, political science, and sociology. These courses provide students with the basic reasoning skills they will need for advanced study. The foundation courses also help students make an informed selection of their specialization field.

All students are required to take PHIL:1636 Principles of Reasoning: Argument and Debate or PHIL:2603 Introduction to Symbolic Logic in order to gain facility with abstract, formal reasoning.

Some courses may be listed in both a foundation area and a specialization field; students may use a course to fulfill only one requirement for the major.

Philosophy Foundation

Reasoning

Course #	Title	Hours
One of these:		
PHIL:1636	Principles of Reasoning: Argument and Debate	3
PHIL:2603	Introduction to Symbolic Logic	3

Value Theory

Course #	Title	Hours
One of these:		
PHIL:1034	Liberty and the Pursuit of Happiness	3
PHIL:1401	Matters of Life and Death	3
PHIL:2402	Introduction to Ethics	3
PHIL:2422	Feminist Ethics	3
PHIL:2432	Introduction to Political Philosophy	3
PHIL:2435	Philosophy of Law	3
PHIL:2436	The Nature of Evil	3

Economics Foundation

Course #	Title	Hours
This course:		
ECON:1100	Principles of Microeconomics	4
One of these:		
ECON:1200	Principles of Macroeconomics	4
ECON:3380	Business and Government	3
ECON:3650	Policy Analysis	3
ECON:3760	Health Economics	3

Political Science Foundation

Foundation

Course #	Title	Hours
One of these:		
POLI:1100	Introduction to American Politics	3
POLI:1300	Introduction to Political Thought and Action	3
POLI:1400	Introduction to Comparative Politics	3

POLI:1700	Introduction to Political Analysis	3

Policy

Course #	Title	Hours
One of these:		
POLI:1501	Introduction to American Foreign Policy	3
POLI:3111	American Public Policy	3

Sociology Foundation

Theory

Course #	Title	Hours
One of these:		
SOC:1010	Introduction to Sociology	3-4
SOC:1030	Contemporary Social Problems	3-4

Law, Sociology, and Criminology

Course #	Title	Hours
One of these:		
CRIM:1410	Introduction to Criminology	3
CRIM:1447	Introduction to the Criminal Justice System	3
CRIM:2430	Comparative Criminal Justice Systems	3
CRIM:2460	Policing in Modern Society	3
CRIM:3425	Women, Crime, and Justice	3
SOC:2130	Sociological Theory	3
SOC:2810	Social Inequality	3
SOC:3510	Medical Sociology	3

Fields of Specialization

Students select one of the following fields of specialization: philosophy, economics, political science, or sociology. Students must complete four courses in their field (12 s.h.), selected from one of the following course lists.

Some courses may be listed in both a foundation area and a specialization field; students may use a course to fulfill only one requirement for the major.

Philosophy

Course #	Title	Hours
PHIL:2402	Introduction to Ethics	3
PHIL:2415	Bioethics	3
PHIL:2422	Feminist Ethics	3
PHIL:2425	Sex, Marriage, Friendship, and the Law	3
PHIL:2429	War, Terrorism, and Torture	3
PHIL:2432	Introduction to Political Philosophy	3
PHIL:2435	Philosophy of Law	3
PHIL:2436	The Nature of Evil	3
PHIL:3342	Multiculturalism and Toleration	3
PHIL:3430	Philosophy of Human Rights	3
PHIL:3604	Introduction to Philosophy of Science	3
PHIL:3902	Workshop: Analytical Skills for the LSAT	3
PHIL:3920	Philosophy in Public	1-3
PHIL:4375	Rawls's Political Philosophy	3
PHIL:4480	Analytic Ethics	3
PHIL:4481	Issues in Philosophy of Law	3
PHIL:4482	Early Modern Ethics	3
PHIL:4485	Political Philosophy	3
PHIL:4510	Neuroethics	3

Economics

Course #	Title	Hours
ECON:3100	Intermediate Microeconomics	3
ECON:3345	Global Economics and Business	3
ECON:3350	Industry Analysis	3
ECON:3380	Business and Government	3
ECON:3620	Economic Growth and Development	3
ECON:3625	Environmental and Natural Resource Economics	3
ECON:3640	Regional and Urban Economics	3
ECON:3650	Policy Analysis	3
ECON:3760	Health Economics	3
ECON:4160	Public Sector Economics	3

Political Science

Course #	Title	Hours
POLI:2417	Comparative Environmental Policy	3
POLI:3101	American Constitutional Law and Politics	3
POLI:3102	The U.S. Congress	3
POLI:3104	Immigration Politics	3
POLI:3110	Local Politics	3
POLI:3111	American Public Policy	3
POLI:3114	Women and Politics in the United States	3
POLI:3116	The Presidency	3
POLI:3117	Bureaucratic Politics and Public Administration	3
POLI:3118	Interest Groups	3
POLI:3120	The Criminal Justice System	3
POLI:3121	The Judicial Process	3
POLI:3127	Legislative Policy Seminar	3
POLI:3160	Applied Research in Political Science	1-3
POLI:3204	Public Opinion	3
POLI:3302	Current Political Theory	3
POLI:3306	Problems of Democracy	3
POLI:3350	Games of Politics	3
POLI:3411	Democracy: Global Trends and Struggles	3
POLI:3423	The Middle East: Policy and Diplomacy	3
POLI:3424	Global Development	3
POLI:3427	Latinas/os/x and the Law	3

POLI:3428	Statecraft, Diplomacy, and World Order	3
POLI:3503	Politics of Terrorism	3
POLI:3509	International Courts: The Intersection of Law and Politics	3
POLI:3512	International Conflict	3
POLI:3516	The Politics of International Economics	3
POLI:3518	Water Wars: Conflict and Cooperation	3
POLI:3519	Politics of Aging	3
POLI:3530	Diplomacy Lab	3
POLI:3560	Public Policy and Persuasion	3
POLI:3601	Politics of Film	3

Sociology

Course #	Title	Hours
CRIM:3415	Global Criminology	3
CRIM:3416	Race, Crime, and Justice	3
CRIM:3417	Community Corrections	3
CRIM:3420	Juvenile Delinquency	3
CRIM:3437	American Crime	3
CRIM:3450	Criminal Legal System	3
CRIM:4400	Internship in Criminal Justice and Corrections	3
CRIM:4420	Criminal Punishment	3
CRIM:4430	Interpersonal Violence in Society	3
CRIM:4440	Sociology of White-Collar Crime	3
CRIM:4450	Juvenile Justice: A Sociolegal Perspective	3
CRIM:4460	Sociology of Law	3
SOC:2830	Race and Ethnicity	3
SOC:3171	Drugs and Society	3
SOC:3510	Medical Sociology	3
SOC:3525	Public Opinion	3
SOC:3540	Social Psychology of Good and Evil	3
SOC:3610	Organizations and Modern Society	3
SOC:3650	Education, Schools, and Society	3
SOC:3880	The Sociology of Networks	3
SOC:4200	Sociology of Religion	3
SOC:4540	Political Sociology and Social Movements	3

Student-Designed Field

In rare circumstances, a student may be given permission to design a specialization field. The student specifies four courses (12 s.h.) numbered 3000 or above, or as considered advanced by the department offering the course. Courses should be interconnected and must suggest a coherent interest. The student-designed field may not duplicate any of the established specialization fields for the major. It also may not include a course that satisfies another requirement for the major.

Students interested in designing their own specialization field should speak with an advisor as early as possible. They must obtain approval from their advisor and from the steering committee of the major in ethics and public policy as soon as possible after they declare the major and before they complete the designated coursework.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Honors students must maintain a grade-point average (GPA) of at least 3.50 in work for the major and a cumulative University of Iowa GPA of at least 3.33; the UI cumulative GPA requirement is set by the College of Liberal Arts and Sciences. In order to graduate with honors in the major, students must complete all work for the major and write an acceptable honors thesis on a significant topic related to the major. Students who write their honors thesis in philosophy should consider preparing for the thesis by taking PHIL:3950 Readings in Philosophy; students who write in economics should consult the coordinator of the Ethics and Public Policy Program for an appropriate course. Students who write in political science should take either POLI:4600 Honors Research Project or POLI:4601 Honors Senior Thesis. Students who write in sociology and criminology should consider taking SOC:4997 Honors Seminar. Contact the coordinator of the Ethics and Public Policy Program for more information.

Students who choose to write an honors thesis are required to schedule an oral discussion of their completed honors thesis, mainly to enrich the intellectual experience of its author. A student discusses the thesis with a faculty committee including the thesis director and the department's honors director or a faculty member designated by that official. The committee may withhold approval of fundamentally inadequate theses, but directors are to schedule theses for discussion only when they are ready. The discussion typically concentrates on exploring thesis ideas from several perspectives rather than whether to approve a thesis.

It is expected that students wishing to pursue the honors thesis (POLI:4601 Honors Senior Thesis) begin discussing the thesis with their thesis director one full semester prior to the semester in which they want to write the thesis. Students should consider enrolling in POLI:4700 Independent Study for 1 s.h. the semester before enrolling in the thesis seminar.

University of Iowa Honors Program

In addition to honors in the major, students have a variety of opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the ethics and public policy major.

Career Advancement

The ethics and public policy major provides an ideal background for law school. It brings an important background to legal studies in fields that both explicitly and implicitly arise in the context of pursuing a JD degree. The study of reasoning, an important component of the major, is useful in preparing for the Law School Admission Test (LSAT), the Graduate

Management Admission Test (GMAT), and the Medical College Admission Test (MCAT). The major also prepares students to bring a sophisticated, cross-disciplinary perspective to diverse fields such as government, urban and regional planning, social work, and business.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major.

Before the third semester begins: at least one course in the major.

Before the fifth semester begins: at least three courses in the major.

Before the seventh semester begins: at least seven courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least nine courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Ethics and Public Policy, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
SOC:1010 or SOC:1030	Introduction to Sociology or Contemporary Social Problems	3 - 4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [b]		4 - 5
Elective course [c]		3
CSI:1600	Success at Iowa	1
	Hours	**14-17**
Spring		
Major: political science foundation course		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [b]		4 - 5
Elective course [c]		2
	Hours	**15-17**
Second Year		
Fall		
ECON:1100	Principles of Microeconomics	4
Major: philosophy foundation (value theory) course		3
GE CLAS Core: Natural Sciences with Lab [d]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [b]		4 - 5
Elective course [c]		1
	Hours	**16-17**
Spring		
PHIL:2603 or PHIL:1636	Introduction to Symbolic Logic or Principles of Reasoning: Argument and Debate	3
POLI:1501 or POLI:3111	Introduction to American Foreign Policy or American Public Policy	3
Major: sociology foundation (law, sociology and criminology) course		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [b]		4 - 5
Elective course [c]		3
	Hours	**16-17**
Third Year		
Fall		
Major: economics foundation course		3 - 4
GE CLAS Core: Natural Sciences without Lab [d]		3
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
Elective course [c]		3
Elective course [c]		3
	Hours	**15-16**
Spring		
Major: field of specialization course		3
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: Values and Society [d]		3
Elective course [c]		3
Elective course [c]		3
	Hours	**15**
Fourth Year		
Fall		
Major: field of specialization course		3
Major: field of specialization course		3
GE CLAS Core: Historical Perspectives [d]		3
Elective course [c]		3
Elective course [c]		3
	Hours	**15**
Spring		
Major: field of specialization course		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
Elective course [c]		3
Elective course [c]		3
Elective course [c]		3

Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall)[e]	
Hours	**15**
Total Hours	**121-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

c Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Event Management

Director, School of Journalism and Mass Communication

- Melissa Tully

Coordinator, Event Management

- Heather J. Spangler (Journalism and Mass Communication)

Undergraduate certificate: event management

Website: https://journalism.uiowa.edu/certificate-event-management

Nearly every kind of organization has a need to create and manage events, from corporations to recreational centers, from hotels to sports teams. The Certificate in Event Management is designed to serve the career goals of a growing number of students who want to learn about the profession and wish to enter the field. It combines experiential learning with academic coursework, preparing students with the practical and intellectual skills necessary to succeed in the industry. The certificate is both interdisciplinary and intercollegiate.

Students who earn the Certificate in Event Management will know and be able to demonstrate the basic principles of organizing a successful event. They will gain a robust understanding of the diverse field of event management and careers in the event management industry.

In addition to these core competencies, students gain proficiency in:

- strategic and professional communication (oral, written, visual/design, interpersonal, group, professional, social media, and marketing);
- project management (goal setting, time management, financial, risk management, site and staff management, event design, and technology); and
- cultural and social awareness (religious, cultural, physical, and social nuances that impact event management choices; best practices for safe, inclusive events; and legal and ethical issues).

The School of Journalism and Mass Communication [p. 621] and the departments of Communication Studies [p. 266], Health, Sport, and Human Physiology [p. 505] (College of Liberal Arts and Sciences), and Marketing [p. 1261] (Tippie College of Business) collaborate to offer the certificate. The Certificate in Event Management is administered by the School of Journalism and Mass Communication.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Event Management [p. 466]

Courses

Event Management Courses

EVNT:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings). Requirements: first- or second-semester standing.

EVNT:2110 Internship in Event Management **3 s.h.**
Internship for event management certificate. Prerequisites: (EVNT:3154 or SRM:3154) and (EVNT:3260 or SRM:3147).

EVNT:3154 Foundations of Event Management **3 s.h.**
Large, major special events, professional meetings, and conferences; development and planning, implementation of events, management and evaluation of events; development requirements of planning events, development strategies, budgeting, staffing requirements, resource allocation, site planning, basic risk management requirements, emergency procedures; event implementation policy and procedures; relationship to elements within development stages; event management and evaluation procedures.

EVNT:3160 Crisis Management **3 s.h.**
Exploration of crisis management through research, speakers, and hands-on experience.

EVNT:3165 Event Marketing **3 s.h.**
Understand event marketing best practices, especially through the lenses of law and ethics, writing and storytelling, and multiculturalism.

EVNT:3170 Venue Management **3 s.h.**
Exploration of venue management field through speakers, research, and hands-on experiences.

EVNT:3180 Sustainable Events **3 s.h.**
Events can have a substantial impact on our natural environment, and choices event managers make are critical in minimizing an event's carbon footprint; students explore sources of event waste, zero-waste event planning, careers in sustainable events, and more.

EVNT:3185 Topics in Event Management **3 s.h.**
Focus on particular area, issue, approach, or body of knowledge in the world of event planning; topics may include political campaign events, social media events, diversity issues, and risk management.

EVNT:3260 Event Management Workshop **3 s.h.**
Hands-on experience in event planning; working with clients, conceptualizing events, lining up small and large details, promoting events via social media and other means, carrying out events, and reflecting on outcomes; meet with event planning professionals; complete individual and group projects. Prerequisites: EVNT:3154 or SRM:3154.

Event Management, Certificate

Requirements

The undergraduate Certificate in Event Management requires a minimum of 21 s.h. of credit, including at least 6 s.h. in event management coursework (prefix EVNT). A maximum of 9 s.h. of approved transfer work may be applied to the Focused Elective requirements of the certificate. Students must maintain a grade-point average of at least 2.00 in work for the certificate.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Students take EVNT:3154 Foundations of Event Management or SRM:3154 Foundations of Event Management prior to registering for EVNT:3260 Event Management Workshop or SRM:3147 Sport Event Management. Both core courses must be completed before students register for their internship under the applicable course number: EVNT:2110, SRM:4196, SRM:4197 or SRM:4199.

Some of the certificate courses have prerequisites not included in the certificate requirements. Students should select courses for which they have met the prerequisites.

The Certificate in Event Management requires the following coursework.

Core Courses

Course #	Title	Hours
One of these:		
EVNT:3154	Foundations of Event Management	3
SRM:3154	Foundations of Event Management	3
And one of these:		
EVNT:3260	Event Management Workshop	3
SRM:3147	Sport Event Management	3

Internship

The core courses must be completed prior to enrollment in the internship.

Course #	Title	Hours
One of these:		
EVNT:2110	Internship in Event Management	3
SRM:4196	Interscholastic Athletic Administration Field Experience (must enroll in at least 3 s.h.)	arr.
SRM:4197	Sport and Recreation Field Experience	3
SRM:4199	Independent Sport and Recreation Field Experience (must enroll in at least 3 s.h.)	arr.

Focused Electives

Course #	Title	Hours
A minimum of 12 s.h. chosen from these (6 s.h. of focused elective coursework must be numbered 2000 or above with no more than two courses at the 1000 level):		
EVNT:3160	Crisis Management	3
EVNT:3165	Event Marketing	3
EVNT:3170	Venue Management	3
EVNT:3180	Sustainable Events	3
EVNT:3185	Topics in Event Management (repeatable)	3
EVNT:3260	Event Management Workshop (if not used to satisfy core requirement)	3
ARTS:1070	Elements of Graphic Design	3
BUS:3000	Business Communication and Professionalism	3
COMM:1816	Business and Professional Communication	3
COMM:1818	Communication Skills for Leadership	3
COMM:1819	Organizational Leadership	3
COMM:1830	Communication Skills for Community Engagement	3
COMM:2044	Political Communication	3
COMM:2829	Leadership for Civic Dialogue	1-3
COMM:4044	Political Marketing: Media, Campaigns, and Persuasion	3
ENTR:1350	Foundations in Entrepreneurship	3
ENTR:3595/ MGMT:3500/ MUSM:3500/ NURS:3595/ RELS:3700/ SSW:3500	Nonprofit Organizational Effectiveness I	3
JMC:1300	Introduction to Journalism and Strategic Communication	3
JMC:3530	Social Media Marketing	3
JMC:3540/ SMC:3540/ SPST:3181	The Business of Sport Communication	3
JMC:3710/ MUSM:3710	Fundraising Fundamentals	3
JMC:3720/ MUSM:3720	Nonprofit Communications	3
MKTG:3000	Introduction to Marketing Strategy	3
MKTG:4101	Integrated Marketing Communications	3
POLI:3202	Political Psychology	3
SRM:3147	Sport Event Management (if not used to satisfy core requirement)	3

SRM:3158	Sport and Recreation Promotion	3
SRM:3175	Sales in Sport	3
SRM:3178	Communications and Public Relations in Sports	3
SRM:3210	Event Bidding: Processes and Strategies	3
SRM:4197	Sport and Recreation Field Experience (if not used to satisfy internship requirement)	3
THTR:3270	Entertainment Design	3
THTR:3510/ INTD:3510	Introduction to Arts Management	3
UICB:4415/ ARTS:4415	Introduction to Classical Calligraphy	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Event Management, Certificate

Course	Title	Hours
Academic Career		
Any Semester		
Students are welcome to begin the Event Management certificate any year.		
	Hours	**0**
Second Year		
Any Semester		
EVNT:3154 or SRM:3154	Foundations of Event Management [a] or Foundations of Event Management	3
Certificate: event management focused elective course [b]		3
Certificate: event management focused elective course [b]		3
	Hours	**9**
Third Year		
Any Semester		
SRM:3147 or EVNT:3260	Sport Event Management or Event Management Workshop	3
Certificate: event management focused elective course numbered 2000 or above [b]		3
	Hours	**6**
Fourth Year		
Any Semester		
Certificate: internship [c]		3
Certificate: event management focused elective course numbered 2000 or above [b]		3
	Hours	**6**
	Total Hours	**21**

a Taking this course as early as possible and before EVNT:3260 is recommended.

b See the General Catalog for list of approved courses.

c Choose from EVNT:2110, SRM:4196, SRM:4197, SRM:4199.

Gender, Women's, and Sexuality Studies

Interim Chair

- Sarah "Cinda" Coggins Mosher

Director, Graduate Studies

- Lina-Maria Murillo

Director, Undergraduate Studies

- Aniruddha Dutta

Undergraduate major: gender, women's, and sexuality studies (BA)

Undergraduate minors: gender, health, and healthcare equity; gender, women's, and sexuality studies; social justice

Graduate certificate: gender, women's, and sexuality studies

Faculty: https://gwss.uiowa.edu/people/faculty

Website: https://gwss.uiowa.edu/

The future before us requires a deep understanding of local, national, and global challenges; the full array of diverse voices and views that shape communities; and the capacity to couple research with a rich imagination. The Department of Gender, Women's, and Sexuality Studies (GWSS) partners with University of Iowa students to meet these challenges.

GWSS courses investigate a host of thorny social challenges and inspiring solutions to such problems, with a focus on gender and sexuality in their intersections with race and ethnicity, citizenship and borders, ability and disability, religion and spirituality, and more.

GWSS faculty research and teach on gender and social justice through intersectional, interdisciplinary, and transnational frameworks, engaging such areas as the environment, culture and the arts, education, health and medicine, violence and conflict, im/migration, and the economy.

Students in GWSS programs hone critical and creative thinking skills and develop the ability to analyze social problems across an array of contexts with nuance, insight, and care. In addition to learning writing, research, and presentation skills, students also have the opportunity to pursue creative and engaged projects, working across media and/or with local communities.

GWSS graduates go on to pursue careers or advanced study in a wide array of fields, including the health professions, law, education, the arts, activism, nonprofit work, business, and social work. They also learn firsthand the power of interdisciplinary problem-solving, thinking outside the box, and building just communities.

Programs

Undergraduate Programs of Study

Major

- Major in Gender, Women's, and Sexuality Studies (Bachelor of Arts) [p. 477]

Minors

- Minor in Gender, Health, and Healthcare Equity [p. 481]
- Minor in Gender, Women's, and Sexuality Studies [p. 482]
- Minor in Social Justice [p. 483]

Graduate Program of Study

- Certificate in Gender, Women's, and Sexuality Studies [p. 486]

Courses

- Gender, Women's, and Sexuality Studies Courses [p. 468]
- Social Justice Courses [p. 474]

Gender, Women's, and Sexuality Studies Courses

GWSS:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first- or second-semester standing.

GWSS:1001 Introduction to Gender, Women's, and Sexuality Studies 3 s.h.
Introduction to feminist interdisciplinary study of women's lives, with emphasis on race, class, sexual orientation; work, family, culture, political and social change. GE: Understanding Cultural Perspectives.

GWSS:1002 Diversity and Power in the U.S. 3 s.h.
How the intersection of gender, race, class affects individual experience, national ideology, social institutions; interdisciplinary perspective. GE: Understanding Cultural Perspectives.

GWSS:1003 Introduction to Social Justice 3 s.h.
Introduction to principles and theories of social justice; students examine the history of influential social movements in the United States and the world in the last century; how intersectionality can create tensions between and among members of social movements; how race, class, gender, age, geography, and our bodies play a role in the application of theories of social justice. GE: Understanding Cultural Perspectives. Same as SJUS:1001.

GWSS:1046 Environmental Politics in India 3 s.h.
How resources, commodities, people, and ideas cross borders; examination of globalization through issues of technology, social justice, environment; perspectives from anthropology, gender studies, geography, energy science, and development. GE: Sustainability. GE: International and Global Issues; Sustainability. Same as ANTH:1046, SEES:1046, SJUS:1046.

GWSS:1060 Sex and Popular Culture in America 3 s.h.
Critical and historical introduction to representation of human sexuality in American popular culture from World War II to the present. GE: Values and Society. Same as AMST:1060, ENGL:1410.

GWSS:1074 Inequality in American Sport 3 s.h.
Cultural meanings of sport in contemporary U.S. culture; sport experiences, inclusion, and exclusion as affected by social class, gender and sexuality, age and ability, race and ethnicity, and religion. GE: Understanding Cultural Perspectives. Same as AMST:1074, SPST:1074.

GWSS:1310 Gender and Society 3 s.h.
Role and status of women in society; sex differences, sex role socialization, theories about origin and maintenance of sexual inequalities, changes in social life cycle of women, implications for social institutions and processes; focus on contemporary United States. GE: Values and Society. Same as SOC:1310.

GWSS:2041 Gender, Communication, and Culture 3 s.h.
Social construction of gender and gendered identities across a range of communicative settings in contemporary U.S. society, including relationships, schools, organizations, media, and social movements; how communication creates, reproduces, sustains, and sometimes challenges and changes the meaning of gender and, with that, cultural structures and practices. Same as COMM:2041.

GWSS:2046 Cultural Politics of the Environment in the US 3 s.h.
Introduction to feminist and queer theories of social space; material and symbolic construction of gender and sexuality; communicating gender and sexuality in different social spaces and scales in historical and contemporary contexts. Same as COMM:2045.

GWSS:2050 Jews, Judaism, and Social Justice 3 s.h.
Jewish frameworks for grappling with justice and ethics from ancient world to present day; emphasis on internal diversity of Jewish experience as well as interactions with dominant and other minority cultures. Same as HIST:2150, RELS:2250, SJUS:2050.

GWSS:2052 Women in Islam and the Middle East 3 s.h.
Women in the Islamic community and in non-Muslim Middle Eastern cultures; early rise of Islam to modern times; references to women in the Qur'an and Sunnah, stories from Islamic history; women and gender issues. GE: International and Global Issues. Same as RELS:2852.

GWSS:2075 Gender, Sexuality, and Media 3 s.h.
Mediated representations of gender and sexuality (television, film, and internet) to understand how these complex and complicated codes influence meaning of sex, sexuality, and gender; contemporary and historical examples used to engage texts that illuminate cultural conceptions of femininity, masculinity, heterosexuality, and homosexuality; cases that confuse and trouble the stability of these categories. Same as COMM:2075.

GWSS:2078 Women, Sport, and Culture 3 s.h.
Feminist analysis of girls' and women's sports experiences, including reproduction of gender through sport, recent changes in women's intercollegiate athletics, media representations of women's sport, feminist critiques, alternatives to sport. Same as SPST:2078.

GWSS:2080 The Cultural Politics of HIV-AIDS 3 s.h.
Complex historical shifts in cultural perceptions about HIV-AIDS in the U.S. and transnationally; controversies around HIV-AIDS and their links with questions of gender and sexuality; how HIV-AIDS subsequently became the basis of a transnational industry comprising nongovernmental organizations, donors, and activists across the global north and south, starting from 1980s in the U.S. when HIV-AIDS first emerged into public sphere as a gay disease; link between HIV-AIDS and ideologies of development or progress, neocolonialism, and emergence of lesbian, gay, bisexual, transgender, intersex, and questioning (LGBTIQ) movements in many parts of world. Recommendations: background in gender studies, and completion of rhetoric or at least one social sciences course. Same as GHS:2080.

GWSS:2100 Foundations of Health Humanities 3 s.h.
Examination of health, disease, care, and healing through humanities perspective; exploration of humanistic elements of medical care to better understand multiple meanings and impacts of disease, medical research and treatment, and health beliefs and practices in different communities; interdisciplinary inquiry through close reading, interpretation of visual images, and reflective and analytic writing to encourage adaptability and foster appreciation of non-technoscientific factors in personal and professional health care decision-making. GE: Values and Society. Same as GHS:2100.

GWSS:2102 Anthropology of Marriage and Family 3 s.h.
Classic anthropological theories of kinship and marriage, including topics such as cousin marriage and incest; recent work on new reproductive technologies and transnational marriage. Same as ANTH:2102.

GWSS:2108 Gendering India 3 s.h.
Aspects of Indian culture, including nation, family, sexuality, work, and religion, through the lens of gender; Hindu India, differences in region, caste, and class. Same as ANTH:2108.

GWSS:2151 Global Migration in the Contemporary World 3 s.h.
Examination of social, economic, and cultural dimensions of global migration in the contemporary world from a transnational and anthropological perspective; primary focus is on migration to the United States, but in comparison to other migration trajectories. Recommendations: an introductory course in cultural anthropology is useful, but not required. GE: Understanding Cultural Perspectives. Same as ANTH:2151, IS:2151.

GWSS:2160 Love and Romance in America 3 s.h.
Exploration of the role of love and romance in the American experience; analysis of love and romance in their association with American ideals—pursuit of happiness, upward mobility, and liberation of self, nation, and world; history of romance as a genre; contemplation of picket fences, free love, bromance, valentines, green cards, desperate housewives, break-ups, hook-ups, and (un)happily ever after. Same as AMST:2160.

GWSS:2190 Love Rules: Law and the Family Across Cultures 3 s.h.
Recent debates over legalizing gay marriage remind us that the law is not an abstract concept, it is a social creation that emphasizes certain cultural norms over others, both powerful and changeable; family law outlines what one cultural vision of relationships—those between lovers, parent and child, and between kin—supposedly should look like in a given society, a vision always marked by gendered, racial, and sexual divisions of power; students consider what happens when legal norms intersect with diverse ways that people make families through topics including marriage, divorce, custody, and surrogacy across the world. Same as ANTH:2190, IS:2190.

GWSS:2193 Literature, Culture, and Women 3 s.h.
Studies in the intersections between literature, culture, and women. Same as ENGL:2593.

GWSS:2222 Women in Premodern East Asian Literature 3 s.h.
Reading of East Asian literature portraying women from the first millennium B.C.E. through the 1800s; discussion of issues related to representations of women and conventional social, familial roles in premodern China, Korea, and Japan; cross-cultural comparison of different perceptions and portrayals of women in premodern East Asian literary traditions. Taught in English. Recommendations: completion of all ESL courses. GE: Understanding Cultural Perspectives. Same as ASIA:2222, WLLC:2222.

GWSS:2250 The History of Social Justice Movements 3 s.h.
History of contemporary social movements in the U.S. and how these movements have directly affected policies related to environment, food, reproductive justice, civil rights, immigration, labor, race, and gender; students read, explore, discuss, and write about the history of contemporary social movements in the U.S. that had lasting effects on policies related to environment, agriculture, health, reproductive justice, civil rights, labor, race, gender, and immigration; exploration of multiple modes of representation and resistance including protests, boycotts, strikes, music, art, writing, riots, civil disobedience, theater, poetry, dance, and poetry. Same as HIST:2250, SJUS:2250.

GWSS:2422 Feminist Ethics 3 s.h.
Philosophical evaluation of gender as a pervasive and persistent structuring principle for social inequality. Same as PHIL:2422.

GWSS:2500 Love, War, Activism: Stories About Women From Across the World 3 s.h.
Literary and cinematic representations of gender in works by authors and directors from the Global South; development of historical and cultural lines of inquiry to examine artistic representations of love, sexuality, friendship, and parenting; shifts in gender identities and relations that result from social and political crises. Same as ENGL:2570, SJUS:2500.

GWSS:2571 Visualizing Human Rights 3 s.h.
Cinematic representations of human rights issues in films by directors from the Global South; development of historical and cultural lines of inquiry to examine artistic representations of race relations in colonial and postcolonial societies; public health issues, specifically women's and children's rights in context of the HIV/AIDS pandemic. Same as ENGL:2571, SJUS:2571.

GWSS:2650 Global Reproduction 3 s.h.
History of birth control and work of activists and organizations that emerged to promote it; troubling connections that spawned between reproductive rights and population control movements. Same as GHS:2650.

GWSS:2651 Gender and Sexuality in the Ancient World 3 s.h.
Survey of gender and sexuality issues in the social, political, and religious life of ancient Greece and Rome; evidence from literature, the visual arts, archaeology. Requirements: completion of GE CLAS Core Rhetoric and sophomore standing. GE: Values and Society. Same as CLSA:2651.

GWSS:2674 Food, Body, and Belief: A Global Perspective 3 s.h.
Exploration of local, national, and global forces that shape food consumption, body image, and spiritual practices. Taught in English. Same as GHS:2674, RELS:2674.

GWSS:2700 Transgender People, Politics, and Cultures 3 s.h.
How people live across and beyond social differentiation of sex and gender; how practices of identity building and political resistance transform or negotiate with social structures of gender, race, and class; burgeoning field of transgender studies which pushes to interrogate some fundamental aspects of human societies and question how supposedly "natural" categories of sex and gender are constructed and transformed; exploration of lives, politics, and subcultures of people who differ from gender norms in the United States and across the world; how transgender cultures and politics negotiate with structures of race and class. Recommendations: background in gender studies or social sciences.

GWSS:2800 African American Women, Health, Hair, and Sexuality 3 s.h.
From the exotic to the erotic, African American women's bodies have been constructed to fulfill a variety of personal and cultural fantasies as well as social functions that are "killing us softly"; how cultural icons and myths of Black women—Jezebel, Mammy, Tragic Mulatto, Aunt Jemima, Sapphire, Matriarch, Welfare Queen, and more recently, the overachieving Black woman—shape and create restrictions and visions of the self that contribute to health disparities; engaging Black feminist/womanist theory to explore how larger images influence everyday acts of self-care and pleasure, such as hair and sexuality, on the health of African American women. Same as AFAM:2800.

GWSS:2900 Love, Sex, and Money: Sexuality and Exchange Across Cultures 3 s.h.
Everything from pop songs to advertisements warn us of the evils of gold diggers, “blingsexuals,” or “buyfriends"; in America, money is seen to corrupt the purity and authenticity of love and desire, but money also is an inevitable part of sex, love, and intimacy; cross-cultural examination of how relationships between love, money, and sexuality are organized in different places; different ways people form relationships with lovers, spouses, and persons who enable childbearing; rethinking gender roles, work, value, and power. Same as ANTH:2191.

GWSS:3005 Practicum 3-4 s.h.
Volunteer experience applying gender, women's, and sexuality studies in an authentic environment. Prerequisites: GWSS:1001. Same as SJUS:3005.

GWSS:3010 Transnational Sexualities 3 s.h.
How ideas about normative and nonnormative sexuality, gender/sexual identities, and related social movements travel across geographical, political, and cultural boundaries; potentials and limits of using conceptual frameworks (i.e., sexuality, gender, LGBT, queer) across the west and global south; how sexuality always intersects with race, class, nationhood, and transnational systems of power; power structures that shape gender/sexuality through a transnational approach; connection of inequalities within the United States with those across the world. Same as GHS:3015.

GWSS:3050 Topics in Gender, Women's, and Sexuality Studies 1,3 s.h.
Representative topics: American Indian/First Nations Women; population and the environment; feminism and the family; women, health, and healing; women of color.

GWSS:3078 Archiving Women's History 3 s.h.
Exploration of girls' and women's history in Iowa through collections at the Iowa Women's Archives; introduction to archival research, digital humanities, and Omeka (a digital collection and exhibit platform) with focus on sport-related collections; guided individualized research and exhibit development. Same as AMST:3078, MUSM:3078, SPST:3078.

GWSS:3100 LGBTQ/Queer Studies 3 s.h.
Overview of queer theory and queer studies; development of critical thinking skills in relation to cultural constructions of gender, sexuality, race, and other identity categories.

GWSS:3105 Contraception Across Time and Cultures 3 s.h.
Methods and history of contraception; issues of unwanted pregnancy and birth control in fiction, film, and media around the world. Same as CLSA:3105, GHS:3105, WLLC:3105.

GWSS:3118 Politics of Reproduction 3 s.h.
Examination of reproductive politics from historical, sociological, anthropological, and communicative perspectives; reproductive justice and bodily autonomy as key sites of feminist struggle in the United States and in global contexts; topical issues include abortion and birth control, assisted reproductive technologies, commercial surrogacy industries, LGBTQ family formation, and systems of reproductive violence. Same as ANTH:3118, COMM:3118.

GWSS:3121 Love, Marriage, and Family in India 3 s.h.
Anthropological understandings of love in India and the region of South Asia more broadly; emphasis on contemporary society; filial and motherly love, arranged marriage and romantic love, devotional and artistic expressions, love between siblings. Same as ANTH:3121.

GWSS:3138 Writing to Change the World 3 s.h.
Writers who can frame questions, weigh competing perspectives, structure an argument, and write with clarity and respect for diverse audiences as powerful agents for change; writers who have inspired human rights movements; public forms of writing with local organizations whose missions are shaped by social attitudes to gender and sexuality; conducting research and evaluation of evidence; best practices for communicating and collaborating; skills needed to be an effective advocate. Prerequisites: RHET:1030 or RHET:1040 or RHET:1060. Same as SJUS:3138.

GWSS:3150 Feminist Readings of History 3 s.h.
Feminist analysis has revolutionized the writing of history—not only on gender and sexuality, but also on topics as diverse as politics, economics, international relations, and social hierarchies (e.g., race, class, ability, religion); students examine feminist transformations of history with specific topics chosen by instructor. Same as HIST:3150.

GWSS:3154 Sexuality in the United States 3 s.h.

GWSS:3157 Gender, Sexuality, and Human Rights 3 s.h.
History of gender and sexuality as components in international human rights activism and law; current debates, representative topics. Same as HIST:3157.

GWSS:3171 Higher Education and Social Justice 3 s.h.
Reflection of students' place within educational systems; development of rhetorical tools for successful advocacy; advocation through writing for change within higher education and the UI; student loans, racial segregation, social and economic immobility, free speech, data insecurity, sexual assault. Same as ENGL:3571, SJUS:3171.

GWSS:3173 Gender, Sexuality, and Literature 3 s.h.
Representations of gender, class, and sexuality in British, American, or postcolonial literature. Same as ENGL:3573.

GWSS:3185 Global Women's Cinema 3 s.h.
Introduction to contemporary women's cinema and feminist filmmaking from around the world; emphasis on post-1968 period and cinema produced outside the United States. Same as WLLC:3185.

GWSS:3200 Theories for Gender, Women's, and Sexuality Studies 3 s.h.
Historical and contemporary theoretical approaches to the study of gender and sexuality; emphasis on interdisciplinary methods of analysis and interpretation.

GWSS:3257 Civil Rights and Racial Justice: A Tour Through the South 1-3 s.h.
Exploration of the history of modern civil rights movement through lectures, shared readings, videos, and discussion; includes preparation and two-week tour of civil rights sites in the South. Prerequisites: SJUS:1001 or SJUS:2250 or GWSS:1002 or CCCC:2220 or AFAM:1030 or HIST:2268 or HIST:2268 or HIST:3253 or HIST:3253 or HIST:3253 or HIST:3232 or AFAM:3100 or AFAM:3500 or AFAM:3260 or AFAM:3260 or HIST:3282 or HIST:3282 or HIST:4130. Same as AFAM:3257, HIST:3257, SJUS:3257.

GWSS:3282 Women and Power in U.S. History Since the Civil War 3 s.h.
Major events and themes in U.S. women's history from late 19th century to present; how women's experiences have differed from men's; exploration of distinct but interconnected histories of different groups of women; changing ideals of femininity; women's experience of industrialization, immigration, depression, war, and sexual revolution; women's activism for social reform, women's rights, labor, civil rights, peace, and the New Right. Same as HIST:3282.

GWSS:3300 Mothers and Motherhood 3 s.h.
Treatment of motherhood; role of motherhood and devaluation of social status. Same as ANTH:3300.

GWSS:3326 The Politics of Progress: NGOs, Development, and Sexuality 3 s.h.
How nonprofit sector increasingly plays a significant role in countering socioeconomic inequalities in the United States and global south; role of nonprofit organizations in relation to governmental policies of development, transnational funders, and ideas of sexual progress; critics of development institutions' arguments that western ideas of progress impose and adversely affect groups they claim to empower, yet also may foster struggles for social justice that go beyond development policy; examination of transnational nonprofit sector in relation to gender/sexuality and how it impacts women and gender/sexual minorities around the world. Recommendations: background in gender studies or social sciences. Same as GHS:3327.

GWSS:3350 Transnational Feminism 3 s.h.
Exploration of feminist perspectives from the United States and outside of the United States; how geopolitics shapes understanding of familiar feminist issues (e.g., reproduction, cultural practices, sexualities, poverty); emphasis on global south regions and populations. Same as ANTH:3125, IS:3350.

GWSS:3400 Advocacy and Engagement Colloquium 1-3 s.h.
How to capitalize on volunteer experience; how experience can lead to careers in health care, law, advocacy, social work, social justice, education; issues related to domestic violence, community education, sexual assault; health care for women, youth, and LGBTQ populations; health care inequities, social justice; field journal. Recommendations: active volunteer work at feminist-centered organizations in Iowa, completion of 40-hour training, plan to serve organization for up to ten or more hours each month, and attendance at regularly scheduled volunteer meetings. Same as SJUS:3400.

GWSS:3421 Performing Autobiography 3 s.h.
Advanced seminar and workshop; immersive readings in genre of contemporary autobiographical work, scholarship and criticism, and performance texts and videos as established artists have developed them; students write and perform their own original pieces stemming from personal experiences and interests. Recommendations: RHET:1030. Same as THTR:3421.

GWSS:3425 Women, Crime, and Justice 3 s.h.
Overview of women's experiences with crime and criminal justice system, with reference to experiences of men for purposes of comparison; role of race, ethnicity, and poverty in women's experiences; causes of crime, inequalities in police-citizen interactions, imprisonment, and other aspects of criminal justice system experience. Same as CRIM:3425.

GWSS:3427 Family, Gender, and Society in Early Modern Europe 3 s.h.
Social and gender ideologies as inscribed in patterns of authority (household, church, state); ranges of human endeavor (intellectual, psychological, biological); community organization (social, economic, legal, sexual); their influence on concept of community. Same as HIST:3427.

GWSS:3430 Women on Stage 3 s.h.
Examination of how and why women in the United States have expressed themselves through theatre and performance from 1776 to present; students study plays as performed events in specific times and places for specific audiences through works by African American, Asian American, European American, Latina, Native American, and lesbian/queer writers; what the theater—as a public, embodied art form—offers female writers; how stakes differ for women of diverse backgrounds in using this often suspect and uniquely powerful medium in particular historical moments; how changing definitions of gender and sexuality come into play; prior background in theater not required. Same as AMST:3430, THTR:3430.

GWSS:3431 Topics in Latina/o/x Studies: History and Culture 1-3 s.h.
Historical and cultural approaches; topics vary. Same as LATS:3550.

GWSS:3459 Making Change, Making History 3 s.h.
Topics may include digital history, public history, museum studies, and more. Same as HIST:3259, SJUS:3459.

GWSS:3475 Working for Social Justice 3 s.h.
Identification and pursuit of careers in a wide range of fields where people advocate for and engage issues of social justice; writing self-assessments, résumés, sample employment application letters, statements of purpose; development of e-portfolios that highlight areas of student research and expertise; mock interview practice; Pomerantz Career Center resources; interviewing professionals in careers focused on social justice and feminist issues; local internship and volunteer possibilities; national and international educational and career opportunities for making a difference in the world. Same as SJUS:3475.

GWSS:3570 Transnational and Postcolonial Writing by Women 3 s.h.
Study of postcolonial and transnational writing by women. Same as ENGL:3570.

GWSS:3600 Art, Feminist Practice, and Social Justice 3 s.h.
Issues related specifically to gender, women's, and sexuality studies through the arts; themes include broad social issues such as violence, sexual assault, incarceration, reproduction, immigration, and labor; students explore a theme and work with community partners to address the theme through social practice in the arts. Recommendations: prior courses in gender, women's, and sexuality studies, or courses in social work, art education, or studio arts.

GWSS:3750 Born in the USA: Fertility and Reproduction 3 s.h.
Exploration of when, why, how, and with whom Americans bear children; comparison to other developed and developing countries in the world; infertility and its treatments; ethics of surrogacy; voluntary childlessness; rapid rise of nonmarital childbearing in the U.S. and other countries; politics of childbirth; declining populations; rapid aging of rich where women have basically stopped having children. Same as SOC:3750.

GWSS:3900 Research for Public Engagement 3 s.h.
Emphasis on interdisciplinary reading, writing, research, and oral presentation skills necessary for pursuing socially engaged scholarship at a high level; students practice how to read for an argument, summarize and evaluate the ideas of others, and formulate their own positions within critical controversies.

GWSS:3950 Academic Internship 1-3 s.h.
Work under supervision of a faculty member on a scholarly or creative project related to the department or campus, or work with the director of undergraduate studies as a media, digital publishing, or teaching intern; students receive credit for the internship depending on the number of hours they work, learning objectives they develop, and meetings, written reports, and other research-related or self-evaluative writing they contract to do with the supervising faculty member. Prerequisites: GWSS:1001 or SJUS:1001. Requirements: gender, women's, and sexuality studies or social justice major or minor. Same as SJUS:3950.

GWSS:3990 Independent Readings and Research in Gender, Women's, and Sexuality Studies arr.
Topics not covered in regular curriculum.

GWSS:4026 French Women Writers 3-4 s.h.
Survey of 20th- and 21st-century French women's literature; introduction to French feminist thought; optional discussion section taught in French. Taught in English. Requirements: for 4 s.h. option—FREN:3060 and FREN:3300. Same as FREN:4026.

GWSS:4090 Senior Research Seminar 3 s.h.
Design and development of individual creative or scholarly projects in the field of gender, women's, and sexuality studies; emphasis on strengthening students' research and writing skills; synthesizing, extending, and applying work already completed in the major. Prerequisites: GWSS:1001 or GWSS:1002 and GWSS:3900. Requirements: two women's studies courses numbered above GWSS:1001.

GWSS:4095 Honors Senior Thesis arr.
Supervised research, writing.

GWSS:4140 Feminist Activism and Global Health 3 s.h.
How female gender intersects with culture, environment, and political economy to shape health and illness; reproductive health, violence, drug use, cancer; readings in anthropology, public health. Prerequisites: ANTH:1101 or GWSS:1001 or CPH:1400 or GHS:2000. Same as ANTH:4140, CBH:4140, GHS:4140.

GWSS:4169 Black Feminist Rhetorics 3 s.h.
Exploration of multiple, varied, and complex histories of U.S. Black feminisms from rhetorical perspectives; focus on primary documents, speeches, essays, and manifesto/ as that shaped Black women's feminist organizations and inspire social change from late 19th century to present; social, political, and personal issues that Black feminists sought to address and transform, communicative and rhetorical methods utilized, and implications of these efforts for Black women's lives and broader U.S. American culture. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899). Same as COMM:4169.

GWSS:4180 Gender and Sexuality in Comics 3 s.h.
Critical and historical examination of representations of gender and sexual identities in comics and graphic novels, including nonfiction and popular genres.

GWSS:4540 Gender and Sexuality in French Cinema 3-4 s.h.
Cultural, historical, and semiotic approach to studying constructions of gender identity and discourses on sexuality in French cinema from 1920s to present; optional discussion section taught in French. Taught in English. Requirements: for 4 s.h. option—prior enrollment in FREN:3060 and FREN:3300. Same as FREN:4540.

GWSS:4800 Seminar in Comparative Literature 3 s.h.
Focus on comparative, interdisciplinary, theoretical, and/ or inter-arts topic; topics vary; required for comparative literature major. Taught in English. Same as GRMN:4800, TRNS:4800, WLLC:4801.

GWSS:4820 Sociology of Sexuality 3 s.h.
Sociological perspectives on sexuality, including theoretical and conceptual developments, empirical regularities, and social implications; sexual expression in the United States. Prerequisites: SOC:1010 or SOC:1030. Same as SOC:4820.

GWSS:5000 Foundations for Gender, Women's, and Sexuality Studies 3 s.h.
Theory, methodology, practice, archive, and robust stakes of the interdisciplinary field of gender, women's, and sexuality studies (GWSS); analysis and discussion of the history and possible futures of the field, as well as the relationship of GWSS to student's developing interests and areas of study.

GWSS:5120 Reading Transnational Feminist Theory 3 s.h.
Issues in transnational feminist scholarship, including coloniality and globalization as related to domains of gendered work, cultural traditions, and development; interdisciplinary readings—including from qualitative social science—consider connections across the Global North and South. Same as ANTH:5120.

GWSS:5500 Tell Magazine Writing and Publishing Workshop 3 s.h.
Students serve as editorial, writing, and production staff for *Tell*, the Department of Gender, Women's, and Sexuality Studies' digital magazine; *Tell* explores issues of race, class, gender, sexuality, ability, national identity, and other differences of power and privilege often absent in mainstream publications; students learn technical aspects of digital publication management, write their own stories and columns for the magazine and its ongoing blog, create digital and graphic materials, organize outreach events and manage social media outlets for the magazine, and work as editors and collaborative partners with one another and with writers and artists who submit work for publication. Prerequisites: GWSS:5000.

GWSS:6050 Seminar: Gender, Women's, and Sexuality Studies 3 s.h.
Special topics in gender, women's, and sexuality studies.

GWSS:6130 Francophone Thought 3 s.h.
Comparative study of intellectual, literary, cultural, social, and historical developments in the Caribbean, the Indian Ocean, the Maghreb, and Sub-Saharan Africa; approaches include cultural theory, literary criticism, cinema, visual arts, women's studies, memory and trauma studies, postcolonial ecologies, and cultural anthropology; examination of key conceptual paradigms and cultivation of skills in critical thinking methodologies; students acquire theoretical tools to explore an interdisciplinary scholarly field and learn to establish connections between the main components of the course and their own research interests. Taught in French. Same as FREN:6130.

GWSS:6238 Gender and Education in Historical Perspective 3 s.h.
Gender in context of history of education in the United States; coeducation in common schools, academies, and high schools; women's arrival and experiences as college students; masculinity in higher education; single-sex versus coeducation; emphasis on conflicting historical interpretations. Same as EPLS:6238.

GWSS:6239 LGBTQ History in Education 3 s.h.
Lesbian, gay, bisexual, transgender, and questioning (LGBTQ) issues in context of history of education in United States; LGBTQ teachers, students, and studies in K-12 and higher education; emphasis on differences in historical interpretations. Same as EPLS:6239.

GWSS:6275 Higher Education and Society 3 s.h.
Explores theory, research, and practices of engaging difference through interdisciplinary lenses and at the intersections of sociopolitical identities and ideologies within the context of higher education/student affairs, K-12, and as it relates to society, government, and community agency settings; examines the implications of sociopolitical contexts on practices in research, teaching, and service within education. Requirements: PhD, EdD, or advanced-level MA standing. Recommendations: introductory course on issues of race, culture, gender, sociopolitical issues, or structural oppression is strongly recommended. Same as EPLS:6275.

GWSS:6300 Writing for Learned Journals 1-4 s.h.
Seminar that supports graduate students in bringing written work to publishable form; analysis of target journals' audiences, interests, and citation politics; submission and the publication process; response to reader reports and criticism; best writing and research practices; discussion of knowledge cultures and discourses in disciplines and the contemporary academy. Same as AMST:6300, GRAD:6300, RHET:6330.

GWSS:6343 Feminist Criticism 3 s.h.
Explore the rich terrain of feminist criticism within contemporary rhetorical and cultural studies; survey key interdisciplinary debates within contemporary feminist theory and criticism, trace significant trajectories within the history of feminist criticism, and consider how interdisciplinary feminist perspectives continue to shape humanities scholarship, including in communication studies and religious studies. Provides a strong foundation for exploring how feminism might meaningfully inform the art of academic inquiry and critical practice. Same as COMM:6343, RELS:6343.

GWSS:6345 New Materialisms 3 s.h.
Exploration of new strategies for rupturing persistent dichotomies of subject/object, representation/real, culture/nature, and active humans/passive things offered by theories of the vitality and agency of matter; introduction to origins of and developments in new materialisms; oriented to interdisciplinary inquiry and application to research in the humanities, broadly conceived; particular attention to actor-network theory, feminism, queer theory, infrastructuralism, and materialist theories of media. Same as COMM:6345, RELS:6345.

GWSS:6990 Independent Study arr.

GWSS:7000 Gender, Women's, and Sexuality Studies Graduate Practicum 1-3 s.h.
Volunteer work experience, or conceptualization and execution of research projects. Prerequisites: GWSS:5000.

GWSS:7122 Readings: History of Gender and Sexuality arr.
Topics in international and transnational history of gender and sexuality. Same as HIST:7122.

GWSS:7205 New Histories: U.S. Slavery arr.
Our approach to study of slavery and discipline of history have been upended by recent works by and about women; exploration of that scholarship and consideration of where it takes us in grappling with systems and subjectivity of slavery. Same as AFAM:7205, HIST:7205.

GWSS:7214 Readings: African American Women's History arr.
Same as AFAM:7214, HIST:7214.

GWSS:7275 Readings in the History of Women and Gender in the U.S.A. arr.
Same as HIST:7275.

GWSS:7400 Graduate Research Conference Presentation 1 s.h.
Crafting a presentation for the annual James F. Jakobsen Graduate Conference each spring; students work with an existing creative and/or scholarly project from another class or context; discussion of an array of presentation practices in gender, women's, and sexuality studies including interactivity, accessibility, audience engagement, workshopping, recursive revision, institutional justice, and various experiments with form, genre, discipline, body, and language; for students pursuing the Certificate in Gender, Women's, and Sexuality Studies. Prerequisites: GWSS:5000. Requirements: gender, women's, and sexuality studies graduate certificate standing.

GWSS:7435 Readings: Women, Men, and Gender in Modern Europe arr.
Same as HIST:7435.

GWSS:7805 Readings in Middle East History arr.
Global perspective on major topics in modern history of the Middle East and North Africa including gender, sexuality, race, and empire. Same as HIST:7805.

Social Justice Courses

SJUS:1001 Introduction to Social Justice 3 s.h.
Introduction to principles and theories of social justice; students examine the history of influential social movements in the United States and the world in the last century; how intersectionality can create tensions between and among members of social movements; how race, class, gender, age, geography, and our bodies play a role in the application of theories of social justice. GE: Understanding Cultural Perspectives. Same as GWSS:1003.

SJUS:1046 Environmental Politics in India 3 s.h.
How resources, commodities, people, and ideas cross borders; examination of globalization through issues of technology, social justice, environment; perspectives from anthropology, gender studies, geography, energy science, and development. GE: Sustainability. GE: International and Global Issues; Sustainability. Same as ANTH:1046, GWSS:1046, SEES:1046.

SJUS:1600 War Stories 3 s.h.
Exploration of the history of U.S. conflicts from Vietnam to the War on Terror through novels, film, and other cultural forms; specific focus on how U.S. social structures influence experiences of war. Same as AMST:1600, LATS:1600.

SJUS:2000 Theories of Social Justice 3 s.h.
Introduction to important theories of intersectional feminist social justice. Prerequisites: RHET:1030 or RHET:1040 or RHET:1060. Recommendations: prior or concurrent enrollment in SJUS:1001 strongly recommended for social justice majors or minors.

SJUS:2006 Transnational Solidarities 3-4 s.h.
Examination of connections forged by intellectuals, activists, and political thinkers in struggles against systems of colonialism, imperialism, capitalism, and state violence throughout the 20th century; opportunities to make connection with other struggles against racism, supremacy, patriarchy, and domination; optional discussion section taught in Arabic. Taught in English. Requirements: for 4 s.h. option—ARAB:1002. Same as ARAB:2006, WLLC:2006.

SJUS:2050 Jews, Judaism, and Social Justice 3 s.h.
Jewish frameworks for grappling with justice and ethics from ancient world to present day; emphasis on internal diversity of Jewish experience as well as interactions with dominant and other minority cultures. Same as GWSS:2050, HIST:2150, RELS:2250.

SJUS:2135 Decoding Disability: Rhetoric of Access and Accommodations 3 s.h.
Explores how language shapes perceptions of disability, access, and accommodations—acting both as a barrier to and a means of challenging societal norms. Students examine the role of rhetoric in defining ability and how communication practices impact accessibility. Through written, spoken, signed, and digital expression, they analyze how cultural frameworks value or marginalize different bodies and minds. Emphasizing practical strategies, the course equips students to foster accessibility and opportunity in academic, professional, and public spaces. GE: Understanding Cultural Perspectives. Same as RHET:2135.

SJUS:2240 Introduction to Jewish Studies 3 s.h.
Introduction to the interdisciplinary field of Jewish studies; topics include history from ancient origins to the present, sociology of Jewish life in the U.S. and internationally, ethical and religious principles and practices, Jewish embeddedness in non-Jewish societies, and controversies within and surrounding the Jewish world. GE: Understanding Cultural Perspectives. Same as HIST:2149, JSTU:2149, RELS:2240.

SJUS:2250 The History of Social Justice Movements 3 s.h.
History of contemporary social movements in the U.S. and how these movements have directly affected policies related to environment, food, reproductive justice, civil rights, immigration, labor, race, and gender; students read, explore, discuss, and write about the history of contemporary social movements in the U.S. that had lasting effects on policies related to environment, agriculture, health, reproductive justice, civil rights, labor, race, gender, and immigration; exploration of multiple modes of representation and resistance including protests, boycotts, strikes, music, art, writing, riots, civil disobedience, theater, poetry, dance, and poetry. Same as GWSS:2250, HIST:2250.

SJUS:2500 Love, War, Activism: Stories About Women From Across the World 3 s.h.
Literary and cinematic representations of gender in works by authors and directors from the Global South; development of historical and cultural lines of inquiry to examine artistic representations of love, sexuality, friendship, and parenting; shifts in gender identities and relations that result from social and political crises. Same as ENGL:2570, GWSS:2500.

SJUS:2571 Visualizing Human Rights 3 s.h.
Cinematic representations of human rights issues in films by directors from the Global South; development of historical and cultural lines of inquiry to examine artistic representations of race relations in colonial and postcolonial societies; public health issues, specifically women's and children's rights in context of the HIV/AIDS pandemic. Same as ENGL:2571, GWSS:2571.

SJUS:3005 Practicum 3-4 s.h.
Volunteer experience applying gender, women's, and sexuality studies in an authentic environment. Prerequisites: GWSS:1001. Same as GWSS:3005.

SJUS:3138 Writing to Change the World 3 s.h.
Writers who can frame questions, weigh competing perspectives, structure an argument, and write with clarity and respect for diverse audiences as powerful agents for change; writers who have inspired human rights movements; public forms of writing with local organizations whose missions are shaped by social attitudes to gender and sexuality; conducting research and evaluation of evidence; best practices for communicating and collaborating; skills needed to be an effective advocate. Prerequisites: RHET:1030 or RHET:1040 or RHET:1060. Same as GWSS:3138.

SJUS:3171 Higher Education and Social Justice 3 s.h.
Reflection of students' place within educational systems; development of rhetorical tools for successful advocacy; advocation through writing for change within higher education and the UI; student loans, racial segregation, social and economic immobility, free speech, data insecurity, sexual assault. Same as ENGL:3571, GWSS:3171.

SJUS:3190 Global Debt 3 s.h.
Economies as cultural systems that emphasize the role of worldviews and "meaning-making" in organizing economies; debt as a key mechanism in creation and maintenance of relationships; focus on how exchange, distribution, and obligation serve to shore up or sever various social institutions and links between debt, inequality, and power; debt in various forms, from a round of drinks to student loans, and from the U.S. mortgage crisis to development aid; diverse array of economies—from gift exchange to ceremonial destruction of wealth, and from Melanesia to Wall Street—to evaluate assumptions that undergird different systems of debt and credit. Requirements: introductory course in anthropology or international studies or gender, women's, and sexuality studies. Same as ANTH:3190, IS:3190.

SJUS:3250 Literature and Social Justice 3 s.h.
How literature from various time periods—American and global—has enacted, represented, depicted, or encouraged forms and acts of social justice; students study various genres (e.g., essay, poem, autobiography, short story, fiction) and learn how literature has been used to conceptualize social justice, address national and global inequities, and take up complex and intersecting issues of power and privilege. Same as ENGL:3572.

SJUS:3257 Civil Rights and Racial Justice: A Tour Through the South 1-3 s.h.
Exploration of the history of modern civil rights movement through lectures, shared readings, videos, and discussion; includes preparation and two-week tour of civil rights sites in the South. Prerequisites: SJUS:1001 or SJUS:2250 or GWSS:1002 or CCCC:2220 or AFAM:1030 or HIST:2268 or HIST:2268 or HIST:3253 or HIST:3253 or HIST:3253 or HIST:3232 or AFAM:3100 or AFAM:3500 or AFAM:3260 or AFAM:3260 or HIST:3282 or HIST:3282 or HIST:4130. Same as AFAM:3257, GWSS:3257, HIST:3257.

SJUS:3400 Advocacy and Engagement Colloquium 1-3 s.h.
How to capitalize on volunteer experience; how experience can lead to careers in health care, law, advocacy, social work, social justice, education; issues related to domestic violence, community education, sexual assault; health care for women, youth, and LGBTQ populations; health care inequities, social justice; field journal. Recommendations: active volunteer work at feminist-centered organizations in Iowa, completion of 40-hour training, plan to serve organization for up to ten or more hours each month, and attendance at regularly scheduled volunteer meetings. Same as GWSS:3400.

SJUS:3415 Latina/o/x Protest, Movement, Resistance 3 s.h.
Examination of history, form, and function of protest, social movement, and resistance by Latina/o/x peoples in the United States. Same as AMST:3415, LATS:3415.

SJUS:3420 Latinas/os/x and the Law 3 s.h.
Introduction and survey of Latina/o/x legal history; topics include segregation, educational rights, immigration, voting rights, citizenship, and the criminal justice system. Same as AMST:3420, LATS:3420, POLI:3427.

SJUS:3430 Queer Latina/o/x Studies 3 s.h.
Relationship of Latina/o/x culture with gender, sexuality, and queerness. Same as AMST:3450, LATS:3430.

SJUS:3459 Making Change, Making History 3 s.h.
Topics may include digital history, public history, museum studies, and more. Same as GWSS:3459, HIST:3259.

SJUS:3475 Working for Social Justice 3 s.h.
Identification and pursuit of careers in a wide range of fields where people advocate for and engage issues of social justice; writing self-assessments, résumés, sample employment application letters, statements of purpose; development of e-portfolios that highlight areas of student research and expertise; mock interview practice; Pomerantz Career Center resources; interviewing professionals in careers focused on social justice and feminist issues; local internship and volunteer possibilities; national and international educational and career opportunities for making a difference in the world. Same as GWSS:3475.

SJUS:3510 Topics in Social Justice 3 s.h.
Students deep dive into a specific topic that invites research and debate about the ways cultures understand social justice—human rights in relation to gender and sexuality, race and ethnicity, generations, class religion, species, and environment.

SJUS:3560 Public Policy and Persuasion 3 s.h.
Students build their skill set in policy analysis, formation, and communication through a social justice lens; engagement in service learning projects in one Iowa community, where work done directly impacts that community's ability to make changes; development of effective writing and oral presentation styles that can be adapted to different audiences; focus on homelessness policy using social policy and social justice concepts to explore work of policy makers who have "right-sized" existing systems to serve communities in crisis and propose solutions to systemic problems that disadvantage marginalized populations. Prerequisites: RHET:1030 or RHET:1040 or RHET:1060. Same as PBAF:3560, POLI:3560, RHET:3560.

SJUS:3950 Academic Internship 1-3 s.h.
Work under supervision of a faculty member on a scholarly or creative project related to the department or campus, or work with the director of undergraduate studies as a media, digital publishing, or teaching intern; students receive credit for the internship depending on the number of hours they work, learning objectives they develop, and meetings, written reports, and other research-related or self-evaluative writing they contract to do with the supervising faculty member. Prerequisites: GWSS:1001 or SJUS:1001. Requirements: gender, women's, and sexuality studies or social justice major or minor. Same as GWSS:3950.

SJUS:3990 Independent Study in Social Justice arr.
Topics not covered in regular social justice curriculum.

SJUS:4080 Advocacy and Engagement Capstone 3 s.h.
Design and development of individual creative or scholarly projects in the field of social justice; emphasis on strengthening student's research and writing skills; synthesizing and extending work already completed in the social justice major. Prerequisites: SJUS:1001 and SJUS:2250 and GWSS:3138.

SJUS:4085 Social Justice Bachelor of Arts Honors Senior Thesis 3 s.h.
Work on honors thesis in social justice. Requirements: honors standing, and completion (or in progress) of coursework for BA in social justice.

Gender, Women's, and Sexuality Studies, BA

Students who major in gender, women's, and sexuality studies (GWSS) explore the ways that gender and sexuality intersect with class, race, ethnicity, nationality, and transnational processes. Students develop interdisciplinary research and writing skills, the ability to address structural inequalities from the local to the global level, and the critical tools necessary to work toward social transformation and social justice. GWSS majors participate in two high-impact experiences that prepare them for careers in a wide range of fields. They participate in a practicum at a community-based site where they learn to integrate feminist theory and practice; then, during their senior year, they do rigorous, original research for critical or creative projects on topics of their own choosing.

Learning Outcomes

Students graduating with a major in gender, women's, and sexuality studies will demonstrate how to:

- apply feminist intersectional theory in scholarly and creative practice;
- evaluate issues, research problems, and construct arguments using GWSS tools and concepts;
- communicate effectively with diverse audiences through speech, writing, and other forms of creative and scholarly expression; and
- work collaboratively with others in diverse communities using core GWSS strengths and skills.

Requirements

The Bachelor of Arts with a major in gender, women's, and sexuality studies (GWSS) requires a minimum of 120 s.h., including at least 39 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students may declare the major at any time. They are advised by the Academic Advising Center until they have earned 30 s.h. of credit. Transfer credit is evaluated case by case; a maximum of 12 s.h. of transfer credit may be counted toward the major. Students may count a maximum of 9 s.h. completed for another major, minor, or certificate toward the gender, women's, and sexuality studies major.

Work for the major consists of the undergraduate core, distribution requirements, and electives. The undergraduate core includes a practicum and culminates in a research seminar.

The BA with a major in gender, women's, and sexuality studies requires the following coursework.

Requirements	Hours
Undergraduate Core	9-10
Distribution Requirements	12-14
Electives	12
Capstone Courses	6

Undergraduate Core

The undergraduate core consists of three courses. GWSS:1001 Introduction to Gender, Women's, and Sexuality Studies examines cultural and social beliefs about sex, gender, race, class, and sexuality; GWSS:1002 Diversity and Power in the U.S. explores the intersections of race, class, and gender in the United States. GWSS:3005/SJUS:3005 Practicum teaches students how to apply feminist intersectional concepts in a practicum experience organized in collaboration with community partners.

Course #	Title	Hours
All of these:		
GWSS:1001	Introduction to Gender, Women's, and Sexuality Studies	3
GWSS:1002	Diversity and Power in the U.S.	3
GWSS:3005/ SJUS:3005	Practicum	3-4

Distribution Requirements

The distribution requirements (total of at least 12 s.h.) are chosen from the following lists. They include one GWSS theory course, one transnational theory course, one GWSS course with a global/comparative focus, and one GWSS or other course with a race/ethnicity focus. Students may request permission from the director of undergraduate studies to use courses not on these lists; ideally, these courses should be offered by the Department of Gender, Women's, and Sexuality Studies (prefix GWSS). At least half of the material in global/comparative topics courses must have a non-U.S. context.

Theory

Course #	Title	Hours
One of these:		
GWSS:3100	LGBTQ/Queer Studies	3
GWSS:3200	Theories for Gender, Women's, and Sexuality Studies	3

Transnational Theory

Course #	Title	Hours
One of these:		
GWSS:3010/ GHS:3015	Transnational Sexualities	3
GWSS:3326/ GHS:3327	The Politics of Progress: NGOs, Development, and Sexuality	3
GWSS:3350/ ANTH:3125/IS:3350	Transnational Feminism	3

Global/Comparative Focus

Course #	Title	Hours
One of these:		
GWSS:1046/ ANTH:1046/ SEES:1046/ SJUS:1046	Environmental Politics in India	3
GWSS:2052/ RELS:2852	Women in Islam and the Middle East	3
GWSS:2108/ ANTH:2108	Gendering India	3

GWSS:2151/ ANTH:2151/IS:2151	Global Migration in the Contemporary World	3
GWSS:2222/ ASIA:2222/ WLLC:2222	Women in Premodern East Asian Literature	3
GWSS:2500/ ENGL:2570/ SJUS:2500	Love, War, Activism: Stories About Women From Across the World	3
GWSS:2571/ ENGL:2571/ SJUS:2571	Visualizing Human Rights (if not taken to fulfill the Race/ Ethnicity in the U.S. Focus area)	3
GWSS:2650/ GHS:2650	Global Reproduction	3
GWSS:2674/ GHS:2674/ RELS:2674	Food, Body, and Belief: A Global Perspective	3
GWSS:2700	Transgender People, Politics, and Cultures	3
GWSS:2900/ ANTH:2191	Love, Sex, and Money: Sexuality and Exchange Across Cultures	3
GWSS:3121/ ANTH:3121	Love, Marriage, and Family in India	3
GWSS:3157/ HIST:3157	Gender, Sexuality, and Human Rights	3
GWSS:3185/ WLLC:3185	Global Women's Cinema	3
GWSS:3326/ GHS:3327	The Politics of Progress: NGOs, Development, and Sexuality	3
GWSS:3427/ HIST:3427	Family, Gender, and Society in Early Modern Europe	3
GWSS:4026/ FREN:4026	French Women Writers	3-4
GWSS:4140/ ANTH:4140/ CBH:4140/ GHS:4140	Feminist Activism and Global Health	3
GWSS:4540/ FREN:4540	Gender and Sexuality in French Cinema	3-4
ANTH:2190/ GWSS:2190/IS:2190	Love Rules: Law and the Family Across Cultures	3

Race/Ethnicity in the U.S. Focus

Course #	Title	Hours
One of these:		
GWSS:2571/ ENGL:2571/ SJUS:2571	Visualizing Human Rights (if not taken to fulfill the Global/Comparative Focus area)	3
GWSS:2800/ AFAM:2800	African American Women, Health, Hair, and Sexuality	3
GWSS:3431/ LATS:3550	Topics in Latina/o/x Studies: History and Culture	1-3
GWSS:3459/ HIST:3259/ SJUS:3459	Making Change, Making History	3
SJUS:1001/ GWSS:1003	Introduction to Social Justice	3
SJUS:2050/ GWSS:2050/ HIST:2150/ RELS:2250	Jews, Judaism, and Social Justice	3
SJUS:2250/ GWSS:2250/ HIST:2250	The History of Social Justice Movements	3
SJUS:3250/ ENGL:3572	Literature and Social Justice	3
ENGL:3459/ AFAM:3459	African American Literature Before 1900	3
ENGL:3460/ AFAM:3460	African American Literature After 1900	3
HIST:2266/ AFAM:2266	Civil War and Emancipation	3
HIST:2267/ AFAM:2267	African American History to 1877	3
HIST:3275/ AFAM:3275	History of Slavery in North America	3
SSW:3847	Discrimination, Oppression, and Diversity	3
A Native American and Indigenous studies course (prefix NAIS) numbered 2000 or above that does not fulfill a GE CLAS Core requirement		
A Latina/o/x studies course (prefix LATS) numbered 2000 or above that does not fulfill a GE CLAS Core requirement		
An African American studies course (prefix AFAM) numbered 2000 or above that does not fulfill a GE CLAS Core requirement		

Electives

Students must complete 12 s.h. of gender, women's, and sexuality studies courses (prefix GWSS or SJUS) numbered 1000–4999; at least 6 s.h. of the 12 s.h. must be completed with courses numbered 3000–4999. Students can count gender, women's, and sexuality studies distribution area requirement courses as electives if they were not used to fulfill their area requirements. With the instructor's permission, honors students may count a graduate-level course numbered 5000 or above toward the electives requirement.

In choosing electives, students are encouraged to pursue a course of study that emphasizes breadth and depth in a specific discipline (anthropology, English, and history, among others) or a focus area (art, writing, literature, sexuality, media, global and transnational studies, race and ethnicity, health, and so on).

Capstone Courses

These courses help students develop and create their capstone projects.

Students first take GWSS:3900 Research for Public Engagement in the fall semester of their final year, which focuses on developing advanced research, reading, and writing skills and choosing capstone topics. In the spring of their senior year, students take GWSS:4090 Senior Research Seminar, a research and writing workshop in which students work collaboratively with their classmates to complete their creative or scholarship capstone work, including creating a poster for the end of the semester Senior Research Poster Show.

Students who write an honors thesis enroll in GWSS:4095 Honors Senior Thesis in the spring semester of their senior year.

Course #	Title	Hours
This course:		
GWSS:3900	Research for Public Engagement	3
One of these:		
GWSS:4090	Senior Research Seminar	3
GWSS:4095	Honors Senior Thesis	3

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must maintain a University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.50 in the major. Students must write an honors thesis that requires two semesters of work during the senior year: fall (thesis research by enrolling in GWSS:3900 Research for Public Engagement) and spring (thesis writing by enrolling in GWSS:4095 Honors Senior Thesis).

Students who intend to graduate with honors in the major should meet with the gender, women's, and sexuality studies (GWSS) director of undergraduate study before the end of their junior year. They must also select a faculty member to serve as their honors thesis mentor before they begin their thesis work. They should meet with their mentor at least twice in the fall semester of their senior year to discuss their project. The department recommends that students consider faculty members from whom they have taken GWSS courses.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the gender, women's, and sexuality studies major.

Career Advancement

Gender, women's, and sexuality studies (GWSS) majors develop the critical skills and problem-solving abilities needed for engaging the challenges of contemporary life. Graduates work in diverse settings, such as government and nonprofit agencies, newspaper offices, human resource departments, museums, theaters, international human rights organizations, schools, and hospitals. They do fundraising, political organizing, teaching, writing, research, advocacy work, counseling, diversity training, and marketing. They become social workers, nurses, midwives, doctors, editors, librarians, business managers, grant writers, campaign directors, educational administrators, program coordinators, lawyers, and professors.

A GWSS undergraduate education provides a solid foundation for pursuing graduate degrees from schools of social work, public health, law, education, international relations, public affairs and public policy, and medicine. The major also prepares students for a wide range of graduate programs, including gender and women's studies, history, anthropology, urban education, creative writing, political science, human rights, human sexuality, and counseling.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the third semester begins: GWSS:1001 Introduction to Gender, Women's, and Sexuality Studies.

Before the fifth semester begins: GWSS:1002 Diversity and Power in the U.S. and two GWSS electives.

Before the seventh semester begins: one GWSS distribution course (theory or comparative/non-U.S. focus) and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: GWSS:3005 Practicum, GWSS:3900 Research for Public Engagement, one more GWSS distribution course (theory or comparative/non-U.S. focus), and at least one more GWSS elective.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Gender, Women's, and Sexuality Studies, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
GWSS:1001	Introduction to Gender, Women's, and Sexuality Studies	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Values and Society [b]		3
CSI:1600	Success at Iowa	1
Elective course [c]		3
Elective course [c]		2
	Hours	**15-16**
Spring		
GWSS:1002	Diversity and Power in the U.S.	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences with Lab [b]		4
GE CLAS Core: Social Sciences [b]		3

Elective course [c]		2
	Hours	**15-16**
Second Year		
Fall		
Major: race/ethnicity in the U.S. focus course [d]		3
Major: elective course (prefix GWSS or SJUS, numbered 1000-4999) [e]		3
GE CLAS Core: Quantitative or Formal Reasoning [b]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
Elective course [c]		3
	Hours	**16-17**
Spring		
Major: global/comparative focus course [d]		3
Major: elective course (prefix GWSS or SJUS, numbered 1000-4999) [e]		3
GE CLAS Core: International and Global Issues [b]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
Elective course [c]		3
	Hours	**16-17**
Third Year		
Fall		
GWSS:3005	Practicum	3 - 4
GWSS:3100 or GWSS:3200	LGBTQ/Queer Studies or Theories for Gender, Women's, and Sexuality Studies	3
GE CLAS Core: Historical Perspectives [b]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]		4 - 5
Elective course [c]		3
	Hours	**16-18**
Spring		
GWSS:3010 or GWSS:3326 or GWSS:3350	Transnational Sexualities or The Politics of Progress: NGOs, Development, and Sexuality or Transnational Feminism	3
Major: elective course (prefix GWSS or SJUS, numbered 3000-4999) [e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]		4 - 5
Elective course [c]		3
Elective course [c]		3
	Hours	**16-17**
Fourth Year		
Fall		
GWSS:3900	Research for Public Engagement [g]	3
Major: elective course (prefix GWSS or SJUS, numbered 3000-4999) [e]		3
GE CLAS Core: Literary, Visual, and Performing Arts [b]		3
Elective course [c]		3
Elective course [c]		3
	Hours	**15**
Spring		
GWSS:4095 or GWSS:4090	Honors Senior Thesis [h] or Senior Research Seminar	3
GE CLAS Core: Natural Sciences without Lab [b]		3
Elective course [c]		3
Elective course [c]		3
Elective course [c]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15**
	Total Hours	**124-131**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

c Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

d See the General Catalog for list of approved courses.

e Students must complete 12 s.h. of gender, women's, and sexuality studies courses (prefix GWSS or SJUS) numbered 1000-4999; at least 6 s.h. of the 12 s.h. must be completed with courses numbered 3000-4999.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

h Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Gender, Health, and Healthcare Equity, Minor

Requirements

The undergraduate minor in gender, health, and healthcare equity requires a minimum of 15 s.h. of coursework, including at least 12 s.h. completed at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework for the minor may not be taken pass/nonpass.

Students may count a maximum of 3 s.h. from another University of Iowa major, minor, or certificate toward the gender, health, and healthcare equity minor.

The minor in gender, health, and healthcare equity requires the following coursework.

Requirements	Hours
Core Courses	6
Health Equity Courses	9-10

Core Courses

Course #	Title	Hours
Two of these:		
GWSS:1001	Introduction to Gender, Women's, and Sexuality Studies	3
GWSS:1002	Diversity and Power in the U.S.	3
SJUS:1001/ GWSS:1003	Introduction to Social Justice	3

Health Equity Courses

Course #	Title	Hours
Three of these:		
GWSS:2080/ GHS:2080	The Cultural Politics of HIV-AIDS	3
GWSS:2650/ GHS:2650	Global Reproduction	3
GWSS:2700	Transgender People, Politics, and Cultures	3
GWSS:2800/ AFAM:2800	African American Women, Health, Hair, and Sexuality	3
GWSS:3005/ SJUS:3005	Practicum (placement must be in a health care or social service setting)	3-4
GWSS:3010/ GHS:3015	Transnational Sexualities	3
GWSS:3154	Sexuality in the United States	3
GWSS:3326/ GHS:3327	The Politics of Progress: NGOs, Development, and Sexuality	3
GWSS:4140/ ANTH:4140/ CBH:4140/ GHS:4140	Feminist Activism and Global Health	3
CPH:1400	Fundamentals of Public Health	3
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
ENGL:2560	Topics in Culture and Identity (when topic is stories about HIV/AIDS)	3
GHS:3036	Ethics, Policy, and Global Health	3
GHS:3110/ ANTH:3110/ CBH:4200/ NAIS:3110	Colonialism and Indigenous Health Equity	3
GHS:4003	Case Studies in Global Health Inequities	3
HIST:3508/ GHS:3508/LAS:3508	Disease and Health in Latin American History	3
HIST:3755/ GHS:3555/IS:3555	Understanding Health and Disease in Africa	3
SEES:3090/ GHS:3070	Hungry Planet: Global Geographies of Food	3
SOC:3750/ GWSS:3750	Born in the USA: Fertility and Reproduction	3

Gender, Women's, and Sexuality Studies, Minor

Requirements

The undergraduate minor in gender, women's, and sexuality studies (GWSS) requires a minimum of 15 s.h. of coursework, including at least 12 s.h. completed at the University of Iowa. Students must take GWSS:1001 Introduction to Gender, Women's, and Sexuality Studies and 12 s.h. in courses numbered 2000 or above. They may count GWSS:1002 Diversity and Power in the U.S. toward the 12 s.h. requirement. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework for the minor may not be taken pass/nonpass.

Students may count a maximum of 3 s.h. from another University of Iowa major, minor, or certificate toward the GWSS minor.

Social Justice, Minor

Requirements

The undergraduate minor in social justice requires a minimum of 15 s.h. of coursework, including at least 12 s.h. completed at the University of Iowa. Students must take SJUS:1001/GWSS:1003 Introduction to Social Justice and 12 s.h. in courses numbered 2000 or above. They may count GWSS:1002 Diversity and Power in the U.S. toward the 12 s.h. requirement. Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Students may count a maximum of 3 s.h. from another University of Iowa major, minor, or certificate toward the social justice minor.

The minor in social justice requires the following coursework.

Requirements	Hours
Foundation Courses	6
Human Rights, Diversity, Activism Course	3
Social Justice Movements: Politics, History, Culture, Art Course	3
Elective	3

Foundation Courses

Course #	Title	Hours
This course:		
SJUS:1001/ GWSS:1003	Introduction to Social Justice	3
One of these:		
SJUS:2000	Theories of Social Justice	3
SJUS:2250/ GWSS:2250/ HIST:2250	The History of Social Justice Movements	3
GWSS:3138/ SJUS:3138	Writing to Change the World	3

Human Rights, Diversity, Activism

Course #	Title	Hours
One of these:		
SJUS:1600/ AMST:1600/ LATS:1600	War Stories	3
SJUS:2050/ GWSS:2050/ HIST:2150/ RELS:2250	Jews, Judaism, and Social Justice	3
SJUS:2135/ RHET:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
SJUS:2500/ ENGL:2570/ GWSS:2500	Love, War, Activism: Stories About Women From Across the World	3
SJUS:2571/ ENGL:2571/ GWSS:2571	Visualizing Human Rights	3
SJUS:3475/ GWSS:3475	Working for Social Justice	3
GWSS:1002	Diversity and Power in the U.S.	3
GWSS:2080/ GHS:2080	The Cultural Politics of HIV-AIDS	3
GWSS:2800/ AFAM:2800	African American Women, Health, Hair, and Sexuality	3
GWSS:3138/ SJUS:3138	Writing to Change the World (if not used as a Foundation course)	3
GWSS:3157/ HIST:3157	Gender, Sexuality, and Human Rights	3
GWSS:3326/ GHS:3327	The Politics of Progress: NGOs, Development, and Sexuality	3
GWSS:4140/ ANTH:4140/ CBH:4140/ GHS:4140	Feminist Activism and Global Health	3
HIST:3108	History of Human Rights	3
HIST:3217/ LAS:3217/ LATS:3217	Latina/o/x Immigration	3
HIST:3232	History of American Inequality	3
HIST:3275/ AFAM:3275	History of Slavery in North America	3
HIST:4478	Holocaust in History and Memory	3
HRTS:2115/IS:2115	Introduction to Human Rights	3
HRTS:3906	Global Crises and Human Rights	3
HRTS:3910/IS:3910	Approaches to Advocacy: From Theory to Practice	3
LATS:3104/ LAS:3104/ POLI:3104	Immigration Politics	3
NAIS:2292/ AMST:2292/ HIST:2292	Native American Law and Policy: A History	3
PHIL:3430	Philosophy of Human Rights	3
POLI:1900	Introduction to the Politics of Race	3
RELS:2955/IS:2955	Human Rights and Islam	3
RHET:3560/ PBAF:3560/ POLI:3560/ SJUS:3560	Public Policy and Persuasion	3
SOC:2810	Social Inequality	3
SSW:3712/ NURS:3712	Human Sexuality, Diversity, and Society	3
SSW:3847	Discrimination, Oppression, and Diversity	3

Social Justice Movements: Politics, History, Culture, Art

Course #	Title	Hours
One of these:		
SJUS:2000	Theories of Social Justice (if not used as a Foundation course)	3
SJUS:2250/ GWSS:2250/ HIST:2250	The History of Social Justice Movements (if not used as a Foundation course)	3
SJUS:3250/ ENGL:3572	Literature and Social Justice	3
SJUS:3459/ GWSS:3459/ HIST:3259	Making Change, Making History	3
GWSS:2650/ GHS:2650	Global Reproduction	3
GWSS:2700	Transgender People, Politics, and Cultures	3
GWSS:3282/ HIST:3282	Women and Power in U.S. History Since the Civil War	3
GWSS:3600	Art, Feminist Practice, and Social Justice	3
AFAM:3053/ AMST:3053/ HIST:3253	The Civil Rights Movement	3
COMM:2054	Movements, Protest, Resistance	3
ENGL:2463/ AFAM:2463	Topics in African American Literature (when topic is the Harlem Renaissance)	3
ENGL:3515	Topics in Postcolonial Studies (when topic is revolutionary Caribbean: Cuba and Puerto Rico)	3
HIST:3232	History of American Inequality	3
LATS:3550/ GWSS:3431	Topics in Latina/o/x Studies: History and Culture	3

Elective

Courses used to satisfy requirements in "Foundation Courses," "Human Rights, Diversity, Activism," or "Social Justice Movements: Politics, History, Culture, Art" may not be used to satisfy the elective requirement.

Course #	Title	Hours
One of these:		
SJUS:2240/ HIST:2149/ RELS:2240	Introduction to Jewish Studies	3
GWSS:2571/ ENGL:2571/ SJUS:2571	Visualizing Human Rights	3
GWSS:3005/ SJUS:3005	Practicum	3
GWSS:3010/ GHS:3015	Transnational Sexualities	3
GWSS:3100	LGBTQ/Queer Studies	3
GWSS:3118/ ANTH:3118/ COMM:3118	Politics of Reproduction	3
GWSS:3200	Theories for Gender, Women's, and Sexuality Studies	3
GWSS:3300/ ANTH:3300	Mothers and Motherhood	3
GWSS:3326/ GHS:3327	The Politics of Progress: NGOs, Development, and Sexuality	3
AFAM:3500/ HIST:3160/ RELS:3808	Malcolm X, King, and Human Rights	3
ANTH:2190/ GWSS:2190/IS:2190	Love Rules: Law and the Family Across Cultures	3
ANTH:3103	Environment and Culture	3
ANTH:3110/ CBH:4200/ GHS:3110/ NAIS:3110	Colonialism and Indigenous Health Equity	3
ANTH:3152/ ASP:3152/ GHS:3152	Anthropology of Caregiving and Health	3
ANTH:4140/ CBH:4140/ GHS:4140/ GWSS:4140	Feminist Activism and Global Health	3
ASP:3150	Psychology of Aging	3
COMM:4131/ IS:4131	Globalization and Culture	3
COMM:4169/ GWSS:4169	Black Feminist Rhetorics	3
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
CPH:3500/ GHS:3500	Global Public Health	3
ENGL:3444	Literatures of the American Peoples	3
ENGL:3555/ AFAM:3555	Topics in African Cinema (when topic is visualizing human rights)	3
ENGL:3580	Identity and Social Issues	3
GHS:3720	Contemporary Issues in Global Health	3
HIST:3108	History of Human Rights	3
HIST:3126	History of Globalization	3
HIST:3217/ LAS:3217/ LATS:3217	Latina/o/x Immigration	3
HIST:3282/ GWSS:3282	Women and Power in U.S. History Since the Civil War	3
HIST:4216/ LAS:4216	Mexican American History	3
HRTS:3910/IS:3910	Approaches to Advocacy: From Theory to Practice	3
JMC:3150/ CBH:3150/ GHS:3150	Media and Health	3
LATS:3420/ AMST:3420/ POLI:3427/ SJUS:3420	Latinas/os/x and the Law	3
LATS:4800/ AMST:4800	Latina/o/x Popular Culture	3

NAIS:2292/ AMST:2292/ HIST:2292	Native American Law and Policy: A History	3
POLI:3104/ LAS:3104/ LATS:3104	Immigration Politics	3
POLI:3111	American Public Policy	3
POLI:3114	Women and Politics in the United States	3
POLI:3150	Problems in American Politics	3
POLI:3512	International Conflict	3
PSY:3560	Psychology of Gender	3
RELS:2955/IS:2955	Human Rights and Islam	3
RELS:3745/ AFAM:3245	Twentieth- and Twenty-first Century African American Religion	3
SEES:3070	Marine Ecosystems and Conservation	3
SEES:3340	Ecosystem Services	3
SEES:3400	Iowa Environmental Policy in Practice	3
SEES:3760/ GHS:3760	Hazards and Society	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3
SOC:2830	Race and Ethnicity	3
SPAN:3230	Modern Mexico	3
SSW:3712/ NURS:3712	Human Sexuality, Diversity, and Society	3
SSW:3796	Family Violence	3

Gender, Women's, and Sexuality Studies, Graduate Certificate

Requirements

The graduate Certificate in Gender, Women's, and Sexuality Studies (GWSS) requires 16 s.h. of coursework. All students must maintain a Graduate College major program grade-point average of at least 3.00 in work for the certificate.

Certificate requirements include a 3 s.h. foundations course GWSS:5000 Foundations for Gender, Women's, and Sexuality Studies and a 1 s.h. capstone course GWSS:7400 Graduate Research Conference Presentation. In the capstone course, students revise an existing research-based project into a dynamic GWSS presentation, which they present at the annual Jakobsen Conference or, in some semesters, at a department-sponsored research celebration event.

Certificate students receive advising and research mentorship from the director of graduate studies, and also peer review as part of the scheduled capstone workshops.

The certificate program is open to University of Iowa graduate students working toward a degree; interested students should meet with the director of graduate studies to discuss the program's parameters and how the certificate might best support and enhance their course of study.

Students may not use the same course to satisfy more than one certificate requirement.

The Certificate in Gender, Women's, and Sexuality Studies requires the following coursework.

Course #	Title	Hours
GWSS:5000	Foundations for Gender, Women's, and Sexuality Studies	3
GWSS:7400	Graduate Research Conference Presentation	1
Electives		12
Total Hours		**16**

Electives

Certificate students complete four elective courses (12 s.h.). Elective options include any gender, women, and sexuality studies course (prefix GWSS) or those with a GWSS cross-reference numbered 3000 and above. Students must take at least one elective with GWSS as the course subject. Students are strongly encouraged to include at least one course with a transnational focus; one course with a focus on U.S. diversity; and one interdisciplinary course on theories of gender, women, feminism, and/or sexuality (or a course squarely outside of their area of specialization). Students are encouraged to take at least one GWSS certificate course outside their home department for the purpose of interdisciplinary breadth. The director of graduate studies can advise and discuss coursework options and parameters with students.

Global Health Studies

Chair, Department of Anthropology

- Andrew Kitchen

Director, Global Health Studies

- Kristine L. Munoz

Undergraduate major: global health studies (BA, BS)

Undergraduate minor: global health studies

Graduate certificate: global health studies

Faculty: https://globalhealthstudies.uiowa.edu/people

Website: https://globalhealthstudies.uiowa.edu/

The Global Health Studies Program (GHS) offers an interdisciplinary approach to the study of the complex factors influencing health and disease locally and around the world.

The academic curriculum builds upon the humanities, social sciences, and health sciences to help students understand underlying forces—such as history, culture, gender and sexuality, economics, politics, race and ethnicity, the environment, law, and technology—which lead to health disparities worldwide. The Global Health Studies Program offers a BA and BS degree, an undergraduate minor, and a graduate certificate.

The Global Health Studies Program recognizes the importance of opportunities for students to be involved in ethical activities outside of the classroom to reinforce and apply knowledge and skills obtained within the classroom. These experiences help students define and achieve their post-graduation goals. The faculty and staff help connect students to local, regional, and international academic and cocurricular opportunities.

The Global Health Studies Program is administered by the Department of Anthropology [p. 63]. The College of Liberal Arts and Sciences awards the undergraduate degrees and the minor; the Graduate College confers the graduate certificate.

Local Health is Global Health

There are many ways for GHS students to support local and global organizations that are working for health equity. GHS students intern and volunteer with organizations such as Proteus, Grow: Johnson County, the UI Food Pantry, the UI Mobile Clinic, UI Student Wellness, the Center for Worker Justice of Eastern Iowa, IC Compassion, and Johnson County Public Health. Additionally, as part of the GHS capstone and certificate curricula, students have collaborated with community organizations such as Haiti Community Health Initiative, the World Food Prize Foundation, and the Special Olympics.

Faculty Research and Outreach

GHS-affiliated faculty members conduct research at a variety of sites worldwide, including India, Haiti, the Caribbean, Germany, Colombia, Tanzania, rural Iowa, and Southeast Asia. Interested students work with faculty and staff to integrate international study and research opportunities into their graduation plans. As experts in their field, GHS faculty are often asked to be part of public programming activities. Recent examples include an International Programs webinar on "Pandemic, State, and Society" in Asia; an Iowa City Foreign Relations Council presentation on refugees, immigrants, and higher education in Iowa; and a campus collaboration on a speaker series addressing environmental justice at the University of Iowa.

Programs

Undergraduate Programs of Study

Majors

- Major in Global Health Studies (Bachelor of Arts) [p. 493]
- Major in Global Health Studies (Bachelor of Science) [p. 497]

Minor

- Minor in Global Health Studies [p. 502]

Graduate Program of Study

- Certificate in Global Health Studies [p. 503]

Courses

- Associated Courses [p. 487]
- Global Health Studies Courses [p. 488]

Associated Courses

In addition to courses offered by the Global Health Studies Program (see "Global Health Studies Courses"), students may use the following courses to complete requirements for the certificate or minor.

Course #	Title	Hours
Aging and Longevity Studies		
ASP:1800/ CSD:1800/ NURS:1800/ SSW:1800/TR:1800	Aging Matters: Introduction to Gerontology	3
English		
ENGL:2560	Topics in Culture and Identity (when topic is stories about HIV/AIDS)	3
History		
HIST:1016	The History That Made Our World (when topic is health in the Global South)	3
Nursing		
NURS:3655	Community and Public Health Nursing Practicum (BSN students only)	2
Occupational and Environmental Health		
OEH:4240	Global Environmental Health	3
Public Health		
CPH:2230	Finding Patient Zero: The Exploration of Infectious Disease Transmission and Pandemic Threats	3
CPH:2400	The U.S. Health System in a Global Context	3
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
CPH:4200	Agriculture, Food Systems, and Sustainability	3

Global Health Studies Courses

GHS:1029 First-Year Seminar 1 s.h.
Introduction to intellectual life of the university; opportunity to work closely with a faculty member or senior administrator; active participation to ease transition to college-level learning.

GHS:1181 Ancient Medicine 3 s.h.
Thematic examination of theories and practices of Greco-Roman physicians, which in turn became the medical tradition of medieval Islamic world and European medicine until mid-19th century; historical medical terms, theories, and practices. GE: Historical Perspectives. Same as CLSA:1181.

GHS:1200 Disabilities and Inclusion in Writing and Film Around the World 3 s.h.
Exploration of human experiences of dis/ability and exclusion/inclusion. Taught in English. GE: Understanding Cultural Perspectives. Same as DST:1200, GRMN:1200, WLLC:1200.

GHS:1290 Native American Foods and Foodways 3 s.h.
Native Americans as original farmers of 46% of the world's table vegetables; examination of food as a cultural artifact (e.g., chocolate, tobacco); food as a primary way in which human beings express their identities; environmental, material, and linguistic differences that shape unique food cultures among Native peoples across the Western Hemisphere; close analysis of Indigenous foods, rituals, and gender roles associated with them; how colonization transformed Native American, European, and African American cultures. GE: Understanding Cultural Perspectives. Same as AMST:1290, HIST:1290, NAIS:1290.

GHS:2000 Introduction to Global Health Studies 3 s.h.
Global health as a study of the dynamic relationship between human health and social, biological, and environmental factors that drive the spread of disease; core areas of global health research that may include health inequalities, maternal and child health, infectious diseases, nutrition, environmental health, and health interventions. GE: International and Global Issues. Same as ANTH:2103.

GHS:2080 The Cultural Politics of HIV-AIDS 3 s.h.
Complex historical shifts in cultural perceptions about HIV-AIDS in the U.S. and transnationally; controversies around HIV-AIDS and their links with questions of gender and sexuality; how HIV-AIDS subsequently became the basis of a transnational industry comprising nongovernmental organizations, donors, and activists across the global north and south, starting from 1980s in the U.S. when HIV-AIDS first emerged into public sphere as a gay disease; link between HIV-AIDS and ideologies of development or progress, neocolonialism, and emergence of lesbian, gay, bisexual, transgender, intersex, and questioning (LGBTIQ) movements in many parts of world. Recommendations: background in gender studies, and completion of rhetoric or at least one social sciences course. Same as GWSS:2080.

GHS:2090 Medical Spanish in Contemporary Society 4 s.h.
Vocabulary related to medicine; grammatical concepts; health-related cultural competence; discussion of health issues concerning Hispanic communities in the U.S. and abroad. Taught in Spanish. Requirements: SPAN:1502 or SPAN:1503. Same as SPAN:2090.

GHS:2100 Foundations of Health Humanities 3 s.h.
Examination of health, disease, care, and healing through humanities perspective; exploration of humanistic elements of medical care to better understand multiple meanings and impacts of disease, medical research and treatment, and health beliefs and practices in different communities; interdisciplinary inquiry through close reading, interpretation of visual images, and reflective and analytic writing to encourage adaptability and foster appreciation of non-technoscientific factors in personal and professional health care decision-making. GE: Values and Society. Same as GWSS:2100.

GHS:2110 Eight Billion and Counting: Introduction to Population Dynamics 3 s.h.
How dramatic changes to the size of population has changed fundamental characteristics of populations and processes, such as food and water scarcity, climate change and biodiversity, rise of megacities, health and disease, migration, social networks, economics, environment, and household structure. GE: Social Sciences. Same as SEES:2110.

GHS:2160 Culture, Health, and Wellness: Southeast Asia in Focus 3 s.h.
Exploration of complex cross-cultural interactions between health, wellness, and culture; insights drawn from the culturally diverse region of Southeast Asia including Indonesia, Vietnam, Singapore, Malaysia, Thailand, Cambodia, Burma, and Philippines, among others. Same as ANTH:2160.

GHS:2164 Culture and Healing: An Introduction to Medical Anthropology 3 s.h.
Health professions are increasingly focused on how to best provide health care to culturally diverse populations; introduction to key cultural and social influences on sickness and healing; worldwide examples. Same as ANTH:2164.

GHS:2181 The Anthropology of Aging 3 s.h.
Comparative anthropological perspective on aging; ethnographies from diverse contexts used to examine intersections of kinship, religion, health, and medicine in later life. Same as ANTH:2181, ASP:2181.

GHS:2182 Africa: Health and Society 3 s.h.
Cultural, political, and economic diversity of African societies from precolonial period to present day; relationship between lived experiences of African people and understanding of their societies from afar; why Africa, more than any other region, is associated with warfare, hunger, and disease; idea of "Africa" in the world today; shared misunderstanding of life on continent contrasted with everyday lives of people who are not so different from ourselves. Same as ANTH:2182.

GHS:2260 Hard Cases in Healthcare at the Beginning of Life 3 s.h.
Exploration of ethical impact that advances in biotechnology, including genetic, reproductive, and neonatal technology, are having in the medical arena and on humanity; consideration of the powerful influence that religion and spirituality have on people's ethical and medical decision-making. Same as RELS:2260.

GHS:2265 Hard Cases in Healthcare at the End of Life 3 s.h.
Preparation for future healthcare providers to make difficult ethical decisions regarding the end of life; interactive course. Same as ASP:2265, RELS:2265.

GHS:2320 Origins of Human Infectious Disease 3 s.h.
Origin and evolution of important infectious diseases in human history; biological evolution of infectious agents and biocultural responses to emerging infectious diseases; primary focus on viruses and bacteria; selected world problems from an anthropological perspective; current dilemmas and those faced by diverse human groups in recent times and distant past. Same as ANTH:2320.

GHS:2415 Bioethics 3 s.h.
Recent developments in biotechnology and medicine; designer babies and cloning, genetic screening for disease, distributive justice in health care, animal experimentation, physician-assisted suicide, and euthanasia. Same as PHIL:2415.

GHS:2650 Global Reproduction 3 s.h.
History of birth control and work of activists and organizations that emerged to promote it; troubling connections that spawned between reproductive rights and population control movements. Same as GWSS:2650.

GHS:2660 Global Media Stories of Addiction 3 s.h.
Explores addiction from several perspectives through media-based storytelling from around the world; examines storytelling and translation in conversation with social and biomedical theories and research as ways of learning and understanding the nature, effects, and possibilities for recovery from addiction.

GHS:2674 Food, Body, and Belief: A Global Perspective 3 s.h.
Exploration of local, national, and global forces that shape food consumption, body image, and spiritual practices. Taught in English. Same as GWSS:2674, RELS:2674.

GHS:2770 Black and White Community Politics 3 s.h.
Students study the movement for environmental justice within the broader context of U.S. land use and development to understand environmental racism's prevalence and how it can be addressed; topics include pollution, health, food access, transportation and agricultural practice to land loss, public space, and infrastructure; exploration of perspectives on the environment and environmentalism. Same as AFAM:2770, SOC:2770.

GHS:3010 Social Science Approaches to Global Health 3 s.h.
Review of major components of research in the social sciences as they apply to global health topics; preparation for academic pursuits or careers that utilize research to address global health issues in a systematic way. Same as IGPI:3011.

GHS:3011 Global Research: Strategies and Skills 1 s.h.
Skill development in international research; academic projects; work with research librarian; activity-based introduction to article, statistical, and governmental databases; research and popular materials; information discovery process (tools and search strategies); enhancement of critical thinking skills. Same as IS:3011, ULIB:3011.

GHS:3012 Community-Based Global Health Research 3 s.h.
Introduction to community-based participatory research methods; ethical engagement with a local/global organization addressing the social determinants of health.

GHS:3015 Transnational Sexualities 3 s.h.
How ideas about normative and nonnormative sexuality, gender/sexual identities, and related social movements travel across geographical, political, and cultural boundaries; potentials and limits of using conceptual frameworks (i.e., sexuality, gender, LGBT, queer) across the west and global south; how sexuality always intersects with race, class, nationhood, and transnational systems of power; power structures that shape gender/sexuality through a transnational approach; connection of inequalities within the United States with those across the world. Same as GWSS:3010.

GHS:3021 Mental Health in the Ancient World 3 s.h.
Exploration of approaches to mental health in ancient Mediterranean world including Mesopotamia, the Levant, Greece, and Rome; examination of nosology, etiology, therapy, and ethics of mental health from ancient medical, philosophical, religious, and literary perspectives; mental health in cultural contexts. Same as CLSA:3020.

GHS:3030 Global Health Today 1 s.h.
Attendance at diverse on-campus, local, and regional global health events. Same as CPH:3240.

GHS:3034 Doing Harm by Doing Good: The Ethics of Studying, Volunteering, and Working in Global Communities 1 s.h.
Exploration of complex ethical issues involved in engaging in experiential learning (e.g., study abroad, volunteering, internships, research) in global communities; topics may include patient rights versus the promise of "hands-on" experience for untrained undergraduates; pitfalls of voluntourism and substituting "free" foreign labor for paid local employees; commercial aspects of study abroad—incentives and recruiting on campus by external contractors; how to select a reputable internship provider; online resources which help students become global ambassadors for patient safety; basic tools for thinking critically about outcomes.

GHS:3035 Engaging in Global Health 1 s.h.
How to become a participant in promoting health throughout the world; student peers and global health professionals share their experiences in global health; how professionals and volunteers work in a broad variety of settings; working with government-based programs, international organizations (e.g., UNICEF, World Vision), health care agencies, faith-based organizations, industry, and academic institutions; various ways to become engaged and be involved in global health.

GHS:3036 Ethics, Policy, and Global Health 3 s.h.
Ethics of health care policies, delivery systems, and interventions examined globally and locally.

GHS:3037 Technology to Improve Global Health 3 s.h.
Examination of existing, new, and future technologies used to revolutionize global health promotion through a variety of unique and often low-cost tools (e.g., mobile phones, drones, artificial intelligence).

GHS:3045 Spanish Health Narratives 3 s.h.
Narratives are the central communicative act through which humans make sense of wellness and illness, life and death, always within contexts of language and culture; students focus on reading and analyzing narratives about health and health care, and opportunities to create their own narratives; particular emphasis on health care disparities and issues they present for Spanish-language communities in the United States and abroad as context for individual narratives. Taught in Spanish. Requirements: one course numbered SPAN:2000 or above. Same as SPAN:3205.

GHS:3050 Global Aging 3 s.h.
Demographic factors that contribute to the worldwide phenomena of population aging in context of WHO Active Aging and the United Nation's Principles for Older Persons frameworks. Same as ASP:3135, SSW:3135.

GHS:3060 Studies in Complementary and Alternative Medicine 3 s.h.
Rotating topics related to complementary and alternative medicine.

GHS:3070 Hungry Planet: Global Geographies of Food 3 s.h.
Societal and environmental implications of past, current, and future global food supply examined from a geographical perspective; focus on questions of who eats what, where, and why; transformative history of agriculture, modern agribusiness and alternative food supplies, geopolitical implications of food production, food scarcity and rising food costs, urban versus rural agriculture, the obesity epidemic versus malnutrition, and the future of food. Same as SEES:3090.

GHS:3092 Spanish in the Community 3 s.h.
Students work directly with Spanish speakers through community-based service learning; focus on issues of interest to the local Latina/o/x community, develop oral proficiency, and enhance their civil engagement. Requirements: two courses numbered SPAN:2000 or above. Same as SPAN:3092.

GHS:3105 Contraception Across Time and Cultures 3 s.h.
Methods and history of contraception; issues of unwanted pregnancy and birth control in fiction, film, and media around the world. Same as CLSA:3105, GWSS:3105, WLLC:3105.

GHS:3110 Colonialism and Indigenous Health Equity 3 s.h.
Health problems and services for Indigenous populations worldwide, from perspective of Fourth World postcolonial politics. Prerequisites: ANTH:1101 or ANTH:2165 or GHS:2000 or HIST:1049 or CPH:1400. Same as ANTH:3110, CBH:4200, NAIS:3110.

GHS:3111 Geography of Health 3 s.h.
Provision of health care in selected countries, with particular reference to the Third World; focus on problems of geographical, economic, cultural accessibility to health services; disease ecology, prospective payment systems, privatization, medical pluralism. Same as SEES:3110.

GHS:3120 Global Maternal and Child Health 3 s.h.
Interdisciplinary approach to health of women and children locally and around the world.

GHS:3150 Media and Health 3 s.h.
Potential and limits of mass media's ability to educate the public about health; research and theory on the influence of information and entertainment media; theories, models, assumptions of mass communication in relation to public health issues. Same as CBH:3150, JMC:3150.

GHS:3152 Anthropology of Caregiving and Health 3 s.h.
Diverse understandings and practices of care around the world; focus on relationships between caregiving practices and health across the life course. Same as ANTH:3152, ASP:3152.

GHS:3199 Understanding Health in an Unequal World: Anthropology and Global Health Policy 3 s.h.
Global health has grown as an area of practice and study, with well-being and livelihoods of increasing numbers of people now deeply influenced by these ideas, practices, and policies; students engage with ways that global health programs have influenced experiences of health and illness by those who participate in these programs, critically analyzing how global health interacts with local dynamics of inequality, race, gender, and power. Same as ANTH:3199, IS:3198.

GHS:3230 Health Experience of Immigrants, Migrants, and Refugees 3 s.h.
Interdisciplinary exploration of the unique health concerns, challenges, and health care experiences of the diverse populations on the move around the world and new to this country; issues to be explored include four overlapping sections—broad overview (definitions, populations, and significant health challenges); health risks and needs of specific sub-populations; patterns of public and private resources and responses; and the local picture (Iowa and Midwest), programs, cases, and concerns.

GHS:3300 Envisioning Future Worlds: Sustainable Development and Its Alternatives 3 s.h.
Sociocultural, geopolitical, and environmental implications of sustainable development and its alternatives investigated from a geographic perspective; geopolitical history of sustainable development; measures of sustainability in development; major critiques of sustainable development; alternative visions of development from different geographical contexts including ecofeminism, Buen Vivir, food sovereignty, degrowth, commoning, and the People's Health Movement. Same as SEES:3300.

GHS:3325 Global Epidemics 3 s.h.
Case studies of several prominent global epidemic episodes; examination of the biology of the disease, how such epidemics came into being, how they were combated, and the relationship between the science, sociocultural, and political consequences of the disease.

GHS:3327 The Politics of Progress: NGOs, Development, and Sexuality 3 s.h.
How nonprofit sector increasingly plays a significant role in countering socioeconomic inequalities in the United States and global south; role of nonprofit organizations in relation to governmental policies of development, transnational funders, and ideas of sexual progress; critics of development institutions' arguments that western ideas of progress impose and adversely affect groups they claim to empower, yet also may foster struggles for social justice that go beyond development policy; examination of transnational nonprofit sector in relation to gender/sexuality and how it impacts women and gender/sexual minorities around the world. Recommendations: background in gender studies or social sciences. Same as GWSS:3326.

GHS:3420 Health and Healing in Early Modern Europe 3 s.h.
Health, healing, and medicine (1200-1700); transmission of medical knowledge from medieval Islam and ancient Greece; healers including physicians, midwives, surgeons, apothecaries, and ordinary people; epidemic disease; diet and the body; sex and reproduction; health in the colonial Atlantic world; healing and religion including prayer, magic, and witchcraft. Same as HIST:3420.

GHS:3500 Global Public Health 3 s.h.
Exploration of historical, current, and forecasted trends in global public health, the factors influencing health demographics in human populations, sources of health inequalities, and appropriate policy and intervention approaches for addressing global public health challenges. Same as CPH:3500.

GHS:3508 Disease and Health in Latin American History 3 s.h.
Survey of major topics in Latin American history in relation to development of medicine and public health. Same as HIST:3508, LAS:3508.

GHS:3520 Oral Histories of Health Care 3 s.h.
Oral histories capture individual lived experiences in relation to structures of law, language, society, and culture; students learn oral history methods and connect with members of the local community to conduct interviews that record their lived experiences of access to health care; these interviews may be archived in Special Collections and Archives at the University Libraries. Recommendations: some knowledge of Spanish is useful but not required. Same as LATS:3520.

GHS:3555 Understanding Health and Disease in Africa 3 s.h.
Cultural, historical, and political framework for the delivery of health care services in African nations. Recommendations: junior or higher standing. Same as HIST:3755, IS:3555.

GHS:3560 Global Garbage and Global Health 3 s.h.
Exploration of the fate of waste products as they are burnt, decomposed, landfilled, treated, recycled, reused, dumped on minority communities, or shipped abroad; definition of social and cultural aspects of garbage; students develop an understanding of the link between garbage, human health, and environmental health.

GHS:3570 Poverty Policy 3 s.h.
How poverty is regulated and addressed in the United States, and by federal, state, and local governments; particular focus on programs including Temporary Assistance for Needy Families (TANF), Section 8 housing, Medicaid, and Medicare; how these systems have changed over time; current models and innovations that have emerged in practice. Same as PBAF:3570, POLI:3570, SSW:3570.

GHS:3600 Development in a Global Context I: Preparing for an Internship in Health, Gender, and Environment 2 s.h.
Students work with a UI faculty mentor to articulate an international development project and apply to an international development organization for an internship; students are matched to an organization/project and begin preparation for their internship by communicating with onsite mentor/supervisor.

GHS:3660 Social Environmental Health Risks and Community Engagement 3 s.h.
Addresses central issues of global health such as health disparities, social determinants of health, and health equity across diverse populations through the lens of community and environmental health; examines ways in which individual risks posed by sociodemographic characteristics, housing structures, effects of adverse climatic conditions, disasters, and injuries at work are affected by marginalization and community engagement; formulate preliminary research questions and gather data on perceptions of community engagement with healthcare providers and researchers, developing research projects of their own and/or engaging in community outreach.

GHS:3700 Development in a Global Context II: Reflections on Real World Interventions 1 s.h.
Students produce a research paper analyzing their personal internship in an international development program.

GHS:3720 Contemporary Issues in Global Health 3 s.h.
Local and global dimensions of health and disease.

GHS:3732 Global Health Nursing 3 s.h.
Complexity of health and nursing in a global context; overview of biological, social, epigenetic, and environmental contributors to health and diseases in populations around the world and nursing's role in improving health; includes case studies of various global organizational and educational structures and systems relative to population health, selected infectious diseases, nutritional deficiencies, and health effects of environmental change. Same as NURS:3732.

GHS:3760 Hazards and Society 3 s.h.
Examination of the impact and societal responses to natural and technological hazards; using case studies from around the world, students explore relationships between extreme events, human behavior, disaster management, public policy, and technology to understand what makes people and places vulnerable to hazards. Same as SEES:3760.

GHS:3780 U.S. Energy Policy in Global Context 3 s.h.
Historical and contemporary aspects of U.S. governmental planning and policy on a wide range of energy issues in global context. Same as HIST:3240, POLI:3431, SEES:3780.

GHS:3850 Promoting Health Globally 3 s.h.
Major global health threats in the United States and abroad; impact of culture, history, economics on health disparities; approaches, programs, policies to remedy them. Same as HHP:3850.

GHS:4000 Global Health Studies Service Learning: Local Health is Global Health 4 s.h.
Service-learning projects with local community organizations; domestic opportunities which offer global health insights.

GHS:4001 Social Entrepreneurship and Global Health 3 s.h.
Fundamentals of social enterprise and innovative approaches to improving lives and communities combined with a Global Health Studies focus on social determinants of health; student teams apply their knowledge and skills to projects which support the global health mission of a community partner. Recommendations: one approved global health studies course.

GHS:4002 Working in Global Health 3 s.h.
Development of skills needed for careers in global health. Recommendations: junior or higher standing.

GHS:4003 Case Studies in Global Health Inequities 3 s.h.
Series of multidisciplinary case studies focusing on health issues and solutions locally and globally.

GHS:4100 Topics in Global Health 1-3 s.h.
Special topics related to global health studies.

GHS:4140 Feminist Activism and Global Health 3 s.h.
How female gender intersects with culture, environment, and political economy to shape health and illness; reproductive health, violence, drug use, cancer; readings in anthropology, public health. Prerequisites: ANTH:1101 or GWSS:1001 or CPH:1400 or GHS:2000. Same as ANTH:4140, CBH:4140, GWSS:4140.

GHS:4150 Health and Environment: GIS Applications 3 s.h.
Introduction to how geographic information systems (GIS) and spatial statistics are used in the study of patterns of health and disease in space and time. Same as IGPI:4150, SEES:4150.

GHS:4205 Culture, Language, and Health 3 s.h.
Exploration of health, wellness, and illness from a perspective of language and culture; languages we use to describe our mental and physical health that are situated within culture-specific ideas of human bodies, minds, disease, and wellness; understanding where beliefs about health and wellness come from and exploring other systems of belief on their own terms prepares students to be better informed health care practitioners, more aware patients within health care systems, and more sensitive caregivers in health related settings; emphasis on observation, asking questions, and analyzing health care worlds. Taught in Spanish. Requirements: two courses in Spanish numbered 3000 or above. Same as SPAN:4205.

GHS:4260 Global Water and Health 3 s.h.
Overview of global water and health; microbial and toxicant identification, water-related adverse health effects, risk assessment, approaches to reduce water-related disease, distal water-related influences (e.g., global warming), and historic cases. Same as OEH:4260.

GHS:4530 Global Road Safety 3 s.h.
Road safety problem, data sources, research methods used in field, and how intervention and prevention programs are developed and evaluated; lecture, hands-on approaches. Same as CPH:4220, OEH:4530.

GHS:4770 Environmental Justice 3 s.h.
Introduction to the field of environmental justice; understanding and addressing the processes that lead poor and marginalized communities to face a disproportionate degree of environmental risks and hazards. Same as AFAM:4770, SEES:4770.

GHS:4990 Independent Project in Global Health arr.
Independent work completed under the supervision of global health studies faculty.

GHS:4991 Honors Thesis in Global Health Studies 3 s.h.
Completion of honors thesis in consultation with a faculty mentor. Prerequisites: GHS:3010.

GHS:4992 Global Health Studies Honors Cohort 0 s.h.
Students complete all requirements for honors in the global health studies major; supervision by global health studies honors advisor. Corequisites: GHS:4991.

GHS:5000 Graduate Seminar in Global Health 2 s.h.
In-depth discussion and analysis of rotating topics pertinent to global health studies.

GHS:5455 Health Insurance and Managed Care 3 s.h.
History and theory of insurance, comparative health systems, health systems and networks, HMOs, public health insurance, care for uninsured; emphasis on public policy. Prerequisites: HMP:5005. Corequisites: PHAR:6330 or HMP:5410. Same as HMP:5450.

GHS:6550 Epidemiology of Infectious Diseases 3 s.h.
Underlying epidemiological concepts of infection disease, including causation and surveillance; prevention and control; case studies. Offered fall semesters. Prerequisites: EPID:4400. Same as EPID:6550.

GHS:7160 Global History of Race, Science, and Medicine 3 s.h.
Examination of the history of social construction of race in scientific and medical thought; use of science and medicine to conceptualize race, as well as how race was used by scientists and physicians in their practice; primary focus is on the Atlantic World—Europe, Africa, and the Americas—and touches briefly on the construction of race in other parts of the world. Same as HIST:7160.

Global Health Studies, BA

The Bachelor of Arts in global health studies prepares students for careers in local and international global health organizations, and for graduate and professional work in fields such as public health, law, planning and public affairs, social work, international development, sustainable agriculture, public policy, and more.

Learning Outcomes

The Global Health Studies Program equips its students to:

- apply interdisciplinary perspectives drawn from the social sciences and humanities to local and global health issues;
- understand core areas of global health such as infectious and non-communicable diseases, maternal and child health, food sovereignty, environmental health, disability studies, and health disparities;
- analyze health and disease from biomedical, sociocultural, and environmental perspectives;
- understand how health issues affect domestic and international communities;
- recognize the ethical and practical challenges involved in interventions designed to improve health and health equity across cultural and geographical boundaries.

Requirements

The Bachelor of Arts with a major in global health studies requires a minimum of 120 s.h., including at least 37 s.h. of coursework for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. A minimum of 18 s.h. of major coursework must be earned at the University of Iowa. A maximum of 6 s.h. in GHS:4990 Independent Project in Global Health may be used toward the major. Students must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22] requirements.

Students who earn the major in global health studies may earn the major in interdepartmental studies as long as they select an emphasis other than the global health emphasis in the health science track.

The BA with a major in global health studies requires the following coursework.

Requirements	Hours
Foundation Courses	7
Global Health Perspectives and Practices Electives	18
World Language and Culture Requirement	6
Inquiry Course	3
Experiential Learning Course	3

Foundation Courses

Course #	Title	Hours
Both of these:		
GHS:2000	Introduction to Global Health Studies	3
GHS:4003	Case Studies in Global Health Inequities	3
And one of these:		
GHS:3034	Doing Harm by Doing Good: The Ethics of Studying, Volunteering, and Working in Global Communities	1
GHS:3035	Engaging in Global Health	1

Global Health Perspectives and Practices Electives

To provide an appreciation of the interdisciplinary nature of global health studies, students choose from a wide range of courses on topics that reflect the breadth of the field. Students must take a minimum of 18 s.h. of courses from the following lists to fulfill the global health perspectives and practices requirement, with at least 12 s.h. from courses numbered 3000 or above.

Courses taken to complete another area of the major cannot be used toward the global health perspectives and practices elective requirement.

Core Electives

Course #	Title	Hours
A minimum of 6 s.h. from these (if not taken to satisfy one of the other major requirements):		
GHS:1200	Disabilities and Inclusion in Writing and Film Around the World	3
GHS:2100	Foundations of Health Humanities	3
GHS:3010	Social Science Approaches to Global Health	3
GHS:3015	Transnational Sexualities	3
GHS:3036	Ethics, Policy, and Global Health	3
GHS:3037	Technology to Improve Global Health	3
GHS:3045	Spanish Health Narratives	3
GHS:3060	Studies in Complementary and Alternative Medicine	3
GHS:3105	Contraception Across Time and Cultures	3
GHS:3120	Global Maternal and Child Health	3
GHS:3230	Health Experience of Immigrants, Migrants, and Refugees	3
GHS:3325	Global Epidemics	3
GHS:3520	Oral Histories of Health Care	3
GHS:3560	Global Garbage and Global Health	3
GHS:3720	Contemporary Issues in Global Health	3
GHS:3850	Promoting Health Globally	3
GHS:4002	Working in Global Health	3
GHS:4205	Culture, Language, and Health	3

Additional Electives

Course #	Title	Hours
A minimum of 12 s.h. from these (if not taken to satisfy one of the other major requirements):		

Global health studies courses (prefix GHS) numbered 1000-4990, not including GHS:2000 or GHS:4003		
ASP:1800/ CSD:1800/ NURS:1800/ SSW:1800/TR:1800	Aging Matters: Introduction to Gerontology	3
CPH:2200	Climageddon: Understanding Climate Change and Associated Impacts on Health	3
CPH:2230	Finding Patient Zero: The Exploration of Infectious Disease Transmission and Pandemic Threats	3
CPH:2400	The U.S. Health System in a Global Context	3
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
CPH:4200	Agriculture, Food Systems, and Sustainability	3
ENGL:2560	Topics in Culture and Identity (when topic is stories about HIV/AIDS)	3
HIST:1016	The History That Made Our World (when topic is related to global health; consult advisor)	3
NURS:3655	Community and Public Health Nursing Practicum (BSN students only)	2
OEH:4240	Global Environmental Health	3

World Language and Culture Requirement

Students must choose one of the following options: option A or B. The semester hours necessary to complete this requirement will vary.

Option A

Students may complete a minimum of two world language courses beyond that required by the GE CLAS Core [p. 22]. This additional language requirement may be met either by completing at least two courses at a higher level in a language used to fulfill the GE CLAS Core World Languages requirement or by completing two courses, or the equivalent, of an additional world language at any level.

Option B

Students may complete 6 s.h. of World Culture coursework selected from the international studies Global Perspectives or World Cultures and Societies course tables; see Requirements [p. 702] in the BA in international studies section of the catalog. Courses taken to complete another area of the major cannot be used toward the World Culture requirement.

Inquiry Course

Students must take a minimum of 3 s.h. of courses from this list or from an approved study abroad course.

Course #	Title	Hours
One of these (if not taken to satisfy one of the other major requirements):		
GHS:2100	Foundations of Health Humanities	3
GHS:3010	Social Science Approaches to Global Health	3
In certain circumstances, an approved study abroad course (consult global health studies advisor)		3

Experiential Learning Course

The experiential learning requirement provides an opportunity for students to apply the knowledge and skills they learned in the classroom.

Course #	Title	Hours
A minimum of 3 s.h. from these (if not taken to satisfy one of the other major requirements):		
GHS:3012	Community-Based Global Health Research	3
GHS:3092	Spanish in the Community	3
GHS:3520	Oral Histories of Health Care	3
GHS:3660	Social Environmental Health Risks and Community Engagement	3
GHS:4000	Global Health Studies Service Learning: Local Health is Global Health	4
GHS:4001	Social Entrepreneurship and Global Health	3
GHS:4002	Working in Global Health	3
Approved study abroad coursework (consult global health studies advisor)		3

Honors

Honors in the Major

Students majoring in global health studies have the opportunity to graduate with honors in the major. Students who choose to graduate with honors in the major must satisfy these requirements:

- maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.33 in all work for the major;
- complete GHS:4991 Honors Thesis in Global Health Studies;
- enroll in GHS:4992 Global Health Studies Honors Cohort with the global health studies honors advisor during the semester in which GHS:4991 will be completed; and
- submit an acceptable honors thesis.

Students are also encouraged, but not required, to give an oral or poster presentation of research findings, participate in the Office of Undergraduate Research (OUR), and/or apply for research scholarships.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the global health studies major.

Career Advancement

The Global Health Studies Program engages students and faculty in real-world health problems and challenges students to embark on global health careers that prioritize improving health and achieving equity in health for people worldwide.

Graduates find opportunities in a range of global health job sectors such as:

- in-country field consulting;
- disaster relief organizations;
- immigrant/refugee health organizations;
- research and academic institutions;
- international agencies;
- other nongovernmental agencies (NGOs);
- lending agencies that work in developing countries;
- multilateral agencies (such as the World Health Organization); and
- governmental agencies (United States Agency for International Development, Center for Disease Control, in-country ministries of health, etc.).

Global health studies graduates also have pursued graduate and professional degrees in medicine, dentistry, pharmacy, nursing, public health, law, nonprofit management, urban and regional planning, sustainable agriculture, international development, and public administration.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete in order to stay on the university's Four-Year Graduation Plan.

Before the fifth semester begins: at least six courses in the major.

Before the seventh semester begins: at least 12 courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least two additional courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Global Health Studies, BA

Course	Title	Hours
Academic Career		
Any Semester		
The global health studies program connects students to experiential learning opportunities such as study abroad, internships, research, and service learning courses through which students develop real world skills related to major global health issues. [a]		
GE CLAS Core: Sustainability [b]		
Students completing honors in the global health studies major work with a faculty mentor to produce an honors thesis, and then present their research during the final year at a venue approved by the global health studies program.		
	Hours	**0**
First Year		
Fall		
GHS:2000	Introduction to Global Health Studies	3
GHS:3035 or GHS:3034	Engaging in Global Health [c] or Doing Harm by Doing Good: The Ethics of Studying, Volunteering, and Working in Global Communities	1
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**15-17**
Spring		
GHS:3034 or GHS:3035	Doing Harm by Doing Good: The Ethics of Studying, Volunteering, and Working in Global Communities [f] or Engaging in Global Health	1
Major: global health perspectives and practices elective course [g]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Social Sciences [d]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
Elective course [h]		2 - 3
	Hours	**16-19**
Second Year		
Fall		
GHS:2100 or GHS:3010	Foundations of Health Humanities [c] or Social Science Approaches to Global Health	3
Major: global health perspectives and practices elective course [g]		3

GE CLAS Core: Natural Sciences without Lab [d]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
Elective course [h]		3
	Hours	**16-17**
Spring		
GHS:2100 or GHS:3010	Foundations of Health Humanities [f] or Social Science Approaches to Global Health	3
Major: global health perspectives and practices elective course numbered 3000 or above [g]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
Elective course [h]		1 - 2
	Hours	**17-19**
Third Year		
Fall		
Major: experiential learning course [g]		3 - 4
Major: world language and culture requirement [i]		3 - 5
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
Elective course [h]		2 - 3
	Hours	**15-19**
Spring		
GHS:4003	Case Studies in Global Health Inequities	3
Major: global health perspectives and practices elective course numbered 3000 or above [g]		3
GE CLAS Core: Values and Society [d]		3
Elective course [h]		3
Elective course [h]		3
	Hours	**15**
Fourth Year		
Fall		
Major: global health perspectives and practices elective course numbered 3000 or above [g]		3
Major: world language and culture requirement [i]		3 - 5
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
	Hours	**15-17**
Spring		
Major: global health perspectives and practices elective course numbered 3000 or above [g]		3
GE CLAS Core: International and Global Issues [d]		3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**124-138**

a Students meet regularly with their academic advisor for help in identifying ethical activities which can be integrated into their individualized graduation plan.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

g See General Catalog for list of approved courses.

h Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

i See General Catalog for details.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Global Health Studies, BS

The Bachelor of Science in global health studies is designed for students who desire to enter professional programs in the health sciences.

Learning Outcomes

The Global Health Studies Program equips its students to:

- apply interdisciplinary perspectives drawn from the social sciences and humanities to local and global health issues;
- understand core areas of global health such as infectious and non-communicable diseases, maternal and child health, food sovereignty, environmental health, disability studies, and health disparities;
- analyze health and disease from biomedical, sociocultural, and environmental perspectives;
- understand how health issues affect domestic and international communities;
- recognize the ethical and practical challenges involved in interventions designed to improve health and health equity across cultural and geographical boundaries.

Requirements

The Bachelor of Science with a major in global health studies requires a minimum of 120 s.h., including at least 47 s.h. of coursework for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. A minimum of 18 s.h. of major coursework must be earned at the University of Iowa. A maximum of 6 s.h. in GHS:4990 Independent Project in Global Health may be used toward the major. Students must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22] requirements.

Students who earn the major in global health studies may earn the major in interdepartmental studies as long as they select an emphasis other than the global health emphasis in the health science track.

The BS with a major in global health studies requires the following coursework.

Requirements	Hours
Foundation Courses	7
Global Health Perspectives and Practices Electives	18
World Language and Culture Requirement	6
Inquiry Course	3
Experiential Learning Course	3
Natural Sciences Courses	7-8
Mathematics and Statistics Course	3-4

Foundation Courses

Course #	Title	Hours
Both of these:		
GHS:2000	Introduction to Global Health Studies	3
GHS:4003	Case Studies in Global Health Inequities	3
And one of these:		
GHS:3034	Doing Harm by Doing Good: The Ethics of Studying, Volunteering, and Working in Global Communities	1
GHS:3035	Engaging in Global Health	1

Global Health Perspectives and Practices Electives

To provide an appreciation of the interdisciplinary nature of global health studies, students choose from a wide range of courses on topics that reflect the breadth of the field. Students must take a minimum of 18 s.h. of courses from the following lists to fulfill the global health perspectives and practices requirement, with at least 12 s.h. from courses numbered 3000 or above.

Courses taken to complete another area of the major cannot be used toward the global health perspectives and practices elective requirement.

Core Electives

Course #	Title	Hours
A minimum of 6 s.h. from these (if not taken to satisfy one of the other major requirements):		
GHS:1200	Disabilities and Inclusion in Writing and Film Around the World	3
GHS:2100	Foundations of Health Humanities	3
GHS:2164	Culture and Healing: An Introduction to Medical Anthropology	3
GHS:2320	Origins of Human Infectious Disease	3
GHS:2415	Bioethics	3
GHS:3010	Social Science Approaches to Global Health	3
GHS:3015	Transnational Sexualities	3
GHS:3036	Ethics, Policy, and Global Health	3
GHS:3037	Technology to Improve Global Health	3
GHS:3045	Spanish Health Narratives	3
GHS:3060	Studies in Complementary and Alternative Medicine	3
GHS:3105	Contraception Across Time and Cultures	3
GHS:3120	Global Maternal and Child Health	3
GHS:3230	Health Experience of Immigrants, Migrants, and Refugees	3
GHS:3325	Global Epidemics	3
GHS:3520	Oral Histories of Health Care	3
GHS:3560	Global Garbage and Global Health	3
GHS:3720	Contemporary Issues in Global Health	3
GHS:3850	Promoting Health Globally	3
GHS:4002	Working in Global Health	3
GHS:4150	Health and Environment: GIS Applications	3

GHS:4205	Culture, Language, and Health	3
GHS:4260	Global Water and Health	3

Additional Electives

Course #	Title	Hours
A minimum of 12 s.h. from these (if not taken to satisfy one of the other major requirements):		
Global health studies courses (prefix GHS) numbered 1000-4990, not including GHS:2000 or GHS:4003		
ASP:1800/ CSD:1800/ NURS:1800/ SSW:1800/TR:1800	Aging Matters: Introduction to Gerontology	3
CPH:2200	Climageddon: Understanding Climate Change and Associated Impacts on Health	3
CPH:2230	Finding Patient Zero: The Exploration of Infectious Disease Transmission and Pandemic Threats	3
CPH:2400	The U.S. Health System in a Global Context	3
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
CPH:4200	Agriculture, Food Systems, and Sustainability	3
ENGL:2560	Topics in Culture and Identity (when topic is stories about HIV/AIDS)	3
HIST:1016	The History That Made Our World (when topic is related to global health; consult advisor)	3
NURS:3655	Community and Public Health Nursing Practicum (BSN students only)	2
OEH:4240	Global Environmental Health	3

World Language and Culture Requirement

Students must choose one of the following options: option A or B. The semester hours necessary to complete this requirement will vary.

Option A

Students may complete a minimum of two world language courses beyond that required by the GE CLAS Core [p. 22]. This additional language requirement may be met either by completing at least two courses at a higher level in a language used to fulfill the GE CLAS Core World Languages requirement or by completing two courses, or the equivalent, of an additional world language at any level.

Option B

Students may complete 6 s.h. of World Culture coursework selected from the international studies Global Perspectives or World Cultures and Societies course tables; see Requirements [p. 702] in the BA in international studies section of the catalog. Courses taken to complete another area of the major cannot be used toward the World Culture requirement.

Inquiry Course

Students must take a minimum of 3 s.h. of courses from this list or from an approved study abroad course.

Course #	Title	Hours
One of these (if not taken to satisfy one of the other major requirements):		
GHS:2100	Foundations of Health Humanities	3
GHS:3010	Social Science Approaches to Global Health	3
In certain circumstances, an approved study abroad course (consult global health studies advisor)		3

Experiential Learning Course

The experiential learning requirement provides an opportunity for students to apply the knowledge and skills they learned in the classroom.

Course #	Title	Hours
A minimum of 3 s.h. from these (if not taken to satisfy one of the other major requirements):		
GHS:3012	Community-Based Global Health Research	3
GHS:3092	Spanish in the Community	3
GHS:3520	Oral Histories of Health Care	3
GHS:3660	Social Environmental Health Risks and Community Engagement	3
GHS:4000	Global Health Studies Service Learning: Local Health is Global Health	4
GHS:4001	Social Entrepreneurship and Global Health	3
GHS:4002	Working in Global Health	3
Approved study abroad coursework (consult global health studies advisor)		3

Natural Sciences Courses

The natural sciences courses taken for the major can also be used to fulfill the GE CLAS Core [p. 22] natural sciences requirement. Students should consult with their advisor concerning specific courses that satisfy these requirements.

Course #	Title	Hours
A minimum of one of the sequences, with at least one lab, from these:		
Chemistry		
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
Chemistry and Biology		
CHEM:1070 & BIOL:1141	General Chemistry I and Human Biology: Health Professions	7
CHEM:1110 & BIOL:1141	Principles of Chemistry I and Human Biology: Health Professions	8
CHEM:1110 & BIOL:1411	Principles of Chemistry I and Foundations of Biology	8

CHEM:1110 & BIOL:1412	Principles of Chemistry I and Diversity of Form and Function	8
Chemistry and Physics		
CHEM:1070 & PHYS:1400	General Chemistry I and Basic Physics	7
CHEM:1110 & PHYS:1511	Principles of Chemistry I and College Physics I	8
Health and Human Physiology		
HHP:2100 & HHP:2400	Human Anatomy and Fundamentals of Human Physiology (must complete either HHP:2110 or HHP:2410 to satisfy lab requirement)	7
Physics		
PHYS:1511 & PHYS:1512	College Physics I and College Physics II	8

Mathematics and Statistics Course

Students must complete at least one calculus or statistics course. In some cases, students may also need to complete a precalculus course, depending on their math placement.

The mathematics and statistics course requirement can be used to fulfill the GE CLAS Core [p. 22] requirement. Students should consult with their advisor concerning specific courses that satisfy these requirements.

Course #	Title	Hours
One of these:		
MATH:1440	Mathematics for the Biological Sciences	4
MATH:1460	Calculus for the Biological Sciences	4
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
Any higher-level statistics course (consult advisor)		3-4

Honors

Honors in the Major

Students majoring in global health studies have the opportunity to graduate with honors in the major. Students who choose to graduate with honors in the major must satisfy these requirements:

- maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.33 in all work for the major;
- complete GHS:4991 Honors Thesis in Global Health Studies;
- enroll in GHS:4992 Global Health Studies Honors Cohort with the global health studies honors advisor during the semester in which GHS:4991 will be completed; and
- submit an acceptable honors thesis.

Students are also encouraged, but not required, to give an oral or poster presentation of research findings, participate in the Office of Undergraduate Research (OUR), and/or apply for research scholarships.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the global health studies major.

Career Advancement

The Global Health Studies Program engages students and faculty in real-world health problems and challenges students to embark on global health careers that prioritize improving health and achieving equity in health for people worldwide.

Graduates find opportunities in a range of global health job sectors such as:

- in-country field consulting;
- disaster relief organizations;
- immigrant/refugee health organizations;
- research and academic institutions;
- international agencies;
- other nongovernmental agencies (NGOs);
- lending agencies that work in developing countries;
- multilateral agencies (such as the World Health Organization); and
- governmental agencies (United States Agency for International Development, Center for Disease Control, in-country ministries of health, etc.).

Global health studies graduates have also pursued graduate and professional programs in medicine, dentistry, pharmacy, nursing, public health, law, nonprofit management, urban and regional planning, sustainable agriculture, international development, and public administration.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete in order to stay on the university's Four-Year Graduation Plan.

Before the fifth semester begins: at least six courses in the major.

Before the seventh semester begins: at least 12 courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least two additional courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and

should be discussed with an academic advisor. For additional sample plans, see MyUI.

Global Health Studies, BS

Course	Title	Hours
Academic Career		
Any Semester		
The global health studies program connects students to experiential learning opportunities such as study abroad, internships, research, and service learning courses through which students develop real world skills related to major global health issues. [a]		
Students completing honors in the global health studies major work with a faculty mentor to produce an honors thesis, and then present their research during the final year at a venue approved by the global health studies program.		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
GHS:2000	Introduction to Global Health Studies	3
GHS:3035 or GHS:3034	Engaging in Global Health [c] or Doing Harm by Doing Good: The Ethics of Studying, Volunteering, and Working in Global Communities	1
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**15-17**
Spring		
GHS:3034 or GHS:3035	Doing Harm by Doing Good: The Ethics of Studying, Volunteering, and Working in Global Communities [f] or Engaging in Global Health	1
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
Major: natural sciences course without lab [g, h, i]		3
GE CLAS Core: Social Sciences [d]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
Elective course [j]		2 - 3
	Hours	**16-19**
Second Year		
Fall		
GHS:2100 or GHS:3010	Foundations of Health Humanities [c] or Social Science Approaches to Global Health	3
Major: global health perspectives and practices elective course [g]		3
Major: natural sciences course with lab [g, i]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
Elective course [j]		2 - 3
	Hours	**16-18**
Spring		
GHS:2100 or GHS:3010	Foundations of Health Humanities [f] or Social Science Approaches to Global Health	3
Major: mathematics and statistics course [i, k, l]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
Elective course [j]		3
	Hours	**16-18**
Third Year		
Fall		
Major: experiential learning course [g]		3 - 4
Major: global health perspectives and practices elective course numbered 3000 or above [g]		3
Major: world language and culture requirement [m]		3 - 5
GE CLAS Core: Values and Society [d]		3
Elective course [j]		3
	Hours	**15-18**
Spring		
GHS:4003	Case Studies in Global Health Inequities	3
Major: global health perspectives and practices elective course numbered 3000 or above [g]		3
Major: world language and culture requirement [m]		3 - 5
Elective course [j]		3
Elective course [j]		3
	Hours	**15-17**
Fourth Year		
Fall		
Major: global health perspectives and practices elective course [g]		3
GE CLAS Core: Historical Perspectives [d]		3
Major: global health perspectives and practices elective course numbered 3000 or above [g]		3
Elective course [j]		3
Elective course [j]		3
Elective course [j]		3
	Hours	**18**
Spring		
Major: global health perspectives and practices elective course numbered 3000 or above [g]		3
GE CLAS Core: International and Global Issues [d]		3
Elective course [j]		3
Elective course [j]		3
Elective course [j]		3

Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [n]	
Hours	**15**
Total Hours	**126-140**

a Students meet regularly with their academic advisor for help in identifying ethical activities which can be integrated into their individualized graduation plan.
b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.
c Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.
d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.
f Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
g See General Catalog for list of approved courses.
h Enrollment in chemistry courses requires completion of a placement exam.
i Fulfills a major requirement and may fulfill a GE requirement.
j Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.
k Choose from MATH:1440, MATH:1460, MATH:1550, MATH:1850, STAT:1020.
l Enrollment in math courses requires completion of a placement exam.
m See General Catalog for details.
n Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Global Health Studies, Minor

Requirements

The undergraduate minor in global health studies requires a minimum of 15 s.h., including 12 s.h. in courses completed at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

The minor in global health studies is interdisciplinary and designed for students who wish to study the complex factors influencing health and disease locally and around the world. The minor equips students to apply interdisciplinary perspectives drawn from the social sciences and humanities to local and global health issues; analyze health and disease from biomedical, sociocultural, and environmental perspectives; understand how health issues affect domestic and international communities; and recognize the ethical challenges involved in interventions designed to improve health and health equity across cultural and geographical boundaries.

The minor in global health studies requires the following coursework.

Course #	Title	Hours
One of these:		
GHS:2000	Introduction to Global Health Studies	3
GHS:3850	Promoting Health Globally	3
One of these:		
GHS:3720	Contemporary Issues in Global Health	3
GHS:4003	Case Studies in Global Health Inequities	3
6 s.h. from these:		
GHS:1200	Disabilities and Inclusion in Writing and Film Around the World	3
GHS:2000	Introduction to Global Health Studies (if not taken for the previous requirement)	3
GHS:2100	Foundations of Health Humanities	3
GHS:3010	Social Science Approaches to Global Health	3
GHS:3012	Community-Based Global Health Research	3
GHS:3034	Doing Harm by Doing Good: The Ethics of Studying, Volunteering, and Working in Global Communities	1
GHS:3035	Engaging in Global Health	1
GHS:3036	Ethics, Policy, and Global Health	3
GHS:3037	Technology to Improve Global Health	3
GHS:3060	Studies in Complementary and Alternative Medicine	3
GHS:3105	Contraception Across Time and Cultures	3
GHS:3120	Global Maternal and Child Health	3
GHS:3230	Health Experience of Immigrants, Migrants, and Refugees	3
GHS:3325	Global Epidemics	3
GHS:3520	Oral Histories of Health Care	3
GHS:3560	Global Garbage and Global Health	3
GHS:3660	Social Environmental Health Risks and Community Engagement (if not taken as a subtopic under GHS:3012)	3
GHS:3720	Contemporary Issues in Global Health (if not taken for the previous requirement)	3
GHS:3850	Promoting Health Globally (if not taken for the previous requirement)	3
GHS:4001	Social Entrepreneurship and Global Health	3
GHS:4002	Working in Global Health	3
GHS:4003	Case Studies in Global Health Inequities (if not taken for the previous requirement)	3
One of these:		
Global Health Perspectives and Practices Elective(s) if not used for another minor requirement; see BA or BS in global health studies for approved list		3
Approved global health-themed study abroad coursework (consult global health studies advisor)		3

Global Health Studies, Graduate Certificate

Requirements

The graduate Certificate in Global Health Studies requires 18 s.h. of study. Students must earn at least 12 s.h. of credit for the certificate in courses numbered 3000 or above taken at the University of Iowa. Students must maintain a minimum grade-point average of 2.50 or higher in the 18 s.h. coursework required for the certificate.

The certificate is open to University of Iowa graduate and professional students. Students who wish to declare the global health studies certificate must contact the global health studies faculty advisor. Global health studies staff will see to it that the certificate is added to a student's program of study.

Work for the certificate includes required courses, electives, a global health project that culminates in a public presentation and written report, and the study of a world language. A maximum of 4 s.h. in GHS:4990 Independent Project in Global Health may be used toward the certificate. Students may choose courses offered by the Global Health Studies Program (prefix GHS) or associated courses offered by other departments and programs (see "Associated Courses" under Courses [p. 487] in this section of the catalog).

Graduate and professional students who would like to count credit from a degree program toward the global health studies certificate should consult their graduate/professional academic programs.

The certificate program is interdisciplinary, and requires students to complete a global health project (either in an international setting or in a domestic setting that focuses on global connections) during which they address an important global health issue in a systematic way. Students then present their results and report on the completed project. The program helps prepare students for careers in global health.

The Certificate in Global Health Studies requires the following work.

Required Courses

Course #	Title	Hours
All of these:		
GHS:3010	Social Science Approaches to Global Health	3
GHS:3720	Contemporary Issues in Global Health	3
GHS:3850	Promoting Health Globally	3
GHS:4990	Independent Project in Global Health (maximum of 4 s.h. may count toward the certificate)	1
One of these:		
GHS:4002	Working in Global Health	3
GHS:4003	Case Studies in Global Health Inequities	3
One of these:		
GHS:3011	Global Research: Strategies and Skills	1
GHS:3030	Global Health Today	1
GHS:3034	Doing Harm by Doing Good: The Ethics of Studying, Volunteering, and Working in Global Communities	1
GHS:3035	Engaging in Global Health	1

Electives

Students complete 4 s.h. of approved electives chosen from the course lists under Courses [p. 487] in the Global Health Studies section of the catalog. They may petition to use other courses as electives if they can demonstrate that the courses include substantial material related to global health. Contact the Global Health Studies Program for details.

Global Health Project

Students must complete a global health project during which they systematically address an important global health issue. The project can be completed either in an international setting or in a domestic setting that focuses on global connections. Eight weeks is considered the optimal amount of time to meet this requirement. The project may be completed as part of a study abroad program, a service learning course, an internship, a volunteer experience, or an independent research project.

Projects require approval by the Global Health Studies Program faculty director and must be supervised by an approved UI faculty mentor. Students may apply for a Stanley Award; other financial support may be available for some projects. Visit Global Health Project on the program's website for more information.

Language Study

Students must either demonstrate fourth-semester-level language proficiency or complete the GE CLAS Core [p. 22] World Languages requirement through any of the available pathways.

The Global Health Studies Program steering committee may advise students to take additional language study in preparation for a research or internship program. Students interested in learning an infrequently taught language to facilitate their participation in a global health project can contact the Center for Language and Culture Learning in the Department of Languages, Linguistics, Literatures, and Cultures.

Public Presentation and Report

Certificate requirements culminate in a public presentation and report. Students present the results of their global health project in GHS:3010 Social Science Approaches to Global Health or in an equivalent public forum. Students must also submit a 10–12 page report that summarizes their global health project. Students enroll in GHS:4990 Independent Project in Global Health for 1 s.h. during the semester in which they are completing their report and presentation.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Global Health Studies, Graduate Certificate

Course	Title	Hours
First Year		
Fall		
GHS:3850	Promoting Health Globally	3
Global Health Studies elective [a]		1 - 3
	Hours	**4-6**
Spring		
GHS:3720	Contemporary Issues in Global Health	3
	Hours	**3**
Second Year		
Fall		
GHS:3010	Social Science Approaches to Global Health [b]	3
Global Health Studies course [c]		1
	Hours	**4**
Spring		
GHS:4003 or GHS:4002	Case Studies in Global Health Inequities or Working in Global Health	3
Apply for a Stanley Award for International Research (optional, not required to earn the certificate)		
	Hours	**3**
Summer		
Complete an approved global health project [d, e]		
	Hours	**0**
Third Year		
Fall		
GHS:4990	Independent Project in Global Health	1
Complete a report and presentation on the approved global health project [d]		
	Hours	**1**
Spring		
Global Health Studies elective (if needed to reach a minimum of 4 s.h. of GHS electives) [a]		1 - 3
	Hours	**1-3**
	Total Hours	**16-20**

a Students complete 4 s.h. of approved electives. See the General Catalog for a list of approved courses.

b GHS:3010 can be taken earlier in the plan to prepare for the global health project; meet with the GHS academic advisor to create an individualized plan of study.

c Choose from GHS:3011, GHS:3030, GHS:3034, GHS:3035.

d See the Global Health Studies program website for details.

e The global health project may be completed during any session after GHS:3010 and before the student's final session; it can be local or international. Meet with the GHS academic advisor to create an individualized plan of study.

Health, Sport, and Human Physiology

Chair

- Gary L. Pierce

Undergraduate majors: health studies (BA); exercise science (BS); health promotion (BS); human physiology (BS); sport and recreation management (BS); therapeutic recreation (BS)

Undergraduate minors: human physiology; inclusive recreation; lifestyle medicine; sport and recreation management

Undergraduate certificate: interscholastic athletic/activities administration, disability studies

Graduate degrees: MA in sport and recreation management; MS in health and human physiology; PhD in health and human physiology

Faculty: https://hshp.uiowa.edu/people

Website: https://hshp.uiowa.edu/

The Department of Health, Sport, and Human Physiology offers undergraduate majors, minors, and a certificate, and graduate degree programs in health and human physiology and in sport and recreation management. The department administers the Certificate in Disability Studies and collaborates with other departments to offer the Certificate in Event Management, as well as offering coaching authorization courses. In addition, the department is home to the Health and Physical Activity Skills Program (HPAS), which offers courses that provide instruction and practice in lifetime sports, fitness training, and wellness activities aimed at enhancing physical health and well-being.

Undergraduates in all majors may use several health, sport, and human physiology courses to fulfill the requirements of the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. The department's First-Year Seminar is designed for entering undergraduate students.

Certificates

Disability Studies

The Department of Health, Sport, and Human Physiology administers the undergraduate certificate program in disability studies. Disability studies examines disability as a social, cultural, historical, and political phenomenon rather than focusing on its clinical, medical, or therapeutic aspects. It is an interdisciplinary field that draws on scholarship from diverse disciplines. The certificate program helps students expand their knowledge and awareness of disability issues and prepare for careers in public life. See the Certificate in Disability Studies [p. 361] in the catalog.

Event Management

The departments of Health, Sport, and Human Physiology and Communication Studies, the School of Journalism and Mass Communication (College of Liberal Arts and Sciences), and the Department of Marketing (Tippie College of Business) collaborate to offer the undergraduate Certificate in Event Management. Students who earn the certificate will know and be able to demonstrate the basic principles of organizing a successful event. They will gain a robust understanding of the diverse field of event management and careers in the event management industry. The School of Journalism and Mass Communication administers the certificate. For information, see the Certificate in Event Management [p. 466] in the catalog.

Programs

Undergraduate Programs of Study

Majors

- Major in Health Studies (Bachelor of Arts) [p. 519]
- Major in Exercise Science (Bachelor of Science) [p. 522]
- Major in Health Promotion (Bachelor of Science) [p. 525]
- Major in Human Physiology (Bachelor of Science) [p. 528]
- Major in Sport and Recreation Management (Bachelor of Science) [p. 532]
- Major in Therapeutic Recreation (Bachelor of Science) [p. 540]

Minors

- Minor in Human Physiology [p. 546]
- Minor in Inclusive Recreation [p. 547]
- Minor in Lifestyle Medicine [p. 548]
- Minor in Sport and Recreation Management [p. 549]

Certificate

- Certificate in Interscholastic Athletic/Activities Administration [p. 551]

Graduate Programs of Study

- Master of Arts in Sport and Recreation Management [p. 552]
- Master of Science in Health and Human Physiology [p. 554]
- Doctor of Philosophy in Health and Human Physiology [p. 559]

Facilities

Classroom and research laboratories are located in the Field House, Iowa Bioscience Innovation Facility and other buildings on campus. They provide excellent facilities for instruction and research at both the undergraduate and graduate levels.

Cooperative efforts with other units facilitate specialization by allowing Department of Health, Sport, and Human Physiology students to use additional special facilities and research equipment in other departments on campus (e.g., biology, biochemistry and molecular biology, molecular physiology and biophysics, orthopedic surgery, internal medicine, pharmacology, and the College of Engineering).

Courses

- Health and Human Physiology Courses [p. 506]
- Sport and Recreation Management Courses [p. 512]
- Therapeutic Recreation Courses [p. 515]
- Health and Physical Activity Skills Courses [p. 517]

Health and Human Physiology Courses

HHP:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

HHP:1045 Diversity and Inclusion in Healthy Living 3 s.h.
Personal health strategies; information and empowerment; application-based work, including creating a family health pedigree or individual health portfolio; discussion of current health ethics topics; subjects may include nutrition, sleep, stress, physical fitness, relationships, injury prevention, prenatal health, vaccination, cancer, infectious diseases, global health, and more. GE: Understanding Cultural Perspectives.

HHP:1050 Exploring Health and Human Physiology 1 s.h.
An onboarding experience for future (or potential) health and human physiology students; introduces and discusses skills critical for future success in college and beyond.

HHP:1200 First Aid/CPR Athletic Training 2 s.h.
First Aid and CPR with automated external defibrillator (AED); opportunity for certification in basic life support through the American Heart Association; satisfies the first aid and CPR requirement for the athletic training program application; for declared athletic training interest majors. Requirements: completion of or current enrollment in AT:1010.

HHP:1400 Human Anatomy and Physiology 3 s.h.
Introductory human anatomy and physiology; overview of the structures and functions of most organ systems of the body, including the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, respiratory, digestive, urinary, and reproductive systems; how multiple organ systems work together to maintain health; health-related information literacy and communication skills related to human function. GE: Natural Sciences without Lab.

HHP:2020 Developing Your Professional Brand 2 s.h.
Development and preparation for professional growth; focus on image as a brand; how to manage brand on social media, LinkedIn, and professional documentation; expansion of brand; preparation for experiential learning and job searching. Corequisites: HHP:2200.

HHP:2061 Recreation Leadership and Programming 3 s.h.
Leadership principles, techniques; programming techniques. Same as TR:2061.

HHP:2100 Human Anatomy 3 s.h.
Intermediate human anatomy; anatomical language and the organ systems of the body.

HHP:2110 Human Anatomy Laboratory 1 s.h.
All major systems of the human body, understood through computer-generated images, models, histological slides, anatomical specimens. Corequisites: HHP:1100 or HHP:3105 or HHP:1400, if not taken as a prerequisite. GE: Natural Sciences Lab only.

HHP:2130 Human Development Through the Life Span 3 s.h.
Overview of human developmental theories across the lifespan; aspects of cognitive, physical, social, and emotional development from birth to death; the role of culture, environment, health, and economic factors over the developmental process and life continuum.

HHP:2148 Personal Training 3 s.h.
Essential aspects of personal training including theory and applied practice of screening, assessment, exercise prescription, and technique for development of safe and effective training programs for clients. Prerequisites: HHP:2400 and HHP:2200.

HHP:2200 Physical Activity and Health 3 s.h.
Physical activity determinants in society; school, workplace, community-based health promotion interventions to improve activity levels.

HHP:2280 Cultural Competency and Health 3 s.h.
Learn the cultural competency awareness, knowledge, and skills vital to effectively delivering healthcare services that meet the social, cultural, and linguistic needs of patients; address the disparities that people of culturally diverse backgrounds often experience, and influence patient outcomes. GE: Understanding Cultural Perspectives.

HHP:2310 Nutrition and Health 3 s.h.
Physiology, biochemistry of human nutrition; appropriate food sources; qualitative and quantitative evaluation of diets using standard references. GE: Natural Sciences without Lab.

HHP:2350 Biomechanics of Sport and Physical Activity 3 s.h.
Learn how to apply principles of biomechanics and musculoskeletal anatomy to better understand movement for the purpose of injury prevention, fitness, and performance. Prerequisites: HHP:2100.

HHP:2400 Fundamentals of Human Physiology 3 s.h.
Introduction to function and regulation of the human body. Recommendations: high school chemistry and basic biology.

HHP:2410 Human Physiology Laboratory 1 s.h.
Laboratory course illustrating principles of physiological principles through experimental measurements, practical assessments, and computer-based illustrations of human function. Corequisites: HHP:2400 or HHP:3500 or HHP:1400, if not taken as a prerequisite. Recommendations: one semester of biology.

HHP:3030 Lifestyle Medicine 3 s.h.
Overview of influences of lifestyle medicine on chronic disease treatment and prevention; understanding evidence-based lifestyle medicine factors on holistic well-being; development of communication skills to support behavioral and lifestyle medicine changes for treatment and prevention of chronic conditions. Prerequisites: HHP:2200 and HHP:2310.

HHP:3045 Physical Activity Psychology 3 s.h.
Application of psychological principles to the adoption and maintenance of physical activity as well as the psychological effects of physical activity. Prerequisites: HHP:2200.

HHP:3050 Obesity 3 s.h.
A broad overview of the causes and consequences of the obesity epidemic; evidence-based approaches for preventing and treating obesity. Prerequisites: HHP:2200 and HHP:2310.

HHP:3105 Anatomy for Human Physiology 3 s.h.
All major systems of the body are covered with focus on the normal structure of the human body; appropriate for preprofessional students planning on careers in the various health professions.

HHP:3110 Advanced Anatomy Laboratory 2 s.h.
Detailed gross anatomy of all major systems of the body; structure of the human body at organ, tissue, and cellular levels; examination of various human and other mammalian specimens.

HHP:3115 Anatomy for Human Physiology With Lab 5 s.h.
Covers all major systems of the body in a combined lecture and laboratory anatomy course; focus on normal structure of the human body; laboratory includes gross anatomy of some human structures and dissection of other mammalian specimen; appropriate for preprofessional students planning on careers in various health professions. Prerequisites: BIOL:1411.

HHP:3150 Program Design in Strength and Conditioning 3 s.h.
Examination of elements of program design for developing muscular fitness and skill related to fitness; applies to programming for individuals with whom a major goal of their physical activity program is to maximize human performance potential; these goals can either be for personal fitness, success in specific sports, or for applications in occupational athletes.

HHP:3175 Physical Activity and Recreation for Aging Populations 3 s.h.
Provides an overview of physical, social, and psychological aspects of aging and how these changes relate to designing exercise programs and leisure opportunities to improve the quality of life for older adults. Prerequisites: TR:2160 or HHP:2200. Same as ASP:3175, TR:3175.

HHP:3200 Health Behavior and Health Promotion 3 s.h.
Principles of epidemiology and health behavior theories applied to multilevel frameworks for health promotion. Prerequisites: HHP:2200 and HHP:2310.

HHP:3250 Motor Learning 3 s.h.
Explore how humans acquire and refine movement skills; examine the cognitive, behavioral, and environmental factors that influence motor skill development and performance in both health and disease. Corequisites: HHP:2100 or HHP:3115 or HHP:2400 or HHP:3550.

HHP:3261 Inclusive Recreation 3 s.h.
Introduction to inclusive recreation topics. Focus on offering recreation programs and services for individuals of all abilities and backgrounds. Same as TR:3261.

HHP:3300 Human Growth and Motor Development 3 s.h.
Growth, maturation, and development of the human body and its various tissues from conception through infancy, childhood, and adolescence; topics include the biological maturation of systems important for physical activity (nervous, musculoskeletal, cardiopulmonary systems) as well as the effects of genes and the endocrine system on growth and development. Recommendations: prior course in anatomy, human physiology, or biology.

HHP:3361 Animal-Assisted Interventions in the Helping Professions 3 s.h.
Explore the principles and practices of Animal-Assisted Interventions (AAIs); provide a comprehensive understanding of the theoretical foundations, ethical considerations, and practical applications of incorporating animals into therapeutic settings. Students will gain insight into how animals can enhance therapeutic experiences, promote well-being, and contribute to the overall effectiveness of programs and services. Overviews diverse populations and settings, emphasizing the role of animals as cofacilitators in promoting therapeutic outcomes within helping professions. Same as TR:3300.

HHP:3400 Applied Exercise Physiology 3 s.h.
Effects of acute exercise and chronic exercise training on different physiological systems (energy, neuromuscular, circulatory, respiratory, endocrine); overview of physiological principles necessary for more advanced study of fitness evaluation and exercise prescription; preparation for ACSM certification. Prerequisites: HHP:2200 and (HHP:2400 or HHP:3500).

HHP:3410 Applied Exercise Physiology With Lab 4 s.h.
Effects of acute exercise and chronic exercise training on different physiological systems (energy, neuromuscular, circulatory, respiratory, endocrine); overview of physiological principles and lab activities necessary for more advanced study of fitness evaluation and exercise prescription; preparation for American College of Sports Medicine certification. Prerequisites: HHP:2200 and HHP:2400.

HHP:3420 Practicum in Health Education and Outreach 3 s.h.
Coursework and experiential learning with the Office of Student Wellness; practical experience in planning, implementing, and evaluating health programs; students spend at least 20 hours assisting with health outreach events, programs, and opportunities which may include staffing a table, assisting with group fitness assessments, or participating in health promotion-related opportunities; students also work on a team health project and plan their own health event; reflection on how health issues apply to students personally and to their communities; foundation of theories/models that guide health behavior change in college setting; papers, projects, outreach events, presentations. Prerequisites: HHP:2310 and HHP:2200.

HHP:3430 Health Management and Administration 3 s.h.
Introduction to management, administration, and leadership principles as they relate to health promotion programs. Prerequisites: HHP:2200 and HHP:2310.

HHP:3450 Immunology in Health and Disease 3 s.h.
Overview of immunology, beginning at the molecular level and ending with the role of the immune system in disease; fundamental concepts of the immune system; innate and adaptive immunity, focusing on cell-mediated and humoral immune responses, in addition to effector mechanisms in both of these responses; concepts of immunologic tolerance; autoimmune disease; immunodeficiency syndromes; the inflammatory process in disease. Prerequisites: HHP:3500 or HHP:3550.

HHP:3500 Human Physiology 3 s.h.
Organ system approach to physiology in order to understand normal function of the human body from the submolecular and cellular levels to the whole organism; emphasis on the development of a mechanistic understanding of organ system function and integrated physiological function across systems to promote homeostatic regulation in the human body. Prerequisites: (HHP:2400 or BIOL:1141 or BIOL:1140 or BIOL:1411) and (CHEM:1070 or CHEM:1110).

HHP:3550 Human Physiology With Laboratory 5 s.h.
Mechanistic approach to understand organ system function and integrated function across systems as the basis for homeostatic regulation within the human body; laboratory activities that incorporate fundamental measurements of human function and analysis, interpretation, and presentation of experimental findings. Prerequisites: (HHP:2400 or BIOL:1141 or BIOL:1140 or BIOL:1411) and (CHEM:1070 or CHEM:1110). Recommendations: HHP:1050, one semester of human anatomy, and one semester of statistics or biostatistics.

HHP:3555 Lab for Human Physiology 2 s.h.
Experiential laboratory activities that incorporate fundamental measurements of human function and analysis, interpretation, and presentation of experimental findings. Prerequisites: HHP:3500. Recommendations: one semester of statistics or biostatistics.

HHP:3700 Health Care Communications 1 s.h.
Health care provider communication with patients and other health care workers; students communicate with digital patient(s) within a software platform to establish a patient history and relevant documentation.

HHP:3820 Community Wellness Guided Practicum arr.
Application of theory into practice to support personal and professional skill development; students work to deliver wellness programming, develop, implement, and evaluate behavior change interventions for various populations, deliver education; utilize skills in marketing, design, presentation, and cultivating connections. Prerequisites: HHP:2200 and HHP:2310 and (HHP:2100 or HHP:2400 or HHP:1400).

HHP:3850 Promoting Health Globally 3 s.h.
Major global health threats in the United States and abroad; impact of culture, history, economics on health disparities; approaches, programs, policies to remedy them. Same as GHS:3850.

HHP:3900 Writing for Health and Human Physiology 3 s.h.
Effective written and oral communications specific to careers in the health sciences; projects include cover letters, resumes, personal statements, and writing/presenting scientific information for both general and expert audiences; planning, drafting, revising, editing, and peer-review of materials.

HHP:3930 Practicum in Health and Human Physiology 1-3 s.h.
Practicum experience that consists of shadowing and practicing field specific skills under close supervision of a professional at the organization, subject matter expert, or faculty member in the areas of research, fitness, strength and conditioning, nutrition, clinical rehabilitation, health promotion, health education, community outreach, medical training, or other health-related area; students receive regular feedback, overall performance evaluations, and meet learning objectives for practicum experience that align with professional competencies and/or academic preparation.

HHP:3994 Undergraduate Research 1-3 s.h.
Exposure to laboratory research in health, human physiology, or related science fields; students develop research skills in a supervised research setting.

HHP:4010 Behavioral and Clinical Health Assessment Laboratory 4 s.h.
Learn and practice specific health assessment skills, including the ability to assess and interpret blood pressure, lung function, blood lipids, and heart rate; health behavior measurement issues including how to use objective monitors, self-reports, interviews, and web-based trackers to assess diet, physical activity, and sleep; general measurement and research concepts introduced and students have laboratory practice in sphygmomanometry, spirometry, anthropometry, accelerometry, sleep tracking, computerized dietary assessments, biochemical measures, and exercise testing. Prerequisites: HHP:2200 and HHP:2310 and HHP:2100 and HHP:2400.

HHP:4020 Health Coaching 3 s.h.
Learn, practice, and demonstrate evidence-based, patient-centered skills and processes for helping patients achieve their self-determined health and wellness goals. One of two courses required for the National Board of Health and Wellness Coaching (NBHWC) health coaching pathway. Prerequisites: HHP:2200 and HHP:2310.

HHP:4030 Social Determinants of Health 3 s.h.
Explore how social and economic factors determine opportunities, resources, and health; use of Healthy People 2030 to consider how federal, state, and local-level partners can create opportunities to understand and improve social determinants of health. Prerequisites: HHP:2200 and HHP:2310.

HHP:4040 Health Services 3 s.h.
Barriers to quality health care access (e.g., lack of availability, high costs, lack of insurance coverage, health disparities); consequences of such barriers (e.g., unmet health needs, delays in care, lack of preventive services, preventable hospitalization); innovative solutions for improving access and quality of care (e.g., technologies and innovations, improving access to preventive health services, reducing costs); novel ways to improve access and quality of today's health care system. Prerequisites: HHP:2200 and HHP:2310.

HHP:4110 Advanced Human Anatomy Laboratory 4 s.h.
Regional dissection of the human body. Prerequisites: HHP:3110 or HHP:3115.

HHP:4130 Skeletal Muscle Physiology 3 s.h.
Investigation of the role of skeletal muscle in health and disease; skeletal muscle structure, contractile mechanisms, production of movement, energetics, adaptation to increased use and exercise, disuse, injury, pathologies, and therapeutic strategies. Prerequisites: HHP:3500 or HHP:3550.

HHP:4150 Clinical Exercise Physiology 3 s.h.
Recent advances in exercise physiology for clinical populations; emphasis on acute and chronic responses to exercise in healthy aged adults and in patients with cardiac, vascular, pulmonary, and metabolic diseases; basic and intermediate electrocardiography (ECG), pathophysiology of disease process, clinical assessment of disease severity, diagnostic testing, acute exercise responses, and exercise rehabilitation. Prerequisites: HHP:3500 or HHP:3550 or HHP:3400. Recommendations: HHP:4460.

HHP:4190 Scientific Basis of Training for Elite Performance 3 s.h.
Application of scientific principles to goal of improving strength, speed, endurance, and overall human function; general overview of structure and function of muscular, nervous, cardiovascular, and respiratory systems; bioenergetics of exercise; endocrine response to exercise; biomechanics of resistance exercise; adaptations to anaerobic and aerobic training programs; age and sex related considerations on training; nutrition and ergogenic aids. Prerequisites: HHP:3500 or HHP:2400.

HHP:4197 Therapeutic Recreation: Experiences in Adaptive and Inclusive Sports 3 s.h.
In-depth exploration of adaptive and inclusive sports from the perspectives of disability studies, therapeutic recreation, and sport and recreation management; examines the intersectionality of these three crucial components to create meaningful, accessible, and inclusive sporting experiences for individuals with diverse abilities; integrates theoretical knowledge with practical application, including hands-on experience in adaptive sports programming. Students will emerge with the skills and understanding needed to facilitate adaptive sports activities. Same as DST:4198, TR:4197.

HHP:4200 Metabolic Exercise Testing and Prescription 4 s.h.
Learn how to assess an individual's health, fitness, and readiness for exercise. Apply this information to formulate a tailored program for an individual to address their needs and goals. Prerequisites: HHP:3400 or HHP:3500 or HHP:3550. Requirements: health promotion, exercise science, or human physiology major.

HHP:4210 Musculoskeletal Exercise Testing and Prescription 4 s.h.
Educational and practical experience for designing resistance training and flexibility programs; competencies for certification with National Strength and Conditioning Association. Prerequisites: HHP:3400 or HHP:3500 or HHP:3550. Requirements: health promotion, exercise science, or human physiology major.

HHP:4220 Biomechanics of Human Motion 3 s.h.
Application of the principles of mechanics to investigation of human motion in two dimensions; system modeling, force system and equilibrium analysis, particle and rigid body kinematics, Newton's and Euler's equations of motion, work-energy and impulse-momentum integral principles. Prerequisites: (HHP:2100 or HHP:3105 or HHP:3115) and (PHYS:1400 or PHYS:1511 or PHYS:1611 or HHP:2350).

HHP:4230 Motor Learning: Theory and Application 3 s.h.
How skilled motor behavior is acquired; behavioral changes that occur during skill acquisition; structural and physiological changes that occur in central nervous system; principles of training and practice that yield efficient and effective motor learning; how this information is helpful to health professionals involved in motor rehabilitation, physical educators and coaches, music instructors and musicians, strength and conditioning professionals, fitness professionals, and athletes, among others. Prerequisites: HHP:2400 or HHP:3500 or HHP:3550. Recommendations: familiarity with basic neuroscience (neurons, synaptic transmission, basic anatomical organization of sensory and motor systems).

HHP:4240 Exercise Testing and Prescription With Lab 4 s.h.
Basic techniques in cardiovascular and musculoskeletal physical fitness assessment, prescription of exercise for healthy adults and children, and individuals with chronic health conditions. Prerequisites: HHP:2200 and HHP:2350 and (HHP:3410 or HHP:3550).

HHP:4250 Human Pathophysiology 3 s.h.
In-depth study of human pathological processes and their effects on homeostasis; etiology, symptoms, and risk factors of various diseases; emphasis on major diseases impacting worldwide disability and death; how pathological processes are manifested and progress in the body. Prerequisites: HHP:3500 or HHP:3550 or HHP:2400.

HHP:4260 Respiratory Pathophysiology 3 s.h.
Structure and function of human respiratory system; focus on didactic and case study-based learning; control of breathing, gas exchange, lung mechanics, regulation of pulmonary blood flow, respiratory responses to stress; application of these physiological concepts to case studies of human disease. Prerequisites: HHP:2400 or HHP:3500 or HHP:3550. Recommendations: PHYS:1511, and MATH:1460 or MATH:1850.

HHP:4280 Applied Cultural Safety and Healthcare 3 s.h.
Reduce health disparities and improve patient health outcomes through the philosophy and practice of cultural safety in healthcare, which involves examining the potential impact of culture on clinical interactions and professional services.

HHP:4290 Exercise Oncology 3 s.h.
Comprehensive understanding of how exercise can influence cancer development, treatment, and survivorship. Explore the latest research and practical applications in this emerging field. Prerequisites: (HHP:2100 or HHP:3115) and (HHP:2400 or HHP:3550). Recommendations: HHP:3400 or HHP:4410.

HHP:4300 Neurophysiology 3 s.h.
Exploring the fundamental physiological systems of the brain in detail with an emphasis on connecting these systems to neurological disorders. Prerequisites: HHP:3500 or HHP:3550. Requirements: anatomy or human physiology course.

HHP:4310 Sport and Exercise Nutrition 3 s.h.
The relationship between nutrition and sport and exercise performance; basic nutrition, physiology, chemistry, psychology, and food preparation as applied to sport and exercise training, competition, and recovery. Prerequisites: HHP:2100 and HHP:2200 and HHP:2310 and HHP:2400.

HHP:4320 Nutrition Interventions 3 s.h.
Strategies that assist in assessment and evaluation of nutrition behaviors of individuals and groups; interventions to meet nutritional needs of individuals and groups with a variety of health issues. Prerequisites: HHP:2200 and HHP:2310.

HHP:4330 Physical Activity and Dietary Behavior Change 1,3 s.h.
Major determinants (barriers and facilitators) of physical activity and dietary behaviors; evidence-based behavior change techniques; application of behavior change techniques to improve physical activity and dietary behaviors at individual and organizational levels. Prerequisites: HHP:2200 and HHP:2310.

HHP:4365 Internship in Health Coaching 3 s.h.
Opportunity to develop and practice health coaching skills with clients engaged in community outreach programs; structured around coaching hours, project management, and training requiring a high level of professionalism. Prerequisites: HHP:4020 and HHP:3030.

HHP:4390 Understanding Human Disease 3 s.h.
Examination of human disease processes, including risk factors, changes occurring with disease, and their effect on homeostasis. Prerequisites: HHP:2400 or HHP:1400. Recommendations: junior or senior standing.

HHP:4400 Health Promotion Clinical Practicum 1 s.h.
Experience in planning and implementing clinical health promotion programs focusing on nutrition, physical fitness, cardiac rehabilitation, and respiratory rehabilitation. Prerequisites: HHP:3200 and (HHP:4200 or HHP:4010).

HHP:4410 Integrative Physiology of Exercise 3 s.h.
Evaluation of mechanisms underlying organ system responses and adaptations elicited by acute and chronic exercise, highlighting integrative nature of human physiological function, research methods, and classic and contemporary research findings in physiology of exercise. Prerequisites: HHP:3400 or HHP:3500 or HHP:3550.

HHP:4420 Planning and Evaluating Health Interventions 3 s.h.
Assessment, planning, implementation, and evaluation of health promotion programs. Prerequisites: HHP:3200 or TR:2160.

HHP:4440 Physiology of Nutrition 3 s.h.
Metabolic and biological aspects of human energy production, relationship to energy consumption; systems or integrative approach. Prerequisites: HHP:2400 or HHP:3500 or HHP:3550.

HHP:4450 Human Genetics and Disease 3-4 s.h.
Fundamental concepts of human genetics including genome organization, expression of genes, and pedigree analysis; emphasis on role of genetics in human health and disease. Prerequisites: HHP:3500 or HHP:3550 or HHP:2400.

HHP:4460 Cardiovascular Physiology 3 s.h.
Structure and function of cardiovascular system; heart, microcirculation, hemodynamics, regional circulation, reflex integration, regulation during physical stress. Prerequisites: HHP:3500 or HHP:3550. Recommendations: calculus and physics.

HHP:4470 Physiology of Aging 3 s.h.
Aging's effects on cells, tissues, and organs; how aging influences function of major body organ systems and the whole organism; physiological mechanisms that underlie age-related changes in body function and performance; integrative approach with focus on human aging. Prerequisites: HHP:3500 or HHP:3550. Same as ASP:4470.

HHP:4490 International Health: Experiential Learning 3 s.h.
Experiential learning in select health care settings and examining health outcomes outside of the United States.

HHP:4500 Undergraduate Independent Project arr.
Independent library or laboratory project related to a specific topic in health and human physiology, typically culminating with a written manuscript or conference/campus scientific presentation; provides an opportunity to apply learning as students develop and carry out a unique project while being mentored by a faculty member. Requirements: third- or fourth-year standing.

HHP:4510 Energetics in Health and Disease 3 s.h.
Comprehensive and molecular-driven approach to impairments in energetics (energy metabolism) leading to obesity, type 2 diabetes, and associated chronic diseases (e.g., cardiovascular diseases, cancer). In addition, mechanisms by which exercise and calorie restriction regimes may prevent and/or reverse those impairments in skeletal muscle, adipose tissue, liver, and heart will be discussed. Discussions of recent published and/or seminal, state-of-the-art papers on energetics related to obesity and diabetics as well as on the effects of exercise and diet interventions to prevent or treat those conditions. Prerequisites: HHP:3500 or HHP:3550. Recommendations: HHP:4410 and BIOL:2723.

HHP:4700 Health and Human Physiology Teaching Internship 0-3 s.h.
Opportunity to serve as an undergraduate learning assistant in selected health and human physiology courses; learning assistants are generally expected to attend class or lab sessions for a specific course, engage with students in an intentional manner that supports their learning, and serve as a positive role model for their undergraduate peers; learning assistants receive training for development of interpersonal skills and facilitating collaborative learning environments, along with content-specific mentoring provided by course supervisor.

HHP:4800 Research Methods 3 s.h.
Introduction to concepts, principles, and methods of research; topics include research design, data collection, data analysis, and reporting research; students identify and formulate research questions, design appropriate research, collect data using different methods, conduct data analysis, present research findings, and critique research literature. Requirements: honors standing.

HHP:4900 Honors Research 3 s.h.
Introduction to concepts, principles, and methods of research; topics include research design, data collection, data analysis, reporting research, and critical critique of research literature. Prerequisites: HHP:3994 with a minimum grade of B or HHP:4500 with a minimum grade of B. Requirements: honors standing.

HHP:4910 Honors Research II 3 s.h.
Completion of honors research begun in HHP:4900; analysis of data; writing and oral presentation of honors thesis; work with a faculty member pursuing research in a laboratory and/or classroom outside of scheduled class time; second of a two-semester sequence. Prerequisites: HHP:4900 with a minimum grade of B.

HHP:4930 Health and Human Physiology Internship arr.
Experience in planning and implementing programs in areas of research, fitness, strength and conditioning, nutrition, clinical rehabilitation, health promotion, health education, community outreach, or medical training; students explore, experience, prepare, network, and build skills for academic or professional development.

HHP:5200 Physical Activity Epidemiology 3 s.h.
Overview of epidemiological evidence on how physical activity, sedentary behavior, and sleep affect health outcomes including cardiovascular disease, diabetes, cancer, and obesity; emphasis on research design, interpretation of studies, selection of appropriate measurement tools, and translating scientific findings to recommendations/policies for health promotion and disease prevention.

HHP:5935 Clinical Exercise Physiology Internship 1-6 s.h.
Directed practical field experience; program planning, implementation, evaluation, and administrative procedures.

HHP:6000 Research arr.

HHP:6020 Advanced Research Methods 1-3 s.h.
Introduction to concepts, principles, and methods of research; topics include research design, data collection, data analysis, and reporting research; students identify and formulate research questions, design appropriate research, collect data using different methods, conduct data analysis, present research findings, and critically critique research literature. Recommendations: concurrent enrollment in BIOS:5120 or STAT:6513.

HHP:6030 Physical Activity and Dietary Behavior Change 3 s.h.
Major determinants (barriers and facilitators) of physical activity and dietary behaviors; evidence-based behavior change techniques; application of behavior change techniques to improve physical activity and dietary behaviors at the individual and organizational levels.

HHP:6130 Advanced Skeletal Muscle Physiology 1,3 s.h.
Investigation of the role of skeletal muscle in health and disease. Content includes skeletal muscle structure, contractile mechanisms, production of movement, energetics, adaptation to increased use and exercise, disuse, injury, pathologies, and therapeutic strategies. Prerequisites: HHP:3500 or HHP:3550.

HHP:6150 Advanced Clinical Exercise Physiology 1,3 s.h.
Recent advances in exercise physiology for clinical populations; emphasis on acute and chronic responses to exercise in healthy aged adults and in patients with cardiac, vascular, pulmonary, and metabolic diseases; basic and intermediate electrocardiography (ECG), pathophysiology of disease process, clinical assessment of disease severity, diagnostic testing, acute exercise responses, and exercise rehabilitation. Prerequisites: HHP:3400 or HHP:3500 or HHP:3550. Recommendations: HHP:4460.

HHP:6200 Advanced Metabolic Exercise Testing and Prescription 1,4 s.h.
Basic techniques in physical fitness assessment; prescription of exercise for healthy and unhealthy adults; promotion of physical activity within communities; knowledge and skill competencies required for certification as American College of Sports Medicine health fitness instructor. Prerequisites: (HHP:3500 or HHP:2400) and HHP:2200.

HHP:6260 Advanced Respiratory Pathophysiology 1,3 s.h.
Complements HHP:4260; structure and function of human respiratory system; focus on didactic and case study based learning; control of breathing, gas exchange, lung mechanics, regulation of pulmonary blood flow, and respiratory responses to stress; application of these physiological concepts to case studies of human disease. Prerequisites: HHP:3500 or HHP:3550. Corequisites: HHP:4260.

HHP:6300 Motor Control Seminar 1 s.h.
Current topics in neural control of movement, biomechanics, and rehabilitation sciences.

HHP:6310 Advanced Sport and Exercise Nutrition 3 s.h.
Relationship between nutrition and dietetics and sport and exercise performance; application of nutrition, dietetics, physiology, chemistry, psychology, and food preparation to sport and exercise training and performance. Requirements: MCN graduate standing.

HHP:6400 Integrative Physiology Seminar 1 s.h.
Current topics in cardiovascular physiology, vascular biology, free radical biology.

HHP:6410 Advanced Integrative Physiology of Exercise 1,3 s.h.
Evaluation of mechanisms underlying organ system responses and adaptations elicited by acute and chronic exercise; integrative nature of human physiological function, research methods, and classic and contemporary research findings in physiology of exercise. Prerequisites: HHP:3400 or HHP:3550.

HHP:6460 Advanced Cardiovascular Physiology 1,3 s.h.
Structure and function of cardiovascular system; heart, microcirculation, hemodynamics, regional circulation, reflex integration, and regulation during physical stress. Prerequisites: HHP:3500 or HHP:3550. Recommendations: calculus and physics.

HHP:6470 Advanced Physiology of Aging 1,3 s.h.
Effects of aging on cells, tissues, and organs; how aging influences function of major body organ systems and the whole organism; physiological mechanisms that underlie age-related changes in body function and performance; integrative approach with focus on human aging. Prerequisites: HHP:2100 and HHP:3500.

HHP:6500 Seminar in Health Promotion 1 s.h.
Peer and faculty response to graduate student work addressing health promotion, physical activity and health outcomes, clinical exercise physiology; review and critique current literature; presentation of published work or in-process projects; critical thinking, scientific writing, and oral communication skill development pertaining to health promotion.

HHP:6510 Advanced Energetics in Health and Disease 1,3 s.h.
Comprehensive and molecular-drive approach to impairments in energetics (energy metabolism) leading to obesity, type 2 diabetes, and associated chronic diseases (e.g., cardiovascular diseases, cancer). In addition, mechanisms by which exercise and calorie restriction regimes may prevent and/or reverse those impairments in skeletal muscle, adipose tissue, liver, and heart will be discussed. Discussions of recent published and/or seminal, state-of-the-art papers on energetics related to obesity and diabetes, and the effects of exercise and diet interventions to prevent or treat those conditions. Prerequisites: HHP:3500 or HHP:3550. Recommendations: HHP:4410 and BIOL:2723.

HHP:6600 Professional Skills for Graduate Students Seminar 1 s.h.
Preparation for careers in academic biomedical research, scientific positions in industry, teaching, or other scientific careers.

HHP:7000 Practicum in College Teaching arr.

HHP:7300 Advanced Sensorimotor Neurophysiology 1,3 s.h.
Neuroanatomical and neurophysiological bases of human motor control; mechanisms for locomotion and posture, control of arm and hand movements, role of sensory information. Prerequisites: HHP:3500 or HHP:3550. Requirements: anatomy or human physiology course.

HHP:7500 Thesis: MS **0-4 s.h.**

HHP:7900 Thesis: PhD **arr.**

Sport and Recreation Management Courses

SRM:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, readings, visits to research facilities).

SRM:1046 Health for Happiness **3 s.h.**
Recent research has discovered fundamental elements and mechanisms of human happiness and well-being; students review these discoveries in the fields of positive psychology, positive neurobiology, system theory, economics of happiness, and history; practical learning experiences that apply these findings to everyday student life; hands-on ways to improve both subjective well-being and individual character strengths and virtues.

SRM:1049 Foundations for Sport and Physical Activity: Catalyst for Sustainable Communities **3 s.h.**
Introduces the current state of sports participation and physical activity and how increasing both will lead to positive economic, human, and environmental outcomes. Learn the social-ecological model as a framework for understanding sports participation and physical activity; address strategies relevant to coaches and organizational administrators to create and deliver positive sport and physical activity environments. GE: Sustainability; Values and Society.

SRM:1060 Contemporary Issues in Sports **3 s.h.**
Learn fundamental concepts and definitions to provide a base understanding of the business and socio-economic models that determine behavior in sport and recreation management practice. Examples will vary from spectator-driven sport at its most commercial to participant-driven activities with varying levels of formal organization. Evaluation is based on two exams, a group and an individual presentation in a smaller group, three writing exercises, and multiple quizzes.

SRM:1070 Recreation and Parks in the United States: Foundations and Impact **3 s.h.**
United States parks have been referred to as "America's Best Idea" and represent ideals of exploration and challenge; park and recreational offerings have become a valued staple of American life, focused on opportunity for diverse communities with economic, social, and quality of life implications; introduction to cultural differences in values and expectations related to recreation and park experiences in the U.S.; students scrutinize the roots and contexts of their own recreation choices and attitudes, and gain insight into the power of these preferences on individual development and shaping of perspectives. GE: Values and Society.

SRM:1085 Introduction to Travel and Tourism **3 s.h.**
Nature, scope, and significance of fields of travel and tourism: their histories, theories and philosophies, current trends, issues and challenges; critical analysis of current travel and tourism practices; green alternatives that are more sustainable and in keeping with values the field of leisure studies has long placed on active participation and local, community development.

SRM:2100 Professional Preparation for Careers in Sport: Building Your Playbook **1 s.h.**
Essential tools and strategies for academic preparation, experiential learning opportunity identification, and initial job search. Content includes crafting impactful cover letters and resumes, optimizing LinkedIn profiles, mastering professional networking, and efficiently managing a job search.

SRM:3050 Collaborative Leadership in Sport and Recreation **3 s.h.**
Explore leadership and collaboration in sport and recreation organizations. Learn about career opportunities, what tools are needed to thrive in today's professional landscape, and how to implement strategies for fostering effective teamwork, leveraging various perspectives, and creating an engaging culture. Students develop the leadership skills needed to navigate complex organizational dynamics and drive positive change within a competitive industry.

SRM:3143 Youth Sports Administration **3 s.h.**
Explores the successful administration and delivery of youth sports primarily through public and private recreation agencies. Topics include program philosophy and structure, volunteer training and supervision, age-appropriate developmental approaches, and contemporary issues in youth sports. Students will gain knowledge and competencies to apply in individual career paths.

SRM:3144 Program Design for Recreational Services **3 s.h.**
Development of professional skills in design, implementation, and evaluation of recreational experiences in a variety of settings for diverse groups; programming concepts for delivering recreation and leisure activities through application-based projects; careers within recreational sports, fitness, and leisure industry that focus on enhancing lives through fun and personal development.

SRM:3145 Leadership and Group Dynamics in Recreation and Sport **3 s.h.**
Exploration of leadership at many levels within an organization; students gain insights into fundamental principles of leadership and group dynamics and their incorporation into fostering staff development and facilitating group initiatives; active engagement in practical application of course concepts through designing and leading initiatives including productive meetings and seminars, team building, other outcomes-based training sessions, and group activities for all ages.

SRM:3146 Sports Officiating: Rules, Theories, and Issues **3 s.h.**
Current status, challenges, and opportunities in the sport officiating industry; general qualifications, fundamental principles, rules, mechanics, and philosophy of officiating sports at various levels; supervision and management of officials for sport and recreation administrators; application of principles in approved game settings.

SRM:3147 Sport Event Management **3 s.h.**
Current status, challenges, and opportunities in sporting event industry; sporting event planning, budgeting, marketing, sponsorship, and evaluation; development of event timelines and event management skills; introduction to networking and interaction with sporting events. Recommendations: SRM:3154.

SRM:3148 Interscholastic Activities and Athletics Administration 3 s.h.
Survey of activities administration foundations including philosophy, leadership, professional programs and activities administration principles, strategies and methods; understanding of the techniques and theory of coaching concepts and strategies for interscholastic budget and concepts and strategies for interscholastic fundraising; basics of assessment and evaluation of interscholastic athletic programs and personnel, dealing with challenging personalities, and administration of professional growth programs for interscholastic personnel.

SRM:3149 Coaching Theory, Body Structure, and Human Development 3 s.h.
Comprehensive introduction to the coaching profession and obtaining a coaching license in the state of Iowa; ethics, licensing, and body development.

SRM:3150 Recreation Administration 3 s.h.
Personnel, finance, budgets, liability, marketing.

SRM:3151 Liability in Sport and Recreation 3 s.h.
The legal system shapes the way sport and recreation professionals at every level perform their jobs, and a basic understanding of the law and its impact on sport and recreation industry can help practitioners operate in a legally compliant manner, seek appropriate legal counsel when necessary, and reduce potential organizational and individual liability; exploration of tort law, constitutional law, statutory law, and contract law as applied to sport and recreation industry, and risk management process; students develop the ability to identify and analyze legal issues and how the law affects the sport and recreation industry. Requirements: 30 s.h. completed.

SRM:3152 Design and Management of Sport and Recreation Facilities 3 s.h.
Facilities management, personnel assignment and evaluation, fee structures, maintenance, programming, compliance with regulations and standards. Requirements: must have 30 s.h. completed.

SRM:3153 Sport Business Practices 3 s.h.
Business of professional and intercollegiate athletics including league, team, and player-level issues; revenue generation and distribution; competitive balance issues; sport league structure strategies; business behind intercollegiate athletics and challenges facing NCAA structure; negotiation. Requirements: must have 30 s.h. completed.

SRM:3154 Foundations of Event Management 3 s.h.
Large, major special events, professional meetings, and conferences; development and planning, implementation of events, management and evaluation of events; development requirements of planning events, development strategies, budgeting, staffing requirements, resource allocation, site planning, basic risk management requirements, emergency procedures; event implementation policy and procedures; relationship to elements within development stages; event management and evaluation procedures.

SRM:3155 Prevention and Care of Athletic Injuries for Coaches 3 s.h.
Comprehensive introduction to the sports world in relation to obtaining a coaching license in the state of Iowa in regards to first aid, injury prevention, and care.

SRM:3157 Managerial Operations in Sport and Recreation 3 s.h.
Introduction to the operation of a private or nonprofit sport-related business.

SRM:3158 Sport and Recreation Promotion 3 s.h.
Foundations and principles of recreation sport promotion and sales operation; application of foundations and principles to sport and recreation industries; historical aspects; current and future trends of sport and recreation management as it relates to sales and promotions; sales management, marketing, financial/economic, legal, and ethical principles related to sport management. Requirements: must have 30 s.h. completed.

SRM:3172 Finance in Sport and Recreation 3 s.h.
Capital funding and revenue acquisition for funding public and private sport and leisure service organizations; contemporary sport and leisure service; financial and economic issues. Requirements: 30 s.h. completed.

SRM:3175 Sales in Sport 3 s.h.
Fundamentals of business development and sales management; incentivizing sports consumers, direct and indirect sales strategies, brand communications, atmospherics, technology in sports sales, ticket sales, licensing products, negotiating sports sponsorships, and brand building.

SRM:3176 Sports Analytics for Decision Makers 3 s.h.
How data is used to analyze player performance, improve scouting and recruitment, enhance fan engagement, and optimize strategic decision-making; analytic examples applied to professional and college sports; experience with statistics or computer science not required.

SRM:3178 Communications and Public Relations in Sports 3 s.h.
How public relations is used to promote service products, demonstrate social responsibility, and communicate with consumers and investors; campaigns, customer service, legal and ethical considerations in promoting service products, media events, information services, public relations in strategic management, atmospherics, critical service moment, social media.

SRM:3179 Podcasting for Sport and Recreation Professionals 3 s.h.
Podcasting as a tool for communication and brand development in sport and recreation; focus on production techniques, audience engagement, and the evolving role of podcasting in the industry.

SRM:3200 Topics in Sport and Recreation Management 3 s.h.
Exploration of various issues shaping the future of sport and recreation industries; in-depth focus on a specific topic within sport or recreation utilizing the expertise of the instructor.

SRM:3210 Event Bidding: Processes and Strategies 3 s.h.
Event rights holders—such as the International Olympic Committee (IOC) and the National Collegiate Athletic Association (NCAA)—use a competitive bid process to select a location, venue, and host committee to plan and execute their sport events; non-sport organizations also use the bidding process to select hosts for exhibitions, conferences, and workshops; students learn the processes and strategies used by event rights holders and event hosts in event bidding process.

SRM:3240 Name, Image, and Likeness (NIL) in College Athletics 3 s.h.
Exposes students to information on the events that led to the NCAA's change to permit collegiate athletes to accept compensation for use of their names, images, and likenesses; how this pivot has impacted and will impact college athletics constituents. Students receive information regarding current and future hot topics regarding name, image, and likeness (NIL) in college athletics.

SRM:3300 Writing for Sport and Recreation Managers 3 s.h.
Students discover their unique writing style and routine; areas of weakness in writing process; necessary tools to become more efficient, clear, and effective writers; discussion, practice, and review of important writing skills; writing skills of diverse professional situations; proper mechanics of persuasive, informative, and factual writing; styles applied to document formats (e.g., press releases, résumés, cover letters, emails, memos, marketing messages, interviews, crisis management); guest speakers provide unique expertise and insight; student-centered, workshop format.

SRM:3700 Ethics in Sport 3 s.h.
Ethical development and decision-making processes in the sport and recreation industry including personal development, educational focused programming, and other types of ethics-based program development.

SRM:3800 Sport Law for Interscholastic Athletic Directors 3 s.h.
Part of the Interscholastic Athletic Director certificate; content includes sport unintentional torts, intentional torts, constitution, legislation, and risk management.

SRM:4158 Advanced Sport Marketing 3 s.h.
Build on the general principles of marketing by discussing the unique aspects of sport marketing and applying marketing concepts to sport as a product; focus on the importance of, and practical challenges associated with, branding and brand management. Advanced marketing theory related to social responsibility; research and information systems; consumer behavior; sport product and logistical management; social, digital, and mobile media and technologies; and communication management and promotions. Prerequisites: SRM:3158.

SRM:4178 Media Relations Strategy in Sport and Recreation 3 s.h.
Follow the flow of information in sports and recreation from capturing statistics and content to the cycle of support required to facilitate the best outcomes for fans, participants, partners, and an organization. Discover the breadth of media relations by following, charting, and critiquing a communications strategy. Execute putting a plan in place for a community entity. Explore the changing, tech-fueled landscape of sport and recreation communication by tracing campaigns and their results through lectures, guest speakers, and projects. Prerequisites: SRM:3178.

SRM:4195 Honors Problems arr.

SRM:4196 Interscholastic Athletic Administration Field Experience arr.
Students complete a minimum of 45 on-site hours with an interscholastic athletic/activities administrator or other approved interscholastic organization (i.e., conference or state office). Prerequisites: SRM:3148.

SRM:4197 Sport and Recreation Field Experience 3 s.h.
Educational opportunities involving a small group of students in a unique sport business experience; students serve as consultants for a sport or recreation organization; in-class preparation complements off-campus work with designated industry partner; sport or recreation enterprise vary according to faculty expertise and industry partner availability.

SRM:4198 NCAA Rules Compliance and Enforcement 3 s.h.
Rules that govern NCAA athletics, rules compliance function on campuses of member institutions, and enforcement of rules by NCAA; essential legislation in NCAA Manual, including bylaws covering recruiting, eligibility, and amateurism; history of NCAA as related to organization's current structure and activities; summer session capstone experience includes attendance at NCAA Regional Rules Seminar in Indiana and participation in educational sessions conducted by NCAA staff.

SRM:4199 Independent Sport and Recreation Field Experience arr.
Participation in approved practical learning experience with private or nonprofit recreation or sport-related enterprise; on-site supervision by industry partner; minimum of 45 on-site hours.

SRM:4240 Name, Image, and Likeness (NIL): Simulated Agency Experience 3 s.h.
Students learn about name, image, and likeness (NIL) and what representing college athletes in NIL deals is like through the experience of being in a simulated agency environment. Students from a variety of majors and levels work collaboratively on branding, issue spotting and best practices in NIL contract drafting, social media marketing, understanding state NIL legislation, NIL collectives, intellectual property rights and much more with partner student-athletes serving as class examples. Emphasis on guest speakers, group work, discussion and peer learning.

SRM:5065 The Economy of Experience 3 s.h.
In-depth analysis of emerging experience economy; just as manufacturing sector of economy supersedes agriculture and service economy supersedes manufacturing, how experience economy is gaining ascendancy as the last, best hope for future economic growth; exploration of current research in positive psychology and sociologist findings on evolution of post-materialist values as related to experience economy; evaluation of current trends; critical analysis and theory development; case studies; original research and investigation of novel marketing possibilities and experience design.

SRM:6250 Research in Sport and Recreation 3 s.h.
Introduces students to research methods commonly practiced in social sciences including qualitative and quantitative methods including research questions and hypotheses, research design, methods, data collection, descriptive data analysis, and presentation. Emphasis will be placed on reading sport management and recreation research and preparing for the capstone project. Recommendations: first-semester sport recreation and management MA students.

SRM:6251 Risk Management 3 s.h.
Legal knowledge necessary for effective management of sport, recreation, and physical activity programs, avoidance of legal problems; strategies for addressing issues such as right to participate, liability for injuries, risk management; legal statutes that govern sport, health, recreation organizations.

SRM:6252 Economics and Financing 3 s.h.
Economic issues for sport/leisure services in nonprofit, private/commercial, and public sectors; strategic financial analysis for the nonfinancial manager; principles, issues in financing sport/leisure organizations.

SRM:6253 Sport Administration 3 s.h.
Overview of various segments that constitutes the role and function of a sport administrator (i.e., planning, organizing, leading, controlling); focus on ways in which sport administrators and their subsequent organizations influence and are influenced by the link between sport and globalization; sport administration encompassing services provided within an organizational context; administration viewed as the coordination of production and distribution of those services.

SRM:6254 Marketing and Sport Promotion 3 s.h.
Overview of varied segments that constitutes sports business practice, including marketing, data-based marketing, sales, promotion, sponsorship; varied segments that make up the sport industry, including the mass media, infrastructure, stadium building, consumer behavior; readings and discussions consider the development and structure of each segment, interactions between segments, planning, policy implications; focus on the United States, professional team sports, comparisons to other sports.

SRM:6255 Capstone Project 3 s.h.
Development of a project applying expertise acquired through required coursework to an area of interest fitting student's career ambitions; includes final presentation to a faculty committee and written paper to support the presentation. Prerequisites: SRM:5065 and SRM:6251 and SRM:6252 and SRM:6253 and SRM:6254.

Therapeutic Recreation Courses

TR:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, readings, visits to research facilities).

TR:1010 Adapted Recreation and Physical Activity 1-3 s.h.
Instruction in various fitness programs, lifetime sports, and recreation activities.

TR:1070 Leisure, Play, and the Human Experience 3 s.h.
Examines leisure behavior and play's impact on the human experience from social, psychological, cultural, and economic perspectives. Uses historical and contemporary literature and research to study the influence of leisure on a person's health and well-being, connections to society, and life satisfaction. Encourages learners to examine their own values and connections to leisure from a systems approach to culture and community. Economic topics include work ethic, overwork, and retirement. GE: Values and Society.

TR:1800 Aging Matters: Introduction to Gerontology 3 s.h.
Overview of the field of gerontology from a bio-psycho-social framework; how the human body and brain age, effects of these biological changes on physical and cognitive functions, and interaction of these individual factors with societal contexts; broad perspective to give students a foundation in gerontology, paving the way for more advanced courses in biology of aging, psychology of aging, and global aging; for students from a wide range of disciplines and levels, no prior knowledge of aging required. GE: Social Sciences. Same as ASP:1800, CSD:1800, NURS:1800, SSW:1800.

TR:2061 Recreation Leadership and Programming 3 s.h.
Leadership principles, techniques; programming techniques. Same as HHP:2061.

TR:2077 Children and Families in Healthcare 3 s.h.
Prepares students to work with children and their families in a variety of healthcare settings. Understand the impact of illness, injury, trauma, and healthcare environments on patients and families to help develop appropriate coping strategies; examine psychosocial and developmental issues and how they are impacted by childhood illness and hospitalization; study important developmental theories as they relate to therapeutic play interventions, the value of family-centered care, sibling involvement, peer interactions, and grief/bereavement.

TR:2160 Introduction to Therapeutic Recreation 3 s.h.
Lifestyles and barriers faced by persons with disabilities; basic aspects of the therapeutic recreation profession; skills used to establish therapeutic relationship; techniques used with patients; theoretical and conceptual bases for practice.

TR:3161 Assessment and Evaluation in Therapeutic Recreation 3 s.h.
Basic assessment psychometrics (e.g., reliability), standardized instrumentation and data collection (e.g., observation, self-report), construction of instruments, data reduction. Prerequisites: TR:2160.

TR:3162 Therapeutic Recreation: Clientele 3 s.h.
Developmental patterns of special populations; examination of specific interventions and research applied to specific cognitive, emotional, and physical impairments.

TR:3163 Concepts and Issues in Therapeutic Recreation: Advancement of the Profession 3 s.h.
Ethical, professional, and theoretical issues in delivery of therapeutic recreation services; impact of legislation, standards of practice, health care reform; application of research to practice and marketing services. Prerequisites: TR:2160.

TR:3164 Clinical Practice in Therapeutic Recreation 3 s.h.
Introduces students to the basic knowledge and skills necessary to practice therapeutic recreation (TR). Special emphasis placed on techniques and intervention strategies necessary for developing and implementing individualized treatment plans. Examines the principles of TR practice, development of TR programs aimed at addressing client needs, and utilization of the TR process with individual clients. Prerequisites: TR:2160.

TR:3171 Child Life Practical Application 3 s.h.
Overview of medical conditions and treatments commonly encountered by children and adolescents in health care settings; common pediatric sedation medications; sequence of medical procedures to understand how to provide procedural preparation and support; facilitate medical play with pediatric population.

TR:3174 Cultural Perspectives in Health Care 3 s.h.
Health care beliefs related to various cultures and religions; focus on illness, hospitalization, treatment, death.

TR:3175 Physical Activity and Recreation for Aging Populations 3 s.h.
Provides an overview of physical, social, and psychological aspects of aging and how these changes relate to designing exercise programs and leisure opportunities to improve the quality of life for older adults. Prerequisites: TR:2160 or HHP:2200. Same as ASP:3175, HHP:3175.

TR:3261 Inclusive Recreation 3 s.h.
Introduction to inclusive recreation topics. Focus on offering recreation programs and services for individuals of all abilities and backgrounds. Same as HHP:3261.

TR:3262 Therapeutic Recreation Administration 3 s.h.
Examination of the organization and administration of therapeutic recreation services; focus on planning, organizing, and managing therapeutic recreation services; comprehensive and strategic planning, funding, marketing, legal and legislative issues, personnel management, and professional practice of therapeutic recreation. Prerequisites: TR:2160.

TR:3281 Special Projects in Child Life Practice 2 s.h.
Student directed and student led hospital camping experience for patients at the University of Iowa Children's Hospital; planning and preparing for a large function, planning and leading therapeutic activities, working directly with patients and their families, processing and discussion of experiences and concerns; practical and clinical-based experiences for students interested in working with pediatric population in health care setting. Requirements: hospital orientation, patient confidentiality (HIPAA) training, and health screening.

TR:3300 Animal-Assisted Interventions in the Helping Professions 3 s.h.
Explore the principles and practices of Animal-Assisted Interventions (AAIs); provide a comprehensive understanding of the theoretical foundations, ethical considerations, and practical applications of incorporating animals into therapeutic settings. Students will gain insight into how animals can enhance therapeutic experiences, promote well-being, and contribute to the overall effectiveness of programs and services. Overviews diverse populations and settings, emphasizing the role of animals as cofacilitators in promoting therapeutic outcomes within helping professions. Same as HHP:3361.

TR:4100 Practicum in Therapeutic Recreation 1-3 s.h.
Provides students with a hands-on, immersive experience in the field of therapeutic and inclusive recreation. Designed to bridge classroom learning with real-world application, the practicum offers students the opportunity to integrate theoretical knowledge and practical skills in diverse therapeutic settings. Students are provided an educational experience under the guidance of experienced professionals and academic supervisors to develop skills, techniques, and proficiencies in the field as well as the opportunity to gain practical experience with various populations and differing abilities.

TR:4169 Child Life Experience 1 s.h.
Practical experience with ill children, including a trip to the Give Kids the World village in Florida; documentation and engagement of course materials, experience working with ill children; students are assigned a specific diagnosis and present the diagnosis (appropriate statistics, effects of hospitalization, treatment, etc.) on child and family; coping strategies, appropriate methods of talking to and interacting with children and families, overview of child life in hospitals.

TR:4190 Preinternship Seminar 1 s.h.
Interviewing skills, résumés and cover letters, selection of internship site(s), application procedures for internship positions, and responsibilities of interns to the agency. Requirements: admission to NCTRC certification track.

TR:4191 Therapeutic Recreation Internship arr.
Practical field experience; direct leadership, program planning, administrative procedures. Prerequisites: TR:4190. Requirements: overall GPA of 2.00 and major GPA of 2.00; admission to NCTRC-track and completion of NCTRC-track coursework and therapeutic recreation pre-internship paperwork.

TR:4193 Independent Study arr.
Problem in a specific area.

TR:4194 Honors Readings arr.
Independent reading or research project under faculty supervision usually leading to an honors paper. Requirements: admission to honors program.

TR:4195 Honors Problems arr.
Completion of a project over and above normal independent study as an honors project; major research effort involving close work with an advisor.

TR:4197 Therapeutic Recreation: Experiences in Adaptive and Inclusive Sports 3 s.h.
In-depth exploration of adaptive and inclusive sports from the perspectives of disability studies, therapeutic recreation, and sport and recreation management; examines the intersectionality of these three crucial components to create meaningful, accessible, and inclusive sporting experiences for individuals with diverse abilities; integrates theoretical knowledge with practical application, including hands-on experience in adaptive sports programming. Students will emerge with the skills and understanding needed to facilitate adaptive sports activities. Same as DST:4198, HHP:4197.

TR:5165 Child Life: Child Development and Healthcare Interventions 3 s.h.
Application of typical growth and development content, including theoretical content for children and adolescents (birth to 18 years old); theories of cognitive development, psycho-social development, and attachment applied to essential healthcare interventions unique to child life practice; history of child life profession and scope of practice; application of developmental perspectives to intervention (e.g., education, healthcare play, support and coping interventions, pain management, bereavement).

TR:5166 Child Life: Seminar 3 s.h.
Students utilize official documents of the Association of Child Life Professionals (ACLP) and evidenced-based practice to understand current issues and research in child life as well as the expanding scope of service; cultural issues and impact of care for children and families; need for understanding of cultural diversity in a variety of settings; meets the six requirements of a child life course taught by a Certified Child Life Specialist (CCLS) for the ACLP including professional scope of practice in child life, impact of illness and hospitalizations of children and families, patient and family-centered care, therapeutic play, and preparation.

TR:5167 Child Life Practicum 1-3 s.h.
Observational experience with children and families in hospitals and other community settings to understand the scope of practice for child life; development of basic clinical skills in child life; opportunities to observe the integration of theories with practice and understand the impact of illness, injury, and health care on patients and families; integration of therapeutic play and preparation for children; academic requirements in addition to clinical observation hours under supervision of a Certified Child Life Specialist in hospital, outpatient, rehabilitation, camp, or bereavement setting.

TR:5205 Research Methods and Play Behavior 3 s.h.
The scientific process: research designs for experiments and surveys, questionnaire construction, sampling theory, basic data analysis.

TR:5211 Professional Ethics and Practice in Pediatrics 3 s.h.
Examination of core issues in clinical pediatrics; beginning life critical care, end-of-life care, role of medical technology, public health research pertinent to children, and maintaining professional boundaries. Prerequisites: TR:2077.

TR:5260 Play and Childhood arr.
Multiple levels of theories and current research on importance of play in child development; advocacy for importance and necessity of play in childhood that leads to well-being and healthy lifestyles; practical and theoretically based experiences; for students interested in working with children in health care, clinical, school, community, and family life settings.

TR:5261 Family Systems 3 s.h.
Examination of dynamics of family life as a social system from a historical, sociocultural, and theoretical perspective; approaches to working with diverse children and families facing life stresses; interactive format, incorporates experiential learning, classroom lecture, and discussion.

TR:5270 Child Life Internship 4-5,9,12 s.h.
Child life student interns complete a minimum 15-week, 600-hour field experience under supervision of a Certified Child Life Specialist to meet certification requirements of the Association of Child Life Professionals; students are required to complete academic coursework in addition to clinical requirements. Prerequisites: TR:5165 and TR:5166 and TR:5167 and TR:5205 and TR:5211 and TR:5260 and TR:5261.

TR:6200 Child Life Graduate Forum 0 s.h.
Informational sessions, networking, review of research scholarship, resources, and joint collaboration for first- and second-year child life graduate students. Requirements: enrollment in Health and Human Physiology MS child life track.

Health and Physical Activity Skills Courses

HPAS:1000 Healthy Relationships, Sexuality, and Your College Experience 1 s.h.
Empower students to make healthy, informed decisions about sexual health and relationship wellness throughout the college years and beyond. Topics include healthy behaviors related to sexuality, appropriate boundaries, and advocacy.

HPAS:1001 Alcohol and Your College Experience 1 s.h.
Patterns of alcohol, drug use focused on college years; strategies for monitoring use, behavioral change plans for implementing lower-risk drinking practices; for drinkers and non-drinkers.

HPAS:1002 Vaping, Tobacco Use, and Your College Experience 1 s.h.
Current behavior change theories related to tobacco use and cessation; vaping, nicotine replacement therapies (NRT), and non-NRT methods; triggers, relapse prevention, cognitive behavioral skills, and support systems; for smokers and nonsmokers.

HPAS:1003 Resiliency and Your College Experience 2 s.h.
Resiliency and psychological hardiness theories relevant to college life; resiliency and ability to cope with challenges; components of psychological fitness; skills for personal growth and emotional well-being.

HPAS:1004 Food and Your College Experience 2 s.h.
Sociocultural perspective on the forces that facilitate low-quality diets, particularly during young adulthood; basic components of nutrition; opportunity to develop and personalize healthy eating skills.

HPAS:1005 Indoor Group Cycling 1 s.h.
Introduction to group cycling; bike setup, safety, proper technique, injury prevention, and utilization of interval training.

HPAS:1006 Intuitive Eating 1 s.h.
How to create and sustain a healthy relationship with mind, body, food, and exercise using an evidence-based approach; introduction to 10 basic principles of intuitive eating, taking a critical look at dieting and a healthful approach to satisfying eating balanced with exercise.

HPAS:1007 Basic CPR 1 s.h.
Basic, beginner-level information on CPR procedures; passing the course leads to certification in CPR; more advanced certifications may be sought for medical professionals.

HPAS:1008 Basic First Aid and CPR 1 s.h.
Basic, beginner-level information on automated external defibrillator (AED), CPR, and first aid procedures; in-class certification testing leads to certification in CPR and first aid; more advanced certifications may be needed for medical professionals.

HPAS:1009 Personal Fitness: Theory and Practice 2 s.h.
Introduction to dimensions of wellness with focus on health-related components of physical fitness; varied health and wellness topics; emphasis on engaging in physical activity to create a sustainable lifelong habit; theory, practice, physical activity; application of materials and exercise; prior physical activity or exercise experience not required.

HPAS:1010 Introduction to Workout Design 1 s.h.
Introduction to personal workout programming and design; includes sections on cardiovascular fitness, muscular strength and endurance, and flexibility.

HPAS:1020 Core Strengthening 1 s.h.
Introduction to developing strength, flexibility, and endurance through the core; students will learn what the core is, how to best develop the muscles of the core, and why core training is important.

HPAS:1030 Cardio Training 1 s.h.
Beginner's guide to cardio fitness to develop and maintain levels of cardiovascular health and fitness.

HPAS:1040 Pilates I 1 s.h.
Introduction to the study and practice of Pilates for beginners; topics include proper breathing techniques, flexibility, balance, relaxation, and Pilates exercises.

HPAS:1060 High Intensity Interval Training 1 s.h.
Increased fitness levels through principles of resistance training using a high-intensity interval training (HIIT) method; various types of resistance (free weights, rubber bands, partner resistance, and body weight resistance); topics include muscular anatomy, principles of resistance training, various resistance training exercises, safety, motivation and goal setting, and personal program design.

HPAS:1070 Introduction to Weight Training 1 s.h.
Introduction to basic principles of weight training using barbells and dumbbells as resistance; muscular anatomy, principles of weight training, muscular strength, muscular endurance, weight room safety, motivation and goal setting, personal program development; no prior weight training experience required.

HPAS:1080 Olympic Weightlifting 1 s.h.
Beginning-level introduction to classical Olympic weightlifting movements leading up to the snatch, clean and jerk, power snatch, and power clean. Recommendations: HPAS:1070 and/or an understanding of weight training fundamentals and basics.

HPAS:1090 Sports Skills and Drills 1 s.h.
Develop and practice basic skills and game strategy for an array of team sports; participate in a variety of educational and competitive physical activities that may include flag football, soccer, basketball, tennis, pickleball, and racquetball.

HPAS:1110 Fitness Walking 1 s.h.
Walking as a means to improve cardiovascular health and fitness; utilizes outdoor walking, weather permitting, or the indoor track.

HPAS:1130 5K Training 1 s.h.

HPAS:1140 PE Games 1 s.h.
Participation in and design of physical activity games and skills; students improve physical health through cardio endurance and resistance training during game play; games and variations of games may consist of basketball, dodgeball, tag, volleyball, and other physical activities; how to be physically active and healthy while having fun; physiological responses to physical activity.

HPAS:1150 Introduction to Health and Wellness 1 s.h.
Optimal physical health and wellness in the college years; focus on behavioral change and goal setting, five components of fitness, dimensions of wellness, and stress management.

HPAS:1210 Stress Management 1 s.h.
How to define the sources of underlying stress, learn to cope with everyday stressors, and become more proactive through life skill management.

HPAS:1220 Flexibility 1 s.h.
Help students move through full range of motion, work to correct imbalances, and ultimately move better through activities of daily living.

HPAS:1230 Hatha Yoga 1 s.h.
Introduction to the study and practice of yoga; geared towards beginners.

HPAS:1260 Movement and Mobility 1 s.h.
Introduction to basic self-care and movement recommendations for injury prevention, efficient movement, and health; topics include posture and movement correction and form, optimization of daily movement patterns, and self-care principles; prior exercise experience not required.

HPAS:1320 Lap Swimming I 1 s.h.
Introduction to swim stroke development utilizing swimming as a form of exercise; this is not a learn-to-swim class and a basic prerequisite swimming test will be performed prior to instruction.

HPAS:1400 Pickleball 1 s.h.
Introduction to the game of pickleball; rules of the game, terminology, key offensive and defensive strategies, and drills to help improve performance; class time involves instruction, practice, and playing time; no prior pickleball experience required.

HPAS:1440 Table Tennis 1 s.h.
Introduction to the game, rules, and skills involved in table tennis.

HPAS:1460 Basketball I 1 s.h.
Introduction to the game of basketball at the beginning level, assumes little or no prior basketball experience; students learn rules of the game, basketball terminology, key offensive and defensive strategies, fundamental skills (e.g., dribbling, passing, catching, shooting, rebounding, defending), and drills to help improve performance; course format consists of instruction, practice, and playing time.

HPAS:1470 Badminton 1 s.h.
Introduction to the game, rules, and skills involved in badminton.

HPAS:1530 Volleyball I 1 s.h.
Introduction to the game, rules, and skills involved in volleyball.

HPAS:1535 Volleyball II 1 s.h.
Advanced skill refinement course geared towards students who have passed HPAS:1530 or are able to show mastery of the basic techniques. Prerequisites: HPAS:1530.

HPAS:1560 Ultimate Frisbee 1 s.h.
Introduction to the game, rules, and skills involved in ultimate frisbee; course will meet outside, weather permitting.

HPAS:1610 Self Defense 1 s.h.
Introduction to the practice of self-defense through upper and lower body strikes, joint manipulation, and other personal protection measures; this is a noncontact course.

Health Studies, BA

Learning Outcomes

Students will be able to:

- understand the form and function of the human body at the organ and system levels;
- understand and communicate the major behavioral, clinical, social, economic, and environmental determinants of health and well-being;
- draw connections between major determinants of health and their influence on health and human diseases;
- identify and compare evidence-based health strategies to improve major determinants of health and well-being;
- apply knowledge to solve health problems using evidence-based health strategies; and
- critically evaluate evidence-based strategies targeted to specific health conditions.

Requirements

The Bachelor of Arts with a major in health studies requires a minimum of 120 s.h., including at least 37–41 s.h. of work for the major. A minimum of 16 s.h. in the major must be earned at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The BA in health studies is designed for students who want a flexible health science curriculum. The major interconnects the systems, technologies, and policies driving the U.S. wellness and health care industries. It provides flexible opportunities to work with faculty in developing the knowledge and skills needed to understand health determinants and anticipate continuing changes in preventive and clinical health delivery.

Students who earn the major in health studies may not earn a major in exercise science or health promotion.

Students who earn the major in health studies may not earn a minor in lifestyle medicine or inclusive recreation but may earn a minor in human physiology.

The BA with a major in health studies requires the following coursework.

Requirements	Hours
Quantitative Reasoning Course	3-4
Health Studies Foundation Courses	10-13
Health Studies Core Courses	12
Electives	12

Quantitative Reasoning Course

Students must complete 3–4 s.h. from one of the following courses.

Course #	Title	Hours
One of these:		
MATH:1020	Elementary Functions	4
MATH:1440	Mathematics for the Biological Sciences	4
MATH:1460	Calculus for the Biological Sciences	4
PSQF:4143/ STAT:4143	Introduction to Statistical Methods	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:3510/ IGPI:3510	Biostatistics	3

Health Studies Foundation Courses

Course #	Title	Hours
10-13 s.h. from these:		
HHP:1050	Exploring Health and Human Physiology	1
HHP:2100 & HHP:2400	Human Anatomy and Fundamentals of Human Physiology	3-6
or HHP:1400	Human Anatomy and Physiology	
HHP:2200	Physical Activity and Health	3
HHP:2310	Nutrition and Health	3

Health Studies Core Courses

Course #	Title	Hours
All of these:		
HHP:3030	Lifestyle Medicine	3
HHP:4030	Social Determinants of Health	3
HHP:4040	Health Services	3
HHP:4390	Understanding Human Disease	3

Electives

Students must complete at least 12 s.h. of additional health, sport, and human physiology courses (prefix HHP) numbered 2000 or above.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must maintain an overall grade-point average (GPA) of at least 3.33 in work for their major and a cumulative University of Iowa GPA of at least 3.33.

In order to graduate with honors in the major, students must successfully complete the honors research course sequence HHP:4900 Honors Research and HHP:4910 Honors Research II; write an honors thesis that is judged to be of honors quality; and make an oral or poster presentation of the honors thesis in an approved venue, such as a department research seminar or professional conference.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the health and human physiology major.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: one foundation course and at least six more courses in the major.

Before the seventh semester begins: at least six more courses in the major (total of 13) and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least two more courses in the major (total of 15).

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Health Studies, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [b]		3
GE CLAS Core: Social Sciences [b]		3
GE CLAS Core: Literary, Visual, and Performing Arts [b]		3
CSI:1600	Success at Iowa	1
Elective course [c]		2
	Hours	**15-16**
Spring		
HHP:1050	Exploring Health and Human Physiology	1
HHP:2200	Physical Activity and Health	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Values and Society [b]		3
Elective course [c]		3
Elective course [c]		2
	Hours	**15-16**
Second Year		
Fall		
HHP:2310	Nutrition and Health	3
Major: quantitative reasoning course [d, e]		3 - 4
GE CLAS Core: Historical Perspectives [b]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
Elective course [c]		2
	Hours	**15-17**
Spring		
HHP:2100 or HHP:1400	Human Anatomy [g] or Human Anatomy and Physiology	3
GE CLAS Core: International and Global Issues [b]		3
GE CLAS Core: Quantitative or Formal Reasoning (if not met by major quantitative reasoning course) [b]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
Elective course [c]		3
	Hours	**16-17**
Third Year		
Fall		
HHP:2100 or HHP:2400	Human Anatomy [g] or Fundamentals of Human Physiology	3
HHP:4030	Social Determinants of Health	3
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]		4 - 5
Elective course [c]		3
Elective course [c]		2
	Hours	**15-16**
Spring		
HHP:3030	Lifestyle Medicine	3
HHP:4390	Understanding Human Disease	3
Major: elective course [h]		3
GE CLAS Core: Natural Sciences with Lab [b]		4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]		4 - 5
	Hours	**17-18**
Fourth Year		
Fall		
HHP:4040	Health Services	3
Major: elective course [h]		3
Elective course [c]		3
Elective course [c]		3
Elective course [c]		3
	Hours	**15**
Spring		
Major: elective course [h]		3
Major: elective course [h]		3

Elective course [c]	3
Elective course [c]	3
Elective course [c]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]	
Hours	**15**
Total Hours	**123-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

c Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

d See the General Catalog for list of approved courses.

e Fulfills a major requirement and may fulfill a GE requirement.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g Students must complete HHP:2100 and HHP:2400 (both courses), or HHP:1400.

h Students must complete at least 12 s.h. of additional health and human physiology courses (prefix HHP) numbered 2000 or above.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Exercise Science, BS

Learning Outcomes

Students will be able to:

- apply principles of biomechanics and musculoskeletal anatomy to better understand movement, exercise, and injury;
- apply understanding of psychological benefits and determinants of physical activity behavior to facilitate behavior change;
- apply understanding of the effects of acute exercise and training on physiological systems;
- design population-specific aerobic, strength, balance, and flexibility exercise programs for health and performance outcomes;
- measure health and fitness outcomes to inform and evaluate tailored exercise programs; and
- apply evidence-based nutrition recommendations to support and enhance sport, performance, and exercise training outcomes.

Requirements

The Bachelor of Science with a major in exercise science requires a minimum of 120 s.h., including at least 48–50 s.h. of work for the major. A minimum of 16 s.h. in the major must be earned at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The BS in exercise science is intended for students seeking careers as professionals in fitness and in strength and conditioning. The major provides focused study in physical fitness, physical activity, sport nutrition, and sport conditioning as they pertain to health and performance outcomes. The curriculum has been approved by the American College of Sports Medicine (ACSM) as meeting the academic preparation for certification as an ACSM-certified exercise physiologist and ACSM-certified personal trainer. It also prepares students for certification by the National Strength and Conditioning Association as a certified strength and conditioning specialist and certified special population specialist. The strong physiological science-based curriculum can serve as preparation for professional or graduate study in rehabilitation sciences, performance sciences, or medical fields.

Students who earn the major in exercise science may not earn a major in human physiology, health promotion, or health studies.

Students who earn the major in exercise science may not earn a minor in lifestyle medicine but may earn a minor in human physiology.

The BS with a major in exercise science requires the following coursework.

Requirements	Hours
Science and Math Foundation Courses	10-12
Exercise Science Foundation Courses	12
Exercise Science Core Courses	20
Electives	6

Science and Math Foundation Courses

Students complete three foundation courses (minimum of 10 s.h.): one each in chemistry, biology, and mathematics or statistics. Note that courses may have required prerequisites.

Course #	Title	Hours
Chemistry		
One of these:		
CHEM:1080	General Chemistry II	3
CHEM:1120	Principles of Chemistry II	4
Biology		
One of these:		
BIOL:1140	Human Biology: Nonmajors	4
BIOL:1141	Human Biology: Health Professions	4
BIOL:1411	Foundations of Biology	4
Mathematics or Statistics		
One of these:		
MATH:1020	Elementary Functions	4
MATH:1350	Quantitative Reasoning for Business	4
MATH:1440	Mathematics for the Biological Sciences	4
MATH:1460	Calculus for the Biological Sciences	4
MATH:1850	Calculus I	4
PSQF:4143/ STAT:4143	Introduction to Statistical Methods	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:3510/ IGPI:3510	Biostatistics	3

Exercise Science Foundation Courses

Students must complete the four-course departmental core (12 s.h.).

Course #	Title	Hours
All of these:		
HHP:2100	Human Anatomy	3
HHP:2200	Physical Activity and Health	3
HHP:2310	Nutrition and Health	3
HHP:2400	Fundamentals of Human Physiology	3

Exercise Science Core Courses

Course #	Title	Hours
All of these:		
HHP:2350	Biomechanics of Sport and Physical Activity	3
HHP:3045	Physical Activity Psychology	3
HHP:3400	Applied Exercise Physiology	3
HHP:4200	Metabolic Exercise Testing and Prescription	4

HHP:4210	Musculoskeletal Exercise Testing and Prescription	4
HHP:4310	Sport and Exercise Nutrition	3

Electives

Students must complete at least 6 s.h. of additional health, sport, and human physiology courses (prefix HHP) numbered 2000 or above.

Combined Programs

BS/MS in Athletic Training

The Department of Health, Sport, and Human Physiology (College of Liberal Arts and Sciences) and the Department of Orthopedics and Rehabilitation (Carver College of Medicine) offer a combined Bachelor of Science/Master of Science in athletic training. The combined degree program allows students to count a limited amount of credit toward both degrees, enabling them to begin the study of athletic training before they complete their bachelor's degree. Coursework taken during the first three years on campus constitutes the required prerequisites for application to the master's degree program.

Admission

Students apply to the MS program in their third year of undergraduate study. Admission to the MS program in athletic training is for summer entry. Students should consult their advisor about the appropriate sequence of courses and other requirements.

For more information, see the MS in athletic training [p. 1938] in the Carver College of Medicine section of the catalog.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must maintain an overall grade-point average (GPA) of at least 3.33 in work for their major and a cumulative University of Iowa GPA of at least 3.33.

In order to graduate with honors in the major, students must successfully complete the honors research course sequence HHP:4900 Honors Research and HHP:4910 Honors Research II; write an honors thesis that is judged to be of honors quality; and make an oral or poster presentation of the honors thesis in an approved venue, such as a department research seminar or professional conference.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the exercise science major.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: one foundation course and at least six more courses in the major.

Before the seventh semester begins: at least six more courses in the major (total of 13) and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least two more courses in the major (total of 15).

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Exercise Science, BS

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110 or CHEM:1070	Principles of Chemistry I [b] or General Chemistry I	3 - 4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
GE CLAS Core: Social Sciences [c]		3
CSI:1600	Success at Iowa	1
Elective course [d]		2
	Hours	**15-17**
Spring		
CHEM:1120 or CHEM:1080	Principles of Chemistry II or General Chemistry II	3 - 4
HHP:2200	Physical Activity and Health	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Values and Society [c]		3

Elective course [d]		3
	Hours	**15-17**
Second Year		
Fall		
HHP:2310	Nutrition and Health	3
BIOL:1141 or BIOL:1140 or BIOL:1411	Human Biology: Health Professions or Human Biology: Nonmajors or Foundations of Biology	4
Major: math/statistics foundation course [e, f]		3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [g]		4 - 5
	Hours	**17-18**
Spring		
HHP:2100	Human Anatomy	3
HHP:3045	Physical Activity Psychology	3
GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [g]		4 - 5
Elective course [d]		2
	Hours	**15-16**
Third Year		
Fall		
HHP:2350	Biomechanics of Sport and Physical Activity	3
HHP:2400	Fundamentals of Human Physiology	3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [g]		4 - 5
Elective course [d]		2
	Hours	**15-16**
Spring		
HHP:3400	Applied Exercise Physiology	3
HHP:4310	Sport and Exercise Nutrition	3
GE CLAS Core: Quantitative or Formal Reasoning (if not met by major math/statistics foundation course) [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [g]		4 - 5
Elective course [d]		2
	Hours	**15-16**
Fourth Year		
Fall		
HHP:4200	Metabolic Exercise Testing and Prescription	4
Major: elective course [h]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		2
	Hours	**15**
Spring		
HHP:4210	Musculoskeletal Exercise Testing and Prescription	4
Major: elective course [h]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15**
	Total Hours	**122-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Course not required before CHEM:1080 if student has completed high school chemistry.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e See the General Catalog for list of approved courses.

f Fulfills a major requirement and may fulfill a GE requirement.

g Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

h Students must complete at least 6 s.h. of additional health and human physiology courses (prefix HHP) numbered 2000 or above.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Health Promotion, BS

Learning Outcomes

Students will be able to:

- identify and communicate the needs for, barriers to, and facilitators of health among various populations;
- understand, communicate, and apply health theories to inform health promotion programs;
- assess and interpret common behavioral and clinical health outcomes;
- use evidence-based communication strategies designed to facilitate behavior change;
- understand, communicate, and apply evidence-based leadership and management strategies in a health organization setting; and
- understand how to plan, implement, and evaluate targeted health promotion programs.

Requirements

The Bachelor of Science with a major in health promotion requires a minimum of 120 s.h., including at least 47–49 s.h. of work for the major. A minimum of 16 s.h. in the major must be earned at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The health promotion major is intended for students seeking careers that promote wellness in the community and the workplace. The major prepares students to work directly with individuals and communities to improve health and quality of life. Students learn how to assess, plan, implement, evaluate, and oversee programs designed to improve health behaviors, create environments supportive of healthy lifestyles, and effectively communicate health issues to key stakeholders. The major prepares students to take the certification exam from the National Commission for Health Education Credentialing. The mix of natural and social sciences in this major also provides a foundation for professional or graduate study in allied health, health management, or public health.

Students who earn the major in health promotion may not earn a major in exercise science, human physiology, or health studies.

Students who earn the major in health promotion may not earn a minor in lifestyle medicine but may earn a minor in human physiology.

The BS with a major in health promotion requires the following coursework.

Requirements	Hours
Science and Math Foundation Courses	10-12
Health Promotion Foundation Courses	12
Health Promotion Core Courses	16
Experiential Learning	3
Electives	6

Science and Math Foundation Courses

Students complete three foundation courses (minimum of 10 s.h.): one each in chemistry, biology, and mathematics or statistics. Note that courses may have required prerequisites.

Course #	Title	Hours
Chemistry		
One of these:		
CHEM:1080	General Chemistry II	3
CHEM:1120	Principles of Chemistry II	4
Biology		
One of these:		
BIOL:1140	Human Biology: Nonmajors	4
BIOL:1141	Human Biology: Health Professions	4
BIOL:1411	Foundations of Biology	4
Mathematics or Statistics		
One of these:		
MATH:1020	Elementary Functions	4
MATH:1350	Quantitative Reasoning for Business	4
MATH:1440	Mathematics for the Biological Sciences	4
MATH:1460	Calculus for the Biological Sciences	4
MATH:1850	Calculus I	4
PSQF:4143/ STAT:4143	Introduction to Statistical Methods	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:3510/ IGPI:3510	Biostatistics	3

Health Promotion Foundation Courses

Students must complete the four-course departmental core (12 s.h.).

Course #	Title	Hours
All of these:		
HHP:2100	Human Anatomy	3
HHP:2200	Physical Activity and Health	3
HHP:2310	Nutrition and Health	3
HHP:2400	Fundamentals of Human Physiology	3

Health Promotion Core Courses

Course #	Title	Hours
All of these:		
HHP:3200	Health Behavior and Health Promotion	3
HHP:3430	Health Management and Administration	3
HHP:4010	Behavioral and Clinical Health Assessment Laboratory	4
HHP:4020	Health Coaching	3

HHP:4420	Planning and Evaluating Health Interventions	3

Experiential Learning

Course #	Title	Hours
3 s.h. from these:		
HHP:3820	Community Wellness Guided Practicum	3
HHP:3930	Practicum in Health and Human Physiology	1-3
HHP:3994	Undergraduate Research	1-3
HHP:4365	Internship in Health Coaching	3
HHP:4490	International Health: Experiential Learning	3
HHP:4500	Undergraduate Independent Project	arr.
HHP:4910	Honors Research II	3
HHP:4930	Health and Human Physiology Internship	3-12

Electives

Students must complete at least 6 s.h. of additional health, sport, and human physiology courses (prefix HHP) numbered 2000 or above.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must maintain an overall grade-point average (GPA) of at least 3.33 in work for their major and a cumulative University of Iowa GPA of at least 3.33.

In order to graduate with honors in the major, students must successfully complete the honors research course sequence HHP:4900 Honors Research and HHP:4910 Honors Research II; write an honors thesis that is judged to be of honors quality; and make an oral or poster presentation of the honors thesis in an approved venue, such as a department research seminar or professional conference.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the health promotion major.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: one foundation course and at least six more courses in the major.

Before the seventh semester begins: at least six more courses in the major (total of 13) and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least two more courses in the major (total of 15).

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Health Promotion, BS

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110 or CHEM:1070	Principles of Chemistry I [b] or General Chemistry I	3 - 4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
GE CLAS Core: Social Sciences [c]		3
CSI:1600	Success at Iowa	1
Elective course [d]		2
	Hours	**15-17**
Spring		
CHEM:1120 or CHEM:1080	Principles of Chemistry II or General Chemistry II	3 - 4
HHP:2200	Physical Activity and Health	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Values and Society [c]		3
Elective course [d]		3
	Hours	**15-17**

Second Year

Fall

BIOL:1411 or BIOL:1141 or BIOL:1140	Foundations of Biology or Human Biology: Health Professions or Human Biology: Nonmajors	4
HHP:2310	Nutrition and Health	3
Major: math/statistics foundation course [e, f]		3 - 4
GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [g]		4 - 5
	Hours	**17-19**

Spring

HHP:2100	Human Anatomy	3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [g]		4 - 5
Elective course [d]		3
	Hours	**16-17**

Third Year

Fall

HHP:2400	Fundamentals of Human Physiology	3
HHP:3200	Health Behavior and Health Promotion	3
Major: elective course [h]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [g]		4 - 5
Elective course [d]		3
	Hours	**16-17**

Spring

HHP:4020	Health Coaching	3
Major: elective course [h]		3
GE CLAS Core: Quantitative or Formal Reasoning (if not met by major math/statistics foundation course) [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [g]		4 - 5
Elective course [d]		3
	Hours	**16-17**

Fourth Year

Fall

HHP:3430	Health Management and Administration	3
HHP:4010	Behavioral and Clinical Health Assessment Laboratory	4
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**16**

Spring

HHP:4420	Planning and Evaluating Health Interventions	3
Major: experiential learning course [e]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15**
	Total Hours	**126-135**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Course not required before CHEM:1080 if student has completed high school chemistry.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e See the General Catalog for list of approved courses.

f Fulfills a major requirement and may fulfill a GE requirement.

g Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

h Students must complete at least 6 s.h. of additional health and human physiology courses (prefix HHP) numbered 2000 or above.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Human Physiology, BS

Learning Outcomes

The BS degree in human physiology:

- provides a broad understanding of the form (anatomy) and function (physiology) of the human body through evaluation of organ system function and integrative function across systems in health and disease;
- prepares students to employ their fundamental knowledge of human physiology together with the scientific method, disciplinary research, and evidence-based reasoning to solve problems in their chosen professional and/or graduate career fields;
- develops skills and interpersonal competencies relevant to a diverse range of career pathways; and
- instills an understanding and appreciation of the relevance of healthy behaviors to a fulfilling and productive life, and the importance of lifelong learning in the rapidly evolving fields of human physiology and the health sciences.

Requirements

The Bachelor of Science with a major in human physiology requires a minimum of 120 s.h., including 63 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Transfer students must complete a minimum of 16 s.h. in human physiology coursework at the University of Iowa, including HHP:3550 Human Physiology With Laboratory.

The major in human physiology is designed primarily for individuals who intend to continue their education beyond the BS in the health professions, including medicine, physician assistant, physical therapy, dentistry, occupational therapy, chiropractic, and optometry, and for those who intend to pursue graduate degrees in basic life sciences.

Students may complete the BS with a major in human physiology without an emphasis area or with one of three optional emphasis areas: clinical physiology, neuromuscular physiology and metabolism, or research.

Students may earn a BS in human physiology, health promotion, or exercise science, but not more than one of these.

Students who earn a BS in human physiology may not earn the minor in human physiology.

For policies concerning transfer credit, credit by examination, cumulative grade-point average, general rules relating to regression and duplication, and so forth, see For Undergraduate Students on the College of Liberal Arts and Sciences website.

The BS with a major in human physiology requires the following coursework.

Requirements	Hours
Core Courses	14
Elective Courses	18
Cognate Area Courses	31
Area of Emphasis	

Core Courses

Course #	Title	Hours
All of these:		
HHP:1050	Exploring Health and Human Physiology	1
HHP:3115	Anatomy for Human Physiology With Lab	5
HHP:3550	Human Physiology With Laboratory	5
One of these:		
HHP:2200	Physical Activity and Health	3
HHP:2280	Cultural Competency and Health	3
HHP:2310	Nutrition and Health	3

Elective Courses

At least 18 s.h. from these with at least 12 s.h. in health, sport, and human physiology courses (prefix HHP).

Course #	Title	Hours
At least 6 s.h. from these (organ system-based courses):		
HHP:3450	Immunology in Health and Disease	3
HHP:4110	Advanced Human Anatomy Laboratory	4
HHP:4130	Skeletal Muscle Physiology	3
HHP:4260	Respiratory Pathophysiology	3
HHP:4300	Neurophysiology	3
HHP:4460	Cardiovascular Physiology	3
At least 3 s.h. from these (integrative physiology courses):		
HHP:4150	Clinical Exercise Physiology	3
HHP:4250	Human Pathophysiology	3
HHP:4410	Integrative Physiology of Exercise	3
HHP:4470/ASP:4470	Physiology of Aging	3
HHP:4510	Energetics in Health and Disease	3
May include up to 9 s.h. from these:		
HHP:3300	Human Growth and Motor Development	3
HHP:3700	Health Care Communications	1
HHP:3900	Writing for Health and Human Physiology	3
HHP:3994	Undergraduate Research (may be repeated; up to 3 s.h. may be applied toward the degree)	1-3
HHP:4197	Therapeutic Recreation: Experiences in Adaptive and Inclusive Sports	3
HHP:4200	Metabolic Exercise Testing and Prescription	4
HHP:4210	Musculoskeletal Exercise Testing and Prescription	4
HHP:4230	Motor Learning: Theory and Application	3
HHP:4440	Physiology of Nutrition	3

HHP:4450	Human Genetics and Disease	3-4
HHP:4490	International Health: Experiential Learning (may be repeated; up to 3 s.h. may be applied toward the degree)	3
HHP:4500	Undergraduate Independent Project (may be repeated; up to 3 s.h. may be applied toward the degree)	arr.
HHP:4700	Health and Human Physiology Teaching Internship	2-3
HHP:4800	Research Methods	3
HHP:4900	Honors Research	3
HHP:4910	Honors Research II	3
HHP:4930	Health and Human Physiology Internship (may be repeated; up to 3 s.h. may be applied toward the degree)	arr.
BIOL:2254	Endocrinology	3
BIOL:2723	Cell Biology	3
BMB:3110	Biochemistry	3
MICR:2157	General Microbiology	3
MICR:2158	General Microbiology Laboratory	2
May include one of these:		
PSY:2130	Advanced Psychology for Pre-Medical Track	3
PSY:2930	Abnormal Psychology: Health Professions	3
SOC:3510	Medical Sociology	3

Cognate Area Courses

Students must earn a minimum of 31 s.h. in cognate areas—subjects outside of human physiology—by completing courses from the following lists.

Course #	Title	Hours
Biology		
This sequence:		
BIOL:1411 & BIOL:1412	Foundations of Biology and Diversity of Form and Function	8
Chemistry		
This sequence:		
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
Mathematics		
One of these:		
MATH:1460	Calculus for the Biological Sciences	4
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4
Physics		
This sequence:		
PHYS:1511 & PHYS:1512	College Physics I and College Physics II	8
Statistics		
One of these:		
STAT:2010	Statistical Methods and Computing	3
STAT:3510/ IGPI:3510	Biostatistics	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Areas of Emphasis

Students majoring in human physiology may declare an emphasis area but are not required to do so to satisfy major requirements. Declaring an emphasis area does not require completion of elective coursework beyond that already required for the major. Major elective requirements can be met through emphasis area courses.

Clinical Physiology Area

Course #	Title	Hours
Four of these:		
HHP:3450	Immunology in Health and Disease	3
HHP:4150	Clinical Exercise Physiology	3
HHP:4200	Metabolic Exercise Testing and Prescription	4
HHP:4250	Human Pathophysiology	3
HHP:4260	Respiratory Pathophysiology	3
HHP:4460	Cardiovascular Physiology	3

Neuromuscular Physiology and Metabolism Area

Course #	Title	Hours
Four of these:		
HHP:4110	Advanced Human Anatomy Laboratory	4
HHP:4130	Skeletal Muscle Physiology	3
HHP:4230	Motor Learning: Theory and Application	3
HHP:4300	Neurophysiology	3
HHP:4410	Integrative Physiology of Exercise	3
HHP:4510	Energetics in Health and Disease	3

Research Area

Course #	Title	Hours
All of these:		
HHP:3994	Undergraduate Research	3-6
or HHP:4900 & HHP:4910	Honors Research and Honors Research II	
HHP:4800	Research Methods	3

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must maintain an overall grade-point average (GPA) of at least 3.33 in work for

their major and a cumulative University of Iowa GPA of at least 3.33.

In order to graduate with honors in the major, students must successfully complete the honors research course sequence HHP:4900 Honors Research and HHP:4910 Honors Research II; write an honors thesis that is judged to be of honors quality; and make an oral or poster presentation of the honors thesis in an approved venue, such as a department research seminar or professional conference.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the human physiology major.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: calculus and at least six more courses in the major.

Before the seventh semester begins: at least six more courses in the major (total of 13) and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least two more courses in the major (total of 15).

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Human Physiology, BS

Course	Title	Hours
Academic Career		
Any Semester		
Transfer students must complete a minimum of 16 s.h. in human physiology coursework at the University of Iowa, including HHP:3550 Human Physiology With Laboratory.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
MATH:1460 or MATH:1850 or MATH:1550	Calculus for the Biological Sciences [b, c] or Calculus I or Engineering Calculus I	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives (may be satisfied by core course if opting to take HHP:2280 Cultural Competency and Health) [d]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
CSI:1600	Success at Iowa	1
	Hours	**14-15**
Spring		
HHP:1050	Exploring Health and Human Physiology	1
CHEM:1110	Principles of Chemistry I [b, e]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Social Sciences [d]		3
GE CLAS Core: Values and Society [d]		3
Elective course [f]		2
	Hours	**16-17**
Second Year		
Fall		
BIOL:1411	Foundations of Biology [b]	4
CHEM:1120	Principles of Chemistry II	4
HHP:2310 or HHP:2280 or HHP:2200	Nutrition and Health [g] or Cultural Competency and Health or Physical Activity and Health	3
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
	Hours	**15-16**
Spring		
BIOL:1412	Diversity of Form and Function	4
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
Elective course [f]		2
	Hours	**16-17**
Third Year		
Fall		
HHP:3115	Anatomy for Human Physiology With Lab	5
PHYS:1511	College Physics I	4
STAT:3510 or STAT:4143 or STAT:2010	Biostatistics or Introduction to Statistical Methods or Statistical Methods and Computing	3

GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
	Hours	**16-17**
Spring		
HHP:3550	Human Physiology With Laboratory [i]	5
PHYS:1512	College Physics II	4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Fourth Year		
Fall		
Major: elective or emphasis area course [j, k]		3
Major: elective or emphasis area course [j, k]		3
Major: elective or emphasis area course [j, k]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Spring		
Major: elective or emphasis area course [j, k]		3
Major: elective or emphasis area course [j, k]		3
Major: elective or emphasis area course [j, k]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**15**
	Total Hours	**123-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Enrollment in math courses requires completion of a placement exam.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Enrollment in chemistry courses requires completion of a placement exam.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Students opting to take HHP:2310 must complete other courses to satisfy the following GE requirements: Understanding Cultural Perspectives; and Values and Society.

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i This course must be completed at the University of Iowa.

j Students may declare an emphasis area in clinical physiology; neuromuscular physiology and metabolism; or research. Major elective requirements can be met by completing emphasis area courses. See the General Catalog for approved emphasis area course lists.

k Students complete at least 18 s.h. of major electives, of which 12 s.h. must be in HHP coursework; at least 6 s.h. will be taken from designated organ system-based courses and 3 s.h. from courses emphasizing integrative physiology. See the General Catalog for a list of approved elective courses.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Sport and Recreation Management, BS

Learning Outcomes

Graduates will be able to:

- demonstrate knowledge of foundational sport and recreation management principles;
- apply and analyze financial, human resource, and facility management principles; marketing, communications, and sales strategies; and legal concepts to the sport and recreation industries;
- evaluate and explore career paths in the sport and recreation industries to identify where individual student strengths and interests will thrive;
- acquire knowledge in a concentration area within sport or recreation unique to individual student career objectives;
- express ideas clearly, logically, and persuasively in both oral and written formats; and
- demonstrate critical thinking and effective research methods; and
- apply teamwork, project management, and presentation principles to unique sport and recreation organization business challenges.

Requirements

The Bachelor of Science with a major in sport and recreation management requires a minimum of 120 s.h., including 48 s.h. of work for the major (27 s.h. in sport and recreation management, 12 s.h. in a concentration area, and 9 s.h. in field experience). Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The Bachelor of Science in sport and recreation management prepares students to make meaningful contributions to the sport and recreation industry at all levels and broaden their understanding and appreciation of the sport and recreation industry.

The curriculum challenges students to think critically and creatively while developing analytical, rhetorical, and research abilities that are required for leadership positions in the sport and recreation industry. Moreover, the program emphasizes and provides experiential learning opportunities for a student's application of concepts and skills in professional settings to enhance learning and development.

Students who earn a BS in sport and recreation management may not earn the minor in sport and recreation management.

Online Degree Option

The Department of Health, Sport, and Human Physiology offers an online BS degree in sport and recreation management. The online program enables students to complete their BS degree from anywhere in the world. For more information, see Online Bachelor of Science in Sport and Recreation Management on the sport and recreation management website, or contact the Department of Health, Sport, and Human Physiology directly.

Degree Requirements

The BS with a major in sport and recreation management requires the following coursework.

Requirements	Hours
Foundation Courses	27
Field Experience	9
Concentration Area Courses	12

Foundation Courses

Course #	Title	Hours
All of these:		
SRM:1060	Contemporary Issues in Sports	3
SRM:3157	Managerial Operations in Sport and Recreation	3
SRM:3175	Sales in Sport	3
SRM:3178	Communications and Public Relations in Sports	3
Students must have completed 30 s.h. before they enroll in the following:		
SRM:3151	Liability in Sport and Recreation	3
SRM:3152	Design and Management of Sport and Recreation Facilities	3
SRM:3153	Sport Business Practices	3
SRM:3158	Sport and Recreation Promotion	3
SRM:3172	Finance in Sport and Recreation	3

Field Experience

Students are required to complete a total of 9 s.h. of field experience (guided and/or independent) and must obtain prior approval from the director of field experience before performing any independent field experience for academic credit. See Independent Field Experience on the sport and recreation management website, or contact the Department of Health, Sport, and Human Physiology directly.

Field experience includes both guided and independent options. Guided experience sections are led by faculty who set learning objectives and outcomes with partner organizations. Courses have regular meeting times and faculty oversee and evaluate student engagement, participation, and completion.

Independent experience is student-initiated with an approved sport or recreation-affiliated organization, such as an internship. In consultation with the faculty and organization, a student sets the learning objectives for the duration of the experience. Faculty communicates with each student and site supervisor to evaluate student engagement, participation, and completion of learning objectives.

Both guided and independent field experience credit is based on 45 hours of field experience for each semester hour earned.

Course #	Title	Hours
SRM:4196	Interscholastic Athletic Administration Field Experience	1-9
SRM:4197	Sport and Recreation Field Experience	3

SRM:4199	Independent Sport and Recreation Field Experience	1-9

Concentration Areas

Students must complete 12 s.h. in one of the following concentration areas: business studies, coaching and sport instruction, entrepreneurship, event management, interscholastic athletic/activities administration, public and media relations, recreation management, organizational culture management, or the student-designed concentration that allows students to map out their own concentration with the approval of their advisor and faculty. Some of the concentration courses have prerequisites; students must complete all of a course's prerequisites before they may register for the course. Prerequisite courses do not count toward the concentration unless also listed as a concentration course.

SRM:3200 Topics in Sport and Recreation Management can be used for certain concentration areas depending on the topic being taught. Students may request a waiver to allow a course that is not listed to count toward a concentration. All students should consult with sport and recreation management's academic advisor for details and approval prior to enrolling in SRM:3200 or any unlisted course for concentration credit.

- Business Studies [p. 533]
- Coaching and Sport Instruction [p. 533]
- Entrepreneurship [p. 535]
- Event Management [p. 536]
- Interscholastic Athletic/Activities Administration [p. 534]
- Public and Media Relations [p. 535]
- Recreation Management [p. 536]
- Organizational Culture Management [p. 537]
- Student-Designed Concentration [p. 537]

Business Studies

Course #	Title	Hours
Business studies concentration students select 12 s.h. from these:		
SRM:1085	Introduction to Travel and Tourism	3
SRM:2100	Professional Preparation for Careers in Sport: Building Your Playbook	1
SRM:3050	Collaborative Leadership in Sport and Recreation	3
SRM:3148	Interscholastic Activities and Athletics Administration	3
SRM:3150	Recreation Administration	3
SRM:3176	Sports Analytics for Decision Makers	3
SRM:3179	Podcasting for Sport and Recreation Professionals	3
SRM:3210	Event Bidding: Processes and Strategies	3
SRM:3240	Name, Image, and Likeness (NIL) in College Athletics	3
SRM:3300	Writing for Sport and Recreation Managers	3
SRM:3700	Ethics in Sport	3
SRM:4158	Advanced Sport Marketing	3
SRM:4198	NCAA Rules Compliance and Enforcement	3
SRM:4240	Name, Image, and Likeness (NIL): Simulated Agency Experience	3
ACCT:2100	Introduction to Financial Accounting	3
ARTS:1070	Elements of Graphic Design	3
BAIS:1500	Business Computing Essentials	2
BAIS:2800	Foundations of Business Analytics	3
CCP:1301	Communication for the Workplace	1
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
FIN:3000	Introductory Financial Management	3
JMC:3520	Business of Media: Profits, People, and Power	3
JMC:3530	Social Media Marketing	3
JMC:3540/ SMC:3540/ SPST:3181	The Business of Sport Communication	3
JMC:3710/ MUSM:3710	Fundraising Fundamentals	3
JMC:3720/ MUSM:3720	Nonprofit Communications	3
MGMT:2100	Introduction to Management	3
MGMT:3500/ ENTR:3595/ MUSM:3500/ NURS:3595/ RELS:3700/ SSW:3500	Nonprofit Organizational Effectiveness I	3
MGMT:4300	Leadership and Personal Development	3
MGMT:4600/ MUSM:4600	Nonprofit Ethics and Governance	3
MKTG:3000	Introduction to Marketing Strategy	3
MKTG:4200	Sales Management	3
MKTG:4201	Professional Selling	3
MKTG:4410	Customer Relationship Management	3
RHET:2095	Fundamental Strategies of Persuasion	3
SMC:2500/ SPST:2500	Sport and Technology	3
STAT:4580/ DATA:4580/ IGPI:4580	Data Visualization and Data Technologies	3

Coaching and Sport Instruction

In addition to the 12 s.h. concentration area requirement, students may also choose to complete the Certificate in Interscholastic Athletic/Activities Administration [p. 551], a 21 s.h. program.

Course #	Title	Hours
Coaching and sport instruction concentration students select 12 s.h. from these:		

SRM:1049	Foundations for Sport and Physical Activity: Catalyst for Sustainable Communities	3
SRM:3145	Leadership and Group Dynamics in Recreation and Sport	3
SRM:3146	Sports Officiating: Rules, Theories, and Issues	3
SRM:3149	Coaching Theory, Body Structure, and Human Development	3
SRM:3155	Prevention and Care of Athletic Injuries for Coaches	3
SRM:3176	Sports Analytics for Decision Makers	3
SRM:3700	Ethics in Sport	3
SRM:4198	NCAA Rules Compliance and Enforcement	3
DST:1101	Introduction to Disability Studies	3
EPLS:4200	Athletic Administration in Educational Settings	3
HHP:2100	Human Anatomy	3
HHP:2130	Human Development Through the Life Span	3
HHP:2200	Physical Activity and Health	3
HHP:2310	Nutrition and Health	3
HHP:3045	Physical Activity Psychology	3
HHP:3300	Human Growth and Motor Development	3
HHP:4310	Sport and Exercise Nutrition	3
TR:2061/HHP:2061	Recreation Leadership and Programming	3
Up to 6 s.h. from these:		
SRM:2100	Professional Preparation for Careers in Sport: Building Your Playbook	1
SRM:3050	Collaborative Leadership in Sport and Recreation	3
SRM:3143	Youth Sports Administration	3
SRM:3144	Program Design for Recreational Services	3
SRM:3148	Interscholastic Activities and Athletics Administration	3
SRM:3150	Recreation Administration	3
SRM:3179	Podcasting for Sport and Recreation Professionals	3
SRM:3210	Event Bidding: Processes and Strategies	3
SRM:3300	Writing for Sport and Recreation Managers	3
SRM:3800	Sport Law for Interscholastic Athletic Directors	3
SRM:4158	Advanced Sport Marketing	3
ARTS:1070	Elements of Graphic Design	3
CCP:1301	Communication for the Workplace	1
COMM:1819	Organizational Leadership	3
CSED:4111	Building Leadership and Success at Work	3
HPAS:1007	Basic CPR	1
HPAS:1008	Basic First Aid and CPR	1
HPAS:1010	Introduction to Workout Design	1
PSQF:3115	Sport and Performance Psychology	3
RHET:2085	Speaking Skills	3
SPST:2079/ AFAM:2079	Race and Ethnicity in Sport	3

Coaching Certification Process

University of Iowa students can become authorized to coach K–12 school-sponsored athletics in the state of Iowa by taking the following two courses. These courses prepare students for the statewide coaching authorization application only; students must take these courses and can opt to apply for certification as part of their coursework.

Course #	Title	Hours
SRM:3149	Coaching Theory, Body Structure, and Human Development	3
SRM:3155	Prevention and Care of Athletic Injuries for Coaches	3

Interscholastic Athletic/Activities Administration

Students interested in interscholastic athletic/activities administration may choose to pursue the 12 s.h. concentration area or the Certificate in Interscholastic Athletic/Activities Administration [p. 551], a 21 s.h. program. Students may not receive a BS in sport and recreation management with an interscholastic athletic/activities administration concentration and a Certificate in Interscholastic Athletic/Activities Administration. However, the certificate is compatible with the BS with other 12 s.h. concentrations, such as coaching and sport instruction. Students should consult the BS and certificate academic advisors to discuss which credential is appropriate.

Course #	Title	Hours
All of these (9 s.h.):		
SRM:3148	Interscholastic Activities and Athletics Administration	3
SRM:3800	Sport Law for Interscholastic Athletic Directors	3
EPLS:4200	Athletic Administration in Educational Settings	3
At least 3 s.h. from these:		
SRM:2100	Professional Preparation for Careers in Sport: Building Your Playbook	1
SRM:3146	Sports Officiating: Rules, Theories, and Issues	3
SRM:3147	Sport Event Management	3
SRM:3149	Coaching Theory, Body Structure, and Human Development (this course and SRM:3155 together allow students to apply for state of Iowa coaching authorization)	3
SRM:3150	Recreation Administration	3

SRM:3155	Prevention and Care of Athletic Injuries for Coaches (this course and SRM:3149 together allow students to apply for state of Iowa coaching authorization)	3
SRM:3176	Sports Analytics for Decision Makers	3
SRM:3179	Podcasting for Sport and Recreation Professionals	3
SRM:3210	Event Bidding: Processes and Strategies	3
SRM:3300	Writing for Sport and Recreation Managers	3
SRM:3700	Ethics in Sport	3
ARTS:1070	Elements of Graphic Design	3
COMM:1819	Organizational Leadership	3
CSED:4111	Building Leadership and Success at Work	3
EDTL:4940	Characteristics of Disabilities	3
JMC:1300	Introduction to Journalism and Strategic Communication	3
JMC:3530	Social Media Marketing	3
JMC:3710/ MUSM:3710	Fundraising Fundamentals	3
JMC:3720/ MUSM:3720	Nonprofit Communications	3
MGMT:3500/ ENTR:3595/ MUSM:3500/ NURS:3595/ RELS:3700/ SSW:3500	Nonprofit Organizational Effectiveness I	3
PSQF:1075	Educational Psychology and Measurement	3
PSQF:3115	Sport and Performance Psychology	3
PSQF:4134/ EDTL:4934	Parent-Teacher Communication	1-3
RHET:2085	Speaking Skills	3
SPST:2079/ AFAM:2079	Race and Ethnicity in Sport	3

Public and Media Relations

Course #	Title	Hours
Public and media relations concentration students take a 3 s.h. requirement:		
SRM:4178	Media Relations Strategy in Sport and Recreation	3
Public and media relations concentration students select 9 s.h. from these:		
SRM:2100	Professional Preparation for Careers in Sport: Building Your Playbook	1
SRM:3148	Interscholastic Activities and Athletics Administration	3
SRM:3150	Recreation Administration	3
SRM:3179	Podcasting for Sport and Recreation Professionals	3
SRM:3210	Event Bidding: Processes and Strategies	3
SRM:3300	Writing for Sport and Recreation Managers	3
SRM:3700	Ethics in Sport	3
SRM:4198	NCAA Rules Compliance and Enforcement	3
ARTS:1070	Elements of Graphic Design	3
CNW:1620	Introduction to Creative Nonfiction	3
COMM:1840	Introduction to Media Production	3
COMM:1898/ LATS:1898	Introduction to Latina/o/x Communication and Culture	3
COMM:2064	Media, Advertising, and Society	3
JMC:1100	Introduction to Media Effects	3
JMC:1300	Introduction to Journalism and Strategic Communication	3
JMC:1500	Introduction to Social Media	3
JMC:2101/ AMST:2101/ SMC:2101/ SPST:2101	Digital Media and the Future of Sport	3
JMC:3122	Influencers, Artificial Intelligence, and Digital Games	3
JMC:3182/ SMC:3182/ SPST:3182	Sport, Scandal, and Strategic Communication in Media Culture	3
JMC:3183/ SPST:3175	Sport and the Media	3
JMC:3412	Strategic Communication Writing	4
JMC:3510	Media and Marketing Research	3
JMC:3520	Business of Media: Profits, People, and Power	3
JMC:3530	Social Media Marketing	3
JMC:3540/ SMC:3540/ SPST:3181	The Business of Sport Communication	3
JMC:3720/ MUSM:3720	Nonprofit Communications	3
RHET:2085	Speaking Skills	3
SMC:1050/JMC:1050	Sport and the Media	3
SPST:2079/ AFAM:2079	Race and Ethnicity in Sport	3

Entrepreneurship

Course #	Title	Hours
Entrepreneurship concentration students select 12 s.h. from these:		
SRM:1085	Introduction to Travel and Tourism	3
SRM:2100	Professional Preparation for Careers in Sport: Building Your Playbook	1
SRM:3050	Collaborative Leadership in Sport and Recreation	3
SRM:3150	Recreation Administration	3
SRM:3176	Sports Analytics for Decision Makers	3

SRM:3179	Podcasting for Sport and Recreation Professionals	3
SRM:3210	Event Bidding: Processes and Strategies	3
SRM:3240	Name, Image, and Likeness (NIL) in College Athletics	3
SRM:3300	Writing for Sport and Recreation Managers	3
SRM:3700	Ethics in Sport	3
SRM:4158	Advanced Sport Marketing	3
SRM:4240	Name, Image, and Likeness (NIL): Simulated Agency Experience	3
ARTS:1070	Elements of Graphic Design	3
BAIS:1500	Business Computing Essentials	2
COMM:1818	Communication Skills for Leadership	3
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
EDTL:3715	Experiential Teaching and Learning	3
ENTR:1350	Foundations in Entrepreneurship	3
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3100	Entrepreneurial Finance	3
ENTR:3200	Entrepreneurial Marketing	3
ENTR:3350	Entrepreneurial Strategy	3
ENTR:3400	Strategic Management of Technology and Innovation	3
ENTR:3500	Social Entrepreneurship	3
ENTR:3600	Social Media Strategies for Entrepreneurial Ventures	3
ENTR:4400	Managing the Growth Business	3
JMC:3530	Social Media Marketing	3
JMC:3720/ MUSM:3720	Nonprofit Communications	3
MGMT:3500/ ENTR:3595/ MUSM:3500/ NURS:3595/ RELS:3700/ SSW:3500	Nonprofit Organizational Effectiveness I	3
RHET:2085	Speaking Skills	3
SPST:2079/ AFAM:2079	Race and Ethnicity in Sport	3

Event Management

Students who aspire to work in the field of event management may earn one or both of the following credentials: the event management concentration (12 s.h.) and/or the Certificate in Event Management [p. 466] (21 s.h.). It is strongly recommended that students consult the sport and recreation management undergraduate academic advisor and a member of the Certificate in Event Management committee to discuss which credential is appropriate.

Students who wish to earn both credentials must take SRM:3154 Foundations of Event Management and cannot substitute EVNT:3154 Foundations of Event Management to count toward the concentration. They must also take SRM:3147 Sport Event Management and cannot substitute EVNT:3260 Event Management Workshop.

Course #	Title	Hours
Both of these:		
SRM:3147	Sport Event Management	3
SRM:3154	Foundations of Event Management	3
At least 6 s.h. from these:		
SRM:1085	Introduction to Travel and Tourism	3
SRM:2100	Professional Preparation for Careers in Sport: Building Your Playbook	1
SRM:3146	Sports Officiating: Rules, Theories, and Issues	3
SRM:3148	Interscholastic Activities and Athletics Administration	3
SRM:3150	Recreation Administration	3
SRM:3179	Podcasting for Sport and Recreation Professionals	3
SRM:3210	Event Bidding: Processes and Strategies	3
SRM:3300	Writing for Sport and Recreation Managers	3
SRM:3700	Ethics in Sport	3
SRM:3800	Sport Law for Interscholastic Athletic Directors	3
SRM:4158	Advanced Sport Marketing	3
SRM:4178	Media Relations Strategy in Sport and Recreation	3
ARTS:1070	Elements of Graphic Design	3
BUS:3800	Business Writing	3
COMM:1816	Business and Professional Communication	3
EDTL:3715	Experiential Teaching and Learning	3
ENTR:1350	Foundations in Entrepreneurship	3
ENTR:2000	Entrepreneurship and Innovation	3
JMC:1300	Introduction to Journalism and Strategic Communication	3
JMC:3530	Social Media Marketing	3
JMC:3540/ SMC:3540/ SPST:3181	The Business of Sport Communication	3

Recreation Management

Course #	Title	Hours
Both of these:		
SRM:3144	Program Design for Recreational Services	3
SRM:3145	Leadership and Group Dynamics in Recreation and Sport	3
At least two of these (at least 6 s.h.):		
SRM:1070	Recreation and Parks in the United States: Foundations and Impact	3

SRM:1085	Introduction to Travel and Tourism	3
SRM:2100	Professional Preparation for Careers in Sport: Building Your Playbook	1
SRM:3050	Collaborative Leadership in Sport and Recreation	3
SRM:3143	Youth Sports Administration	3
SRM:3146	Sports Officiating: Rules, Theories, and Issues	3
SRM:3147	Sport Event Management	3
SRM:3150	Recreation Administration	3
SRM:3179	Podcasting for Sport and Recreation Professionals	3
SRM:3210	Event Bidding: Processes and Strategies	3
SRM:3300	Writing for Sport and Recreation Managers	3
COMM:1819	Organizational Leadership	3
COMM:1840	Introduction to Media Production	3
EDTL:3715	Experiential Teaching and Learning	3
HHP:2280	Cultural Competency and Health	3
JMC:3530	Social Media Marketing	3
LLS:1150	Leadership in the Outdoors	3
MGMT:3500/ ENTR:3595/ MUSM:3500/ NURS:3595/ RELS:3700/ SSW:3500	Nonprofit Organizational Effectiveness I	3
MGMT:4600/ MUSM:4600	Nonprofit Ethics and Governance	3
SPST:1074/ AMST:1074/ GWSS:1074	Inequality in American Sport	3
SPST:3178/ AMST:3178	History of Sport in the United States	3
TR:1070	Leisure, Play, and the Human Experience	3
TR:2077	Children and Families in Healthcare	3
TR:2160	Introduction to Therapeutic Recreation	3
TR:3261/HHP:3261	Inclusive Recreation	3

Organizational Culture Management

Course #	Title	Hours
Organizational culture management concentration students take a 3 s.h. requirement:		
SRM:3050	Collaborative Leadership in Sport and Recreation	3
Organizational culture management concentration students select 9 s.h. from these:		
SRM:2100	Professional Preparation for Careers in Sport: Building Your Playbook	1
SRM:3148	Interscholastic Activities and Athletics Administration	3
SRM:3150	Recreation Administration	3
SRM:3700	Ethics in Sport	3
AFAM:1030	Introduction to African American Society	3
AMST:1010	Understanding American Cultures	3
DST:1101	Introduction to Disability Studies	3
EPLS:4200	Athletic Administration in Educational Settings	3
GWSS:1002	Diversity and Power in the U.S.	3
JMC:2600	Freedom of Expression	3
RELS:2000	Engaging Religious Diversity for Leadership and Entrepreneurship	3
RHET:2135/ SJUS:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
SPAN:2700/ IS:2700/LAS:2700/ PORT:2700	Introduction to Latin American Studies	3
SPST:1074/ AMST:1074/ GWSS:1074	Inequality in American Sport	3
SPST:2078/ GWSS:2078	Women, Sport, and Culture	3
SPST:2079/ AFAM:2079	Race and Ethnicity in Sport	3
SPST:2170	Sport and Globalization	3
TR:3261/HHP:3261	Inclusive Recreation	3

Student-Designed Concentration

If a student wishes to develop a concentration area focused on a specialized area that is not covered by an existing concentration area, the student must consult with an advisor in the sport and recreation management program. After consultation, the student must submit a written proposal to the sport and recreation management program director for approval. The proposal should provide a rationale for, and description of, the student-designed concentration, including proposed courses. The proposal must be approved before the start of the semester in which the student wishes to use the concentration for graduation.

The concentration requires at least 12 s.h. of coursework. Self-designed concentrations may not include coursework that was used to complete GE CLAS Core or field experience requirements.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a major GPA of at least 3.50, and earn a grade of at least a B-plus in SRM:4195 Honors Problems. During SRM:4195 Honors Problems, the student works on a project under the supervision of a program faculty member. For additional information, visit BS in Sport and Recreation Management on the Department of Health, Sport, and Human Physiology website or contact the sport and recreation management program director.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the sport and recreation management major.

Career Advancement

Sport and recreation management majors find employment in municipal or campus recreation; interscholastic, high school, or college athletic administration; intramural departments; community private clubs or community parks and recreation departments; nonprofit organizations; armed forces recreation; professional or Olympic sports organizations; commercial fitness businesses; and in firms specializing in sport marketing or sport sponsorship. The sport and recreation management faculty provides individual mentoring to students and offers several opportunities for students to connect with industry professionals throughout the year to learn about internships and jobs.

Experiential learning in the sport and recreation management program in the Department of Health, Sport, and Human Physiology assists students in finding their specific connection to the industry. The Pomerantz Career Center also offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: four foundation courses, at least 3 s.h. in the concentration area, and 3 s.h. in a field experience course.

Before the seventh semester begins: two more foundation courses (total of six), an additional 6 s.h. in the concentration area, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two more foundation courses (total of eight), an additional 3 s.h. in a field experience course, and one remaining concentration area course (3 s.h.).

During the eighth semester: enrollment in the final 3 s.h. in a field experience course, all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Sport and Recreation Management, BS

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
SRM:1060	Contemporary Issues in Sports	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Social Sciences [b]		3
GE CLAS Core: Values and Society [b]		3
CSI:1600	Success at Iowa	1
Elective course [c]		2
	Hours	**15-16**
Spring		
SRM:3157	Managerial Operations in Sport and Recreation	3
SRM:2100	Professional Preparation for Careers in Sport: Building Your Playbook [d]	1
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [b]		3
GE CLAS Core: Natural Sciences with Lab [b]		4
Elective course [c]		2
	Hours	**16-17**
Second Year		
Fall		
SRM:3175	Sales in Sport	3
GE CLAS Core: Quantitative or Formal Reasoning [b]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
Elective course [c]		3
Elective course [c]		3
	Hours	**16-17**
Spring		
SRM:3152	Design and Management of Sport and Recreation Facilities	3
SRM:3178	Communications and Public Relations in Sports	3
Major: concentration course		3
GE CLAS Core: Natural Sciences without Lab [b]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
	Hours	**16-17**
Third Year		
Fall		
SRM:3158	Sport and Recreation Promotion	3

SRM:4199 or SRM:4196 or SRM:4197	Independent Sport and Recreation Field Experience or Interscholastic Athletic Administration Field Experience or Sport and Recreation Field Experience	3
Major: concentration course		3
GE CLAS Core: International and Global Issues [b]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
	Hours	**16-17**
Spring		
SRM:3153	Sport Business Practices	3
Major: concentration course		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
Elective course [c]		3
Elective course [c]		3
	Hours	**16-17**
Fourth Year		
Fall		
SRM:3172	Finance in Sport and Recreation	3
SRM:4197 or SRM:4196 or SRM:4199	Sport and Recreation Field Experience or Interscholastic Athletic Administration Field Experience or Independent Sport and Recreation Field Experience	3
Major: concentration course		3
GE CLAS Core: Literary, Visual, and Performing Arts [b]		3
Elective course [c]		3
	Hours	**15**
Spring		
SRM:3151	Liability in Sport and Recreation	3
SRM:4197 or SRM:4199 or SRM:4196	Sport and Recreation Field Experience or Independent Sport and Recreation Field Experience or Interscholastic Athletic Administration Field Experience	3
GE CLAS Core: Historical Perspectives [b]		3
Elective course [c]		3
Elective course [c]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [f]		
	Hours	**15**
	Total Hours	**125-131**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

c Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

d SRM:2100 is not required for the major but is strongly recommended as a way to connect with the program and be prepared for the field experience opportunities.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Therapeutic Recreation, BS

Therapeutic recreation is a professional field that involves providing recreation programs designed to improve or maintain the physical, emotional, mental, and social functioning of patients and consumers. Therapeutic practice involves a continuum of services that use recreational activities to improve functional abilities; leisure education to help individuals acquire skills, knowledge, and attitudes that facilitate an independent lifestyle; and other programs to enhance health, growth, development, and independence through intrinsically rewarding leisure activities. Additionally, inclusive recreation provides opportunities for people with all abilities and disabilities to participate together in meaningful and purposeful therapeutic recreation programs based on choice and common interests.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

The BS degree in therapeutic recreation:

- instills an understanding and appreciation of leisure, recreation, and play in various settings;
- prepares students for professional fields and/or graduate study through the integration of research and critical thinking;
- provides service and experiential learning to enhance students' leadership strengths and their ability to build therapeutic relationships;
- teaches critical skills necessary to assess, plan goals, design appropriate interventions, and evaluate effectiveness;
- instructs students in the practice of inclusion for persons of various abilities and backgrounds; and
- teaches students how to facilitate therapeutic recreation programs.

Requirements

The Bachelor of Science with a major in therapeutic recreation requires a minimum of 120 s.h., including 58–66 s.h. of work for the major, which varies by track. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The therapeutic recreation program prepares students for professional work with persons in various populations and as advocates for participant inclusion. The major emphasizes the use of a systematic process of assessment, planning, implementation, and evaluation to provide opportunities for recreation, leisure, and play.

The curriculum consists of two tracks designed to allow students to acquire in-depth knowledge in their chosen area of interest. The courses in each track provide an opportunity for students to tailor the degree to best fit their career goals and academic interests. The inclusive recreation track (58–63 s.h.) allows students to gain knowledge in a variety of domains related to adaptive recreation. Students may choose to focus on a certain client population or vary their experience through their curriculum design. The National Council on Therapeutic Recreation Certification (NCTRC) track (63–66 s.h.) focuses on developing therapeutic recreation competencies necessary to sit for the National Council on Therapeutic Recreation Certification examination and successfully pursue a career in clinical or community therapeutic recreation.

The BS with a major in therapeutic recreation requires the following coursework.

Requirements	Hours
Core Courses	33-36
Track Requirements (varies by track)	25-30

Students in both tracks are required to complete the following core courses, as well as additional courses required specifically for their track.

Core Courses

Course #	Title	Hours
This course:		
PSY:1001	Elementary Psychology	3
One of these:		
HHP:2130	Human Development Through the Life Span	3
NURS:1030	Human Development and Behavior	3
One of these:		
PSY:2501	Introduction to Social Psychology	3
SOC:1010	Introduction to Sociology	3
One of these:		
HHP:1400	Human Anatomy and Physiology	3
HHP:2100 & HHP:2400	Human Anatomy and Fundamentals of Human Physiology	6
One of these:		
TR:1800/ASP:1800/ CSD:1800/ NURS:1800/ SSW:1800	Aging Matters: Introduction to Gerontology	3
TR:3175/HHP:3175	Physical Activity and Recreation for Aging Populations	3
All of these:		
TR:1070	Leisure, Play, and the Human Experience	3
TR:2061/HHP:2061	Recreation Leadership and Programming	3
TR:2077	Children and Families in Healthcare	3
TR:2160	Introduction to Therapeutic Recreation	3
TR:3162	Therapeutic Recreation: Clientele	3
TR:3261/HHP:3261	Inclusive Recreation	3

Tracks

Students select one of the following tracks and complete the requirements.

Inclusive Recreation Track

Requirements—Inclusive Recreation Track

Inclusive recreation in community-based settings is the fastest-growing area of practice in therapeutic recreation and the most varied. Community-based inclusive recreation specialists may be affiliated with community recreation departments, adaptive sports programs, school systems, independent living support services, special recreation associations, and community mental health agencies. The goals of inclusive recreation in community-based settings include enhancing quality of life, leisure education, health protection, the pursuit of positive health outcomes, and community integration in recreation programs.

Students who complete this track are not eligible for the National Council on Therapeutic Recreation Certification exam or for the Certified Therapeutic Recreation Specialist credential.

Students earn a minimum of 25–27 s.h. in this track. Coursework is selected around several themes relevant for foundational comprehension and practice in the field.

Inclusive Recreation Coursework

Course #	Title	Hours
Social Foundations		
Two of these:		
GWSS:3100	LGBTQ/Queer Studies	3
GWSS:3138/ SJUS:3138	Writing to Change the World	3
HIST:2250/ GWSS:2250/ SJUS:2250	The History of Social Justice Movements	3
SOC:1030	Contemporary Social Problems	3
SPST:1074/ AMST:1074/ GWSS:1074	Inequality in American Sport	3
SSW:1022/ SOC:1022	Social Justice and Social Welfare in the United States	3
SSW:3712/ NURS:3712	Human Sexuality, Diversity, and Society	3
Culture		
One of these:		
HHP:2280	Cultural Competency and Health	3
HHP:4280	Applied Cultural Safety and Healthcare	3
CCCC:2220	Foundations of Critical Cultural Competence	3
Disability Studies and Inclusive Interventions		
Both of these:		
TR:3300/HHP:3361	Animal-Assisted Interventions in the Helping Professions	3
DST:1101	Introduction to Disability Studies	3
Administration and Nonprofit		
One of these:		
TR:3262	Therapeutic Recreation Administration	3
MGMT:3500/ ENTR:3595/ MUSM:3500/ NURS:3595/ RELS:3700/ SSW:3500	Nonprofit Organizational Effectiveness I	3
SRM:3150	Recreation Administration	3
Human Interaction and Health Behavior		
This course:		
HHP:2200	Physical Activity and Health	3
One of these:		
TR:1010	Adapted Recreation and Physical Activity	1-3
HHP:4420	Planning and Evaluating Health Interventions	3
CSED:4175	Motivational Interviewing	3
CSED:4199	Counseling for Related Professions	3
Field Experience		
3 s.h. from these:		
TR:3164	Clinical Practice in Therapeutic Recreation	3
TR:4100	Practicum in Therapeutic Recreation	1-3
TR:4197/DST:4198/ HHP:4197	Therapeutic Recreation: Experiences in Adaptive and Inclusive Sports	3
ABRD:3712	Child Life Experiential Learning Program	3
CCP:1201	Academic Internship	1-3

NCTRC Certification Track

Requirements

Certified therapeutic recreation specialists (CTRS) work in both clinical and community-based settings with a wide variety of client populations. The most common clientele groups include persons with mental illness, persons with spinal cord and brain injuries, older adults, individuals who experience chemical dependence and substance abuse, at-risk youth, and people with developmental disabilities. Settings often focus on psychiatric or physical rehabilitation where the therapist works with a team of allied health professionals to provide treatment through recreation- and leisure-based interventions. Services may also be provided in long-term care settings where the therapist works with the health care team to provide treatment interventions and recreation opportunities to enhance the quality of life for residents in nursing homes, memory care and assisted-living centers, or respite care agencies. Many certified therapeutic recreation specialists are also employed by community and nonprofit agencies that provide services for underrepresented populations.

This is a selective track; students earn 30 s.h. of coursework for the NCTRC certification track. To enter the track they must complete 24 s.h. at the University of Iowa (or 12 s.h. for transfer students) and must have a University of Iowa GPA of at least 2.50 and a cumulative GPA of at least 2.50. Entrance to the track can occur after completion of HHP:2100 Human Anatomy or HHP:1400 Human Anatomy and Physiology, TR:1070 Leisure, Play, and the Human Experience, and TR:2160 Introduction to Therapeutic Recreation. Students who complete this track, including the therapeutic recreation internship, are eligible to sit for the National Council for

Therapeutic Recreation Certification exam. Successful completion of the exam confers the Certified Therapeutic Recreation Specialist (CTRS) credential. Students must earn a C-minus or higher in all prerequisite courses prior to admission to the NCTRC track.

NCTRC Certification Coursework

Course #	Title	Hours
All of these (17 s.h.):		
TR:3161	Assessment and Evaluation in Therapeutic Recreation	3
TR:3163	Concepts and Issues in Therapeutic Recreation: Advancement of the Profession	3
TR:3164	Clinical Practice in Therapeutic Recreation	3
TR:3262	Therapeutic Recreation Administration	3
CLSA:3750	Medical and Technical Terminology	2
PSY:2930	Abnormal Psychology: Health Professions	3

Field Experience

Course #	Title	Hours
Both of these (13 s.h.):		
TR:4190	Preinternship Seminar	1
TR:4191	Therapeutic Recreation Internship	12

Combined Programs

BS/MS in Health and Human Physiology (Child Life Subprogram)

The combined program allows qualified students to begin work toward a master's degree while they complete their bachelor's degree. It permits students to count certain courses toward both degrees, completing them in less time than they would need to complete each degree separately.

The completion of the two degrees in five years is designed for students who wish to pursue a career providing services to children and their families, primarily in the health care field. Graduates are eligible to be credentialed professionals in child life (certified child life specialist). They fill positions such as child life specialist, activity director, or administrative positions.

Students follow the standard curriculum of their BS degree the first two years and complete all the prerequisite courses for the MS in health and human physiology with a child life subprogram during the third year. Successful students receive a BS at the end of the fourth year and an MS at the end of the fifth year.

Applicants to the combined program must:

- be enrolled as a BS student at the University of Iowa;
- have completed a minimum of 80 s.h. at the time of admission to the combined program, with at least 30 s.h. earned at the University of Iowa;
- have completed all GE CLAS Core requirements and all prerequisites; and
- have a cumulative University of Iowa grade-point average of at least 3.25.

Applicants must submit a letter of application to the program that includes a statement of purpose, a résumé, documentation of paid or volunteer experience in a child life and/or pediatric health care setting, and three letters of recommendation.

Each application is reviewed by the program and requires support from the applicant's undergraduate advisor. Recommendations for approval will be sent to Graduate Admissions. Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

For more information about applying to the combined program, contact the child life program in the Department of Health, Sport, and Human Physiology.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must maintain an overall grade-point average (GPA) of at least 3.33 in work for their major and a cumulative University of Iowa GPA of at least 3.33.

In order to graduate with honors, students must successfully complete TR:4194 Honors Readings and TR:4195 Honors Problems, in which they conduct a reading or research project under the supervision of a faculty member in their major and write a paper summarizing the project's results.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the therapeutic recreation major.

Career Advancement

Graduates find jobs in a variety of settings. Therapeutic recreation professionals are employed in settings such as skilled nursing facilities, community recreation centers, state and community mental health institutions, general medical hospitals, physical rehabilitation centers, special recreation districts, the Special Olympics, correctional facilities, senior living communities, facilities for persons with intellectual disabilities or mental illness, substance abuse programs, and camp programs as inclusion specialists. The majority of children’s hospitals and pediatric units in other health care facilities employ child life specialists to address cognitive, social, and psychological issues associated with child illness and hospitalization. Child life specialists also work in rehabilitation centers, private practice and consulting, school systems, special-purpose camps, and hospices.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: eleven courses.

Before the seventh semester begins: two more major requirement courses, 3 s.h. of supporting coursework, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two more major requirement courses and the remaining supporting coursework.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Therapeutic Recreation, BS

- Inclusive Recreation Track [p. 543]
- NCTRC Certification Track [p. 544]

Inclusive Recreation Track

Course	Title	Hours
Academic Career		
Any Semester		
Students may declare the Therapeutic Recreation (Inclusive Recreation) BS major at any point in their academic career.		
GE CLAS Core: Sustainability		
	Hours	**0**
First Year		
Fall		
PSY:1001	Elementary Psychology [a]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: International and Global Issues [b]		3
CSI:1600	Success at Iowa	1
Elective course [c]		4
	Hours	**14-15**
Spring		
PSY:2501 or SOC:1010	Introduction to Social Psychology [a] or Introduction to Sociology	3
TR:1070	Leisure, Play, and the Human Experience [a]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Historical Perspectives [b]		3
GE CLAS Core: Literary, Visual, and Performing Arts [b]		3
	Hours	**15-16**
Second Year		
Fall		
DST:1101	Introduction to Disability Studies [a, d]	3
TR:2160	Introduction to Therapeutic Recreation	3
Major: human anatomy and physiology requirement [a, e]		3, 6
GE CLAS Core: World Languages First Level Proficiency or elective course [c, f]		4 - 5
Elective course [c]		2
	Hours	**15-19**
Spring		
NURS:1030 or HHP:2130	Human Development and Behavior or Human Development Through the Life Span	3
TR:2077	Children and Families in Healthcare	3
GE CLAS Core: Natural Sciences with Lab [b]		4
GE CLAS Core: Quantitative or Formal Reasoning [b]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c, f]		4 - 5
	Hours	**17-18**
Third Year		
Fall		
HHP:2200	Physical Activity and Health [d]	3
TR:2061	Recreation Leadership and Programming	3
IR Track: Social Foundations course [d, g]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c, f]		4 - 5
Elective course [c]		3
	Hours	**16-17**
Spring		
TR:1800 or TR:3175	Aging Matters: Introduction to Gerontology [a] or Physical Activity and Recreation for Aging Populations	3
TR:3162	Therapeutic Recreation: Clientele	3
IR Track: Field Experience or elective course [c, h]		1 - 3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c, f]		4 - 5
Elective course [c]		3
	Hours	**14-17**
Fourth Year		
Fall		
HHP:2280 or CCCC:2220 or HHP:4280	Cultural Competency and Health [d] or Foundations of Critical Cultural Competence or Applied Cultural Safety and Healthcare	3
TR:3261	Inclusive Recreation	3
IR Track: Social Foundations course [d, g]		3
IR Track: Field Experience or elective course [c, h]		1 - 3
Elective course [c]		3

Elective course [c]		3
	Hours	**16-18**
Spring		
SRM:3150 or MGMT:3500 or TR:3262	Recreation Administration [d] or Nonprofit Organizational Effectiveness I or Therapeutic Recreation Administration	3
TR:3300	Animal-Assisted Interventions in the Helping Professions [d]	3
IR Track: Human Interaction and Health Behavior course [d, g]		3
Elective course [c]		3
Elective course [c]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15**
	Total Hours	**122-135**

a Fulfills a major requirement and may fulfill a GE requirement.

b GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

c Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

d This course fulfills a themed area within the Inclusive Recreation Track.

e Students must complete either HHP:1400 (3 s.h.) or both HHP:2100 and HHP:2400 (6 s.h.).

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g See the General Catalog for list of approved courses.

h Complete 3 s.h. of field experience coursework; see the General Catalog for list of approved courses.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

NCTRC Certification Track

Course	Title	Hours
Academic Career		
Any Semester		
The Therapeutic Recreation (NCTRC Certification) BS program is a selective track. Entrance to the track can occur after requirements are met. [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
PSY:1001	Elementary Psychology [c]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
CSI:1600	Success at Iowa	1
Elective course [e]		4
	Hours	**14-15**
Spring		
TR:1070	Leisure, Play, and the Human Experience	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
Elective course [e]		3
	Hours	**15-16**
Second Year		
Fall		
PSY:2501 or SOC:1010	Introduction to Social Psychology [c] or Introduction to Sociology	3
TR:2160	Introduction to Therapeutic Recreation	3
Major: human anatomy and physiology requirement [c, f, g]		3, 6
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [e, h]		4 - 5
Admission Application: apply to the Therapeutic Recreation (NCTRC Certification) BS program. [i]		
	Hours	**16-20**
Spring		
TR:2061	Recreation Leadership and Programming	3
TR:2077	Children and Families in Healthcare	3
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
GE CLAS Core: World Languages Second Level Proficiency or elective course [e, h]		4 - 5
	Hours	**17-18**
Third Year		
Any Semester		
The curriculum shown in the third and fourth years on this plan begins upon acceptance into the Therapeutic Recreation (NCTRC Certification) BS program. [i]		
	Hours	**0**
Fall		
CLSA:3750	Medical and Technical Terminology	2
NURS:1030 or HHP:2130	Human Development and Behavior or Human Development Through the Life Span	3

TR:3161	Assessment and Evaluation in Therapeutic Recreation	3
TR:3163	Concepts and Issues in Therapeutic Recreation: Advancement of the Profession	3
GE CLAS Core: World Languages Third Level Proficiency or elective course [e, h]		4 - 5
	Hours	**15-16**
Spring		
PSY:2930	Abnormal Psychology: Health Professions	3
TR:3175 or TR:1800	Physical Activity and Recreation for Aging Populations [c] or Aging Matters: Introduction to Gerontology	3
TR:3162	Therapeutic Recreation: Clientele	3
TR:4190	Preinternship Seminar	1
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e, h]		4 - 5
	Hours	**14-15**
Fourth Year		
Fall		
TR:3164	Clinical Practice in Therapeutic Recreation	3
TR:3261	Inclusive Recreation	3
TR:3262	Therapeutic Recreation Administration	3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**
Spring		
TR:4191	Therapeutic Recreation Internship	12
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
Exam: National Council for Therapeutic Recreation Certification [k]		
	Hours	**15**
	Total Hours	**121-130**

a The Academic Advising Center advises Therapeutic Recreation Interest students on prerequisite course planning. Students are advised for success, based on academic strength, not necessarily for a four year plan. Prerequisites may take more than two years to complete.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Fulfills a major requirement and may fulfill a GE requirement.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Completion of HHP:2100 or HHP:1400 is required for admission to the Therapeutic Recreation (NCTRC Certification) BS program.

g Students must complete either HHP:1400 (3 s.h.) or both HHP:2100 and HHP:2400 (6 s.h.).

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i Applicants for admission should use the application form on the Department of Health and Human Physiology website. Completed applications typically must be submitted in October for admission the following spring or in March for admission the following fall. For more information see your advisor.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

k Students who complete the curriculum, including the therapeutic recreation internship, are eligible to sit for the National Council for Therapeutic Recreation Certification exam. Successful completion of the exam confers the Certified Therapeutic Recreation Specialist (CTRS) credential.

Human Physiology, Minor

Requirements

The undergraduate minor in human physiology requires a minimum of 17 s.h. in Department of Health, Sport, and Human Physiology courses. Students must maintain a grade-point average of at least 2.00 in all courses taken for the minor and in all UI courses to earn the minor. Coursework in the minor may not be taken pass/nonpass. Transfer credit does not count toward the minor.

Students who earn a BS in human physiology may not earn the minor in human physiology.

The minor is designed to provide an in-depth study of human structure and function. Students must complete a human physiology course plus elective coursework as indicated in the "Electives" course list. Some of these courses have prerequisites; students must complete all of a course's prerequisites before they may register for the course.

The minor in human physiology requires the following coursework.

Core Course

Course #	Title	Hours
This course:		
HHP:3550	Human Physiology With Laboratory	5

Electives

Course #	Title	Hours
12 s.h. from these:		
HHP:3105	Anatomy for Human Physiology	3
HHP:3110	Advanced Anatomy Laboratory	2
HHP:3115	Anatomy for Human Physiology With Lab	5
HHP:3300	Human Growth and Motor Development	3
HHP:3450	Immunology in Health and Disease	3
HHP:4110	Advanced Human Anatomy Laboratory	4
HHP:4130	Skeletal Muscle Physiology	3
HHP:4150	Clinical Exercise Physiology	3
HHP:4230	Motor Learning: Theory and Application	3
HHP:4250	Human Pathophysiology	3
HHP:4260	Respiratory Pathophysiology	3
HHP:4300	Neurophysiology	3
HHP:4410	Integrative Physiology of Exercise	3
HHP:4450	Human Genetics and Disease	3-4
HHP:4460	Cardiovascular Physiology	3
HHP:4470/ASP:4470	Physiology of Aging	3
HHP:4510	Energetics in Health and Disease	3

Inclusive Recreation, Minor

Requirements

The undergraduate minor in inclusive recreation requires a minimum of 15 s.h., including at least 12 s.h. taken at the University of Iowa in courses offered by the Department of Health, Sport, and Human Physiology. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/non-pass.

Students who earn a Bachelor of Science degree with a major in therapeutic recreation, either the inclusive recreation track or National Council on Therapeutic Recreation Certification (NCTRC) track, may not earn the minor in inclusive recreation. Students who earn the Bachelor of Arts degree with a major in health studies may not earn the minor in inclusive recreation.

For the minor, students complete required courses that focus on various populations and interventions to promote inclusive recreation and participation in leisure.

The minor in inclusive recreation requires the following coursework.

Foundational Courses

Course #	Title	Hours
All of these:		
TR:1070	Leisure, Play, and the Human Experience	3
TR:2160	Introduction to Therapeutic Recreation	3
TR:3261	Inclusive Recreation	3

Electives

Students choose at least two courses (6 s.h.) from "Client Population Electives" and/or "Recreation Electives" that align with their interests.

Course #	Title	Hours
At least two of these (6 s.h.):		
Client Populations Electives		
DST:1101	Introduction to Disability Studies	3
HHP:2130	Human Development Through the Life Span	3
TR:1800/ASP:1800/ CSD:1800/ NURS:1800/ SSW:1800	Aging Matters: Introduction to Gerontology	3
TR:2077	Children and Families in Healthcare	3
TR:3162	Therapeutic Recreation: Clientele	3
TR:3175/HHP:3175	Physical Activity and Recreation for Aging Populations	3
TR:3300	Animal-Assisted Interventions in the Helping Professions	3
Recreation Electives		
TR:2061	Recreation Leadership and Programming	3
TR:3262	Therapeutic Recreation Administration	3
TR:4197/DST:4198/ HHP:4197	Therapeutic Recreation: Experiences in Adaptive and Inclusive Sports	3
ABRD:3712	Child Life Experiential Learning Program	3

Lifestyle Medicine, Minor

Requirements

The minor in lifestyle medicine requires a minimum of 15 s.h. in the Department of Health, Sport, and Human Physiology, including 12 s.h. in courses taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

The minor in lifestyle medicine focuses on whole-person health by providing students the knowledge, skill, and ability to help individuals improve their health and well-being and prevent the onset and/or progression of chronic diseases. The minor prepares students to incorporate the principles of evidence-based lifestyle medicine in health and wellness-related careers.

Students who earn a BA in health studies, a BS in health promotion, or a BS in exercise science may not earn the minor in lifestyle medicine. Students who earn a BS in human physiology may earn the minor in lifestyle medicine.

The minor requires the following coursework.

Core Courses

Course #	Title	Hours
All of these:		
HHP:2200	Physical Activity and Health	3
HHP:2310	Nutrition and Health	3
HHP:3030	Lifestyle Medicine	3

Electives

Course #	Title	Hours
Two of these:		
HHP:3045	Physical Activity Psychology	3
HHP:3050	Obesity	3
HHP:3200	Health Behavior and Health Promotion	3
HHP:4010	Behavioral and Clinical Health Assessment Laboratory	4
HHP:4020	Health Coaching	3
HHP:4330	Physical Activity and Dietary Behavior Change	3
HHP:4365	Internship in Health Coaching	3
HHP:4490	International Health: Experiential Learning	3

Sport and Recreation Management, Minor

Requirements

The undergraduate minor in sport and recreation management requires a minimum of 15 s.h. in Department of Health, Sport, and Human Physiology courses, including at least 9 s.h. in courses numbered 3000 or above. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. A maximum of 3 s.h. of transfer credit may be accepted toward the minor with the approval of the sport and recreation management program director.

Students who earn a BS in sport and recreation management may not earn the minor in sport and recreation management.

Online Option

The minor in sport and recreation management may be earned through coursework that is offered online. For more information, contact the Department of Health, Sport, and Human Physiology.

Requirements

The minor in sport and recreation management requires the following coursework.

Students take 15 s.h. from the following list, including at least one introductory course numbered 1000–1999 and at least 9 s.h. in coursework numbered 3000 or above. No more than 3 s.h. combined from SRM:4196 Interscholastic Athletic Administration Field Experience, SRM:4197 Sport and Recreation Field Experience, and SRM:4199 Independent Sport and Recreation Field Experience may count toward the minor.

Course #	Title	Hours
Between 3-6 s.h. from these:		
SRM:1046	Health for Happiness	3
SRM:1049	Foundations for Sport and Physical Activity: Catalyst for Sustainable Communities	3
SRM:1060	Contemporary Issues in Sports	3
SRM:1070	Recreation and Parks in the United States: Foundations and Impact	3
SRM:1085	Introduction to Travel and Tourism	3
At least 9 s.h. from these:		
SRM:2100	Professional Preparation for Careers in Sport: Building Your Playbook	1
SRM:3050	Collaborative Leadership in Sport and Recreation	3
SRM:3143	Youth Sports Administration	3
SRM:3144	Program Design for Recreational Services	3
SRM:3145	Leadership and Group Dynamics in Recreation and Sport	3
SRM:3146	Sports Officiating: Rules, Theories, and Issues	3
SRM:3147	Sport Event Management	3
SRM:3148	Interscholastic Activities and Athletics Administration	3
SRM:3149	Coaching Theory, Body Structure, and Human Development (this course and SRM:3155 together allow students to apply for state of Iowa coaching authorization)	3
SRM:3150	Recreation Administration	3
SRM:3151	Liability in Sport and Recreation	3
SRM:3152	Design and Management of Sport and Recreation Facilities	3
SRM:3153	Sport Business Practices	3
SRM:3154	Foundations of Event Management	3
SRM:3155	Prevention and Care of Athletic Injuries for Coaches (this course and SRM:3149 together allow students to apply for state of Iowa coaching authorization)	3
SRM:3157	Managerial Operations in Sport and Recreation	3
SRM:3158	Sport and Recreation Promotion	3
SRM:3172	Finance in Sport and Recreation	3
SRM:3175	Sales in Sport	3
SRM:3176	Sports Analytics for Decision Makers	3
SRM:3178	Communications and Public Relations in Sports	3
SRM:3179	Podcasting for Sport and Recreation Professionals	3
SRM:3200	Topics in Sport and Recreation Management	3
SRM:3210	Event Bidding: Processes and Strategies	3
SRM:3240	Name, Image, and Likeness (NIL) in College Athletics	3
SRM:3300	Writing for Sport and Recreation Managers	3
SRM:3700	Ethics in Sport	3
SRM:3800	Sport Law for Interscholastic Athletic Directors	3
SRM:4158	Advanced Sport Marketing	3
SRM:4178	Media Relations Strategy in Sport and Recreation	3
SRM:4198	NCAA Rules Compliance and Enforcement	3
SRM:4240	Name, Image, and Likeness (NIL): Simulated Agency Experience	3
May include a maximum of 3 s.h. from these:		

SRM:4196	Interscholastic Athletic Administration Field Experience	1-3
SRM:4197	Sport and Recreation Field Experience	3
SRM:4199	Independent Sport and Recreation Field Experience	1-3

Interscholastic Athletic/ Activities Administration, Certificate

Requirements

The undergraduate Certificate in Interscholastic Athletic/ Activities Administration requires a minimum of 21 s.h. Students must maintain a grade-point average of at least 2.00 in work for the certificate.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

The certificate is an option for educators and other professionals who already have a degree but may wish to pursue career opportunities in interscholastic athletics/ activities administration. Students who want to earn the certificate and do not want to pursue a degree may apply as nondegree students.

Students may transfer up to 9 s.h. of credit toward certificate completion. Contact the Department of Health, Sport, and Human Physiology for guidance on submitting courses from other institutions that may be approved for certificate credit. Field experience taken elsewhere is not eligible for use toward the certificate.

Some courses have prerequisites; students must complete all of a course's prerequisites before they may register for the course.

The Certificate in Interscholastic Athletic/Activities Administration requires the following coursework.

Core Courses

Course #	Title	Hours
All of these:		
SRM:3148	Interscholastic Activities and Athletics Administration	3
SRM:3700	Ethics in Sport	3
SRM:3800	Sport Law for Interscholastic Athletic Directors	3
EPLS:4200	Athletic Administration in Educational Settings	3

Field Experience

Field experience is essential to the completion of the National Interscholastic Athletic Administrators Association (NIAAA) requirements for first-level certification as a registered athletic administrator (RAA). Students must complete a minimum of 3 s.h. in the following course with an approved partner and oversight from Experiential Learning (sport and recreation management) in the Department of Health, Sport, and Human Physiology.

Course #	Title	Hours
SRM:4196	Interscholastic Athletic Administration Field Experience	arr.

Electives

Students select a minimum of 6 s.h. from the following.

Course #	Title	Hours
SRM:3146	Sports Officiating: Rules, Theories, and Issues	3
SRM:3147	Sport Event Management	3
SRM:3149	Coaching Theory, Body Structure, and Human Development (this course and SRM:3155 together allow students to apply for state of Iowa coaching authorization)	3
SRM:3150	Recreation Administration	3
SRM:3155	Prevention and Care of Athletic Injuries for Coaches (this course and SRM:3149 together allow students to apply for state of Iowa coaching authorization)	3
SRM:3176	Sports Analytics for Decision Makers	3
SRM:3200	Topics in Sport and Recreation Management (when topic is the politics of sports)	3
SRM:3210	Event Bidding: Processes and Strategies	3
ARTS:1070	Elements of Graphic Design	3
COMM:1819	Organizational Leadership	3
EDTL:4940	Characteristics of Disabilities	3
EPLS:4180	Human Relations for the Classroom Teacher	3
EPLS:6201	Foundations of School Administration	3
JMC:1300	Introduction to Journalism and Strategic Communication	3
PSQF:1075	Educational Psychology and Measurement	3
PSQF:3115	Sport and Performance Psychology	3
PSQF:4134/ EDTL:4934	Parent-Teacher Communication	1-3
RHET:2085	Speaking Skills	3

Sport and Recreation Management, MA

Learning Outcomes

Graduates will be able to:

- apply and analyze financial and risk management principles and marketing and promotion strategies in the sport and recreation industries;
- demonstrate a comprehensive understanding of leadership principles in the sport and recreation industries;
- demonstrate a comprehensive understanding of the experience economy and its application in the sport and recreation industries;
- demonstrate the ability to perform research for and apply findings to the sport and recreation industries;
- express ideas clearly, logically, and persuasively in both oral and written formats;
- demonstrate critical thinking, teamwork, project management, and presentation principles to unique sport and recreation organization challenges;
- develop a career objective and begin to implement a clear plan for achieving it; and
- demonstrate an understanding of and the ability to apply ethical decision-making to sport and recreation industry challenges.

Requirements

The Master of Arts program in sport and recreation management requires a minimum of 30 s.h. Required coursework (21 s.h.) includes experiential learning in a field experience course and a capstone course that allows students to perform research in an area of interest that has practical application during the final semester before graduation.

The MA in sport and recreation management requires the following coursework.

Required Courses

Course #	Title	Hours
All of these:		
SRM:4197	Sport and Recreation Field Experience	3
or SRM:4199	Independent Sport and Recreation Field Experience	
SRM:6250	Research in Sport and Recreation	3
SRM:6251	Risk Management	3
SRM:6252	Economics and Financing	3
SRM:6253	Sport Administration	3
SRM:6254	Marketing and Sport Promotion	3
SRM:6255	Capstone Project	3

Electives

Students must complete 9 s.h. in elective coursework selected in consultation with an advisor. Students may select electives from the following list or propose alternative elective courses numbered 3000 or above to be taken with advisor approval.

In addition to the courses listed, students may apply to the elective requirement a maximum of 3 s.h. total from SRM:4197 Sport and Recreation Field Experience and SRM:4199 Independent Sport and Recreation Field Experience.

Course #	Title	Hours
Sport and recreation management courses (prefix SRM) numbered 3144-4158		
SRM:4178	Media Relations Strategy in Sport and Recreation	3
SRM:4198	NCAA Rules Compliance and Enforcement	3
SRM:4240	Name, Image, and Likeness (NIL): Simulated Agency Experience	3
CSED:4140	Foundations of Leadership for Community Agencies	3
CSED:4174	Positive Psychology	3
EALL:4130/ MUSM:4150	Introduction to Grant Writing	3
EPLS:4200	Athletic Administration in Educational Settings	3
EPLS:5250	Introduction to Higher Education and Student Affairs	3
EPLS:5252	Administration of Higher Education and Student Affairs	3
EPLS:5278	Helping Skills in Student Affairs Work	3
EPLS:6216	Finance in Higher Education	3
JMC:3182/ SMC:3182/ SPST:3182	Sport, Scandal, and Strategic Communication in Media Culture	3
JMC:3183/ SPST:3175	Sport and the Media	3
JMC:3710/ MUSM:3710	Fundraising Fundamentals	3
JMC:5220	Foundations of Strategic Communication	3
JMC:5225	Digital Strategic Communication	3
JMC:5260	Digital Analytics for Strategic Communication	3
JMC:5269	Media Management for Strategic Communicators	3
LAW:8879	Sports Law	2-3
LAW:8880	Baseball Salary Arbitration	1-3
LAW:8881	College Athletics Infractions Process	1-2
MGMT:9150/ HMP:6360/ PBAF:6278/ RELS:6070/ SPST:6010/ SSW:6247/ URP:6278	Nonprofit Organizational Effectiveness I	3

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants must also meet sport and recreation management program requirements, which include:

- a U.S. baccalaureate degree from a regionally accredited college or university or an equivalent degree from another country as determined by Admissions;
- a minimum grade-point average of at least 3.00 or the international equivalent as determined by Admissions;
- a personal statement;
- three letters of recommendation; and
- a résumé.

Application deadlines are:

- Fall semester—Feb. 1
- Spring semester—Oct. 1
- Summer session—Feb. 1

Applications submitted after the deadline will be considered only if there is available space.

Career Advancement

Through academic coursework, practical experience, an individualized capstone project, and a network of industry contacts, the program is designed to help students achieve their unique professional and educational goals. Alumni find employment in such settings as professional team front offices, college and high school athletic departments, campus and community recreation programs, agencies serving sport and recreation clients, league offices, coaching, and in a number of other areas.

The faculty provides individual mentoring to students and offers several opportunities for students to connect with industry professionals throughout the year to learn about internships and jobs.

Experiential Learning in the sport and recreation management program in the Department of Health, Sport, and Human Physiology assists students in finding their specific connection to the industry. The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Sport and Recreation Management, MA

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
SRM:6251	Risk Management	3
SRM:6252	Economics and Financing	3
Elective course [b]		3
	Hours	**9**
Spring		
SRM:4197 or SRM:4199	Sport and Recreation Field Experience or Independent Sport and Recreation Field Experience	3
SRM:6253	Sport Administration	3
SRM:6254	Marketing and Sport Promotion	3
	Hours	**9**
Second Year		
Fall		
SRM:6250	Research in Sport and Recreation	3
Elective course [b]		3
Elective course [b]		3
	Hours	**9**
Spring		
SRM:6255	Capstone Project [c]	3
	Hours	**3**
	Total Hours	**30**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Students must complete 9 s.h. in elective coursework; see the General Catalog for list of approved courses. May apply a maximum total of 3 s.h. from SRM:4197 and SRM:4199. Work with faculty advisor to determine appropriate graduate elective coursework and sequence.

c Includes oral and written components.

Health and Human Physiology, MS

The MS in health and human physiology is offered with three subprograms. The child life subprogram provides expertise in child development through services to support families and to promote children's mastery of life experiences, particularly children's health care events. Professionals in this area enhance effective coping skills through play, education, communication, and family-centered care. The program prepares students to meet credentialing requirements. For more information about the profession, visit the Association of Child Life Professionals.

The clinical exercise physiology subprogram provides advanced scientific and clinical education. It prepares students to be allied health professionals who work in the application of physical activity and behavioral interventions for clinical diseases and health conditions including cardiovascular, pulmonary, metabolic, orthopedic, neuromuscular, immunologic, and hematologic diseases.

Learning Outcomes

Child Life Subprogram

Graduates will:

- demonstrate an understanding of developmental and psychosocial needs of children and families in health care settings and the assessment, planning, implementation, and documentation of developmentally appropriate child life interventions;
- demonstrate an understanding of stressful life experiences and coping techniques for children and families from a family systems perspective;
- demonstrate the ability to maintain relationships with children, families, peers, and an approach to teamwork and collaboration skills;
- demonstrate an understanding of therapeutic play and creating a therapeutic environment with opportunities in health care and community settings;
- demonstrate effective oral and written communication and strong critical thinking skills;
- learn to analyze and present research and evidenced-based practice related to children and families;
- prepare for the role of a certified child life specialist in hospitals and community-based facilities; and
- successfully complete a child life practicum, a child life internship, and meet all requirements and pass the certification exam.

Clinical Exercise Physiology Subprogram

Graduates will:

- demonstrate a comprehensive understanding of normal and abnormal cardiovascular, respiratory, and exercise physiology;
- demonstrate a comprehensive understanding of pharmacokinetics, mechanisms of action, indication, contraindication, and names of common cardiac, vascular, metabolic, pulmonary, hematological, and neurological drugs;
- demonstrate a comprehensive understanding of physical activity assessment, the major determinants of physical activity behaviors, and the application of physical activity behavior change strategies;
- demonstrate a comprehensive understanding of metabolic exercise testing and exercise prescription for healthy adults;
- demonstrate understanding of beginning and intermediate electrocardiography (ECG), exercise testing, and exercise prescription for adults with cardiovascular, pulmonary, or metabolic disease;
- demonstrate competency in clinical skills, including taking health screening, heart rate pulse, blood pressure, and pulse oximetry at rest and during exercise;
- understand basic research methods, study design, and statistical analysis; and
- read, interpret, and critique scientific papers in clinical exercise physiology.

MS in Health and Human Physiology Without Subprogram

Graduates will:

- demonstrate understanding and critical evaluation of the scholarly literature in the area of specialization within human physiology and/or health promotion;
- formulate testable research questions and hypotheses resulting in proper experimental study design and analysis plan;
- conduct quantitative or qualitative research including data collection, analysis, and interpretation of results in the context of current scientific knowledge; and
- present scientific results to the department, university, or regional/national scientific community.

Requirements

The Master of Science in health and human physiology requires 30–36 s.h. of graduate credit. Required credit varies by subprogram: the child life subprogram requires a minimum of 36 s.h. and is offered without a thesis; the clinical exercise physiology subprogram requires a minimum of 33 s.h. and is offered without a thesis; the MS program in health and human physiology without a subprogram requires a minimum of 30 s.h. and is offered with a thesis.

Students interested in pursuing a PhD after earning a master's degree should choose the MS in health and physiology program with a thesis.

Child Life Subprogram

The MS in health and human physiology with the child life subprogram requires the following coursework. All courses except PSQF:4143/STAT:4143 are required to be taken on an A–F graded basis.

Requirements	Hours
Child Life Core Courses	27
Child Life Internship	9
Comprehensive Exam	

Child Life Core Courses

Course #	Title	Hours
All of these:		
TR:5165	Child Life: Child Development and Healthcare Interventions	3
TR:5166	Child Life: Seminar	3
TR:5167	Child Life Practicum	3
TR:5211	Professional Ethics and Practice in Pediatrics	3
TR:5260	Play and Childhood	3
TR:5261	Family Systems	3
CSED:4131	Loss, Death, and Bereavement	3
PSQF:4143/ STAT:4143	Introduction to Statistical Methods	3
One of these:		
HHP:6020	Advanced Research Methods	3
TR:5205	Research Methods and Play Behavior	3

Child Life Internship

Students take TR:5270 Child Life Internship for 9 s.h. The supervised internship requires 600 contact hours with a certified child life specialist.

Child Life Comprehensive Exam

Students who pursue the child life subprogram must successfully pass a comprehensive exam in the last semester prior to their child life internship. The comprehensive exam committee works with each student to develop exam questions.

Clinical Exercise Physiology Subprogram

The Master of Science with the clinical exercise physiology subprogram requires the following coursework. All courses except HHP:5935 Clinical Exercise Physiology Internship must be taken on an A–F graded basis.

Requirements	Hours
Clinical Exercise Physiology Core Courses	14-25
Statistics Course	3
Clinical Exercise Physiology Internship	3-6
Electives	0-13

Clinical Exercise Physiology Core Courses

Course #	Title	Hours
Both of these:		
HHP:6020	Advanced Research Methods	3
PCOL:3101	Pharmacology I: A Drug's Fantastic Journey	3
One of these:		
HHP:4020	Health Coaching	3
HHP:6030	Physical Activity and Dietary Behavior Change	3

With the permission of an advisor, students who have a prior undergraduate equivalent to any of these courses enroll in the 1 s.h. option.

Course #	Title	Hours
All of these:		
HHP:6150	Advanced Clinical Exercise Physiology	1,3
HHP:6200	Advanced Metabolic Exercise Testing and Prescription	1,4
HHP:6260	Advanced Respiratory Pathophysiology	1,3
HHP:6410	Advanced Integrative Physiology of Exercise	1,3
HHP:6460	Advanced Cardiovascular Physiology	1,3

Statistics Course

Course #	Title	Hours
One of these introductory courses (or equivalent with department approval):		
BIOS:4120	Introduction to Biostatistics	3
PSQF:4143/ STAT:4143	Introduction to Statistical Methods	3
PSQF:6242	Selected Applications of Statistics	3
STAT:3510/ IGPI:3510	Biostatistics	3

Clinical Exercise Physiology Internship

Students complete an individually arranged internship, usually during their second year. They are required to enroll in HHP:5935 Clinical Exercise Physiology Internship for a minimum of 3 s.h. and are permitted to enroll in a maximum of 6 s.h.

Electives

Elective courses must bring the total credit for the degree to a minimum of 33 s.h.

Though any health, sport, and human physiology (prefix HHP) course numbered 3000 or above is approved as an elective option, students are strongly encouraged to select from the following courses, as it enhances their concentration in human and exercise physiology, clinical exercise physiology, prescriptive exercise and training for health and fitness, health maintenance, and understanding human disease.

Course #	Title	Hours
HHP:4420	Planning and Evaluating Health Interventions	3
HHP:5200	Physical Activity Epidemiology	3
HHP:6130	Advanced Skeletal Muscle Physiology	1,3
HHP:6470	Advanced Physiology of Aging	1,3
HHP:6510	Advanced Energetics in Health and Disease	1,3
HHP:7300	Advanced Sensorimotor Neurophysiology	1,3

The following courses outside the Department of Health, Sport, and Human Physiology are also approved elective

options. Additional elective options not listed here may be possible with the permission of the student's advisor.

Course #	Title	Hours
ACB:5203	Gross Human Anatomy for Graduate Students	5-6
EPID:6350	Nutritional Epidemiology	2
EPID:6360	Nutrition Intervention in Clinical Trials Research	2
EPID:6600	Epidemiology of Chronic Diseases	3
PSY:3340	Behavior Modification	3
PTRS:6224	Activity-Based Neural and Musculoskeletal Plasticity in Health Care	4
PTRS:7812	Biomedical Instrumentation and Measurement	3
PTRS:7875	Analysis of Activity-Based Neural and Musculoskeletal Plasticity	3

MS in Health and Human Physiology With Thesis

Students who intend to earn a PhD after completing the master's degree should choose the health and human physiology program with a thesis. In order to be admitted, students must hold a BS or BA degree with a GPA of at least 3.00. All courses are required to be taken on an A–F graded basis.

The MS in health and human physiology with thesis requires the following coursework.

Requirements	Hours
Required Courses	15
General Elective Courses	15

Required Courses

Course #	Title	Hours
One of these (or equivalent with department approval):		
BIOS:4120	Introduction to Biostatistics	3
PSQF:4143/ STAT:4143	Introduction to Statistical Methods	3
PSQF:6242	Selected Applications of Statistics	3
STAT:3510/ IGPI:3510	Biostatistics	3
One of these:		
BIOS:5120/ IGPI:5120/ STAT:5610	Regression Modeling and ANOVA in the Health Sciences	3
PSQF:6243/ STAT:6513	Intermediate Statistical Methods	3
All of these:		
HHP:6020	Advanced Research Methods	3
HHP:6600	Professional Skills for Graduate Students Seminar (taken twice for 1 s.h. each)	2
HHP:7500	Thesis: MS	4

General Elective Courses

With guidance from an advisor, students choose 15 s.h. in elective courses that broaden their knowledge in health and human physiology and related disciplines and enhance their knowledge in their specific areas of interest.

Though any health, sport, and human physiology (prefix HHP) course numbered 3000 or above is approved as an elective option, students are strongly encouraged to select from the following.

Course #	Title	Hours
HHP:3050	Obesity	3
HHP:3450	Immunology in Health and Disease	3
HHP:4020	Health Coaching	3
HHP:4320	Nutrition Interventions	3
HHP:4365	Internship in Health Coaching	3
HHP:4390	Understanding Human Disease	3
HHP:4420	Planning and Evaluating Health Interventions	3
HHP:4450	Human Genetics and Disease	3-4
HHP:5200	Physical Activity Epidemiology	3
HHP:6000	Research	arr.
HHP:6030	Physical Activity and Dietary Behavior Change	3
HHP:6130	Advanced Skeletal Muscle Physiology	1,3
HHP:6150	Advanced Clinical Exercise Physiology	1,3
HHP:6200	Advanced Metabolic Exercise Testing and Prescription	1,4
HHP:6260	Advanced Respiratory Pathophysiology	1,3
HHP:6410	Advanced Integrative Physiology of Exercise	1,3
HHP:6460	Advanced Cardiovascular Physiology	1,3
HHP:6470	Advanced Physiology of Aging	1,3
HHP:6510	Advanced Energetics in Health and Disease	1,3
HHP:7300	Advanced Sensorimotor Neurophysiology	1,3

The following courses outside the Department of Health, Sport, and Human Physiology are also approved elective options. Additional elective options not listed here may be possible with the permission of the student's advisor.

Course #	Title	Hours
ACB:5203	Gross Human Anatomy for Graduate Students	5-6
BMB:3110	Biochemistry	3
EPID:4400	Epidemiology I: Principles	3
EPID:6350	Nutritional Epidemiology	2
EPID:6400	Epidemiology II: Advanced Methods	4

EPID:6600	Epidemiology of Chronic Diseases	3
MPB:5153	Graduate Physiology	4
PTRS:7812	Biomedical Instrumentation and Measurement	3
PTRS:7875	Analysis of Activity-Based Neural and Musculoskeletal Plasticity	3

Admission

Applicants to the MS program must have an undergraduate grade-point average (GPA) of at least 3.00. They also must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Application deadline is Feb. 1 for admission the following fall.

Child Life Subprogram Admission

In order to be admitted to the subprogram, students must:

- hold a BS or BA degree with a GPA of at least 3.00;
- have completed one course each in human anatomy, medical terminology, and two courses in child development that focus on children and adolescents; and
- three letters of recommendation (e.g., from a certified child life specialist, professor, advisor, and/or someone who has observed the student working with children and families in health care or non-health care settings)

Students who have not completed an introductory course in child life must enroll in TR:2077 Children and Families in Healthcare during their first semester.

Clinical Exercise Physiology Subprogram

In order to be admitted to the subprogram, students must:

- hold a BS or BA degree with a GPA of at least 3.00; and
- have completed anatomy and physiology with laboratories (8 s.h.).

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Health and Human Physiology, MS

- Child Life Subprogram [p. 557]
- Clinical Exercise Physiology Subprogram [p. 558]
- Health and Human Physiology With Thesis [p. 558]

Child Life Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
36 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
TR:5165	Child Life: Child Development and Healthcare Interventions	3
TR:5260	Play and Childhood	3
TR:5261	Family Systems	3
TR:6200	Child Life Graduate Forum	0
	Hours	**9**
Spring		
PSQF:4143 or STAT:4143	Introduction to Statistical Methods or Introduction to Statistical Methods	3
TR:5166	Child Life: Seminar	3
TR:5167	Child Life Practicum	3
	Hours	**9**
Second Year		
Fall		
CSED:4131	Loss, Death, and Bereavement	3
TR:5205 or HHP:6020	Research Methods and Play Behavior or Advanced Research Methods	3
TR:5211	Professional Ethics and Practice in Pediatrics	3
TR:6200	Child Life Graduate Forum	0
Exam: Master's Final Exam [c]		
	Hours	**9**
Spring		
TR:5270	Child Life Internship [d]	9
	Hours	**9**
	Total Hours	**36**

a All courses except PSQF:4143/STAT:4143 are required to be taken on an A-F graded basis.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c Written four-hour exam covering three areas: research, child life practice, and case study analysis.
d The supervised internship requires 600 contact hours with a certified child life specialist.

Clinical Exercise Physiology Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
33 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
HHP:6020	Advanced Research Methods	3
HHP:6200	Advanced Metabolic Exercise Testing and Prescription [c]	4
Introductory statistics course or elective course [d, e]		3
	Hours	**10**
Spring		
HHP:4020 or HHP:6030	Health Coaching or Physical Activity and Dietary Behavior Change	3
HHP:6150	Advanced Clinical Exercise Physiology [c]	3
HHP:6260	Advanced Respiratory Pathophysiology [c]	3
	Hours	**9**
Second Year		
Fall		
HHP:6410	Advanced Integrative Physiology of Exercise [c]	3
HHP:6460	Advanced Cardiovascular Physiology [c]	3
PCOL:3101	Pharmacology I: A Drug's Fantastic Journey	3
	Hours	**9**
Spring		
HHP:5935	Clinical Exercise Physiology Internship [f]	3
Elective course [g]		2
Exam: Master's Final Exam [h]		
	Hours	**5**
	Total Hours	**33**

a All courses except HHP:5935 must be taken on an A-F graded basis.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c With the permission of an advisor, students who have a prior undergraduate equivalent to this course may enroll in the 1 s.h. option.
d If statistics course completed as an undergraduate, may be waived upon approval; otherwise choose one introductory course from BIOS:4120, PSQF:4143/STAT:4143, PSQF:6242, STAT:3510/IGPI:3510 and work with faculty advisor to determine which course to take.
e Work with faculty advisor to determine appropriate graduate elective coursework and sequence.
f Students complete an individually arranged internship, usually during their second year. They are required to enroll in HHP:5935 for a minimum of 3 s.h. and a maximum of 6 s.h.
g Work with faculty advisor to determine appropriate graduate elective coursework and sequence. Elective courses must bring the total credits for the degree up to a minimum of 33 s.h.
h Written one-day (4-6 hour) exam.

Health and Human Physiology With Thesis

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
HHP:6020	Advanced Research Methods	3
Introductory statistics course [c]		3
Elective course [d]		3
	Hours	**9**
Spring		
HHP:6000	Research [d]	1
HHP:6600	Professional Skills for Graduate Students Seminar [e]	1
Advanced statistics course [f]		3
Elective course [d]		3
	Hours	**8**
Second Year		
Fall		
HHP:6000	Research [d]	2
HHP:6600	Professional Skills for Graduate Students Seminar [e]	1
Elective course [d]		3
	Hours	**6**
Spring		
HHP:7500	Thesis: MS	4
Elective course [d]		3
Exam: Master's Final Exam [g]		
	Hours	**7**
	Total Hours	**30**

a All courses are required to be taken on an A-F graded basis.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c Choose one course from BIOS:4120, PSQF:4143/STAT:4143, PSQF:6242, STAT:3510/IGPI:3510.
d See the General Catalog for list of approved courses.
e Take HHP:6600 twice for 1 s.h. each.
f Choose one course from BIOS:5120/IGPI:5120/STAT:5610, PSQF:6243/STAT:6513.
g Thesis defense.

Health and Human Physiology, PhD

Learning Outcomes

Graduates will:

- demonstrate understanding and critical evaluation of the scholarly literature in the area of specialization within human physiology and/or health promotion;
- formulate testable research questions and hypotheses resulting in proper experimental study design and analysis plans;
- conduct quantitative or qualitative research including data collection, analysis, and interpretation of results in the context of current scientific knowledge;
- present research results in oral, poster, and/or written format to the scientific community;
- prepare a research grant or fellowship for an extramural federal, state, or private funding agency; and
- prepare original research manuscript(s) as the first author for submission to a peer-reviewed scientific journal.

Requirements

The Doctor of Philosophy in health and human physiology requires a minimum of 72 s.h. of graduate credit.

Doctoral students should have a strong background in the natural sciences and/or health promotion, and a working knowledge of statistics and research methodology. Students may acquire additional knowledge of statistics and research methodology after entering the program.

All PhD students complete a common core of courses, elective courses, 10 s.h. of independent research in HHP:6000 Research, and a 12 s.h. dissertation requirement in HHP:7900 Thesis: PhD. They must complete a dissertation in their specialization area.

Some courses in the program are offered by other departments. Faculty members from those departments frequently serve on comprehensive examination committees and on dissertation committees for the initial presentation of a candidate's prospectus. They also participate in the final examination.

The PhD in health and human physiology requires the following coursework.

Core Courses

Course #	Title	Hours
Both of these:		
HHP:6020	Advanced Research Methods	3
HHP:7000	Practicum in College Teaching (only for students without a teaching assistantship)	arr.

Introductory Statistics Course

Course #	Title	Hours
One of these:		
BIOS:4120	Introduction to Biostatistics	3
PSQF:4143/ STAT:4143	Introduction to Statistical Methods	3
PSQF:6242	Selected Applications of Statistics	3
STAT:3510/ IGPI:3510	Biostatistics	3

Advanced Statistics Courses

Course #	Title	Hours
Two advanced statistics courses, such as the following (consult advisor):		
BIOS:5120/ IGPI:5120/ STAT:5610	Regression Modeling and ANOVA in the Health Sciences	3
PSQF:6243/ STAT:6513	Intermediate Statistical Methods	3

Seminar Course

Course #	Title	Hours
This course:		
HHP:6600	Professional Skills for Graduate Students Seminar (taken four times for 1 s.h. each)	4

General Electives

Students are expected to obtain broad-based knowledge in their specialization area. This normally entails approximately 30 s.h. of coursework. Students choose specialization electives with guidance from their advisor/mentor. Electives may include any of the following.

Course #	Title	Hours
HHP:4020	Health Coaching	3
HHP:4320	Nutrition Interventions	3
HHP:4365	Internship in Health Coaching	3
HHP:4420	Planning and Evaluating Health Interventions	3
HHP:5200	Physical Activity Epidemiology	3
HHP:6030	Physical Activity and Dietary Behavior Change	3
HHP:6130	Advanced Skeletal Muscle Physiology	1,3
HHP:6150	Advanced Clinical Exercise Physiology	1,3
HHP:6200	Advanced Metabolic Exercise Testing and Prescription	1,4
HHP:6260	Advanced Respiratory Pathophysiology	1,3
HHP:6310	Advanced Sport and Exercise Nutrition	3
HHP:6410	Advanced Integrative Physiology of Exercise	1,3
HHP:6460	Advanced Cardiovascular Physiology	1,3
HHP:6470	Advanced Physiology of Aging	1,3
HHP:6510	Advanced Energetics in Health and Disease	1,3

HHP:7300	Advanced Sensorimotor Neurophysiology	1,3
ACB:5203	Gross Human Anatomy for Graduate Students	5-6
BMB:3110	Biochemistry	3
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3
EPID:4400	Epidemiology I: Principles	3
EPID:5241	Statistical Methods in Epidemiology	4
EPID:6100	Writing a Grant Proposal	3
EPID:6350	Nutritional Epidemiology	2
EPID:6400	Epidemiology II: Advanced Methods	4
EPID:6600	Epidemiology of Chronic Diseases	3
EPID:6900	Design of Intervention and Clinical Trials	3
FRRB:7000	Redox Biology and Medicine	4
MMED:6230	Pathogenesis of Metabolic and Cardiovascular Disorders	3
MPB:5153	Graduate Physiology	4
NSCI:7235/ NEUR:7235	Neurobiology of Disease	3
OEH:4310	Occupational Ergonomics: Principles	3
PCOL:3101	Pharmacology I: A Drug's Fantastic Journey	3
PCOL:3102	Pharmacology II: Mechanisms of Drug Action	3
PTRS:5210	Kinesiology and Pathomechanics	4
PTRS:6224	Activity-Based Neural and Musculoskeletal Plasticity in Health Care	4
PTRS:7812	Biomedical Instrumentation and Measurement	3
PTRS:7875	Analysis of Activity-Based Neural and Musculoskeletal Plasticity	3

Independent Research

Students must enroll in the independent research course.

Course #	Title	Hours
This course:		
HHP:6000	Research	10

Dissertation

Students working on a dissertation register for the following course.

Course #	Title	Hours
HHP:7900	Thesis: PhD	12

Admission

Applicants to the PhD program must have a grade-point average of at least 3.00 on undergraduate work and previous graduate work. They must also meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Application deadline is Feb. 1 for admission the following fall.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Health and Human Physiology, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
HHP:6020	Advanced Research Methods	3
HHP:6600	Professional Skills for Graduate Students Seminar [b]	1
HHP:7000	Practicum in College Teaching [c]	arr.
Introductory statistics course [d]		3
Specialization area elective [e]		3
	Hours	**10**
Spring		
HHP:6000	Research	3
HHP:6600	Professional Skills for Graduate Students Seminar [b]	1
Advanced statistics course [f]		3
Specialization area elective [e]		3
	Hours	**10**
Second Year		
Fall		
HHP:6000	Research	3
HHP:6600	Professional Skills for Graduate Students Seminar [b]	1
Advanced statistics course [f]		3
Specialization area elective [e]		3
	Hours	**10**
Spring		
HHP:6000	Research	4
Specialization area elective [e]		3
Specialization area elective [e]		3
Exam: Comprehensive Exam [g]		
	Hours	**10**

Third Year		
Fall		
HHP:6600	Professional Skills for Graduate Students Seminar [b]	1
HHP:7900	Thesis: PhD	3
Specialization area elective [e]		3
Specialization area elective [e]		3
	Hours	**10**
Spring		
HHP:7900	Thesis: PhD [e]	3
Specialization area elective [e]		3
Specialization area elective [e]		4
Exam: Comprehensive Exam [h]		
	Hours	**10**
Fourth Year		
Fall		
HHP:7900	Thesis: PhD	3
Specialization area elective [e]		3
Specialization area elective [e]		3
	Hours	**9**
Spring		
HHP:7900	Thesis: PhD	3
Exam: Doctoral Final Exam [i]		
	Hours	**3**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Take four times for 1 s.h. each.
c Only for students without a teaching assistantship.
d Choose one course from BIOS:4120, PSQF:4143/STAT:4143, PSQF:6242, STAT:3510/IGPI:3510.
e Students are expected to obtain broad-based knowledge in their specialization area. This normally entails approximately 30 s.h. of coursework. Students choose specialization electives with guidance from their advisor/mentor.
f Choose two courses from BIOS:5120/IGPI:5120/STAT:5610, PSQF:6243/STAT:6513.
g For students entering with an MA or MS degree.
h For students entering with a BA or BS degree.
i Dissertation defense.

History

Chair

- Colin Gordon

Director, Graduate Program

- Tom Arne Midtrød

Director, Undergraduate Program

- Elizabeth E. Yale

Undergraduate major: history (BA)

Undergraduate minor: history

Undergraduate certificates: Jewish studies; Medieval studies

Graduate degrees: MA in history; PhD in history

Faculty: https://history.uiowa.edu/people

Website: https://history.uiowa.edu/

History is the centerpiece of a humanities education. History unlocks important insights into the world we inhabit, understanding the past on its own terms. Drawing on the geographical breadth of the department's courses, history students develop a global consciousness as they develop key transferable skills such as critical thinking, communication, and empathy.

History faculty and students participate in many of the university's interdisciplinary programs and certificates, including African American Studies; American Studies; Classics; Gender, Women's, and Sexuality Studies; Global Health Studies; Jewish Studies; Languages, Literatures, Linguistics, and Cultures; Latina/o/x Studies; Medieval Studies; and Native American and Indigenous Studies.

Programs

Undergraduate Programs of Study

Major

- Major in History (Bachelor of Arts) [p. 574]

Minor

- Minor in History [p. 578]

Certificate

- Certificate in Jewish Studies [p. 579]

Graduate Programs of Study

- Master of Arts in History [p. 581]
- Doctor of Philosophy in History [p. 583]

Facilities

The University of Iowa Libraries offer excellent resources for undergraduate study in all fields of history, with distinct strengths in U.S. history. The Main Library houses the Henry A. Wallace papers and related collections, the Iowa Women's Archives, and other unique materials. Special Collections has a vast archive of both printed and digitized materials, including five decades of papers and work donated by TV news correspondent Tom Brokaw. The State Historical Society of Iowa in Iowa City and the Herbert Hoover Presidential Library and Museum in West Branch also hold valuable research materials. The Digital Scholarship and Publishing Studio is the repository for a wide range of digitized collections (including the Iowa Labor History Project) and offers assistance with projects in the digital humanities.

Courses

- History Courses [p. 562]
- Jewish Studies Courses [p. 573]

History Courses

History majors should take HIST:2151 Introduction to the History Major during their sophomore year or the first semester after they declare the major. First-year students planning to major in history may be admitted to HIST:2151 with permission from the director of undergraduate studies in the Department of History.

HIST:1000 First-Year Seminar 1-2 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

HIST:1010 History Matters 3 s.h.
How do we understand the past on its own terms and what is its relevance to the present? Introduction to historical thinking through a variety of topics. GE: Historical Perspectives.

HIST:1016 The History That Made Our World 3 s.h.
How does history help to explain our interconnected world? Introduction to international and global thinking through a variety of topics. GE: Historical Perspectives; International and Global Issues.

HIST:1025 Medieval Religion and Culture 3 s.h.
Religion in Europe from classical antiquity to dawn of the Reformation; the religious element in traditions such as art, architecture, literature. GE: Historical Perspectives. Same as RELS:1225.

HIST:1030 Introduction to Islamic Civilization 3 s.h.
Survey of texts, ideas, events, institutions, geography, communities, literature, arts, sciences, and cultures in Islamic communities and societies since the 7th century. GE: International and Global Issues. Same as RELS:1130.

HIST:1040 Diversity in History 3 s.h.
How did diversity affect past societies? How does history help us to understand diversity today? Introduction to thinking about diversity and inclusion; topics vary. GE: Understanding Cultural Perspectives.

HIST:1049 Introduction to Native American and Indigenous Studies 3 s.h.
Exploration of past, present, and future of American Indians in the United States and beyond through film, art, music, and comedy. GE: Values and Society. Same as AMST:1049, NAIS:1049.

HIST:1050 Modern Religion and Culture 3 s.h.
European and American religious life from Renaissance to 21st century; focus on specific themes, such as secularism, regionalism, pluralism. GE: Historical Perspectives. Same as RELS:1250.

HIST:1101 The Modern World 3 s.h.
How did today's globalized world come to be? Which aspects of globalization are new and which are inherited from the past? Taking a long-term perspective, this course traces the development and acceleration of global interdependence since the 14th century; how far-flung parts of the globe have been linked to one another, how long-distance connections affected the societies involved, and how individuals have experienced and contributed to such global networks; students develop an understanding of globalization's long history leading up to the present and of their place in contemporary global networks. GE: Historical Perspectives.

HIST:1115 The History of Oil 3 s.h.
Historical perspective on business, science, geology, technology, politics, environment, and culture of the global oil industry; the rise of oil as the most influential international business of the last 150 years, the material foundation of economies, a major force in world politics, a shaper of daily life, and a guide to understanding Earth's deep history. Offered fall semesters. GE: Sustainability. GE: Historical Perspectives; Sustainability. Same as SEES:1115.

HIST:1166 Rapid Response History 1 s.h.
Bringing historians' expertise to bear on breaking news.

HIST:1261 American History to 1877 3 s.h.
America before European colonization; encounters between Native Americans, Europeans, and Africans in North America; the rise and decline of European imperial powers; the independence and expansion of the American republic; economic, political, and social change from the American Revolutionary era through Civil War and Reconstruction. GE: Historical Perspectives.

HIST:1262 American History 1877-Present 3 s.h.
America since Civil War and Reconstruction; politics, society, and culture from the post-Civil War decades through the Progressive Era, the Great Depression, and two world wars; the "Cold War" with Soviet communism abroad and at home, social protest movements and their influence on electoral politics, and the evolving economic and political role of U.S. in the world. GE: Historical Perspectives.

HIST:1290 Native American Foods and Foodways 3 s.h.
Native Americans as original farmers of 46% of the world's table vegetables; examination of food as a cultural artifact (e.g., chocolate, tobacco); food as a primary way in which human beings express their identities; environmental, material, and linguistic differences that shape unique food cultures among Native peoples across the Western Hemisphere; close analysis of Indigenous foods, rituals, and gender roles associated with them; how colonization transformed Native American, European, and African American cultures. GE: Understanding Cultural Perspectives. Same as AMST:1290, GHS:1290, NAIS:1290.

HIST:1401 The West and the World: Ancient 3 s.h.
Many consider Greece and Rome important influences for the modern West, but who influenced the Greeks and Romans? Students look to the ancient Near East, home to civilizations such as Egypt and the Babylonians, and investigate the formation of larger communities, study how peoples of the ancient Mediterranean viewed their world, follow the paths of Greeks and Romans, and end with Christianization of the Roman Empire, to not only understand the history of the period, but also learn how to think, read, and write critically. GE: Historical Perspectives.

HIST:1402 The West and the World: Medieval 3 s.h.
How have events of European history shaped modern institutions, politics, and culture worldwide, and how have other regions of the world shaped Europe? Students explore this question by tracing European history in a global context from the late Roman Empire to the 18th century to not only understand this history, but also learn how to read, write, and think critically about it. GE: Historical Perspectives.

HIST:1403 The West and the World: Modern 3 s.h.
Why are debates about Western Civilization so heated? What is the relationship between the West and other world regions? Exploration of the idea of "the West" as it evolved from interactions between modern Europe, its colonies, and other regions; overview of topics including politics, slavery, global economy, colonialism, migration, and cultural norms over the last 300 years. GE: Historical Perspectives; International and Global Issues.

HIST:1601 Civilizations of Asia: China From Origins to the 17th Century 3 s.h.
Introductory survey of Chinese history and civilization from its origins to 1800; exploration of traditions in politics, social organization, thought, religion, and culture. GE: Historical Perspectives. Same as ASIA:1601.

HIST:1602 Civilizations of Asia: China from the 17th Century to the Present 3 s.h.
Introductory survey of Chinese history from the 17th century to present; exploration of political, social, economics, and culture. GE: Historical Perspectives; International and Global Issues. Same as ASIA:1602.

HIST:1604 Civilizations of Asia: Japan 3-4 s.h.
GE: Historical Perspectives; International and Global Issues. Same as ASIA:1604.

HIST:1606 Civilizations of Asia: South Asia 3-4 s.h.
Civilization of a vast region that includes India, Pakistan, Bangladesh, Nepal, and Sri Lanka. GE: Historical Perspectives; International and Global Issues. Same as ASIA:1606, RELS:1606.

HIST:1607 Civilizations of Asia: Korea 3-4 s.h.
Introduction to Korean history and culture; how meanings of "Korea" and "Koreans" changed from ancient times to present; relevant issues of politics, society, and culture; events that shaped ancient Korean states—Koryo state (918-1392), the Choson dynasty (1392-1910), Japanese colonization (1910-1945), and the two Koreas (1945-present); how present perspectives on Korea have influenced understandings of its past. GE: Historical Perspectives; International and Global Issues. Same as ASIA:1607.

HIST:1609 India Now! Surveying the World's Largest Democracy 3-4 s.h.
Introduction to India and its place in global economics, politics, religion, science, and culture since independence in 1947; India's contributions and adaptations to contemporary world, gender roles, changing sexual standards, and new ways India enters American lives—from globalized Bollywood films and music to new foods, fashions, and lifestyles; students examine the quiet revolution of affirmative action that has brought self-respect to millions, and market liberalization that has heightened economic inequality; consideration of ongoing challenges to world's largest democracy and contemporary efforts, both peaceful and violent, to address them. GE: Values and Society. Same as ASIA:1609.

HIST:1610 Introduction to Asian Religions 3 s.h.
Religious beliefs, practices in India, China, Japan. GE: Values and Society. Same as ASIA:1040, RELS:1404.

HIST:1612 Introduction to Buddhism 3 s.h.
Development of Buddhism in India, its spread across Asia, and arrival in the West; exploration of diverse Buddhist philosophies, practices, and cultures; readings from India, Tibet, China, Japan, Korea, and Southeast Asia. GE: Values and Society. Same as ASIA:1060, RELS:1506.

HIST:1708 Civilizations of Africa 3 s.h.
Introduction to the study of Africa; brief survey of African history; aspects of modern African life, including political and social issues, economic and health problems (including HIV/AIDS); classroom discussion of selected African films and assigned African novels. GE: Values and Society.

HIST:2148 The Invention of Writing: From Cuneiform to Computers 3 s.h.
Invention of writing as one of the most momentous events in the history of human civilizations; how the use of written sign systems, notations, maps, graphs, encryptions, and most recently, computer programs have consequences that reach deeply into all aspects of people's lives; how writing fascinates and delights, fosters reflexive thinking and facilitates development of complex societies, and gives rise to institutions of social power and control; students explore the invention of writing and its consequences in broad international and interdisciplinary context. Taught in English. Same as ANTH:2248, ASIA:2248, CLSA:2048, COMM:2248, GRMN:2248, IS:2248, LING:2248, TRNS:2248, WLLC:2248.

HIST:2149 Introduction to Jewish Studies 3 s.h.
Introduction to the interdisciplinary field of Jewish studies; topics include history from ancient origins to the present, sociology of Jewish life in the U.S. and internationally, ethical and religious principles and practices, Jewish embeddedness in non-Jewish societies, and controversies within and surrounding the Jewish world. GE: Understanding Cultural Perspectives. Same as JSTU:2149, RELS:2240, SJUS:2240.

HIST:2150 Jews, Judaism, and Social Justice 3 s.h.
Jewish frameworks for grappling with justice and ethics from ancient world to present day; emphasis on internal diversity of Jewish experience as well as interactions with dominant and other minority cultures. Same as GWSS:2050, RELS:2250, SJUS:2050.

HIST:2151 Introduction to the History Major 3 s.h.
Topics vary; development of skills needed to succeed as a history major and post-graduation; exploration of diverse sources historians use (textual, visual, oral history, digital, material culture); examination of primary sources created by the people studied; analysis of how historians comb evidence to offer varying interpretations of controversies; how to frame historical questions, find and interpret relevant sources, integrate them into clear arguments; the ways history is used in public life (public service, education, policy making, political debate, information management, culture industry); students complete at least one graded paper to be included in history portfolio (HIST:3193). Requirements: history major.

HIST:2155 Global Jewish History 3 s.h.
Examines the Jewish experience in the modern period. Jewish history is global (the focus will be on Jews in the Middle East, Europe, the United States, and Latin America). Each community has participated in local politics and in the creation of local cultures, while remaining part of a Jewish Diaspora, held together to varying degrees by ethnic identity and religious tradition. Students will study how Jewish identity is constructed and how Jews negotiate their relationships with each other, with non-Jews in their local societies, and with other Jewish communities. GE: Understanding Cultural Perspectives. Same as JSTU:2155.

HIST:2156 Arabs and Jews in Palestine and Israel 3 s.h.
Examines relations between Muslim, Christian, and Jewish communities in Palestine during the Ottoman and Mandate periods, and between Jewish groups and Arab-Israelis after the establishment of the State of Israel in 1948. After an introduction to ethnicity, nationality, and religious identity from a theoretical perspective, focus will be on Ashkenazi Jews, Middle Eastern Jews, and Palestinian Arabs. Students will engage with important contemporary issues in Arab-Israel relations. GE: Understanding Cultural Perspectives. Same as JSTU:2156.

HIST:2190 The Book in Global History 3 s.h.
Introduction to history of the book and book arts in diverse global contexts; histories of visual and verbal media, cross-cultural exchange, and the book's impact across time and space; hands-on work with historical books and book arts including papermaking, woodblock and letterpress printing, and binding. GE: Historical Perspectives. Same as ENGL:2901, UICB:2190.

HIST:2195 Digital History Workshop 3-4 s.h.
Introduction to use of new media in historical research and writing; web-based publishing and blogging; photo, text, and video editing; digital mapping; curation of digital resources; projects may include short documentary videos, web development, mapping projects, or collaborative curation (identifying, digitizing, annotating artifacts or documents from university collections) in collaboration with UI Libraries Digital Research and Publishing.

HIST:2230 Fame and Celebrity in U.S. History 3 s.h.
Cultural history of the meanings and implications of fame and celebrity in America; conception of fame in the 18th century as something earned through great deeds and conferred by future generations; rise of a culture of celebrity in 19th- and 20th-century America; focus on theater, sports, movie, and musical stars; use of celebrities to sell products; implications for presidential campaigns; instant and ephemeral celebrity generated by television and the internet. Same as AMST:2230.

HIST:2250 The History of Social Justice Movements 3 s.h.
History of contemporary social movements in the U.S. and how these movements have directly affected policies related to environment, food, reproductive justice, civil rights, immigration, labor, race, and gender; students read, explore, discuss, and write about the history of contemporary social movements in the U.S. that had lasting effects on policies related to environment, agriculture, health, reproductive justice, civil rights, labor, race, gender, and immigration; exploration of multiple modes of representation and resistance including protests, boycotts, strikes, music, art, writing, riots, civil disobedience, theater, poetry, dance, and poetry. Same as GWSS:2250, SJUS:2250.

HIST:2266 Civil War and Emancipation 3 s.h.
160 years later, what can we learn about American history from studying a war that both killed and liberated an unprecedented number of people? Why did it take a war to end slavery? How did emancipation occur and how did enslaved people accelerate the destruction of U.S. slavery during the war? Same as AFAM:2266.

HIST:2267 African American History to 1877 3 s.h.
Experiences of African and African American people in the American colonies and the states of the new nation; history of Africans and African Americans as early settlers, enslaved and free, in places such as Detroit, Chicago, New York, and New Orleans; interactions with Indigenous people; role in the war for American independence; long history of resistance to slavery and racial discrimination; exploration of the rich history of community building, creation of significant Black social and cultural institutions, and formation of Black political thought and political activism. GE: Understanding Cultural Perspectives. Same as AFAM:2267.

HIST:2268 African American History Since the Civil War 3 s.h.
Exploration of racial oppression of African Americans and multiracial struggles against that oppression since the Civil War era; students examine the history of racism at individualized and systematic levels; historical efforts made by individuals and collective movements in service of the long Black freedom struggle; and the ways these twinned histories have shaped modern America. GE: Understanding Cultural Perspectives. Same as AFAM:2268.

HIST:2280 Introduction to Latina/o/x Studies 3 s.h.
Introduction to field of Latina/o/x studies through interdisciplinary readings from literature, history, sociology, political science, urban studies, and anthropology; commonalities and differences among long-standing Latina/o/x populations (i.e., Mexican Americans, Puerto Ricans, Cuban Americans); challenges faced by newer arrivals (i.e., Dominican Americans, Salvadoran Americans, Guatemalan Americans, Central and South American immigrants). Taught in English. GE: Understanding Cultural Perspectives. Same as LATS:2280.

HIST:2288 Latina/o/x History From Conquest to the Present 3 s.h.
Beginning with 16th century and stretching to the present, students map varied terrains of Latina/o/x history, exploring Mexican American, Puerto Rican, Cuban American, Dominican American, and Central American experiences in the United States; major themes include details of conquest and resistance, immigration, work, and creation of racial, gendered, and sexual differences within and between Latino/a/x communities; focus on shared Latina/o/x identity and changing images of Latina/o/x peoples within American popular culture; effects of current political issues on Latina/o/x community today.

HIST:2292 Native American Law and Policy: A History 3 s.h.
Native Americans are citizens of governments that predate the U.S.; what it means to be a citizen of a federally recognized tribe within the U.S.; exploration of the peculiar status of Native nations and their citizens since 1789. Same as AMST:2292, NAIS:2292.

HIST:2420 Germany in the World 3-4 s.h.
The Federal Republic of Germany's increasing prominence in post-Cold War international affairs against backdrop of 20th-century history; Germany's role in the European Union and the changing relationship between Europe and the United States. Taught in English. GE: International and Global Issues. Same as GRMN:2720.

HIST:2431 Roman Law, Order, and Crime 3 s.h.
Case-based introduction to Roman law; principles of Roman law ranging from standards of evidence to trial procedures to various topics in civil and criminal law, including family law and the law of delict. Same as CLSA:2151.

HIST:2444 Engineering and Technology in the Ancient World 3 s.h.
Technologies developed and used in the ancient world—primarily in Greece and Rome, also in Egypt and the Ancient Near East; agriculture and food preparation; construction and architecture; technologies related to warfare. Same as CLSA:2144.

HIST:2461 Middle East and Mediterranean: Alexander to Suleiman 3 s.h.
GE: Historical Perspectives. Same as CLSA:2461, RELS:2361.

HIST:2465 Europe Since 1945 3 s.h.
Europe since World War II: recovery, cold war, social and economic change, global perspectives.

HIST:2684 Korean War: Local and Global History 3 s.h.
Examination of the Korean War as a local, regional, and global event; major topics of the war including its origins, methods of warfare, refugee question, war crimes, POWs, propaganda, memory, and commemoration from the perspective of multiple nations; discussion and analysis of scholarly works, textbooks, diplomatic documents, memoirs, fiction, visual sources, and film. Same as ASIA:2684.

HIST:2687 Perspectives on Korea 3 s.h.
History of Korea from earliest times to present; changing meanings of Korea and Koreans; relevant issues of politics, society, and culture; events that shaped ancient Korean kingdoms, the Choson dynasty (1392-1910), Japanese occupation, and divided Korean peninsula; how present perspectives on Korea have influenced understandings of its past; placement of Korea within a regional and global context to examine Korea's relationship with the world. Same as ASIA:2887.

HIST:2802 Gender, Religion, and Social Identities in the Modern Middle East 3 s.h.
Gender, religion, and social identities historically have served to articulate notions of modernity, community, and political ideologies; in the Middle East and North Africa, these categories have been used to assert European colonial and racial supremacy and patriarchal dominance as well as anti-colonial resistance and social revolution; examination of the formulations of gender, religion, and social identities with special emphasis on reformulation of individual and communitarian identities in the region after independence from European colonial powers.

HIST:2804 The Middle East Through Graphic Novels and Animated Film 3 s.h.
Contemporary history of the Middle East and North Africa with emphasis on visual media—comics, animated films, and political cartoons; art as political manipulation/expression and resistance; students gain knowledge through a variety of personal accounts about the Arab-Israeli conflict, Lebanese Civil War, civil war in Syria, or Islamic revolution in Iran.

HIST:2810 The Modern Middle East 3 s.h.
Fundamental questions that go beyond the boundaries of the Middle East and North Africa (e.g., legacy of colonialism, race/racism, identity, citizenship, violence); roots of present events.

HIST:3101 History Internship 1-6 s.h.
Internship involving historical work. Requirements: consent of director of undergraduate studies and Pomerantz Career Center.

HIST:3106 History Behind the Headlines 1-3 s.h.
Examination of selected national and international news stories and their historical background; a goal of creating informed world citizens.

HIST:3108 History of Human Rights 3 s.h.
Introduction to history of human rights in the 20th century; disjuncture between human rights in theory and in practice; provides an international approach to the history of human rights by situating U.S. human rights activism and policy in a global context; focus on human rights following World War II, contradictory impact of the Cold War; emergence of human rights politics in 1970s United States, challenges of post-Cold War human rights activism, and human rights rhetoric of the Global War on Terrorism.

HIST:3114 Divided Cities: Global Histories of Segregation 3 s.h.
Cities are always defined by diversity and division. Over the past two centuries segregation has taken on new scales and forms, segregating cities through legal dictates, violent attacks, and economic pressures as well as everyday efforts to form stable communities. Students examine these forces to understand how segregation has structured cities since the early 19th century, including the changing ways legal, economic, spatial, and cultural structures determined how people divided cities along social categories like race, immigration status, gender, class, sexuality, or religion. Learning how people experienced, challenged, and transformed urban segregation over time.

HIST:3126 History of Globalization 3 s.h.
Broad overview of globalization in modern world history; focus on evolution of international business, world economy, interstate system, and cultural interchange in 19th and 20th centuries; long-distance trade and exchange; global economy under British Empire; globalization after 1945 following a 30-year period of nationalism, war, and depression; global market integration in late 20th century under American supremacy.

HIST:3128 Topics in Global Environmental History 3 s.h.
Examination of changing relationship over time between humans and nonhuman world in global and transregional contexts; environmental history from different angles; how humans have depended on, interacted with, and been shaped by natural world over time; how people have perceived and assigned meaning to natural world around them; how human attitudes and actions have altered or reshaped landscapes and their inhabitants; becoming sensitive to gendered, class, and racial aspects of environmental change; topics, scope, and time periods may vary.

HIST:3131 Unnatural Disasters: A Global History 3 s.h.
What is a natural disaster? How do we assess "naturalness" of these events within political, social, and historical contexts in which they occur? Are disasters specific moments of crisis, or rather, are they slow—unraveling across time and space years before and after the moment their pain is most acutely felt? Examination of these questions at a global scale. Same as SEES:3131.

HIST:3132 Science, Medicine, and Race 3 s.h.
Examination of social construction of race in scientific and medical thought; focus on Atlantic world (Europe, Africa, the Americas); construction of race in other parts of world.

HIST:3133 Science, Technology, and Society in the Modern World 3 s.h.
Origins and history of modern science and technology in cultural, social, political, and economic context from 1500s to present, with focus on Europe and the United States.

HIST:3137 Politics of the Archaeological Past 3 s.h.
How control over management of material remains of the ancient past, and representations of that past, intersect with the identity of diverse groups, including archaeologists, Indigenous peoples, national governments, collectors, ethnic minorities and majorities, museum curators; struggles for control of the archaeological past at different scales (artifacts, skeletal remains, sites, imagery, narratives) and in different regions of the world. Same as ANTH:3237, MUSM:3237.

HIST:3145 Europe and the United States in the Twentieth Century 3 s.h.
Traveling in time and across the Atlantic, through movies and documentaries, propaganda and art, government documents and private letters, students explore the history of Europe and the United States in the 20th century and watch major events unfold: impact of the Great War and rise of fascism, World War Two and the Holocaust, origins of the European Union and NATO, major crises and resolution of the Cold War, transatlantic conflict and cooperation.

HIST:3147 The Cold War 3 s.h.
Examine the contours of Cold War history from its roots prior to 1945 through the collapse of the Soviet Union in 1991; study a variety of perspectives in order to further elucidate the complexities of this period and the "new Cold War."

HIST:3150 Feminist Readings of History 3 s.h.
Feminist analysis has revolutionized the writing of history —not only on gender and sexuality, but also on topics as diverse as politics, economics, international relations, and social hierarchies (e.g., race, class, ability, religion); students examine feminist transformations of history with specific topics chosen by instructor. Same as GWSS:3150.

HIST:3155 The World Since 1945 3 s.h.

HIST:3157 Gender, Sexuality, and Human Rights 3 s.h.
History of gender and sexuality as components in international human rights activism and law; current debates, representative topics. Same as GWSS:3157.

HIST:3160 Malcolm X, King, and Human Rights 3 s.h.
Religion and politics of Malcolm X and Martin Luther King, Jr. in the context of U.S. civil rights and international human rights in West Africa and the Muslim world; emphasis on civil rights connections to Gandhi, the Nobel Peace prize, and other international experiences that have impacted Pan Africanists, such as Stokely Carmichael, who worked on human rights. Recommendations: international studies major or undergraduate standing. Same as AFAM:3500, RELS:3808.

HIST:3171 Slavery in World History 3 s.h.
Introduction to study of slavery through the lens of world history; exposure to a range of societies where slavery was prevalent; identification of similarities and differences over different time periods and geographical distances; exploration of Roman slavery, slavery in non-Islamic Africa, trans-Atlantic slave trade in the United States and the Caribbean, and Native American slaveries, among others.

HIST:3184 History of Death and Dying 3 s.h.
The history of death is a means of understanding experiences and conceptions of life, ethics, community, belief systems, and boundaries. Such knowledge is critical for those involved with, or envisioning, psychological, social, or medical work. Focus will be on the Middle East and North Africa with a transnational, transregional, and global perspective surrounding death and its politics.

HIST:3190 Medieval to Modern: The Birth of Protestantism 3 s.h.
Same as RELS:3190.

HIST:3191 Individual Study: Undergraduate arr.

HIST:3193 Undergraduate History Portfolio 0 s.h.
Submission of required history portfolio. Requirements: history major and senior standing.

HIST:3205 American Cultural History 3 s.h.
Nineteenth- and twentieth-century U.S. history from a cultural perspective; culture defined broadly to encompass paintings, sculpture, theater, novels, and newer forms of entertainment made available by lithography, photography, cinema, the phonograph, radio, and television; rather than assume Americans were passive consumers of commercial culture, students examine how Americans expressed themselves through foodways, home decor, clothing fashions, or slang; how Americans drew on these cultural forms in social/political struggles over race, gender, class, and sexuality. Same as AMST:3205.

HIST:3217 Latina/o/x Immigration 3 s.h.
Immigration experiences of people arriving in the United States from other regions of the Americas (e.g., Mexico, Central America, the Caribbean, South America); what has fueled immigration—social, political, and economic developments in the United States and other nations; territorial conquest, colonialism, real and imagined borders, chain migration, formation of immigrant communities, acculturation, circular migration, social networks; how migration restructures gender relations; immigrant communities and pan-Latina/o/x identity in the United States. Same as LAS:3217, LATS:3217.

HIST:3220 Pandemic Politics: The COVID-19 Crisis in Historical Perspective 3 s.h.
How the COVID-19 crisis marks an unprecedented public health and public policy moment in American history; challenges to public polices and governing institutions that have important parallels in earlier historical moments —particularly the Great Depression and the mobilization for World War II—and also mark important departures; examination of historical, political, and public policy implications of the COVID-19 crisis in the United States; placement of current moment in historical perspective; history of key public policies including public health, health insurance, employment security, and social assistance across the last century.

HIST:3226 The United States in the 1960s 3 s.h.
Explores the turbulent decade of the 1960s in American politics and culture.

HIST:3230 American Environmental History 3 s.h.
Introduction to environmental change in American history; human-nature interactions from colonial period to recent past; food and agriculture, industrial technologies and transportation, energy production and consumption, urbanization and sprawl, public lands and public works, environmental politics and law, toxic pollution and health, natural disasters, climate change.

HIST:3232 History of American Inequality 3 s.h.
Survey of causes and consequences of inequality in modern American history.

HIST:3240 U.S. Energy Policy in Global Context 3 s.h.
Historical and contemporary aspects of U.S. governmental planning and policy on a wide range of energy issues in global context. Same as GHS:3780, POLI:3431, SEES:3780.

HIST:3242 The United States in World Affairs 3-4 s.h.
America's emergence as leader in world affairs; imperialism, international collaboration, participation in world wars, the Cold War.

HIST:3249 Midwestern History 3 s.h.
People of Iowa and surrounding Midwestern states—a land where people work hard, are practical, down to earth, and honest; the idea of a place in the heartland as real or simply a myth; history of Midwestern states from Native American occupation to present; how reality, ideas, and images are portrayed. Same as AMST:3249.

HIST:3250 American Stuff: Discovering History in Things 3 s.h.
Introduction to the historical study of material artifacts; how people have used objects to construct their memories, identities (e.g., class, race, sexuality, gender, nation), relationships, and status/power; how objects have inadvertently shaped us; finding artifacts in local collections; analyzing artifacts as historical sources; researching how objects were produced and sold and how they were used or misused; curating one's own exhibition; objects range from utilitarian (e.g., guns, farming tools, office gadgets, automobiles) to decorations, toys, souvenirs, and more. Same as MUSM:3250.

HIST:3251 The Office: Business Life in America 3 s.h.
History of business life in America from birth of Wall Street to rise of Silicon Valley; modes of managing and regulating office workers; changing designs of office buildings, furniture, gadgets; corporate response to rise of class inequalities and growing gender and racial diversity in workforce; portrayal of businessperson in novels, movies, television, art, photography. Same as AMST:3251.

HIST:3253 The Civil Rights Movement 3 s.h.
History of the American civil rights movement. Same as AFAM:3053, AMST:3053.

HIST:3256 The Great Migration(s) in the Midwest 3 s.h.
Investigation of African American migration to and within the Midwest; first and second Great Migrations (1910–1940, 1940–1970); focus on reaction to and social, cultural, political, and economic impact of newcomers arrival; class time devoted to actual practice of historical research; students work on a collaborative project focused on the history of racial discrimination, housing segregation, and resistance to that oppression in Iowa's six metropolitan areas. Same as AFAM:3256.

HIST:3257 Civil Rights and Racial Justice: A Tour Through the South 1-3 s.h.
Exploration of the history of modern civil rights movement through lectures, shared readings, videos, and discussion; includes preparation and two-week tour of civil rights sites in the South. Prerequisites: SJUS:1001 or SJUS:2250 or GWSS:1002 or CCCC:2220 or AFAM:1030 or HIST:2268 or HIST:2268 or HIST:3253 or HIST:3253 or HIST:3253 or HIST:3232 or AFAM:3100 or AFAM:3500 or AFAM:3260 or AFAM:3260 or HIST:3282 or HIST:3282 or HIST:4130. Same as AFAM:3257, GWSS:3257, SJUS:3257.

HIST:3259 Making Change, Making History 3 s.h.
Topics may include digital history, public history, museum studies, and more. Same as GWSS:3459, SJUS:3459.

HIST:3260 Violence in Black America 3 s.h.
Examination of violence—physical, structural, gendered, and psychological—and its impact of shaping Black American experience through resistance, cultural production, and community development. Same as AFAM:3260.

HIST:3262 The Black Midwest: History, Literature, and Culture 3 s.h.
Exploration of history, culture, and art of the Black Midwest using literature and scholarly readings, poems, music, and film; modern issues impacting Black Midwesterners; cultural, social, and political contributions of Black Midwesterners to the region and nation. Same as AFAM:3262.

HIST:3264 Technology in American Culture and Society 3 s.h.
Social and cultural history of technology in the United States from cotton gin to smartphone; how technologies have shaped and been shaped by American culture, society, and politics —encompassing technologies of production, communication, transportation, entertainment, warfare, voting, surveillance, and more; economic forces spurring technological innovation and ways in which ordinary users re-appropriate technologies; cultural responses to new technologies (e.g., writers, artists, filmmakers, critics) ranging from fear to celebration; utopian and dystopian imaginings of future technologies. Same as AMST:3264.

HIST:3265 American Monuments 3 s.h.
History of public monuments in America from the inception of first major monuments in the 1820s to the latest incarnations (e.g., counter-monuments such as the 9/11 Memorial, spontaneous and temporary monuments, online memorials); how monuments have depicted Indians, Blacks, Southern confederates, women, and other groups; how monuments have commemorated wars, Indian massacres, lynchings, and political movements (e.g., civil rights, women's suffrage); how monuments have been reinterpreted through popular protests and depositing of artifacts; why monuments have attracted so much controversy, culminating in recent events at Charlottesville. Same as AMST:3265.

HIST:3267 Apocalyptic Visions and Movements in U.S. History 3 s.h.
The end of the world as imagined, feared, and in some cases, desired by Americans from 1700s to present; status of apocalypse in various religious communities and in American culture more generally (i.e., literature, art, popular culture); focus on political and social implications of apocalyptic visions; how they shaped historical events and periods (i.e., American Revolution, Civil War, Cold War); how they contributed to nationalism, racism, and imperialism as well as pacificism, anti-Americanism, utopian communities, and opposition to industry and technology; what role apocalypticism plays in the United States today.

HIST:3270 Colonial North America, ca. 1600-1775 3 s.h.
Introduction to major themes in colonial American history prior to the American Revolution; Native American history; colonialism and Native resistance; slavery; material culture; religion and spirituality; immigration; gender and sexuality in cross-cultural perspective. Same as NAIS:3270.

HIST:3271 American Revolutionary Period 3 s.h.
Political and military history of colonies 1754-1776; imperial upheaval; building a new nation; creation of federal system.

HIST:3272 Native Americans in the Age of Empires, ca. 1500-1815 3 s.h.
Overview of major issues in Native American history during the period of European Imperialism; colonialism, diplomacy and alliance building, warfare, captivity, religious and spiritual exchanges, revolution, and the disintegration of Native-European alliances in the early 19th century. Same as NAIS:3272.

HIST:3273 War and Violence in Early American Societies and Culture 3 s.h.
Introduction to role of warfare and violence in shaping early American society.

HIST:3275 History of Slavery in North America 3 s.h.
Examines the origin, evolution, and patchwork abolition of Black chattel slavery in the parts of North America that became the United States; emphasizes the ways that slavery was not a static institution, but rather changed over time and space; centers the enslaved as historical actors with their own politics, economics, and culture; wrestles with historical memory and popular representations of slavery. Same as AFAM:3275.

HIST:3282 Women and Power in U.S. History Since the Civil War 3 s.h.
Major events and themes in U.S. women's history from late 19th century to present; how women's experiences have differed from men's; exploration of distinct but interconnected histories of different groups of women; changing ideals of femininity; women's experience of industrialization, immigration, depression, war, and sexual revolution; women's activism for social reform, women's rights, labor, civil rights, peace, and the New Right. Same as GWSS:3282.

HIST:3289 The Atlantic World c. 1450-1850 3 s.h.
Interactions between peoples of Europe, Africa, and the Americas between the 15th and mid-19th centuries, interconnected system of exchange that defied national and imperial boundaries; encounters between Native Americans, Africans, and Europeans in different parts of the Americas; forced and voluntary resettlement of Africans and Europeans overseas; development of plantation slave societies; biological consequences of transatlantic contact; circulation of people, goods, and ideas; development of creole societies; era of revolutions; abolition of slavery. Same as NAIS:3289.

HIST:3401 Ancient Egypt and the Ancient Near East 3 s.h.
Survey of political, economic, religious, and social change in ancient Egypt from ca. 3000 B.C.E. until its conquest by Persia, and of the ancient Near East from ca. 3000 B.C.E. until Alexander the Great's conquests. Same as CLSA:3401.

HIST:3403 City of Athens: Bronze Age to Roman World 3 s.h.
Athens from Bronze Age to end of Roman period; topics include the city's role in development of political democracy and religion, as well as the art and archaeology of the city. Same as ANTH:3821, CLSA:3821.

HIST:3404 The World of Ancient Greece 3 s.h.
Survey of Greece history from ca. 2000 B.C. to 300 B.C.; Minoan, Mycenaean, and Greek society and culture; contact between Greek mainland and eastern Mediterranean cultures; development of the polis; political developments throughout the period; readings include a variety of sources in translation as well as modern interpretations; methodological problems in studying ancient Greece including interpretation of ancient historiography and using evidence from art, archaeology, and literature; knowledge of ancient Greek not required. Same as CLSA:3404.

HIST:3409 Medieval Civilization I 3 s.h.
Europe from the decline of Roman empire to the eleventh century; cultural, political, economic, artistic and architectural foundations of Western civilization. Same as MDVL:3409.

HIST:3410 Medieval Civilization II 3 s.h.
Europe from the eleventh century to the Italian Renaissance; cultural, political, economic, artistic, and architectural foundations of Western civilization. Same as MDVL:3410.

HIST:3413 Early Modern Britain: The Tudor and Stuart Era 3 s.h.
History of Britain during the reigns of the Tudor and Stuart monarchs (1509-1714); focus on political institutions, economic development, civil conflict, religious change, origins of the British Empire, and everyday life.

HIST:3414 Science, Magic, and Religion in Early Modern Europe 3 s.h.
Magic and witchcraft, religious beliefs and practices, and the development of science, technology, and medicine during the late Middle Ages, Scientific Revolution, and Enlightenment. The natural and supernatural; astrology and astronomy; alchemy and chemistry; popular and elite knowledge; occult beliefs and mysticism; male and female magical, scientific, and religious practitioners; and science, magic, and religion in European politics and colonialism.

HIST:3415 Britain and Its Empire: Eighteenth and Nineteenth Centuries 3 s.h.
Britain and its empire from the Revolution of 1688 to the outbreak of World War I; topics include the growth of the British Empire; trans-Atlantic slave trade and its abolition; Industrial Revolution; political union and ongoing conflict between England, Scotland, and Ireland; political reform, expansion of franchise, and rise of labor and feminist movements; science, art, and culture; religion in British life.

HIST:3420 Health and Healing in Early Modern Europe 3 s.h.
Health, healing, and medicine (1200-1700); transmission of medical knowledge from medieval Islam and ancient Greece; healers including physicians, midwives, surgeons, apothecaries, and ordinary people; epidemic disease; diet and the body; sex and reproduction; health in the colonial Atlantic world; healing and religion including prayer, magic, and witchcraft. Same as GHS:3420.

HIST:3425 Peasants in the Middle Ages 3 s.h.
Examination of the social, economic, and cultural history of peasants in medieval Europe. Same as MDVL:3425.

HIST:3427 Family, Gender, and Society in Early Modern Europe 3 s.h.
Social and gender ideologies as inscribed in patterns of authority (household, church, state); ranges of human endeavor (intellectual, psychological, biological); community organization (social, economic, legal, sexual); their influence on concept of community. Same as GWSS:3427.

HIST:3436 Food in Ancient Mediterranean Society 3 s.h.
Practices and values influenced by consumption and production of food in ancient Mediterranean societies; varied topics, including methods of food production and distribution, hierarchies of status as associated with food, food and ethnic identity, food and health, food and religion; focus on classical Greek and Roman society, Egypt, the ancient Near East, and Persia. Recommendations: familiarity with Greek and Roman civilization and history. Same as ANTH:3204, CLSA:3836.

HIST:3443 Rome at War 3 s.h.
Addresses the development and conduct of war by the Roman state from circa 500 BCE through circa 400 CE. Topics include state priorities for use of the military, methods of conducting war, and military organization. Same as CLSA:3143.

HIST:3448 Barbarians and the Fall of Rome 3 s.h.
Did barbarian hordes cause the decline and fall of the Roman Empire? In the span of just a few hundred years, the Roman Empire of the Mediterranean world was transformed in terms of culture, religion, and the peoples that inhabited it, but we can't place all the blame for the so-called fall of Rome on the Huns, Visigoths, Vandals, and other migrating peoples; students explore textual, visual, and archaeological evidence for the spread of these “barbarian” cultures, the sacking of Rome, and the late antique transition to the Middle Ages from 200-800 C.E. Same as CLSA:3148.

HIST:3470 France From 1815 to Present 3 s.h.
History of France in the 19th century to present; major topics include the French Revolution, France and the European balance of power, Napoleon, the Bourbon Restoration, the Revolutions of 1830 and 1848, Napoleon III and the Second Empire, creation and survival of the Third French Republic, relations between the French state and the Catholic Church, the Dreyfus Affair, French colonial expansion, France and the origins of the First World War, France's role in World War I, and France and the origins of the Second World War.

HIST:3492 Russian Literature in Translation 1860-1917 3 s.h.
Survey of major works, figures, and trends of 19th- and early 20th-century Russian literature; age of the Russian novel; works of Turgenev (*Fathers and Sons*), Tolstoy (*Confession*), Dostoevsky (*The Idiot*, *The Brothers Karamazov*), and Chekhov (plays). Taught in English. Same as RUSS:3202, TRNS:3203, WLLC:3202.

HIST:3494 The Russian Revolutions and Their Legacies 3 s.h.
The Russian Revolutions of 1905 and 1917 unquestionably changed the fabric of Russian political and social life, transforming Russia from an autocratic imperial power to the first self-proclaimed socialist federation in Europe; students explore sources, nature, and consequences of the revolutions by intensively analyzing politics, society, and culture in late imperial and Bolshevik Russia; students review events and revolutionary movements of late 19th century, changes in political practices extending from late tsarist period, and development of Leninist and Stalinist ideology after the revolutions. Same as RUSS:3494.

HIST:3501 Rebel Island: A History of Cuba 3 s.h.
Cuban society and revolutionary movements since the late colonial period, including the years since 1959. Same as LAS:3501.

HIST:3502 History of Mexico 3 s.h.
Mexican history since the eve of the Spanish invasion, with focus on the national period; indigenous groups, conquest and demographic disaster, Native survival, labor and migration, social protest and rebellions, nationhood, revolution, regional differences, religions, popular culture, economic growth and distribution, state building, environmental change, international relations; survey. Same as LAS:3502, NAIS:3502.

HIST:3508 Disease and Health in Latin American History 3 s.h.
Survey of major topics in Latin American history in relation to development of medicine and public health. Same as GHS:3508, LAS:3508.

HIST:3515 Introduction to Modern Latin America 3 s.h.
Introduction to modern history of Latin America from independence movements of the early 19th century to present; topics include race and ethnicity, slave emancipation, gender, labor relations, and foreign interventions; exploration of relationship between economic, social, and political structures over time to explain difference and commonality between Latin American people and societies; focus on topics pertaining to histories of Mexico, Central America, the Caribbean, and South America. Same as LAS:3515.

HIST:3522 Indigenous Women and Rural Unrest in Latin America 3 s.h.
Trace the major and everyday forms of contestation between Indigenous peoples and the groups that have tried to assimilate, subjugate, or dominate them in Latin America, concentrating on Mesoamerica, the Amazonia, and the Andes; explore questions of power, identity, and resistance through the lens of gender. Same as LATS:3522.

HIST:3539 History of Environmental (In)Justice in Latin America 3 s.h.
Introduction to history of environmental change in Latin America; examination of pre-Hispanic cultures and spaces; reshaping of landscapes due to colonialism; commodification of nature in early republics; consolidation of 19th-century agro-economies; land-tenure changes and integration of regional markets due to neoliberalism in 20th century; relationship between environmental problems (e.g., biotic invasions, soil exhaustion, biodiversity loss, pesticide contamination) and imperial domination; scientific racism, state formation, and income inequality. Same as SEES:3539.

HIST:3650 Chinese History From 1600 to 1911 3 s.h.
Chinese history from the 17th to early 20th century, history of the Qing dynasty (1644-1911); Qing's role in shaping aspects of today's politics in China and the mentality of Chinese people; foundation of Manchu state in early 17th century, Ming-Qing transition in 1644, politics and society during the high Qing era, decline of the empire under foreign invasion and inner rebellions in the 19th century, collapse of the dynasty in 1911. Same as ASIA:3650.

HIST:3652 Twentieth-Century China 3 s.h.
Communist revolution from 1920s to founding of People's Republic of China in 1949; Mao Zedong's radical policies, Cultural Revolution; Deng Xiaoping's economic reforms; China today. Same as ASIA:3652.

HIST:3655 Zen Buddhism 3 s.h.
Same as ASIA:3655, RELS:3655.

HIST:3685 Modern Korean History 3 s.h.
Transformation of Choson Korea to North and South Koreas; local, regional, and global transformations in Korea from the late 19th century to present; severing of historic ties with China; encounters with the West and Japan; new ideas of civilization and political community; erasure of Choson as a country in 1910; colonial experience; civil war; industrialization; creation of North Korea; democratic movement in South Korea and spread of diasporic communities abroad; Korean peninsula as a laboratory for analyzing compressed communist and capitalist modernities of the 20th century. Same as ASIA:3685.

HIST:3755 Understanding Health and Disease in Africa 3 s.h.
Cultural, historical, and political framework for the delivery of health care services in African nations. Recommendations: junior or higher standing. Same as GHS:3555, IS:3555.

HIST:3758 The Ancient African Past 3 s.h.
Africa to 1880; oral tradition and other sources; political development, ecological change, slavery and slave trade. Same as AFAM:3758.

HIST:3760 The Making of Modern Africa 3 s.h.
Africa in colonial and postcolonial period; economics, political structures of colonialism; social change, political life in the 20th century. Same as AFAM:3760.

HIST:3810 History of the Modern Middle East 3 s.h.
Survey of major political, socioeconomic, and cultural changes in the Middle East and North Africa after 1900.

HIST:3995 History Honors Research Seminar 0-3 s.h.
Research and method seminar; developing and writing an honors thesis in history. Corequisites: HIST:3996. Requirements: GPA of 3.33.

HIST:3996 Honors Thesis 3 s.h.
Individual research and writing under supervision of faculty member; occasional group sessions with other students in the course.

HIST:4130 Museum Literacy and Historical Memory 3 s.h.
Concepts and methods for understanding the role of museums in shaping knowledge and collective memory of history; institutionally based exhibits and collections, historical markers and public monuments, public holidays and events, media and artistic works that interpret the past; how events, people, and civic ambitions are memorialized and how memories of them are shaped; appearance of museums and related practices in the non-Western world after 1850. Same as MUSM:4130.

HIST:4201 History of the American Deaf Community 3-4 s.h.
Students discuss the roots of American Deaf community, exploring the development of a distinct language known today as ASL and the culture of Deaf people in America during 19th and 20th centuries. Taught in American Sign Language. Prerequisites: ASL:2002 with a minimum grade of C. Requirements: students who have not completed ASL:2002, but plan to take ASL:2002 concurrent to this course may enroll with consent of the instructor; please contact the ASL program for more information. Same as ASL:4201.

HIST:4216 Mexican American History 3 s.h.
Survey of Chicana/o (Mexican American) history from 18th century to present; Mexican American society's diverse nature, explored through class, ethnic, gender, and regional divisions. Same as LAS:4216.

HIST:4334 Topics in American Borderlands History 3 s.h.
Broad historical overview of the American Borderlands, a region that has been the site of conflict, cultural exchange, and economic interdependence.

HIST:4400 The Roman Empire 3 s.h.
History of Roman Empire from assassination of Julius Caesar through 5th century A.D.; political, economic, cultural, and social developments from the transition to imperial power to the shift of power from west to east. Same as CLSA:4400.

HIST:4403 Alexander the Great 3 s.h.
History of Alexander the Great and the generals who succeeded him in ruling the lands he conquered; military, political, and social history. Same as CLSA:4403.

HIST:4406 Warfare in Ancient Mediterranean Society 3 s.h.
Same as CLSA:4106.

HIST:4407 The Hellenistic World and Rome 3 s.h.
Social, economic, political, intellectual history of Graeco-Roman world, from fourth century B.C.E. to Justinian's reign.

HIST:4412 History of the Medieval Church 3 s.h.
Development of Christianity to end of great schism; rise of Roman primacy, development of monasticism, orthodox and heterodox groups. Same as MDVL:4412.

HIST:4422 The Book in the Middle Ages 3 s.h.
Relation of text, decoration, function, creators, and audience in different genres of medieval manuscript books 400-1500 A.D. Same as SLIS:4910, UICB:4910.

HIST:4428 Nineteenth-Century Europe 3 s.h.
Political, social, economic, and cultural factors.

HIST:4429 The Book in Early Modern Europe 3 s.h.
History of the book and communication in Europe 1400-1800; production, distribution, and use of texts in cultural context. Same as SLIS:4920, UICB:4920.

HIST:4433 France Under Nazi Occupation, 1940-1944 3-4 s.h.
Political, economic, social, and cultural conditions that prevailed following the Nazi conquest of France in 1940; examination of this period of upheaval through work of prominent historians of France; representations of occupied France in literary works, documentary, and fictional films produced during the war and in the politically fraught culture of collective memorialization that formed in aftermath of this national trauma. Taught in English. Requirements: for 4 s.h. option—prior enrollment in FREN:3060 and FREN:3300. Same as FREN:4433.

HIST:4478 Holocaust in History and Memory 3 s.h.
Origins and implementation of Holocaust; perpetrators, victims, and bystanders; impact of Holocaust on post-World War II world.

HIST:4504 Latin American Studies Seminar 3-4 s.h.
Examination of past, present, and future of Latin America; interdisciplinary. Taught in English. Same as ANTH:4700, LAS:4700, PORT:4700, SPAN:4900.

HIST:4666 Topics in Asian History 3 s.h.
Same as ASIA:4166.

HIST:6002 Introduction to Graduate Studies in History: Historiography and Methods 3 s.h.
Students gain a better understanding of the principal intellectual strengths of the history department, degree requirements (e.g., MA essay and comprehensive exams), various methodological approaches and audiences, fundamental analytical skills (e.g., how to write a historiographical essay, how to use databases, how to edit their own work), and professional issues (e.g., participation in conferences and academic associations); for students getting started on their MA essays or PhD dissertations. Requirements: first-year history graduate standing.

HIST:6003 History Theory and Interpretation 3 s.h.
Introduction to basic theoretical approaches to historical research.

HIST:6004 Comprehensive Exams Seminar I 3 s.h.
Comprehensive exams seminar; for history graduate students in semester prior to comprehensive exams. Requirements: history graduate standing in third semester.

HIST:6005 Comprehensive Exams Seminar II 3 s.h.
Comprehensive exams seminar; for history graduate students during the semester in which they take their comprehensive examinations. Requirements: history graduate standing.

HIST:6130 Book History Seminar 3 s.h.
Topics, theories, and methods in book history, material textual studies, material culture studies, and critical bibliography. Integration of historical questions, sources, and methods into student's scholarly and creative work. Same as UICB:6530.

HIST:6140 Engaged Scholarship in the Humanities 0,3 s.h.
Survey of literature on community-engaged scholarship (CES) in the humanities; exploration of the pioneering work of engaged scholars in Native American, Latino, and African American studies; students write a research prospectus that is consistent with CES methodologies. Same as AMST:6140.

HIST:6158 Approaches to Teaching Global History arr.
Approaching history from a global or international perspective; introduction to issues; preparation for teaching courses at college level; historiographies and methodologies, problems of periodization and area divisions, syllabi on world and global history.

HIST:6165 History and Scientific Approaches 3 s.h.
Introduction of natural scientific evidence in the discipline of history. Work with interdisciplinary evidence and think about its application to the historian's craft through scientific articles in palaeogenetics (human, animal, and pathogen), archaeology, climatology, and other fields used for the science of the human past. Students learn to read scientific articles and discuss the theoretical and methodological problems of putting the hard sciences in conversation with history.

HIST:6250 American Religious Histories 3 s.h.
Focused examination of the variety and vagaries of religious experiences in the Americas, 16th to 21st centuries. Same as RELS:6150.

HIST:7101 Research Seminar arr.
Research for students in all areas of history.

HIST:7122 Readings: History of Gender and Sexuality arr.
Topics in international and transnational history of gender and sexuality. Same as GWSS:7122.

HIST:7126 Readings on the History of Human Rights arr.
Survey of recent literature on history of human rights; development of bibliographies; readings from individual areas of interest (e.g., transitional justice, migration, gender and sexuality, labor).

HIST:7137 Readings in Global Environmental History 3 s.h.
Environmental history is a rapidly growing interdisciplinary area of study that draws from a variety of social science, humanist, and natural science fields; examination of development in the field of global environmental history with focus on histories of the Global South; assessment of salient debates within the field, past and present; various methodological strategies employed by environmental historians; relationship of the field with area studies and "global turn"; students gain a functional fluency and understanding of how the field's growth has shaped the discipline of history more broadly.

HIST:7140 Climate Change in World History 3 s.h.
Readings on climate change and its impacts on planetary life across time.

HIST:7146 Temporality in History: United States and Beyond 1,3 s.h.
Introduction to growing field of temporal history; how time has been measured, regulated, experienced, and imagined in the West and non-West from antiquity to present with emphasis on 19th-and 20th-century United States; topics include time discipline (e.g., factory, slave plantation, corporate office), standard time, and deep time; focus on changing technologies of time (e.g., clocks, calendars) and to temporal impact of other technologies (e.g., cinema); application of temporal perspective to political revolution, warfare, nation building, class formation, gender relations, slavery, and urbanization. Same as AMST:7146.

HIST:7160 Global History of Race, Science, and Medicine 3 s.h.
Examination of the history of social construction of race in scientific and medical thought; use of science and medicine to conceptualize race, as well as how race was used by scientists and physicians in their practice; primary focus is on the Atlantic World—Europe, Africa, and the Americas—and touches briefly on the construction of race in other parts of the world. Same as GHS:7160.

HIST:7190 Individual Study: Graduate arr.

HIST:7193 Thesis arr.

HIST:7202 Readings: 20th-Century Native American History arr.
Examination of the Indigenous 20th century through a series of themes including settler colonialism, sovereignty and self-determination, federal Indian policy, and Indigenous feminism; readings focus primarily on secondary sources, but attention is given to key primary sources; students are required to carry out specified research tasks. Same as NAIS:7202.

HIST:7205 New Histories: U.S. Slavery arr.
Our approach to study of slavery and discipline of history have been upended by recent works by and about women; exploration of that scholarship and consideration of where it takes us in grappling with systems and subjectivity of slavery. Same as AFAM:7205, GWSS:7205.

HIST:7207 American Emancipations 3 s.h.
Sample the historiography of slavery, abolition, and emancipation in the Western Hemisphere. Focus on the movements to abolish Black chattel slavery in the eighteenth- and nineteenth-century United States; engage related histories throughout the Atlantic world. Same as AFAM:7207.

HIST:7210 The Long Civil Rights Movement arr.
Exploration of the history and historiography of the modern Black freedom struggle in the United States, with particular attention to how historians in recent years have reconsidered traditional framings of that struggle's chronology, geography, gender politics, political aspirations, and achievements. Same as AFAM:7210.

HIST:7214 Readings: African American Women's History arr.
Same as AFAM:7214, GWSS:7214.

HIST:7217 Social Movements in the United States From 1965 to Present 3 s.h.
Exploration of social movements in the United States and how they have shaped the country and its people since 1965; students study a range of historic movements that were diverse in their ideology and goals—from the fight for welfare rights to conservative tax revolts, LGBTQ+ rights to the White Power Movement—and examine more contemporary movements (e.g., Standing Rock and Black Lives Matter) and situate them historically in their respective protest lineages; interrogation of what constitutes a social movement and how and why they emerge, operate, and ultimately end; opportunity to work on a research project relevant to student's own interests.

HIST:7227 Readings in American Environmental History arr.
Introduction to historiography—classic texts and recent work—in American environmental history; topics from colonial period to recent past.

HIST:7236 Readings in Borderlands History arr.
Comparative borderlands; articles on diverse topics from borderland regions worldwide (main focus on U.S.-Mexico borderlands, with inclusion of European, Asian, African, and Latin American borderlands); analysis of each article for its thesis, research questions, methodology, primary sources, and weaknesses; seminar.

HIST:7246 United States in the World arr.
Historiographies that situate modern U.S. history in a global context; how historians study the American past beyond traditional, nation-centered frames; transnational histories of migration, nativism and exclusion; social movements; colonial empire-building; commercial and cultural Americanization; transfer of policy ideas; military occupations; decolonization; Cold War’s impact on social reform; post-9/11 moment.

HIST:7261 Readings: Early American History arr.

HIST:7263 Readings in U.S. History 3 s.h.
Cultural, political, economic, and social changes in the history of the United States.

HIST:7275 Readings in the History of Women and Gender in the U.S.A. arr.
Same as GWSS:7275.

HIST:7293 Graduate Readings in Public History arr.
Overview of public history with attention to ways in which historians have engaged various publics; major theoretical constructs (memory, heritage, commemoration); public history methodologies (oral history, material culture, archival documentation); legal ethics; how history is communicated to the public; how public history sites contribute to public memory; how and why controversies emerge in public history settings; relationship between academic history and public history.

HIST:7414 Slavery and Social Death: 1200 B.C.E. to 1865 C.E. 3 s.h.
Exploration of various slave systems in antiquity, the middle ages, and modernity in terms of their motivations, utilization, and broader social, economic, and political implications; use of literary sources and archaeological remains to investigate slave cultures in ancient Near East and Egypt, Jewish exploitation of enslaved persons, and use of chattel slavery in Greek, Roman, early Christian, and Islamic societies; antebellum U.S. slavery. Same as ANTH:7414, CLSA:7114.

HIST:7425 Gender, Sex, and Women in the History of Science and Medicine 3 s.h.
Introduction to historical debates and current research in the history of gender, sex, and women in science and medicine from the medieval era to the 20th century.

HIST:7435 Readings: Women, Men, and Gender in Modern Europe arr.
Same as GWSS:7435.

HIST:7440 Readings in Modern German History arr.
Major problems in modern German history; historiographic debates organized thematically and proceeds chronologically from the French Revolution to the present; oral presentations and comparative essays.

HIST:7445 Readings: Imperialism and Colonialism 3-4 s.h.
Engagement of Europeans in an immense outward expansion of people, goods, ideas, and more than a few germs since 1492; exploration of some of the implications of this expansion by focusing on a selection of different colonial encounters and some legacies of European empires.

HIST:7456 Readings: Modern European History arr.

HIST:7505 Readings: Latin American History arr.
Introduction to historiography in the field of Latin American history; students deepen their understanding of the region's history and become acquainted with trends in topical concerns, sources, and methods that are shaping historical research on Latin America's past. Taught in English. Same as SPAN:7505.

HIST:7535 Readings in Latina/o/x History arr.
Introduction to major works and recent scholarship in Latina/o/x history.

HIST:7551 Readings: Globalizing Latin American Science and Medicine arr.
Recent trends in Latin American history of science and medicine.

HIST:7559 Race, Science, and Nature in Latin America arr.
Analysis of the history of United States and Latin America relations in the 20th century through the lens of scientific and agricultural change; how plant breeding, agrochemicals, heavy machinery, and irrigation systems set in motion trends that made the 20th century exceptional; possibility of feeding an unprecedented growing global population and transition of human species from being primarily rural to primarily urban in less than a hundred years; analysis of how a network of scientists, businesses, and governments made proliferation of agribusinesses possible to emphasize Indigenous and Mestizo peasants' role in that process. Same as AMST:7559, SEES:7559.

HIST:7606 Readings in Chinese History arr.
Same as ASIA:7606.

HIST:7680 Readings in Modern Korean History 3 s.h.
Introduction to historiography of modern Korean history from late 19th century to present.

HIST:7691 Topics in East Asian History arr.
Introduction to major works and recent scholarship on border-crossing topics in East Asian history, including transnational/regional exchange, empire, frontiers/borderlands, migration, ethnicity, and historiography.

HIST:7706 Readings in African History arr.

HIST:7805 Readings in Middle East History arr.
Global perspective on major topics in modern history of the Middle East and North Africa including gender, sexuality, race, and empire. Same as GWSS:7805.

Jewish Studies Courses

JSTU:2149 Introduction to Jewish Studies 3 s.h.
Introduction to the interdisciplinary field of Jewish studies; topics include history from ancient origins to the present, sociology of Jewish life in the U.S. and internationally, ethical and religious principles and practices, Jewish embeddedness in non-Jewish societies, and controversies within and surrounding the Jewish world. GE: Understanding Cultural Perspectives. Same as HIST:2149, RELS:2240, SJUS:2240.

JSTU:2155 Global Jewish History 3 s.h.
Examines the Jewish experience in the modern period. Jewish history is global (the focus will be on Jews in the Middle East, Europe, the United States, and Latin America). Each community has participated in local politics and in the creation of local cultures, while remaining part of a Jewish Diaspora, held together to varying degrees by ethnic identity and religious tradition. Students will study how Jewish identity is constructed and how Jews negotiate their relationships with each other, with non-Jews in their local societies, and with other Jewish communities. GE: Understanding Cultural Perspectives. Same as HIST:2155.

JSTU:2156 Arabs and Jews in Palestine and Israel 3 s.h.
Examines relations between Muslim, Christian, and Jewish communities in Palestine during the Ottoman and Mandate periods, and between Jewish groups and Arab-Israelis after the establishment of the State of Israel in 1948. After an introduction to ethnicity, nationality, and religious identity from a theoretical perspective, focus will be on Ashkenazi Jews, Middle Eastern Jews, and Palestinian Arabs. Students will engage with important contemporary issues in Arab-Israel relations. GE: Understanding Cultural Perspectives. Same as HIST:2156.

History, BA

Learning Outcomes

Historical knowledge offers insight into the depth and range of human experience and perspectives on the increasingly interconnected world in which we live. Students of history learn how to locate, verify, and interpret many kinds of evidence in order to understand historical cause, effect, and change over time. History courses strengthen skills in analyzing and explaining the complex problems of the past and the present. The history major provides students with the tools and perspective for active citizenship in a democratic, pluralistic society, as well as for success in graduate studies and a wide range of careers.

The undergraduate program is organized around the intertwined skills of research and communication. Students learn about significant events, places, and people of the past, but just as importantly, they learn how to engage in factual research about the past, how to understand the context of human actions, and how to identify the factors that brought about the world of the past and the world we know today. Students of history:

- acquire a broad knowledge of history and historical change across multiple regions of the globe and a range of historical periods;
- gain an awareness of their own place in today's world and of the connections between past and present;
- learn to value the role of evidence in their understanding of the world, and how to assess and verify different types of data, whether written, visual, oral, statistical, or cultural;
- learn how to distinguish between primary and secondary sources, and how each kind of source is used;
- develop an understanding of the possible impact of authorial bias, social background, or ideology;
- learn to employ differing methods of analysis, and they explore diverse ways of thinking about the past and human society; and
- develop skills in research, critical thinking, reading, and writing. History writing assignments sharpen students' skills in original research and analysis, while reading assignments develop their abilities to synthesize information and grapple with varying points of view.

Requirements

The Bachelor of Arts with a major in history requires a minimum of 120 s.h., including 36 s.h. of work for the major. Of the 36 s.h., at least 24 s.h. must be numbered 2000 or above. No more than 3 s.h. in history courses (prefix HIST) numbered 1002–1099 may count toward the major. Courses that count toward the major may not be taken on a pass/nonpass basis. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

College Level Equivalency Program (CLEP) and Advanced Placement Program (APP) credit do not count toward the history major. Transfer work that is equivalent to University of Iowa coursework may be accepted toward the major, but at least 18 s.h. of work for the major, including HIST:2151 Introduction to the History Major, must be taken at the University of Iowa.

Students may count up to 56 s.h. of history coursework (prefix HIST) toward credit required for the Bachelor of Arts degree. History majors are encouraged to take courses in other fields that illuminate and expand the meaning of history courses and that introduce information and a variety of approaches to understanding how societies and cultures work.

Students majoring in history are encouraged to complete the College of Liberal Arts and Sciences GE CLAS Core World Languages requirement by choosing a language that fits their interests in history. The department also encourages study abroad programs that complement students' language area interests.

The BA with a major in history requires the following coursework.

Requirements	Hours
Introductory Course	3
Required History Courses	21
History Electives	12
Portfolio	

Introductory Course

Students enroll in HIST:2151 Introduction to the History Major as soon as possible after declaring the major in history. Topics vary, but all sections of HIST:2151 instruct students in the skills they need to succeed in upper-level history courses. Students explore the diverse kinds of sources historians use, including both primary (original) sources and secondary (scholarly) sources. They learn how to frame a historical question, find and interpret relevant sources (in libraries, online, and in archives), and then integrate them into a historical argument, expressed clearly and in accordance with appropriate scholarly conventions. By the end of the semester, students have produced a substantial research paper or project and have a clearer understanding of the historian's craft. Students must include at least one paper or project from HIST:2151 in their history portfolio (see the "Portfolio" section that follows). Introduction to the History Major (HIST:2151) does not count toward the area (American, European, non-Western) or pre-1700 era requirements.

Required History Courses

Undergraduate courses in history are divided into four areas: American history, European history, non-Western history, and courses that have no specific area designation. Students must earn at least 6 s.h. in each of the designated areas (American, European, non-Western), with at least 3 s.h. in each of those areas taken in courses numbered 3000 or above. Courses numbered 1100–1199, 2100–2199 (including HIST:2151 Introduction to the History Major), 3100–3199, 3995–3996, or 4100–4199 do not fulfill a specific geographical area or the pre-1700 requirement.

Students may count a maximum of 18 s.h. earned in American history courses (numbered 1200–1299, 2200–2299, 3200–3299, and 4200–4299) toward the major.

Course #	Title	Hours
American History Courses		
Two American history courses (numbered 1200-1299, 2200-2299, 3200-3299, or 4200-4299), including at least one numbered 3000 or above		6
European History Courses		

Two European history courses (numbered 1400-1499, 2400-2499, 3400-3499, or 4400-4499), including at least one numbered 3000 or above	6
Non-Western History Courses	
Two non-Western history courses (numbered 1500-1999, 2500-2899, 3500-3899, 4500-4999), including at least one numbered 3000 or above	6
Pre-1700 History Course	
One pre-1700 history course (select from the list that follows)	3
History Electives	
Additional history courses selected by the student	12

Pre-1700 History Course

A course taken to fulfill the pre-1700 history course requirement may also be counted toward the requirement in American, European, or non-Western history. These courses fulfill the pre-1700 history requirement.

Course #	Title	Hours
HIST:1401	The West and the World: Ancient	3
HIST:1402	The West and the World: Medieval	3
HIST:1601	Civilizations of Asia: China From Origins to the 17th Century	3
HIST:1602	Civilizations of Asia: China from the 17th Century to the Present	3
HIST:1604	Civilizations of Asia: Japan	3
HIST:1606	Civilizations of Asia: South Asia	3
HIST:2444	Engineering and Technology in the Ancient World	3
HIST:2461	Middle East and Mediterranean: Alexander to Suleiman	3
HIST:3270	Colonial North America, ca. 1600-1775	3
HIST:3289	The Atlantic World c. 1450-1850	3
HIST:3401	Ancient Egypt and the Ancient Near East	3
HIST:3404	The World of Ancient Greece	3
HIST:3409	Medieval Civilization I	3
HIST:3410	Medieval Civilization II	3
HIST:3413	Early Modern Britain: The Tudor and Stuart Era	3
HIST:3427	Family, Gender, and Society in Early Modern Europe	3
HIST:3443	Rome at War	3
HIST:3448	Barbarians and the Fall of Rome	3
HIST:3758	The Ancient African Past	3
HIST:4400	The Roman Empire	3
HIST:4406	Warfare in Ancient Mediterranean Society	3
HIST:4407	The Hellenistic World and Rome	3
HIST:4412	History of the Medieval Church	3

Portfolio

All history majors must complete a portfolio, enrolling in the portfolio course HIST:3193 Undergraduate History Portfolio during the semester in which they plan to graduate. The portfolio includes three papers or projects completed in history courses and submitted electronically (preferably a student submits papers/projects, and one paper/project should be from HIST:2151 Introduction to the History Major. A history honors thesis may replace the other two papers/projects. The portfolio does not affect a student's grade-point average; timely submission fulfills the requirement with a grade of S (satisfactory).

Students should submit their portfolios on the University of Iowa ICON website for HIST:3193 early during the semester in which they plan to graduate.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Honors in the major gives students the opportunity to conduct independent research on a topic of their choosing, and write an original piece of scholarship based on that research. The product is a 30–35 page thesis written under the supervision of a faculty member who specializes in the field. To graduate with honors in history, students must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33, as required by the College of Liberal Arts and Sciences, and a 3.33 GPA in the major as set by the Department of History. Students register for 3 s.h. in HIST:3995 History Honors Research Seminar, usually during the spring of their junior year, and HIST:3996 Honors Thesis, usually during the fall of their senior year. The 6 s.h. of credit counts toward the semester hours required for the history major.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the history major.

Career Advancement

A major in history provides broad training in evaluating and interpreting data, thinking critically, and understanding issues

in a global context that prepares history graduates to succeed in careers in nearly any field.

Employers value history students' ability to analyze human and social behavior, research pressing problems, and express themselves clearly. Graduates of the department occupy positions in government, business, journalism, law, entertainment, education, the nonprofit sector, library science, social work, and philanthropy, among others. Iowa's history graduates who choose to continue their education frequently earn admission to top graduate and professional schools.

Career outcomes show that graduates with a history BA fare comparatively well in the workforce. History graduates enter a wide range of professions, and mid-career salaries tend to be strong, particularly in the categories of education, business, and law. Salaries for history graduates are generally higher than those of graduates in other humanities disciplines across all job fields.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs. History students are also encouraged to meet with the departmental advisor and their faculty mentors to discuss their career plans as they prepare for the future.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the fifth semester begins: three courses in the major, including HIST:2151 Introduction to the History Major

Before the seventh semester begins: four more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: three more courses in the major.

During the eighth semester: submission of the portfolio of written work (three history papers/projects, preferably graded) to the director of undergraduate studies through the HIST:3193 Undergraduate History Portfolio ICON website (a student must be enrolled in HIST:3193 in order to submit the portfolio), enrollment in all remaining coursework in the major (two courses), all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Iowa Degree in Three

University of Iowa majors who are strongly motivated can graduate with a degree in three years under the Iowa Degree in Three. The program is available to students who can complete more semester hours each term than they would on the Four-Year Graduation Plan.

Students sign an agreement during their first semester of enrollment; meet with an advisor at least once a semester to review their plans and progress; take courses during summer sessions, if necessary; meet specific course checkpoints; and maintain the grade-point average required for the major.

Students are allowed to bring Advanced Placement (AP), College Level Examination Program (CLEP), or transfer credit upon admission to reduce the number of semester hours required for their degree. They should consult their advisor about the program.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

History, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
Major: history elective course [b, c, d, e]		3 - 4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Social Sciences [f]		3
Elective course [g]		3
CSI:1600	Success at Iowa	1
	Hours	**13-15**
Spring		
Major: history elective course [b, c, e, h]		3 - 4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [f]		3
GE CLAS Core: Natural Sciences with Lab [f]		4
Elective course [g]		2
	Hours	**15-17**
Second Year		
Fall		
HIST:2151	Introduction to the History Major [c]	3
Major: American history course [c, i]		3
GE CLAS Core: International and Global Issues [f]		3
GE CLAS Core: Quantitative or Formal Reasoning [f]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [j]		4 - 5
	Hours	**16-17**
Spring		
Major: European history course [c]		3
Major: non-Western history course [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [j]		4 - 5
Elective course [g]		3
Elective course [g]		3
	Hours	**16-17**
Third Year		
Fall		
Major: 3000+ American history course [c, i]		3
Major: 3000+ European history course [c]		3
GE CLAS Core: Natural Sciences without Lab [f]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [j]		4 - 5
Elective course [g]		3
	Hours	**16-17**

Spring		
Major: pre-1700 history course [c]		3
Major: 3000+ non-Western history course [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [j]		4 - 5
Elective course [g]		3
Elective course [g]		3
	Hours	**16-17**
Fourth Year		
Fall		
Major: history elective course [b, c, e]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [f]		3
Elective course [g]		3
Elective course [g]		3
Elective course [g]		3
	Hours	**15-16**
Spring		
HIST:3193	Undergraduate History Portfolio	0
Major: history elective course [b, c, e]		3 - 4
GE CLAS Core: Values and Society [f]		3
Elective course [g]		3
Elective course [g]		3
Elective course [g]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15-16**
	Total Hours	**122-132**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students complete at least 12 s.h. in history electives.

c Students must complete 24 s.h. from courses in prefix HIST numbered 2000 or above.

d Consider choosing a course that also fulfills the GE CLAS Core: International and Global Issues requirement.

e Students may count a maximum of 3 s.h. numbered HIST:1002-1099 toward the major.

f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

g Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

h Fulfills a major requirement and may fulfill a GE requirement.

i Students may count a maximum of 18 s.h. earned in American history courses toward the major.

j Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

History, Minor

Requirements

To earn the undergraduate minor in history, students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

The minor in history requires a minimum of 15 s.h. in history courses (prefix HIST), including 12 s.h. earned in courses numbered 2000 or above, and at least 12 s.h. earned in courses taken at the University of Iowa.

Jewish Studies, Certificate

Requirements

The Certificate in Jewish Studies requires a minimum of 18 s.h., including at least 12 s.h. in courses completed at the University of Iowa. Students must earn a grade-point average of at least 2.00 in all certificate coursework.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

The certificate takes an interdisciplinary approach to the study of Jewish history and cultures across time and space. Jewish studies encompasses a broad range of topics, including biblical studies; ancient, medieval, and modern history; Jewish religion; Jewish literature and art; Sephardic, Mizrahi, and Ashkenazi studies; race and gender; social justice; Holocaust studies; Israel studies; Jewish languages; and more. Jewish studies interrogates ethnicity and other forms of identity and therefore intersects with African American studies; Latina/o/x studies; gender, women's, and sexuality studies; and other similar fields. Jewish studies is inherently transnational, interdisciplinary, and intersectional.

All students develop an individual certificate plan of study in close cooperation with a Jewish studies advisor. As a general rule, both foundation courses are offered annually, one in the fall and one in the spring. Other courses are typically offered on an annual or biennial basis. In some cases, students may be able to count certificate courses toward certain GE CLAS Core [p. 22] requirements.

Some courses in the following list only apply to the certificate when an appropriately themed section is completed; additional notations appear on those courses. Students must ensure they are enrolled for a qualifying section of the course.

Students may petition to receive credit for courses not listed. These may include more general courses in which students complete a major project centered around Jewish studies, such as courses in the creative and performing arts, independent studies, or a senior or honors thesis. Students are advised to consult with the Jewish studies certificate director about any questions regarding qualifying coursework.

The Certificate in Jewish Studies requires the following coursework.

Foundation Courses

Course #	Title	Hours
One of these:		
JSTU:2149/ HIST:2149/ RELS:2240/ SJUS:2240	Introduction to Jewish Studies	3
JSTU:2155/ HIST:2155	Global Jewish History	3

Elective Courses

Students fulfill the remainder of the 18 s.h. with elective courses selected from the following.

It is recommended but not required that students distribute elective courses in the following ways: courses from at least two different departments; courses from at least two different clusters; and at least 9 s.h. in courses numbered 2000 or above.

Cross-Chronological Cluster

Course #	Title	Hours
JSTU:2149/ HIST:2149/ RELS:2240/ SJUS:2240	Introduction to Jewish Studies (if not taken as a foundation course)	3
JSTU:2155/ HIST:2155	Global Jewish History (if not taken as a foundation course)	3
ENGL:3247	The English Bible	3
RELS:1001	Judaism, Christianity, and Islam	3

The Ancient and Medieval World Cluster

Course #	Title	Hours
CLSA:1415	Ancient Origins of Religious Conflict	3
CLSA:1454	Hebrew Bible for Everyone	3
CLSA:1455	New Testament for Everyone	3
CLSA:2444/ RELS:2444	Cities of the Bible	3
CLSA:2482/ RELS:2182	Ancient Mediterranean Religions	3
CLSA:2489/ RELS:2289	Jerusalem: The Holy City	3
CLSA:2620/ RELS:2620	Sex and the Bible	3
CLSA:3247/ RELS:3247	Banned From the Bible: Pseudepigrapha and Apocrypha	3
CLSA:4452/ RELS:4352	The Dead Sea Scrolls	3
ENGL:3226/ MDVL:3226	Literature and Culture of the Middle Ages	3
HIST:2461/ CLSA:2461/ RELS:2361	Middle East and Mediterranean: Alexander to Suleiman	3
RELS:1070	Introduction to the Hebrew Bible/Old Testament	3

The Modern World Cluster

Course #	Title	Hours
JSTU:2156/ HIST:2156	Arabs and Jews in Palestine and Israel	3
FREN:4433/ HIST:4433	France Under Nazi Occupation, 1940-1944	3-4
GRMN:2618/ WLLC:2618	Film and Literature of the Holocaust	3-4
GRMN:2620/ WLLC:2620	Anne Frank and Her Story	3-4
GRMN:2675/ MUSM:2675	The Politics of Memory: Holocaust, Genocide, and 9/11	3-4
HIST:1016	The History That Made Our World (when topic is Israel-Palestine conflict)	3

HIST:2151	Introduction to the History Major (when topic is Nazi Germany)	3
HIST:4478	Holocaust in History and Memory	3
POLI:3423	The Middle East: Policy and Diplomacy	3
RELS:2265/ ASP:2265/ GHS:2265	Hard Cases in Healthcare at the End of Life	3
SJUS:2050/ GWSS:2050/ HIST:2150/ RELS:2250	Jews, Judaism, and Social Justice	3

Language Cluster

Students interested in pursuing additional language study through the Big Ten Academic Alliance CourseShare Program should contact the Department of Languages, Linguistics, Literatures, and Cultures [p. 659] for more information.

Course #	Title	Hours
CLSA:4901/ RELS:4001	Biblical Hebrew I	3-4
CLSA:4902/ RELS:4002	Biblical Hebrew II	3
CLSA:5903/ RELS:5001	Biblical Aramaic	3
CLSA:5904/ RELS:5002	Targumic Aramaic	3
Big Ten Academic Alliance (BTAA) CourseShare courses in Modern Hebrew, Yiddish, or Ladino		

Career Advancement

The Certificate in Jewish Studies is of value for careers for which training in ethics and diversity are important qualifications, such as social services, the health care professions, law, and the arts. The certificate also helps to prepare students for careers with Jewish or interfaith nonprofits and graduate work in Jewish studies or cognate fields.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Jewish Studies, Certificate

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate Certificate in Jewish Studies requires a minimum of 18 s.h. of approved coursework.		
HIST:2155 or SJUS:2240	Global Jewish History or Introduction to Jewish Studies	3
Certificate: Jewish Studies elective course [a]		3
Certificate: Jewish Studies elective course [a]		3
Certificate: Jewish Studies elective course [a]		3
Certificate: Jewish Studies elective course [a]		3
Certificate: Jewish Studies elective course [a]		3
	Hours	**18**
	Total Hours	**18**

a Students are encouraged but not required to distribute elective courses in the following ways: courses from at least two different departments; courses from at least two different clusters; and at least 9 s.h. in courses numbered 2000 or above. See General Catalog for lists of approved courses.

History, MA

The Department of History offers a master's degree program in history. Individuals may pursue the degree for a variety of reasons, from professional enhancement to personal enrichment. Students interested in graduate work may obtain a copy of the current History Guide to Graduate Study from the Department of History website. The guide is revised periodically to include detailed regulations on study toward advanced degrees and other information for students.

Learning Outcomes

The MA is for students who wish to acquire a broad knowledge of history and an introduction to the field's theoretical and historical foundations. It is intended to prepare students to pursue a PhD in history or for careers outside the academy.

Students are expected to demonstrate:

- a basic understanding of the development of historiography and historical methodologies;
- a basic understanding of primary source material in one subfield of history; and
- sustained critical thinking, writing, and speaking abilities.

Requirements

The Master of Arts program in history requires a minimum of 30 s.h. of graduate credit, including at least 24 s.h. in history coursework numbered 3000 or above. Students must maintain a UI cumulative grade-point average of at least 3.33.

The MA is offered with two options: one that stresses breadth of learning through coursework; and with the approval of a faculty advisor, one that emphasizes the development of research capabilities culminating in a research essay designed to prepare students for doctoral studies.

Students are required to take HIST:6002 Introduction to Graduate Studies in History: Historiography and Methods during their first semester in the program. They must take 12 s.h. of coursework (one course numbered 6000 or above) in one major division of history; and 6 s.h. each in two other divisions (with at least one course numbered 6000 or above in one of the two divisions), either in history or a related field. Students work with their primary faculty advisor to determine appropriate coursework.

Students take a written exam in their major division of history and defend to a committee of three faculty members.

Students who choose a research option instead of a written exam must complete and defend a research essay to a committee of three faculty members. The essay must be based on original research and completed under the guidance of a faculty advisor. The finished essay should emulate the character of articles in learned journals, just as the PhD dissertation takes the form of a full-length scholarly monograph.

Combined Programs

MA/JD

The Department of History and the College of Law offer a combined Master of Arts/Juris Doctor. The combined degree program allows students to count a limited amount of credit toward both degrees.

Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. For information about the JD, see Juris Doctor, JD [p. 1833] (College of Law) in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants submit their application online. Along with the official application, they submit academic transcripts; examples of original writing, such as a term paper, a seminar paper, or an honors thesis; letters of recommendation from three persons familiar with the student's past academic work; and a one- or two-page personal statement of the applicant's purpose for doing graduate work. See History (MA or PhD) on the University of Iowa Graduate Admissions website for more information.

All application materials are due by Jan. 15 for entry the following August.

Career Advancement

Graduate study in history prepares students for occupations such as high school or college teaching, publishing, commercial research, foundations and nongovernmental organizations, and government or other public services. With additional specialized training, students may become qualified for careers in historical site preparation and display, and archival, library, or museum work.

Some students choose to pursue the combined Master of Arts/Juris Doctor program, which leads to degrees in both law and history; see Combined Programs [p. 581] in this section of the catalog.

The University of Iowa's history graduates who earn an MA experience remarkable job placement rates, depending on their area of study. Graduate and postdoctoral career services offer multiple resources to assist students in locating opportunities and preparing for jobs upon completion of the program.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

History, MA

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**

First Year		
Fall		
HIST:6002	Introduction to Graduate Studies in History: Historiography and Methods [b]	3
Major Division course [c, d]		3
Major Division course [c, d]		3
	Hours	**9**
Spring		
Major Division course [c, d]		3
Second Division course [c, d]		3
HIST:6003	History Theory and Interpretation [c, d]	3
	Hours	**9**
Second Year		
Fall		
Major Division course [c, d]		3
Second Division course [c, d]		3
Third Division course [c, d]		3
	Hours	**9**
Spring		
Elective course [c, d]		3
Final Exam [e]		
	Hours	**3**
	Total Hours	**30**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Required during first semester in the program.

c Work with faculty advisor to determine appropriate coursework; refer to the General Catalog and department website for courses and specifics.

d Students must take 12 s.h. of coursework (one course numbered 6000 or above) in one major division of history, and 6 s.h. each in two other divisions (with at least one course numbered 6000 or above in one of the two divisions) either in history or a related field.

e Written and oral examination in the student's major division of history.

History, PhD

The Department of History offers a doctoral program for students interested in earning a PhD in history. Students interested in graduate work may obtain a copy of the current History Guide to Graduate Study from the Department of History website. The guide is revised periodically to include the latest detailed regulations on study toward advanced degrees and other information for students.

Learning Outcomes

The PhD program is intended for students who wish to pursue original research in history. The end goal is a first-rate dissertation based on that research. Students should acquire a deep knowledge of two fields of history and understand the field's historical and theoretical foundations. They are prepared to pursue careers in and outside of academia, and they fashion their plans of study together with their advisors.

Students are expected to demonstrate:

- understanding of the development of the historiography and historical methodologies;
- skill in analyzing primary source material;
- skill in contextual analysis and secondary source interpretations;
- the ability to engage in the broad and ever-shifting philosophical, scholarly, and institutional debates animating the practice of history;
- the ability to engage in sustained critical thinking;
- the ability to write clearly and compellingly;
- a deep knowledge of their two research fields;
- reading knowledge of a second language of particular relevance to their field of study;
- the ability to conduct independent research;
- knowledge and skills necessary to be effective teachers;
- public speaking skills necessary to present research in professional academic settings; and
- critical research and writing skills necessary to publish peer-reviewed articles.

Requirements

The Doctor of Philosophy program in history requires at least 72 s.h. of graduate credit. Students must maintain a cumulative University of Iowa grade-point average of at least 3.33. Those who have earned MA degrees can apply up to 30 s.h. of credit toward the PhD.

Students must complete at least five (for those entering with an MA) and at least seven (for those entering with a BA) graduate-level history courses numbered 6000 or above, earning 3 s.h. of credit for each course. Courses taken at the MA level may be counted toward this requirement.

Students must complete a required course sequence: HIST:6002 Introduction to Graduate Studies in History: Historiography and Methods (in the first semester) and HIST:6003 History Theory and Interpretation. These courses develop an understanding of the philosophy of history, historiography, and methods of historical research. Students must also start the comprehensive exam sequence in the second or third year depending on their degree at admission: HIST:6004 Comprehensive Exams Seminar I (taken the semester before the comprehensive exam) and HIST:6005 Comprehensive Exams Seminar II (taken the semester of the comprehensive exam).

Students who enter the program without an MA must write two research papers that are the length of a standard journal article (7,000–9,000 words) before taking comprehensive exams. One of these research papers is the qualifying research paper. For students who enter the program with an MA, only the qualifying research essay must be completed before taking comprehensive exams. The essay must be based on original research and should be of sufficient quality to submit for publication in learned journals, just as the PhD dissertation takes the form of a full-length scholarly monograph. The qualifying essay must be approved by the faculty advisor and a second faculty member in order for a student to continue in the program.

The department has a basic world language requirement for the PhD; however, the supervising faculty member may require a student to demonstrate reading proficiency in one or more languages and proficiency in the use of other study tools. Students may not complete the comprehensive exam until these requirements have been met.

The comprehensive written and oral exams cover three distinct fields. The primary field is defined thematically and geographically in consultation with the advisor. The secondary field is defined with a field supervisor; it must have a different thematic and/or geographic focus than the primary field. Both of these fields are based on core sets of readings created together with advisors. There are two options for the third field: a teaching option and a non-teaching option. In either case, the parameters are set by the student's advisor, and the required work must be completed prior to the written examinations. The written portion of the comprehensive exams consists of two questions for each field, each answered over two days during the comprehensive exam period. The oral portion of the comprehensive examination focuses on the submitted written examination and is defended to a committee of at least four faculty members.

In most cases, the candidate submits a written prospectus for the dissertation to the faculty advisor before the comprehensive exams, and the student defends the prospectus within two weeks of passing the oral portion of the examination. The examination committee considers the prospectus and may approve it, reject it, or require its revision. At this point, all that remains is researching and writing the dissertation, in regular consultation with the faculty advisor. When the dissertation is completed, a dissertation committee composed of at least four faculty members administers the final examination. A formal oral defense of the dissertation typically lasts two hours.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants submit their application online. Along with the official application, they submit academic transcripts; examples of original writing, such as a term paper, a seminar paper, or a master's essay; letters of recommendation from three persons familiar with the student's past academic work; and a one- or two-page personal statement of the applicant's purpose for doing graduate work. See History (MA or PhD) on the University of Iowa Graduate Admissions website for more information.

All application materials are due by Jan. 15 for entry the following August.

Career Advancement

Graduate study in history prepares students for occupations such as secondary or college teaching, publishing, commercial research, foundations and nongovernmental organizations, and government or other public services. With additional specialized training, students may become qualified for careers in historical site preparation and display, or archival, library, or museum work.

The University of Iowa's history graduates who earn a PhD have an excellent history of job placement, depending on their area of study. Graduate and postdoctoral career services offer multiple resources to assist students in preparing for job opportunities upon completion of the program.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

History, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; more information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
HIST:6002	Introduction to Graduate Studies in History: Historiography and Methods [b]	3
History course [c]		3
Elective course [d]		3
	Hours	**9**
Spring		
HIST:6003	History Theory and Interpretation	3
History course [c]		3
Elective course [d]		3
	Hours	**9**
Second Year		
Any Semester		
Language Requirement [e]		
	Hours	**0**
Fall		
Qualifying Research Essay [f]		
History course [c]		3
History course [c]		3
Elective course [d]		3
	Hours	**9**
Spring		
History course [c]		3
History course [c]		3
Elective course [d]		3
	Hours	**9**
Third Year		
Fall		
Second Research Paper [g]		
History course [c]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**9**
Spring		
HIST:6004	Comprehensive Exams Seminar I	3
Elective course [d]		3
Elective course [d]		3
	Hours	**9**
Fourth Year		
Fall		
Exam: Doctoral Comprehensive Exam [h]		
Dissertation Prospectus [i]		
HIST:6005	Comprehensive Exams Seminar II	3
Elective course [d]		3
Elective course [d]		3
	Hours	**9**
Spring		
Elective or Independent Study [d]		2
	Hours	**2**
Fifth Year		
Fall		
HIST:7193	Thesis	2
	Hours	**2**
Spring		
HIST:7193	Thesis	1
	Hours	**1**
Sixth Year		
Fall		
HIST:7193	Thesis	1
	Hours	**1**
Spring		
HIST:7193	Thesis	1
	Hours	**1**
Seventh Year		
Fall		
HIST:7193	Thesis	1
	Hours	**1**
Spring		
HIST:7193	Thesis	1
Exam: Doctoral Final Exam [j]		
	Hours	**1**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Students must complete HIST:6002 during the first semester.

c Students must complete at least seven graduate level history (or related field) courses numbered 6000 or

above; work with faculty advisor to determine appropriate coursework and sequence.

d Work with faculty advisor to determine appropriate elective coursework and sequence.

e The department has a basic world language requirement for the PhD. However, the faculty advisor may require a student to demonstrate a reading knowledge of one or more languages and proficiency in the use of other study tools. Students may not complete the comprehensive examination until these requirements have been met.

f Must be completed prior to the end of second year fall semester.

g Students who enter the program without an MA must write a second research paper. This paper can be completed anytime between the 1st and 5th semesters and should be complete before beginning the comprehensive exam prep courses.

h Written and oral examination typically completed during the seventh semester; more information is included in the General Catalog and on department website.

i Typically completed during the seventh semester, written prospectus for the dissertation is submitted to the faculty advisor before the comprehensive exams; the student defends the prospectus within two weeks of passing the oral portion of the comprehensive examination.

j Dissertation defense.

Interdepartmental Studies

Director, Division of Interdisciplinary Programs

- Cornelia C. Lang (Physics and Astronomy)

Director, Interdepartmental Studies

- Cornelia C. Lang

Undergraduate major: interdepartmental studies (BA)

Faculty: https://interdepartmentalstudies.uiowa.edu/people

Website: https://interdepartmentalstudies.uiowa.edu/

The Interdepartmental Studies Program (ISP) gives students the opportunity to choose a preapproved plan of study in applied human services, business studies, or health science. Each track includes coursework from a variety of departments.

Students who plan to seek employment immediately after graduation should familiarize themselves with the educational background and qualifications required by employers and should include appropriate courses in their study programs.

Students preparing for advanced study should become familiar with the admissions requirements of graduate or professional schools that interest them. The earlier students decide to pursue graduate or professional study, the easier it is to complete the necessary prerequisites.

The Interdepartmental Studies Program is one of the academic units in the Division of Interdisciplinary Programs [p. 363].

Programs

Undergraduate Program of Study

Major

- Major in Interdepartmental Studies (Bachelor of Arts) [p. 587]

Courses

Interdepartmental Studies Courses

INTD:3005 Professional and Creative Business Communication **3 s.h.**
Solid foundation for creative and professional communication in today's modern work world; exploration of techniques, strategies, and craft of writing résumés, letters of interest, email and its related etiquette, and organization of ideas into presentable form; semester-long creative project that builds a bridge between office and the world using modern technology and social media; readings and discussions of literature to better understand issues of ethics, leadership, conflict, moral judgment, decision-making, and human nature; how to navigate and succeed in business or any professional field. GE: Engineering Be Creative. Same as CW:3005, WRIT:3005.

INTD:3107 Creative Writing for the Health Professions **3 s.h.**
GE: Engineering Be Creative. Same as CW:3107.

INTD:3200 Creative Writing for New Media **3 s.h.**
Prepares creative writers for evolving marketplace of electronic text and media; experience writing in varied media (e.g., internet, e-books, video games, mobile devices, emergent social narratives). GE: Engineering Be Creative. Same as CW:3218.

INTD:3300 Creative Writing and Popular Culture **3 s.h.**
Creative writing through the lens of popular culture; topics include television, film writing, adaptations, commercials, advertising, magazines, newspapers, comic books, song lyrics, billboards, and backs of cereal boxes. GE: Engineering Be Creative. Same as CW:3215.

INTD:3500 Fundamentals of Project Management Leadership **3 s.h.**
Overview of the fundamental principles of project management and interdisciplinary team leadership. Students develop essential skills to plan, execute, and oversee projects of varying types and complexity. Key concepts include project planning, risk management, team leadership, conflict resolution, communication, and decision-making within organizational contexts. Students are introduced to technological tools used by organizational leaders to effectively plan, lead, and execute projects across organizations. Same as CLAS:3500.

INTD:3510 Introduction to Arts Management **3 s.h.**
Nonprofit performing arts management and administrative principles; practical applications, trends in the field; focus on arts organizations and their key administrative positions. Same as THTR:3510.

INTD:3600 Advanced Topics in Project Management Leadership **3 s.h.**
Builds on foundational project management concepts to deepen students' understanding of strategic project management and leadership in complex, ever-changing economic, business, and social environments. Examine advanced topics such as strategic growth planning, organizational change, technology innovation, stakeholder engagement, and implementation. Enhances students' ability to lead high-performing teams and manage multifaceted projects with confidence and impact. Prerequisites: CLAS:3100. Same as CLAS:3600.

INTD:4098 Independent Study **arr.**
Individual study of issues or topics related to a specific interdepartmental focus chosen by the student.

INTD:4099 Interdepartmental Studies Practicum **arr.**
Opportunity to relate a student's chosen area of study to practical application. Requirements: interdepartmental studies student.

INTD:4510 Arts Leadership Seminar **3 s.h.**
Performing arts management and administrative principles, practical applications, trends in arts leadership and advocacy. Same as ENTR:4510, THTR:4510.

Interdepartmental Studies, BA

Learning Outcomes

After completing any of the three tracks—applied human services, business studies, or health science—in the interdepartmental studies major, students will:

- possess the mathematical skills to present and understand data and to create probability models, or to design, analyze, and interpret research using a correlational design;
- understand how social and/or political issues shape economic behavior, or how key anthropological concepts assist in comprehending global or societal problems; and
- synthesize key concepts or techniques related to the track they are pursuing.

Requirements

The Bachelor of Arts with a major in interdepartmental studies requires a minimum of 120 s.h., including at least 36 s.h. of work for the major (total semester hours required depends on the track). Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students choose one of three tracks for the major: applied human services, business studies, or health science. Students may declare them without an application.

Students follow a preapproved study plan, which includes foundation courses and a selection of emphasis areas. The applied human services track offers one emphasis area: community-based services. The business studies track offers three emphasis areas: organizational practice and perspectives, arts management, and technology and inquiry. The health science track offers three emphasis areas: cultural contexts, entrepreneurial, and multidisciplinary science.

Interdepartmental studies students who earn a second major may count a maximum of two courses from the second major toward the interdepartmental studies major. The exception to this rule is that there is no limit on the number of GE CLAS Core courses that can overlap between the two majors. Students who earn the major in interdepartmental studies may earn the major in global health studies as long as they select an emphasis in interdepartmental studies other than the cultural contexts emphasis in the health science track.

Students majoring in interdepartmental studies may earn certificates in other programs, departments, or colleges.

Interdepartmental studies students who earn minors in other departments or programs may not count courses from the minors toward the interdepartmental studies major. The exception to this rule is that there is no limit on the number of GE CLAS Core courses that can overlap between the minors and the interdepartmental studies major.

The BA with a major in interdepartmental studies requires the following coursework.

- Applied Human Services Track [p. 587]
  - Community-based Services Emphasis [p. 588]
- Business Studies Track [p. 588]
  - Arts Management Emphasis [p. 589]
  - Organizational Practice and Perspectives Emphasis [p. 591]
  - Technology and Inquiry Emphasis [p. 593]
- Health Science Track [p. 594]
  - Cultural Contexts Emphasis [p. 595]
  - Entrepreneurial Emphasis [p. 597]
  - Multidisciplinary Science Emphasis [p. 597]

Applied Human Services Track

Students in the applied human services track may not earn a minor in human relations. Students in this track may count courses that reside in another college outside the College of Liberal Arts and Sciences (CLAS) toward their residence requirement. For example, Department of Counselor Education courses (prefix CSED) offered through the College of Education will be accepted toward the CLAS residence requirement for students in the applied human services track.

The applied human services track requires 37–41 s.h. of work for the major. It provides a preapproved plan of study that combines a generalized psychology background with one emphasis area: community-based services.

Applied human services track students must complete foundation coursework (24–26 s.h.), the emphasis area (at least 12 s.h.), and a career preparation component (at least 1 s.h.). They must complete a minimum of 15 s.h. of work for the major at the University of Iowa. The Academic Advising Center advises applied human services track students; contact the center for more information about requirements.

Requirements	Hours
Foundation Courses	24-26
Emphasis Area	12
Career Preparation Component	1-3

Applied Human Services Track: Foundation Courses

Psychology Core

Course #	Title	Hours
This course:		
PSY:1001	Elementary Psychology	3
One of these:		
PSY:2811	Research Methods and Data Analysis in Psychology I	3
STAT:1010	Statistics and Society	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4

Human Relations Core

Course #	Title	Hours
One of these:		
CCCC:2220	Foundations of Critical Cultural Competence	3
CSED:4197	Citizenship in a Multicultural Society	3
Both of these:		
CSED:4195	Ethics in Human Relations and Counseling	3

CSED:4199	Counseling for Related Professions	3

Psychology Electives

Course #	Title	Hours
Three of these:		
PSY:2301	Introduction to Clinical Psychology	3
PSY:2401	Introduction to Developmental Science	3
PSY:2501	Introduction to Social Psychology	3
PSY:2601	Introduction to Cognitive Psychology	3
PSY:2701	Introduction to Behavioral Neuroscience	4

Community-Based Services Emphasis

Students who choose the community-based services emphasis complete the elective component (12 s.h.) and the career preparation component (at least 1 s.h.).

Community-Based Services Emphasis: Elective Component

Course #	Title	Hours
12 s.h. from these:		
CSED:4110	Psychology of Food and Mood	3
CSED:4113	Sleep, Sleep Deprivation, and Sleep Disorders	3
CSED:4114	Psychology of Body Modification and Self-Image	3
CSED:4130	Human Sexuality	3
CSED:4132	Introduction to Addictions and Impulse Control Disorders	3
CSED:4140	Foundations of Leadership for Community Agencies	3
CSED:4145/ PSQF:4145	Marriage and Family Interaction	3
CSED:4162/ PSQF:4162	Introduction to Couple and Family Therapy	3
CSED:4173	Trauma Across the Lifespan	3
CSED:4174	Positive Psychology	3
CSED:4175	Motivational Interviewing	3
CSED:4178	Microcounseling	3
CSED:4179	Sexuality Within the Helping Professions	3
CSED:4180	Topical Seminar for Helping Professionals	arr.
CSED:4185	Introduction to Substance Abuse	3
CSED:4187/ EDTL:4987	Introduction to Assistive Technology	3
CSED:4193	Individual Instruction - Undergraduate	arr.
CSED:4194	Interpersonal Effectiveness	3
PSQF:1027	Mindfulness Foundations in the Helping Professions	3
PSY:2930	Abnormal Psychology: Health Professions	3
SSW:3712/ NURS:3712	Human Sexuality, Diversity, and Society	1-3
SSW:3729	Substance Use and Abuse	2-3
SSW:3797	Child Welfare Policy and Practice	3

Community-Based Services Emphasis: Career Preparation Component

Course #	Title	Hours
One of these (at least 1 s.h.):		
INTD:4099	Interdepartmental Studies Practicum	arr.
CCP:1201	Academic Internship	1-3
CCP:1301	Communication for the Workplace	1
CCP:1302	Office Etiquette for the Workplace	1
CCP:1303	Successful Teamwork for the Workplace	1
CCP:1306	Student Employment for Career Success	2
CCP:2001	Graduate Admissions 101	1
CCP:2004	Internships: Search, Secure, and Succeed	1
CCP:3102	Job Search Essentials	1-3
CCP:3104	Defining Your Career Path	2
CCP:3105	Transitioning From Campus to the Workplace	1
CCP:3107	Social Media for Your Job Search	1
LS:2002	Career Leadership Academy Part 1: Leadership in Practice	3
LS:2013	Strengths-Based Leadership	1
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3

Business Studies Track

Students in the business studies track may not earn a business administration minor.

The business studies track requires 37–46 s.h. of work for the major. It provides a preapproved plan of study that combines a generalized business background with a choice of three emphasis areas: organizational practice and perspectives, arts management, and technology and inquiry.

Business studies track students must complete foundation coursework (at least 11 s.h.), business electives (at least 10 s.h.), one emphasis area (at least 15 s.h.), and the career preparation component (at least 1 s.h.). They must complete a minimum of 15 s.h. of work for the major at the University of Iowa. The Academic Advising Center advises business studies track students; contact the center for more information about requirements.

Requirements	Hours
Foundation Courses	11-15
Business Electives	10-12
Emphasis Area	15-16
Career Preparation Component	1-3

Business Studies Track: Foundation Courses

Foundational Math

Course #	Title	Hours
Both of these:		
MATH:1005	College Algebra	4
MATH:1010	Trigonometry	3
Or one of these:		
MATH:1020	Elementary Functions	4
MATH:1340	Mathematics for Business	4
MATH:1350	Quantitative Reasoning for Business	4
MATH:1440	Mathematics for the Biological Sciences	4
MATH:1460	Calculus for the Biological Sciences	4
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4

Foundational Statistics

Course #	Title	Hours
One of these:		
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:3510/ IGPI:3510	Biostatistics	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Foundational Economics

Course #	Title	Hours
One of these:		
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4

Business Studies Track: Business Electives

Students complete four electives (at least 10 s.h.) from the following list.

Course #	Title	Hours
ACCT:2100	Introduction to Financial Accounting	3
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:3000	Operations Management	2
CS:2420	Analyzing Data for Informatics	3
CS:4400	Database Systems	3
ENTR:1350	Foundations in Entrepreneurship	3
FIN:3000	Introductory Financial Management	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
MKTG:3000	Introduction to Marketing Strategy	3
May include one of these:		
BAIS:1500	Business Computing Essentials	2
CS:1020	Principles of Computing	3

Arts Management Emphasis

Students who choose the arts management emphasis must complete the administration component (6 s.h.), the history component (3 s.h.), the production component (3 s.h.), the elective component (3 s.h.), and one course from the career preparation component (at least 1 s.h.).

Arts Management Emphasis: Administration Component

Course #	Title	Hours
Two of these:		
INTD:3510/ THTR:3510	Introduction to Arts Management	3
INTD:4510/ ENTR:4510/ THTR:4510	Arts Leadership Seminar	3
ENTR:2000	Entrepreneurship and Innovation	3

Arts Management Emphasis: History Component

Course #	Title	Hours
One of these:		
ARTH:1010	Art and Visual Culture	3
ARTH:1020	Masterpieces: Art in Historical and Cultural Perspectives	3
ARTH:1030	Themes in Global Art	3
ARTH:1040	Arts of Africa	3
ARTH:1050	From Cave Paintings to Cathedrals: Survey of Western Art I	3
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II	3
ARTH:1070	Asian Art and Culture	3
ARTH:1095/ NAIS:1095	Native American Art	3
COMM:1168	Music and Social Change	3
DANC:2060	Dance and Society in Global Contexts	3
DANC:3060	Western Concert Dance History: Romantic to Contemporary	3
ENGL:3440/ THTR:3440	American Drama Since 1900	3
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1066	Introduction to Film Music	3
MUS:1302	Great Musicians	3
MUS:1303	Roots, Rock, and Rap: A History of Popular Music	3
MUS:1310	World Music	3

MUS:1720	History of Jazz	3
MUS:1800	World of the Beatles	3
MUS:2005	Issues in Popular Music: Women Who Rock	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
MUSM:3001/ ANTH:3001/ EDTL:3001/ SIED:3001	Introduction to Museum Studies	3
MUSM:3120	Museum Origins	3
THTR:1400	Theatre and Society: Ancients and Moderns	3
THTR:1401	Theatre and Society: Romantics and Rebels	3
THTR:1411	Comedy and Society	3
THTR:2410	History of Theatre and Drama I	3
THTR:2411	History of Theatre and Drama II	3

Arts Management Emphasis: Production Component

Course #	Title	Hours
3 s.h. from these:		
ARTS:1010	Elements of Art	3
ARTS:1020	Elements of 3D Design	3
ARTS:1030	Elements of Jewelry and Metal Arts	3
ARTS:1050	Elements of Printmaking	3
ARTS:1060	Elements of Digital Photography	3
ARTS:1080	Elements of Sculpture	3
ARTS:1510	Basic Drawing	3
ARTS:1520	Design Fundamentals	3
DANC:1010	Beginning Tap	3
DANC:1020	Beginning Jazz	3
DANC:1030	Beginning Ballet	3
DANC:1040	Beginning Modern Dance	3
DANC:1090	Dance Production	3
DANC:1120	Continuing Jazz	3
DANC:1130	Continuing Ballet	3
DANC:2020	Intermediate Jazz	3
DANC:2030	Majors Intermediate Ballet	3
DANC:2040	Majors Intermediate Contemporary Movement Practices	3
DANC:2085	Introduction to African Caribbean Dance Practices	3
DANC:3030	Major Ballet I	3
DANC:3040	Major Contemporary Movement Practices I	1-3
DANC:3080	Music Essentials for Dance	3
DANC:3530	Major Ballet II	3
DANC:3540	Major Contemporary Movement Practices II	3
MUS:1001	Group Piano I: Non-Music Majors	1
MUS:1020	Performance Instruction for Nonmajors	1
MUS:1160	University Band	1
MUS:1165	Hawkeye Marching Band	1
MUS:1166	Large Pep Band	1
MUS:1176	Voxman Chorale	1
MUS:1180	Campus Symphony Orchestra	1
MUS:2020	Lower Level Voice	arr.
MUS:2021	Lower Level Piano	arr.
MUS:2022	Lower Level Organ	arr.
MUS:2023	Lower Level Violin	arr.
MUS:2024	Lower Level Viola	arr.
MUS:2025	Lower Level Cello	arr.
MUS:2026	Lower Level String Bass	arr.
MUS:2027	Lower Level Flute	arr.
MUS:2028	Lower Level Oboe	arr.
MUS:2029	Lower Level Clarinet	arr.
MUS:2030	Lower Level Bassoon	arr.
MUS:2031	Lower Level Saxophone	arr.
MUS:2032	Lower Level Horn	arr.
MUS:2033	Lower Level Trumpet	arr.
MUS:2034	Lower Level Trombone	arr.
MUS:2035	Lower Level Euphonium	arr.
MUS:2036	Lower Level Tuba	arr.
MUS:2037	Lower Level Percussion	arr.
MUS:2038	Lower Level Jazz	2
MUS:3160	Symphony Band/Concert Band	1
MUS:3163	Iowa Steel Band	1
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1
MUS:3174	University Choir	1
MUS:3180	Orchestra	1
MUS:3182	Chamber Orchestra	1
MUS:3730	Jazz Band	1
MUSM:3004	Exhibition Planning	3
THTR:1140	Basic Acting	3
THTR:2140	Acting I	3
THTR:2215	Theatre Technology	3
THTR:2301	Playwriting I	3

Arts Management Emphasis: Elective Component

Course #	Title	Hours
One of these:		
INTD:3005/ CW:3005/ WRIT:3005	Professional and Creative Business Communication	3
ENTR:3100	Entrepreneurial Finance	3
ENTR:3200	Entrepreneurial Marketing	3
JMC:2600	Freedom of Expression	3
MGMT:2100	Introduction to Management (if not already used to fulfill foundation coursework requirement)	3

MGMT:3500/ ENTR:3595/ MUSM:3500/ NURS:3595/ RELS:3700/ SSW:3500	Nonprofit Organizational Effectiveness I	3
MGMT:3600/ NURS:3600/ RELS:3701/ SSW:3600	Nonprofit Organizational Effectiveness II	3
MUSM:3001/ ANTH:3001/ EDTL:3001/ SIED:3001	Introduction to Museum Studies	3
MUSM:3200/ SEES:3200	Collection Care and Management	3
MUSM:4081/ ARTH:4081	The Art Museum: Theory and Practice	3
THTR:2610/ RHET:2610	Acting for Success	3

Arts Management Emphasis: Career Preparation Component

Course #	Title	Hours
One of these (at least 1 s.h.):		
INTD:4099	Interdepartmental Studies Practicum	arr.
CCP:1201	Academic Internship	1-3
CCP:1301	Communication for the Workplace	1
CCP:1302	Office Etiquette for the Workplace	1
CCP:1303	Successful Teamwork for the Workplace	1
CCP:1306	Student Employment for Career Success	2
CCP:2001	Graduate Admissions 101	1
CCP:2004	Internships: Search, Secure, and Succeed	1
CCP:3102	Job Search Essentials	1-3
CCP:3104	Defining Your Career Path	2
CCP:3105	Transitioning From Campus to the Workplace	1
CCP:3107	Social Media for Your Job Search	1
LS:2002	Career Leadership Academy Part 1: Leadership in Practice	3
LS:2013	Strengths-Based Leadership	1
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3

Organizational Practice and Perspectives Emphasis

Students who choose the organizational practice and perspectives emphasis must complete at least 3 s.h. from each of the four components (speaking and writing, communication and media, cultural diversity, and entrepreneurship) for a total of 15 s.h. and one course from the career preparation component (at least 1 s.h.). The required 15 s.h. must include 9 s.h. earned in advanced courses. Advanced courses for each component are noted in their respective course list.

Organizational Practice and Perspectives Emphasis: Speaking and Writing Component

Course #	Title	Hours
At least 3 s.h. from these or from the advanced courses:		
CNW:1620	Introduction to Creative Nonfiction	3
CNW:2680/ ENGL:2730	The Art and Craft of Creative Nonfiction	3
COMM:1112	Interpersonal Communication	3
COMM:1117	Advocacy and Argument	3
COMM:1130	The Art of Persuading Others	3
COMM:1816	Business and Professional Communication	3
CW:1800	Creative Writing Studio Workshop	3
CW:2100	Creative Writing	3
CW:2870	Fiction Writing	3
EDTL:2821/ COMM:2821	Oral Interpretation	3
RHET:2055	Persuasion and Advocacy	3
RHET:2065	Persuading Different Audiences: Launching a Successful Career	3
RHET:2070	Persuasive Stories	3
RHET:2085	Speaking Skills	3
RHET:2095	Fundamental Strategies of Persuasion	3
RHET:2350	Forensic Rhetoric	3
THTR:1140	Basic Acting	3
THTR:2610/ RHET:2610	Acting for Success	3
Advanced Courses		
INTD:3005/ CW:3005/ WRIT:3005	Professional and Creative Business Communication	3
INTD:3200/ CW:3218	Creative Writing for New Media	3
INTD:3300/ CW:3215	Creative Writing and Popular Culture	3
BUS:3800	Business Writing	3
CLSA:3742/ WRIT:3742	Word Power: Building English Vocabulary	3
CNW:3600/ ENGL:3800	Issues in Creative Nonfiction	3
CNW:3630/ ENGL:3730	Advanced Nonfiction Writing	3
CNW:3632/ ENGL:3732/ WRIT:3632	Prose Style	3
CNW:3633/ ENGL:3733	Personal Writing	3
CNW:3640	Writing for Business	3
CW:4745/ WRIT:4745	The Sentence: Strategies for Writing	3

CW:4760/ WRIT:4760	The Art of Revision: Rewriting Prose for Clarity and Impact	3
GWSS:3138/ SJUS:3138	Writing to Change the World	3
LING:3001	Introduction to Linguistics	3

Organizational Practice and Perspectives Emphasis: Communication and Media Component

Course #	Title	Hours
At least 3 s.h. from these or from the advanced courses:		
COMM:1170	Communication Theory in Everyday Life	3
COMM:1174	Media and Society	3
COMM:1305	Understanding Communication Research in Real Life	3
COMM:1306	Understanding Communication: Humanistic Approaches	3
COMM:1818	Communication Skills for Leadership	3
COMM:1819	Organizational Leadership	3
JMC:1100	Introduction to Media Effects	3
JMC:1200	Introduction to Media and Culture	3
JMC:1300	Introduction to Journalism and Strategic Communication	3
JMC:1500	Introduction to Social Media	3
JMC:2500	Community Media	3
LING:1040/ ANTH:1040	Language Rights	3
LS:1020	Introduction to Leadership	3
LS:2002	Career Leadership Academy Part 1: Leadership in Practice	3
Advanced Courses		
CSED:4111	Building Leadership and Success at Work	3
CSED:4140	Foundations of Leadership for Community Agencies	3
ENGL:3182	Digital Cultures and Literacies	3
EVNT:3154	Foundations of Event Management	3
EVNT:3260	Event Management Workshop	3
JMC:3530	Social Media Marketing	3
JMC:3540/ SMC:3540/ SPST:3181	The Business of Sport Communication	3
JMC:3710/ MUSM:3710	Fundraising Fundamentals	3
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3
SOC:4225	The Social Psychology of Leadership	3

Organizational Practice and Perspectives Emphasis: Cultural Diversity Component

Course #	Title	Hours
At least 3 s.h. from these or from the advanced courses:		
AFAM:1020/ AMST:1030	Introduction to African American Culture	3
AFAM:1030	Introduction to African American Society	3
AFAM:2070/ COMM:2069	Black Television Culture	3
AFAM:2500	Black Culture and Experience: Contemporary Issues	3
AMST:1010	Understanding American Cultures	3
AMST:1049/ HIST:1049/ NAIS:1049	Introduction to Native American and Indigenous Studies	3
ANTH:2165/ AMST:2165/ NAIS:2165	Native Peoples of North America	3
CCCC:2220	Foundations of Critical Cultural Competence	3
COMM:1898/ LATS:1898	Introduction to Latina/o/x Communication and Culture	3
DST:1101	Introduction to Disability Studies	3
ENGL:1350	Literature and Sexualities	3
GWSS:1001	Introduction to Gender, Women's, and Sexuality Studies	3
GWSS:1002	Diversity and Power in the U.S.	3
HIST:1040	Diversity in History	3
HIST:2267/ AFAM:2267	African American History to 1877	3
HIST:2280/ LATS:2280	Introduction to Latina/o/x Studies	3
JMC:2600	Freedom of Expression	3
LATS:1700/ SPAN:1700	Latina/o/x Literature in the United States	3
LING:2900	Language and Gender	3
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1720	History of Jazz	3
POLI:1601	Introduction to Social Media and Politics	3
POLI:1800	Introduction to the Politics of Class and Inequality	3
RELS:1350/ AFAM:1250	Introduction to African American Religions	3
RELS:1810	Happiness in a Difficult World	3
RHET:2135/ SJUS:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
SJUS:2240/ HIST:2149/ JSTU:2149/ RELS:2240	Introduction to Jewish Studies	3

SOC:1310/ GWSS:1310	Gender and Society	3
SOC:2810	Social Inequality	3
SOC:2830	Race and Ethnicity	3
SPAN:2700/ IS:2700/LAS:2700/ PORT:2700	Introduction to Latin American Studies	3
Advanced Courses		
AFAM:3925/ JMC:3165	African Americans and the Media	3
ASL:4201/ HIST:4201	History of the American Deaf Community	3-4
ENGL:3455	Jewish American Literature	3
ENGL:3467/ LATS:3467	Latina/o/x Literatures and Cultures	3
HIST:4216/ LAS:4216	Mexican American History	3
LATS:4800/ AMST:4800	Latina/o/x Popular Culture	3
RELS:3745/ AFAM:3245	Twentieth- and Twenty-first Century African American Religion	3
SSW:3712/ NURS:3712	Human Sexuality, Diversity, and Society	1-3

Organizational Practice and Perspectives Emphasis: Entrepreneurship Component

Course #	Title	Hours
At least 3 s.h. from these (all are advanced courses):		
INTD:4510/ ENTR:4510/ THTR:4510	Arts Leadership Seminar	3
ECON:3650	Policy Analysis	3
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3100	Entrepreneurial Finance	3
ENTR:3200	Entrepreneurial Marketing	3
ENTR:3400	Strategic Management of Technology and Innovation	3
ENTR:3500	Social Entrepreneurship	3
ENTR:3600	Social Media Strategies for Entrepreneurial Ventures	3
ENTR:4000	Topics in Entrepreneurship	2-3
ENTR:4200	Entrepreneurship: Business Consulting	3
ENTR:4300	Launching an Entrepreneurial Venture	3
ENTR:4400	Managing the Growth Business	3
ENTR:4460	Entrepreneurship and Global Trade	3
MGMT:3500/ ENTR:3595/ MUSM:3500/ NURS:3595/ RELS:3700/ SSW:3500	Nonprofit Organizational Effectiveness I	3
MGMT:3600/ NURS:3600/ RELS:3701/ SSW:3600	Nonprofit Organizational Effectiveness II	3

Organizational Practice and Perspectives Emphasis: Career Preparation Component

Course #	Title	Hours
One of these (at least 1 s.h.):		
INTD:4099	Interdepartmental Studies Practicum	arr.
CCP:1201	Academic Internship	1-3
CCP:1301	Communication for the Workplace	1
CCP:1302	Office Etiquette for the Workplace	1
CCP:1303	Successful Teamwork for the Workplace	1
CCP:1306	Student Employment for Career Success	2
CCP:2001	Graduate Admissions 101	1
CCP:2004	Internships: Search, Secure, and Succeed	1
CCP:3102	Job Search Essentials	1-3
CCP:3104	Defining Your Career Path	2
CCP:3105	Transitioning From Campus to the Workplace	1
CCP:3107	Social Media for Your Job Search	1
LS:2002	Career Leadership Academy Part 1: Leadership in Practice	3
LS:2013	Strengths-Based Leadership	1
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3

Technology and Inquiry Emphasis

Students who choose the technology and inquiry emphasis must complete the applied technology component (6 s.h.), the analytics and research component (3 s.h.), the organizational communication component (6 s.h.), and one course from the career preparation component (at least 1 s.h.).

Technology and Inquiry Emphasis: Applied Technology Component

Course #	Title	Hours
Two of these:		
ARTS:1020	Elements of 3D Design	3
ARTS:1060	Elements of Digital Photography	3
ARTS:1070	Elements of Graphic Design	3
CS:1110	Introduction to Computer Science	3
CS:1210	Computer Science I: Fundamentals	4
CS:2110	Programming for Informatics	4
CS:2230	Computer Science II: Data Structures	4
DSGN:2500	Graphic Design I	3
DSGN:2600/ UICB:2600	Graphic Design II	3

GHS:3037	Technology to Improve Global Health	3
JMC:1500	Introduction to Social Media	3
JMC:3610	Graphic Design	3-4
SEES:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3

Technology and Inquiry Emphasis: Analytics and Research Component

Course #	Title	Hours
One of these:		
CS:2210	Discrete Structures	3
PSQF:1075	Educational Psychology and Measurement	3
RELS:1050/ POLI:1050	Big Ideas: Introduction to Information, Society, and Culture	3
SOC:2160	Applied Statistics for Social Scientists	3
STAT:2010	Statistical Methods and Computing	3
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3

Technology and Inquiry Emphasis: Organizational Communication Component

Course #	Title	Hours
At least 6 s.h. from these:		
INTD:3005/ CW:3005/ WRIT:3005	Professional and Creative Business Communication	3
INTD:3107/ CW:3107	Creative Writing for the Health Professions	3
INTD:3200/ CW:3218	Creative Writing for New Media	3
BAIS:3400	Cloud Computing	3
CNW:2730	The Art and Craft of Science Writing	3
CNW:3640	Writing for Business	3
COMM:1816	Business and Professional Communication	3
COMM:2011	Group Communication	3
COMM:2057	Introduction to Computer-Mediated Communication	3
RHET:2065	Persuading Different Audiences: Launching a Successful Career	3
THTR:2610/ RHET:2610	Acting for Success	3
WRIT:1500	Writing Commons: A Community of Writers	1-3

Technology and Inquiry Emphasis: Career Preparation Component

Course #	Title	Hours
One of these (at least 1 s.h.):		
INTD:4099	Interdepartmental Studies Practicum	arr.
CCP:1201	Academic Internship	1-3
CCP:1301	Communication for the Workplace	1
CCP:1302	Office Etiquette for the Workplace	1
CCP:1303	Successful Teamwork for the Workplace	1
CCP:1306	Student Employment for Career Success	2
CCP:2001	Graduate Admissions 101	1
CCP:2004	Internships: Search, Secure, and Succeed	1
CCP:3102	Job Search Essentials	1-3
CCP:3104	Defining Your Career Path	2
CCP:3105	Transitioning From Campus to the Workplace	1
CCP:3107	Social Media for Your Job Search	1
LS:2002	Career Leadership Academy Part 1: Leadership in Practice	3
LS:2013	Strengths-Based Leadership	1
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3

Health Science Track

The health science track requires 38–47 s.h. of work for the major. It provides a preapproved plan of study that combines a generalized health background with a varied choice of emphasis areas: multidisciplinary science, entrepreneurial, and cultural contexts.

Health science track students must complete foundation coursework (at least 22 s.h.), one emphasis area (at least 15 s.h.), and the career preparation component (at least 1 s.h.). They must complete a minimum of 15 s.h. for the major at the University of Iowa. The Academic Advising Center advises health science track students; contact the center for more information about requirements.

Requirements	Hours
Foundation Courses	22-29
Emphasis Area	15
Career Preparation Component	1-3

Health Science Track: Foundation Courses

Students must complete at least 22 s.h. of foundation courses from the following.

Foundational Chemistry

Course #	Title	Hours
One of these:		
CHEM:1070	General Chemistry I	3
CHEM:1110	Principles of Chemistry I	4
One of these:		
CHEM:1080	General Chemistry II	3
CHEM:1120	Principles of Chemistry II	4

Foundational Biology

Course #	Title	Hours
One of these:		
BIOL:1140	Human Biology: Nonmajors	4

BIOL:1141	Human Biology: Health Professions	4
BIOL:1411	Foundations of Biology	4

Foundational Math and Statistics

Course #	Title	Hours
One of these:		
MATH:1020	Elementary Functions	4
MATH:1350	Quantitative Reasoning for Business	4
MATH:1440	Mathematics for the Biological Sciences	4
MATH:1460	Calculus for the Biological Sciences	4
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4
PSQF:4143/ STAT:4143	Introduction to Statistical Methods	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:3510/ IGPI:3510	Biostatistics	3

Foundational Social Science

Course #	Title	Hours
One of these:		
ANTH:1101/IS:1101	Cultural Anthropology	3
ANTH:2100	Anthropology and Contemporary World Problems	3
PSY:1001	Elementary Psychology	3
SOC:1010	Introduction to Sociology	3-4
SOC:1030	Contemporary Social Problems	3-4
SOC:1220	Principles of Social Psychology	3-4

Foundational Science Elective

Course #	Title	Hours
One of these:		
ACB:3110	Principles of Human Anatomy	3
BIOL:1412	Diversity of Form and Function	4
HHP:3105	Anatomy for Human Physiology	3
MICR:2157	General Microbiology	3
PSY:2701	Introduction to Behavioral Neuroscience	4
PSY:2975	Introduction to Cognitive Neuroscience	3

Foundational Elective

Course #	Title	Hours
One of these:		
HHP:2200	Physical Activity and Health	3
HHP:2310	Nutrition and Health	3
HHP:3400	Applied Exercise Physiology	3
HHP:3500	Human Physiology	3
HHP:3550	Human Physiology With Laboratory	5
NURS:1030	Human Development and Behavior	3
PSY:2401	Introduction to Developmental Science	3
PSY:2701	Introduction to Behavioral Neuroscience	4

Cultural Contexts Emphasis

Students who choose the cultural contexts emphasis area may not earn the Certificate in Global Health Studies or the minor in global health studies.

Students who choose the cultural contexts emphasis must complete 15 s.h. from the following list and the career preparation component (at least 1 s.h.).

Course #	Title	Hours
ANTH:1046/ GWSS:1046/ SEES:1046/ SJUS:1046	Environmental Politics in India	3
CLSA:1181/ GHS:1181	Ancient Medicine	3
GHS:1200/ DST:1200/ GRMN:1200/ WLLC:1200	Disabilities and Inclusion in Writing and Film Around the World	3
GHS:1290/ AMST:1290/ HIST:1290/ NAIS:1290	Native American Foods and Foodways	3
GHS:2000/ ANTH:2103	Introduction to Global Health Studies	3
GHS:2080/ GWSS:2080	The Cultural Politics of HIV-AIDS	3
GHS:2110/ SEES:2110	Eight Billion and Counting: Introduction to Population Dynamics	3
GHS:2164/ ANTH:2164	Culture and Healing: An Introduction to Medical Anthropology	3
GHS:2181/ ANTH:2181/ ASP:2181	The Anthropology of Aging	3
GHS:2182/ ANTH:2182	Africa: Health and Society	3
GHS:2260/ RELS:2260	Hard Cases in Healthcare at the Beginning of Life	3
GHS:2265/ ASP:2265/ RELS:2265	Hard Cases in Healthcare at the End of Life	3
GHS:2320/ ANTH:2320	Origins of Human Infectious Disease	3
GHS:2415/ PHIL:2415	Bioethics	3
GHS:2650/ GWSS:2650	Global Reproduction	3
GHS:2770/ AFAM:2770/ SOC:2770	Black and White Community Politics	3
GHS:3010/ IGPI:3011	Social Science Approaches to Global Health	3

GHS:3015/ GWSS:3010	Transnational Sexualities	3
GHS:3030/ CPH:3240	Global Health Today (only one enrollment may count toward major)	1
GHS:3035	Engaging in Global Health	1
GHS:3036	Ethics, Policy, and Global Health	3
GHS:3050/ ASP:3135/ SSW:3135	Global Aging	3
GHS:3060	Studies in Complementary and Alternative Medicine	3
GHS:3070/ SEES:3090	Hungry Planet: Global Geographies of Food	3
GHS:3105/ CLSA:3105/ GWSS:3105/ WLLC:3105	Contraception Across Time and Cultures	3
GHS:3110/ ANTH:3110/ CBH:4200/ NAIS:3110	Colonialism and Indigenous Health Equity	3
GHS:3111/ SEES:3110	Geography of Health	3
GHS:3120	Global Maternal and Child Health	3
GHS:3150/ CBH:3150/JMC:3150	Media and Health	3
GHS:3152/ ANTH:3152/ ASP:3152	Anthropology of Caregiving and Health	3
GHS:3230	Health Experience of Immigrants, Migrants, and Refugees	3
GHS:3300/ SEES:3300	Envisioning Future Worlds: Sustainable Development and Its Alternatives	3
GHS:3325	Global Epidemics	3
GHS:3327/ GWSS:3326	The Politics of Progress: NGOs, Development, and Sexuality	3
GHS:3500/ CPH:3500	Global Public Health	3
GHS:3508/ HIST:3508/ LAS:3508	Disease and Health in Latin American History	3
GHS:3555/ HIST:3755/IS:3555	Understanding Health and Disease in Africa	3
GHS:3560	Global Garbage and Global Health	3
GHS:3600	Development in a Global Context I: Preparing for an Internship in Health, Gender, and Environment	2
GHS:3700	Development in a Global Context II: Reflections on Real World Interventions	1
GHS:3720	Contemporary Issues in Global Health (only one enrollment may count toward major)	3
GHS:3732/ NURS:3732	Global Health Nursing	3
GHS:3760/ SEES:3760	Hazards and Society	3
GHS:3780/ HIST:3240/ POLI:3431/ SEES:3780	U.S. Energy Policy in Global Context	3
GHS:3850/ HHP:3850	Promoting Health Globally	3
GHS:4000	Global Health Studies Service Learning: Local Health is Global Health	4
GHS:4001	Social Entrepreneurship and Global Health	3
GHS:4002	Working in Global Health	3
GHS:4003	Case Studies in Global Health Inequities	3
GHS:4100	Topics in Global Health	1-3
GHS:4140/ ANTH:4140/ CBH:4140/ GWSS:4140	Feminist Activism and Global Health	3
GHS:4150/ IGPI:4150/ SEES:4150	Health and Environment: GIS Applications	3
GHS:4205/ SPAN:4205	Culture, Language, and Health	3
GHS:4260/ OEH:4260	Global Water and Health	3
GHS:4530/ CPH:4220/ OEH:4530	Global Road Safety	3
GHS:4770/ AFAM:4770/ SEES:4770	Environmental Justice	3
GHS:4990	Independent Project in Global Health (only one enrollment may count toward major)	arr.

Cultural Contexts Emphasis: Career Preparation Component

Course #	Title	Hours
One of these (at least 1 s.h.):		
INTD:4099	Interdepartmental Studies Practicum	arr.
CCP:1201	Academic Internship	1-3
CCP:1301	Communication for the Workplace	1
CCP:1302	Office Etiquette for the Workplace	1
CCP:1303	Successful Teamwork for the Workplace	1
CCP:1306	Student Employment for Career Success	2
CCP:2001	Graduate Admissions 101	1
CCP:2004	Internships: Search, Secure, and Succeed	1
CCP:3102	Job Search Essentials	1-3
CCP:3104	Defining Your Career Path	2

CCP:3105	Transitioning From Campus to the Workplace	1
CCP:3107	Social Media for Your Job Search	1
LS:2002	Career Leadership Academy Part 1: Leadership in Practice	3
LS:2013	Strengths-Based Leadership	1
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3

Entrepreneurial Emphasis

Students who choose the entrepreneurial emphasis area may not earn the Certificate in Entrepreneurial Management.

Students who choose the entrepreneurial emphasis must complete 15 s.h. from the following list and the career preparation component (at least 1 s.h.).

Course #	Title	Hours
INTD:4510/ ENTR:4510/ THTR:4510	Arts Leadership Seminar	3
ACCT:2100	Introduction to Financial Accounting	3
BUS:3800	Business Writing	3
CNW:3640	Writing for Business	3
ECON:3650	Policy Analysis	3
ECON:3760	Health Economics	3
ENTR:1350	Foundations in Entrepreneurship	3
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3100	Entrepreneurial Finance	3
ENTR:3200	Entrepreneurial Marketing	3
ENTR:3400	Strategic Management of Technology and Innovation	3
ENTR:3500	Social Entrepreneurship	3
ENTR:3600	Social Media Strategies for Entrepreneurial Ventures	3
ENTR:3700	Sustainable Innovation and Management	3
ENTR:4000	Topics in Entrepreneurship	1-3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3
ENTR:4300	Launching an Entrepreneurial Venture	arr.
ENTR:4400	Managing the Growth Business	3
ENTR:4460	Entrepreneurship and Global Trade	3
MGMT:2100	Introduction to Management	3
MGMT:3500/ ENTR:3595/ MUSM:3500/ NURS:3595/ RELS:3700/ SSW:3500	Nonprofit Organizational Effectiveness I	3
MGMT:3600/ NURS:3600/ RELS:3701/ SSW:3600	Nonprofit Organizational Effectiveness II	3
MKTG:3000	Introduction to Marketing Strategy	3

Entrepreneurial Emphasis: Career Preparation Component

Course #	Title	Hours
One of these (at least 1 s.h.):		
INTD:4099	Interdepartmental Studies Practicum	arr.
CCP:1201	Academic Internship	1-3
CCP:1302	Office Etiquette for the Workplace	1
CCP:1303	Successful Teamwork for the Workplace	1
CCP:1306	Student Employment for Career Success	2
CCP:2001	Graduate Admissions 101	1
CCP:2004	Internships: Search, Secure, and Succeed	1
CCP:3102	Job Search Essentials	1-3
CCP:3104	Defining Your Career Path	2
CCP:3105	Transitioning From Campus to the Workplace	1
CCP:3107	Social Media for Your Job Search	1
LS:2002	Career Leadership Academy Part 1: Leadership in Practice	3
LS:2013	Strengths-Based Leadership	1
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3

Multidisciplinary Science Emphasis

Students who choose the multidisciplinary science emphasis must complete 15 s.h. from the following list and the career preparation component (at least 1 s.h.).

Course #	Title	Hours
INTD:3107/ CW:3107	Creative Writing for the Health Professions	3
ANTH:2164/ GHS:2164	Culture and Healing: An Introduction to Medical Anthropology	3
ANTH:2320/ GHS:2320	Origins of Human Infectious Disease	3
BIOL:2211	Genes, Genomes, and the Human Condition	3
BIOL:2254	Endocrinology	3
BIOL:2512	Fundamental Genetics	4
BIOL:2723	Cell Biology	3
BIOL:2753	Introduction to Neurobiology	3
BIOL:3253	Neurobiology I	4
BIOL:3254	Neurobiology II	4
BMB:3110	Biochemistry	3
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3

CLSA:3750	Medical and Technical Terminology	2
CPH:1400	Fundamentals of Public Health	3
CPH:1800	Social and Psychological Determinants of Health: Changing Behavior, Improving Health	3
CPH:2400	The U.S. Health System in a Global Context	3
MED:1100	Introduction to Health Care Professions	3
MICR:2157	General Microbiology (if not taken as foundational science elective)	3
MICR:3164	Microbiology and Human Health	4
PSY:2930	Abnormal Psychology: Health Professions	3
SOC:3510	Medical Sociology	3
May include one of these:		
CHEM:2210	Organic Chemistry I	3
CHEM:2230	Organic Chemistry I for Majors	3
May include one of these:		
CHEM:2220	Organic Chemistry II	3
CHEM:2240	Organic Chemistry II for Majors	3
May include one of these:		
CHEM:2410	Organic Chemistry Laboratory	3
CHEM:2420	Organic Chemistry Laboratory for Majors	3
May include one of these:		
HHP:2310	Nutrition and Health (if not used to fulfill foundation requirement)	3
HHP:4440	Physiology of Nutrition	3
May include one of these:		
PHYS:1511	College Physics I	4
PHYS:1611	Introductory Physics I	4
May include one of these:		
PHYS:1512	College Physics II	4
PHYS:1612	Introductory Physics II	4

Multidisciplinary Science Emphasis: Career Preparation Component

Course #	Title	Hours
One of these (at least 1 s.h.):		
INTD:4099	Interdepartmental Studies Practicum	arr.
CCP:1201	Academic Internship	1-3
CCP:1301	Communication for the Workplace	1
CCP:1302	Office Etiquette for the Workplace	1
CCP:1303	Successful Teamwork for the Workplace	1
CCP:1306	Student Employment for Career Success	2
CCP:2001	Graduate Admissions 101	1
CCP:2004	Internships: Search, Secure, and Succeed	1
CCP:3102	Job Search Essentials	1-3
CCP:3104	Defining Your Career Path	2
CCP:3105	Transitioning From Campus to the Workplace	1
CCP:3107	Social Media for Your Job Search	1
LS:2002	Career Leadership Academy Part 1: Leadership in Practice	3
LS:2013	Strengths-Based Leadership	1
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major; they usually complete the honors requirements of a particular department or program appropriate to their area of study. Students should initiate inquiries about graduating with honors in the interdepartmental studies major by contacting the Interdepartmental Studies Program (ISP) coordinator; they should inquire early in their junior year to allow time for foundation coursework. Students must submit an honors project approval form to the ISP coordinator.

The College of Liberal Arts and Sciences requires that students who earn honors in the major maintain a minimum University of Iowa cumulative grade-point average (GPA) of at least 3.33 and a minimum major GPA of at least 3.33. Additional GPA standards and requirements are set by each department or program.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the interdepartmental studies major.

Career Advancement

Graduates in the applied human services, business studies, and health science tracks have career options in a variety of settings, including retirement homes, hospitals, health clubs, government agencies, insurance companies, and performing arts companies.

Students who create individualized plans of study stand out when they apply for jobs because their major emphasizes a unique set of strengths and interests. In addition, employers often are impressed by their enthusiasm and self-directed nature.

Many interdepartmental studies majors go on to graduate school.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The Four-Year Graduation Plan is available only to Interdepartmental Studies Program (ISP) students in the individualized plan of study track. Students in the other ISP tracks work with their advisors to develop individual graduation plans.

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major.

Before the seventh semester begins: an approved individualized plan of study, at least six courses in the plan of study, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: a total of at least nine courses in the plan of study.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Interdepartmental Studies, BA

- Applied Human Services Track [p. 599]
- Business Studies Track [p. 600]
- Health Science Track [p. 601]

Applied Human Services Track

Community-Based Services Emphasis

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
PSY:1001	Elementary Psychology [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [e]		1
	Hours	**15-17**
Spring		
Major: lower-level psychology course [f]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
Elective course [e]		3
	Hours	**16-18**
Second Year		
Fall		
Major: psychology core statistics course [g]		3 - 4
Major: lower-level psychology course [f]		3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
Elective course [e]		2
	Hours	**15-17**
Spring		
Major: emphasis area course [f]		3
Major: lower-level psychology course [f]		3
GE CLAS Core: Natural Sciences without Lab [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [e]		3
	Hours	**16-17**
Third Year		
Fall		
CSED:4199	Counseling for Related Professions	3
Major: emphasis area course [f]		3
GE CLAS Core: Values and Society [c]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**
Spring		
CCCC:2220 or CSED:4197	Foundations of Critical Cultural Competence or Citizenship in a Multicultural Society	3
Major: emphasis area course [f]		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: Natural Sciences with Lab [c]		4
Elective course [e]		3
	Hours	**16**
Fourth Year		
Fall		
CSED:4195	Ethics in Human Relations and Counseling	3
Major: emphasis area course [f]		3
GE CLAS Core: Quantitative or Formal Reasoning (if not met by core course) [c]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**
Spring		
Major: career preparation component [f]		1 - 3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3

Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]	
Hours	**13-15**
Total Hours	**121-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f See the General Catalog for list of approved courses.

g Choose one course from PSY:2811, STAT:1010, STAT:1020, STAT:1030.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Business Studies Track

Organizational Practice and Perspectives Emphasis

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
Hours		**0**
First Year		
Fall		
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [b]		3
GE CLAS Core: Values and Society [b]		3
CSI:1600	Success at Iowa	1
Elective course [c]		3
Hours		**13-14**
Spring		
ECON:1100 or ECON:1200	Principles of Microeconomics [d] or Principles of Macroeconomics	4
Major: foundational math requirement [e, f]		4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Natural Sciences with Lab [b]		4
Elective course [c]		2
Hours		**17-18**
Second Year		
Fall		
Major: business elective course [g]		3
Major: foundational statistics requirement [e]		3 - 4
GE CLAS Core: Historical Perspectives [b]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
Elective course [c]		2
Hours		**15-17**
Spring		
Major: business elective course [g]		3
Major: business elective course [g]		3
GE CLAS Core: International and Global Issues [b]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
Elective course [c]		2
Hours		**15-16**
Third Year		
Fall		
Major: business elective course [g]		3
Major: emphasis area course [i]		3
GE CLAS Core: Natural Sciences without Lab [b]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
Elective course [c]		3
Hours		**16-17**
Spring		
Major: emphasis area course [i]		3
Major: emphasis area course [i]		3
Major: career preparation component [i]		1 - 3
GE CLAS Core: Literary, Visual, and Performing Arts [b]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
Hours		**14-17**
Fourth Year		
Fall		
Major: emphasis area course [i]		3
Major: elective course (recommended)		3
Elective course [c]		3
Elective course [c]		3
Elective course [c]		3
Hours		**15**
Spring		
Major: emphasis area course [i]		3
Major: elective course (recommended)		3
Elective course [c]		3

Elective course [c]	3
Elective course [c]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]	
Hours	**15**
Total Hours	**120-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

c Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

d Fulfills a major requirement and may fulfill a GE requirement.

e See the General Catalog for list of approved courses. Students should choose a mathematics or statistics course that will also complete the GE: Quantitative or Formal Reasoning requirement.

f Enrollment in math courses requires completion of a placement exam.

g See the General Catalog for list of approved courses.

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i Students must complete a total of 15 s.h. and one course (at least 1 s.h.) from the career preparation component; the required 15 s.h. must include 9 s.h. earned in advanced courses. See the General Catalog for list of approved courses.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Health Science Track

Multidisciplinary Science Emphasis

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1070 or CHEM:1110	General Chemistry I [b, c] or Principles of Chemistry I	3 - 4
Major: foundational social science course [d]		3 - 4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
CSI:1600	Success at Iowa	1
Elective course [f]		2
	Hours	**15-18**
Spring		
CHEM:1120 or CHEM:1080	Principles of Chemistry II [g] or General Chemistry II	3 - 4
Major: foundational math/statistics course [d, h]		3 - 4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Values and Society [e]		3
Elective course [f]		3
	Hours	**15-18**
Second Year		
Fall		
BIOL:1141 or BIOL:1411 or BIOL:1140	Human Biology: Health Professions [g] or Foundations of Biology or Human Biology: Nonmajors	4
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [i]		4 - 5
Elective course [f]		3
	Hours	**14-15**
Spring		
Major: foundational science course [d]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
GE CLAS Core: International and Global Issues [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [i]		4 - 5
Elective course [f]		3
	Hours	**16-18**
Third Year		
Fall		
Major: foundational elective course [d]		3 - 4
Major: emphasis area course [j]		3 - 4
GE CLAS Core: Quantitative or Formal Reasoning (if not met by foundational course) [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [i]		4 - 5
Elective course [f]		3
	Hours	**16-19**
Spring		
Major: emphasis area course [j]		3 - 4
GE CLAS Core: Social Sciences (if not met by foundational course) [e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [i]		4 - 5
Elective course [f]		3

Elective course [f]	3
Hours	**16-18**
Fourth Year	
Fall	
Major: emphasis area course [j]	3 - 4
Major: emphasis area course [j]	3 - 4
Elective course [f]	3
Elective course [f]	3
Elective course [f]	3
Hours	**15-17**
Spring	
Major: emphasis area course [j]	3 - 4
Major: career preparation component [j]	1 - 3
Elective course [f]	3
Elective course [f]	3
Elective course [f]	3
Elective course [f]	2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]	
Hours	**15-18**
Total Hours	**122-141**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b CHEM:1070 not required before CHEM:1080 if student has completed high school chemistry.

c Enrollment in chemistry courses requires completion of a placement exam.

d See the General Catalog for list of approved courses.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Fulfills a major requirement and may fulfill a GE requirement.

h Enrollment in math courses requires completion of a placement exam.

i Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

j Students must complete 15 s.h. in their chosen emphasis area and at least 1 s.h. for the career preparation component. See the General Catalog for list of approved courses.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

International Relations

Chair, Department of Political Science

- Julianna Pacheco

Undergraduate major: international relations (BA, BS)

Undergraduate minor: international relations

Faculty: https://politicalscience.uiowa.edu/people/faculty

Website: https://politicalscience.uiowa.edu

The undergraduate programs of study in international relations are administered by the Department of Political Science [p. 927], which offers related BA and BS programs of study in political science. The department also offers the Certificate in Political Risk Analysis [p. 925], and it collaborates with other departments to offer the Certificate in Social Science Analytics [p. 996]. The department additionally provides a number of courses that undergraduate students in all majors may use to fulfill GE CLAS Core [p. 22] requirements.

Programs

Undergraduate Programs of Study

Majors

- Major in International Relations (Bachelor of Arts) [p. 604]
- Major in International Relations (Bachelor of Science) [p. 610]

Minor

- Minor in International Relations [p. 618]

International Relations, BA

A major in international relations focuses on economic relations between states, a crucial area of study in today's globalized world. Students are introduced to the politics of foreign countries. They develop an understanding of how countries interact and acquire a deep appreciation for the root causes of problems that transcend national boundaries.

Requirements for the major are the same for BA and BS students, except that the major for the BS requires a set of statistics, research, and experiential courses, while the major for the BA does not.

Learning Outcomes

Graduates will:

- possess a broad understanding of international relations;
- be able to apply a theoretical approach in international relations to understand a specific area of international relations;
- have effective written and oral communication skills; and
- be able to conceptualize problems and apply analytical tools to solve them.

Requirements

The Bachelor of Arts with a major in international relations requires a minimum of 120 s.h., including at least 37 s.h. of work for the major. At least 18 s.h. of coursework for the major must be taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students choose one of five tracks: conflict and foreign policy, international business and economic relations, regional politics and relationships, transnational issues, or a self-defined track.

The BA with a major in international relations requires the following coursework.

Requirements	Hours
International Relations Core	12
Methods Course	3
Senior Seminar Courses	4
Track Courses	18-19

International Relations Core

Course #	Title	Hours
All of these:		
POLI:1500	Introduction to International Relations	3
POLI:3512	International Conflict	3
POLI:3516	The Politics of International Economics	3
One of these:		
HIST:1101	The Modern World	3
HIST:1403	The West and the World: Modern	3
HIST:3155	The World Since 1945	3

Methods Course

Course #	Title	Hours
One of these:		
POLI:2000	Designing Political Research	3
POLI:3000	Analyzing Political Data	3

Senior Seminar Courses

Course #	Title	Hours
This course:		
POLI:4802	International Relations Senior Seminar Preparation	1
One of these:		
POLI:4800	Senior Seminar in International Relations	3
POLI:4801	Honors Senior Seminar in International Relations	3

Tracks

International relations students complete one of the following five tracks, each of which requires 18–19 s.h. of coursework. Students who would like to declare the major in international relations before deciding on a track may declare the open track for advising purposes. They should talk with an advisor and decide on a track as soon as possible.

- Conflict and Foreign Policy Track [p. 604]
- International Business and Economic Relations Track [p. 605]
- Regional Politics and Relationships Track [p. 605]
- Transnational Issues Track [p. 606]
- Self-Defined Track [p. 607]

Conflict and Foreign Policy Track

The conflict and foreign policy track requires the following coursework (minimum of 18 s.h.).

Course #	Title	Hours
This course:		
POLI:1501	Introduction to American Foreign Policy	3
15 s.h. from these, including courses from at least two departments (minimum 3 s.h. per department):		
POLI:2417	Comparative Environmental Policy	3
POLI:3035	Careers in Political Science and International Relations	3
POLI:3405	Authoritarian Politics	3
POLI:3411	Democracy: Global Trends and Struggles	3
POLI:3420	Southeast Asia: Politics and Development	3
POLI:3422	Horn of Africa: Politics and Transnational Issues	3
POLI:3423	The Middle East: Policy and Diplomacy	3
POLI:3428	Statecraft, Diplomacy, and World Order	3

POLI:3450	Problems in Comparative Politics	3
POLI:3503	Politics of Terrorism	3
POLI:3505	Civil Wars	3
POLI:3506	Consequences of War	3
POLI:3509	International Courts: The Intersection of Law and Politics	3
POLI:3518	Water Wars: Conflict and Cooperation	3
POLI:3527	Civil War Research Lab	3
POLI:3530	Diplomacy Lab	arr.
POLI:3550	Problems of International Politics	3
POLI:3603	War and Film	3
HIST:2156/ JSTU:2156	Arabs and Jews in Palestine and Israel	3
HIST:2420/ GRMN:2720	Germany in the World	3-4
HIST:2465	Europe Since 1945	3
HIST:2684/ ASIA:2684	Korean War: Local and Global History	3
HIST:2804	The Middle East Through Graphic Novels and Animated Film	3
HIST:2810	The Modern Middle East	3
HIST:3106	History Behind the Headlines	3
HIST:3108	History of Human Rights	3
HIST:3145	Europe and the United States in the Twentieth Century	3
HIST:3147	The Cold War	3
HIST:3155	The World Since 1945	3
HIST:3242	The United States in World Affairs	3-4
HIST:3494/ RUSS:3494	The Russian Revolutions and Their Legacies	3
HIST:4478	Holocaust in History and Memory	3

International Business and Economic Relations Track

The international business and economic relations track requires the following coursework (minimum of 19 s.h.).

Course #	Title	Hours
Two of these:		
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
SEES:2910	The Global Economy	3
11-12 s.h. from these, including courses from at least two departments (minimum 3 s.h. per department):		
POLI:2417	Comparative Environmental Policy	3
POLI:3035	Careers in Political Science and International Relations	3
POLI:3424	Global Development	3
POLI:3432	Agriculture Politics and Policy	3
POLI:3504	Globalization	3
ECON:3335	Money, Banking, and Financial Markets	3
ECON:3345	Global Economics and Business	3
ECON:3620	Economic Growth and Development	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ECON:4110	International Economics	3
ENTR:4460	Entrepreneurship and Global Trade	3
FIN:4240	International Finance (prerequisite required)	3
HIST:1115/ SEES:1115	The History of Oil	3
HRTS:3904/IS:3904	Business, Labor, and Human Rights	1-3
MGMT:3450	International Business Environment	3
MKTG:4300	International Marketing (prerequisite required)	3
SEES:3090/ GHS:3070	Hungry Planet: Global Geographies of Food	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3
SEES:3800	Environmental Policy	3
URP:3350/ ECON:3750/ SEES:3940	Transportation Economics	3

Regional Politics and Relationships Track

The regional politics and relationships track requires the following coursework (minimum of 18 s.h.).

Course #	Title	Hours
This course:		
POLI:1400	Introduction to Comparative Politics	3
15 s.h. from these, including courses from at least two departments (minimum 3 s.h. per department):		
POLI:1401	Introduction to Russian Politics	3
POLI:1449	Introduction to European Politics	3
POLI:2415	Latin American Politics	3
POLI:2500	Politics of Natural Disasters	3
POLI:3035	Careers in Political Science and International Relations	3
POLI:3405	Authoritarian Politics	3
POLI:3408	Chinese Politics and Society	3
POLI:3420	Southeast Asia: Politics and Development	3
POLI:3422	Horn of Africa: Politics and Transnational Issues	3
POLI:3423	The Middle East: Policy and Diplomacy	3
POLI:3424	Global Development	3

POLI:3426	Outliers: Comparing Odd Countries	3
POLI:3428	Statecraft, Diplomacy, and World Order	3
POLI:3430	Environmental Politics and Indigeneity	3
POLI:3432	Agriculture Politics and Policy	3
POLI:3450	Problems in Comparative Politics	3
POLI:3527	Civil War Research Lab	3
POLI:3530	Diplomacy Lab	arr.
POLI:3550	Problems of International Politics	3
GWSS:3326/ GHS:3327	The Politics of Progress: NGOs, Development, and Sexuality	3
HIST:1602/ ASIA:1602	Civilizations of Asia: China from the 17th Century to the Present	3
HIST:1604/ ASIA:1604	Civilizations of Asia: Japan	3-4
HIST:1606/ ASIA:1606/ RELS:1606	Civilizations of Asia: South Asia	3-4
HIST:1607/ ASIA:1607	Civilizations of Asia: Korea	3-4
HIST:1609/ ASIA:1609	India Now! Surveying the World's Largest Democracy	3-4
HIST:1708	Civilizations of Africa	3
HIST:2155/ JSTU:2155	Global Jewish History	3
HIST:2156/ JSTU:2156	Arabs and Jews in Palestine and Israel	3
HIST:2420/ GRMN:2720	Germany in the World	3-4
HIST:2465	Europe Since 1945	3
HIST:2804	The Middle East Through Graphic Novels and Animated Film	3
HIST:3145	Europe and the United States in the Twentieth Century	3
HIST:3289/ NAIS:3289	The Atlantic World c. 1450-1850	3
HIST:3427/ GWSS:3427	Family, Gender, and Society in Early Modern Europe	3
HIST:3470	France From 1815 to Present	3
HIST:3501/ LAS:3501	Rebel Island: A History of Cuba	3
HIST:3502/ LAS:3502/ NAIS:3502	History of Mexico	3
HIST:3515/ LAS:3515	Introduction to Modern Latin America	3
HIST:3522/ LATS:3522	Indigenous Women and Rural Unrest in Latin America	3
HIST:3652/ ASIA:3652	Twentieth-Century China	3
HIST:3685/ ASIA:3685	Modern Korean History	3
HIST:3760/ AFAM:3760	The Making of Modern Africa	3
HIST:3810	History of the Modern Middle East	3
HIST:4433/ FREN:4433	France Under Nazi Occupation, 1940-1944	3-4
HIST:4666/ ASIA:4166	Topics in Asian History	3

Transnational Issues Track

The transnational issues track requires the following coursework (minimum of 18 s.h.).

Course #	Title	Hours
18 s.h. from these, including courses from at least three departments (minimum 3 s.h. per department):		
POLI:2417	Comparative Environmental Policy	3
POLI:2500	Politics of Natural Disasters	3
POLI:3035	Careers in Political Science and International Relations	3
POLI:3411	Democracy: Global Trends and Struggles	3
POLI:3422	Horn of Africa: Politics and Transnational Issues	3
POLI:3424	Global Development	3
POLI:3428	Statecraft, Diplomacy, and World Order	3
POLI:3430	Environmental Politics and Indigeneity	3
POLI:3432	Agriculture Politics and Policy	3
POLI:3450	Problems in Comparative Politics	3
POLI:3509	International Courts: The Intersection of Law and Politics	3
POLI:3527	Civil War Research Lab	3
POLI:3530	Diplomacy Lab	arr.
POLI:3550	Problems of International Politics	3
ANTH:1046/ GWSS:1046/ SEES:1046/ SJUS:1046	Environmental Politics in India	3
ANTH:2151/ GWSS:2151/IS:2151	Global Migration in the Contemporary World	3
CRIM:3415	Global Criminology	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ECON:3760	Health Economics	3
GHS:2674/ GWSS:2674/ RELS:2674	Food, Body, and Belief: A Global Perspective	3
GHS:3030/ CPH:3240	Global Health Today	1
GHS:3036	Ethics, Policy, and Global Health	3

GHS:3037	Technology to Improve Global Health	3
GHS:3050/ ASP:3135/ SSW:3135	Global Aging	3
GHS:3110/ ANTH:3110/ CBH:4200/ NAIS:3110	Colonialism and Indigenous Health Equity	3
GHS:3120	Global Maternal and Child Health	3
GHS:3150/ CBH:3150/JMC:3150	Media and Health	3
GHS:3230	Health Experience of Immigrants, Migrants, and Refugees	3
GHS:3325	Global Epidemics	3
GHS:3500/ CPH:3500	Global Public Health	3
GHS:3560	Global Garbage and Global Health	3
GHS:3720	Contemporary Issues in Global Health	3
GHS:3850/ HHP:3850	Promoting Health Globally	3
GHS:4003	Case Studies in Global Health Inequities	3
GWSS:2190/ ANTH:2190/IS:2190	Love Rules: Law and the Family Across Cultures	3
GWSS:2650/ GHS:2650	Global Reproduction	3
GWSS:3010/ GHS:3015	Transnational Sexualities	3
GWSS:3118/ ANTH:3118/ COMM:3118	Politics of Reproduction	3
GWSS:3157/ HIST:3157	Gender, Sexuality, and Human Rights	3
GWSS:3350/ ANTH:3125/IS:3350	Transnational Feminism	3
HIST:1115/ SEES:1115	The History of Oil	3
HIST:3108	History of Human Rights	3
HIST:3128	Topics in Global Environmental History	3
HIST:3131/ SEES:3131	Unnatural Disasters: A Global History	3
HIST:3171	Slavery in World History	3
HIST:3427/ GWSS:3427	Family, Gender, and Society in Early Modern Europe	3
HIST:3508/ GHS:3508/LAS:3508	Disease and Health in Latin American History	3
HIST:3755/ GHS:3555/IS:3555	Understanding Health and Disease in Africa	3
HRTS:3905/IS:3905	Topics in Human Rights	1-3
HRTS:3906	Global Crises and Human Rights	3
HRTS:3910/IS:3910	Approaches to Advocacy: From Theory to Practice	3
IS:3116/JMC:3116	Media and Global Cultures	3
IS:4131/ COMM:4131	Globalization and Culture	3
SEES:1020	The Global Environment	3
SEES:1070	Contemporary Environmental Issues	3
SEES:1090	Globalization and Geographic Diversity	3
SEES:2110/ GHS:2110	Eight Billion and Counting: Introduction to Population Dynamics	3
SEES:3090/ GHS:3070	Hungry Planet: Global Geographies of Food	3
SEES:3110/ GHS:3111	Geography of Health	3
SEES:3300/ GHS:3300	Envisioning Future Worlds: Sustainable Development and Its Alternatives	3
SEES:3331	Human Dimensions of Climate	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3
SEES:3800	Environmental Policy	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3
URP:3350/ ECON:3750/ SEES:3940	Transportation Economics	3

Self-Defined Track

Students may create their own track with permission from the director of undergraduate studies. A self-defined track may not duplicate an existing track or another academic program of study at the University of Iowa. It must consist of at least 18 s.h. of coursework, which must include 3 s.h. of credit earned in courses from three different departments (9 s.h. total).

Honors

Honors in the Major

Students majoring in international relations have the opportunity to graduate with honors in the major. Departmental honors students must maintain a UI grade-point average (GPA) of at least 3.33 and a major GPA of at least 3.50. In addition to maintaining the minimum GPA requirements and minimum major requirements, honors students must complete a final honors thesis, POLI:4801 Honors Senior Seminar in International Relations.

National Honor Society

The department sponsors a chapter of Pi Sigma Alpha. Students who have met the expectations for membership in Pi Sigma Alpha are invited to join. Contact the Department of Political Science honors advisor for more information.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the international relations major.

Career Advancement

Because international relations and the international community are so important, a major in international relations is an excellent choice for any student considering a career in either the public or private sector, including the diplomatic service, intelligence organizations, multinational corporations, nongovernmental organizations, international organizations, think tanks, public health agencies, the media, and numerous other professions. The international relations major also prepares students to pursue postbaccalaureate degrees such as a JD, MA, or PhD.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: POLI:1500 Introduction to International Relations.

Before the fifth semester begins: all core courses and the methods course.

Before the seventh semester begins: at least 12 s.h. in the track and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: all track requirements.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

International Relations, BA

International Business and Economic Relations Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
POLI:1500	Introduction to International Relations [b]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [d]		3
	Hours	**14-16**
Spring		
HIST:3155 or HIST:1101 or HIST:1403	The World Since 1945 or The Modern World or The West and the World: Modern	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
	Hours	**16-18**
Second Year		
Fall		
POLI:2000 or POLI:3000	Designing Political Research or Analyzing Political Data	3
GE CLAS Core: Quantitative or Formal Reasoning [e, f]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
Elective course [d]		3
	Hours	**16-17**
Spring		
ECON:1100	Principles of Microeconomics [b]	4
POLI:3512	International Conflict	3
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
	Hours	**15-16**
Third Year		
Fall		
ECON:1200 or SEES:2910	Principles of Macroeconomics or The Global Economy	3 - 4
POLI:3516	The Politics of International Economics	3
GE CLAS Core: Values and Society [e]		3
GE CLAS Core: Natural Sciences without Lab [e]		3
Elective course [d]		3
	Hours	**15-16**
Spring		
Major: international business and economic relations track course [g]		3
Major: international business and economic relations track course [g]		3
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**

Fourth Year

Fall

POLI:4802	International Relations Senior Seminar Preparation	1
Major: international business and economic relations track course [g]		3
Major: international business and economic relations track course [g]		3
GE CLAS Core: Historical Perspectives [e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**16**

Spring

POLI:4800 or POLI:4801	Senior Seminar in International Relations or Honors Senior Seminar in International Relations	3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**122-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f STAT:1010 or STAT:1020 recommended.

g Students complete 11-12 s.h. from approved international business and economic relations track elective courses, including courses from at least two different departments (minimum 3 s.h. per department). See the General Catalog for list of approved courses.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

International Relations, BS

A major in international relations focuses on economic relations between states, a crucial area of study in today's globalized world. Students are introduced to the politics of foreign countries. They develop an understanding of how countries interact and acquire a deep appreciation for the root causes of problems that transcend national boundaries.

Requirements for the major are the same for BS and BA students, except that the major for the BS requires a set of statistics, research, and experiential courses, while the major for the BA does not.

Learning Outcomes

Graduates will:

- possess a broad understanding of international relations;
- be able to apply a theoretical approach in international relations to understand a specific area of international relations;
- have effective written and oral communication skills; and
- be able to conceptualize problems and apply analytical tools to solve them.

Requirements

The Bachelor of Science with a major in international relations requires a minimum of 120 s.h., including at least 40 s.h. of work for the major. At least 18 s.h. of coursework for the major must be taken at the University of Iowa. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students choose one of five tracks: conflict and foreign policy, international business and economic relations, regional politics and relationships, transnational issues, or a self-defined track.

The BS with a major in international relations requires the following coursework.

Requirements	Hours
International Relations Core	12
Methods Course	3
Senior Seminar Courses	4
Statistics/Research/Experiential Courses	6
Track Courses	15-16

International Relations Core

Course #	Title	Hours
All of these:		
POLI:1500	Introduction to International Relations	3
POLI:3512	International Conflict	3
POLI:3516	The Politics of International Economics	3
One of these:		
HIST:1101	The Modern World	3
HIST:1403	The West and the World: Modern	3
HIST:3155	The World Since 1945	3

Methods Course

Course #	Title	Hours
This course:		
POLI:3000	Analyzing Political Data	3

Senior Seminar Courses

Course #	Title	Hours
This course:		
POLI:4802	International Relations Senior Seminar Preparation	1
One of these:		
POLI:4800	Senior Seminar in International Relations	3
POLI:4801	Honors Senior Seminar in International Relations	3

Statistics/Research/Experiential Courses

Students must take 6 s.h. in statistical methods, research processes, and experiential learning courses. Students are allowed to customize the courses to fit their interests and academic goals.

Course #	Title	Hours
One of these (minimum 3 s.h.):		
POLI:3001	Hawkeye Poll	3
POLI:3020	Project Vote Smart: Research and Engagement on Elections	3
POLI:3127	Legislative Policy Seminar	arr.
POLI:3160	Applied Research in Political Science	1-3
POLI:3525	Iowa Policy and Opinion Lab	3
POLI:3527	Civil War Research Lab	3
POLI:3530	Diplomacy Lab	arr.
POLI:3994	Political Science Undergraduate Research Projects	3-4
POLI:4700	Independent Study	arr.
POLI:4701	Undergraduate Research Tutorial	3
One of these (minimum 3 s.h.):		
POLI:3050	Problems in Methods	arr.
CS:1210	Computer Science I: Fundamentals	4
CS:2110	Programming for Informatics	4
ECON:3300	Introduction to Econometrics: Causal Inference With Data	3
ECON:4800	Econometric Analysis: Advanced Causal Inference With Data	3
SEES:2050	Foundations of GIS	4
SEES:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3

SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3
SOC:3880	The Sociology of Networks	3
SOC:4000	Data Science for Social Good	3
Statistics courses (prefix STAT) numbered 3000 and above		
Additional courses may be approved with exception by the director of undergraduate studies		

Tracks

International relations students complete one of the following five tracks, each of which requires 15–16 s.h. of coursework. Students who would like to declare the major in international relations before deciding on a track may declare the open track for advising purposes. They should talk with an advisor and decide on a track as soon as possible.

- Conflict and Foreign Policy Track [p. 611]
- International Business and Economic Relations Track [p. 611]
- Regional Politics and Relationships Track [p. 612]
- Transnational Issues Track [p. 613]
- Self-Defined Track [p. 614]

Conflict and Foreign Policy Track

The conflict and foreign policy track requires the following coursework (minimum of 15 s.h.).

Course #	Title	Hours
This course:		
POLI:1501	Introduction to American Foreign Policy	3
12 s.h. from these, including courses from at least two departments (minimum 3 s.h. per department):		
POLI:2417	Comparative Environmental Policy	3
POLI:3035	Careers in Political Science and International Relations	3
POLI:3405	Authoritarian Politics	3
POLI:3411	Democracy: Global Trends and Struggles	3
POLI:3420	Southeast Asia: Politics and Development	3
POLI:3422	Horn of Africa: Politics and Transnational Issues	3
POLI:3423	The Middle East: Policy and Diplomacy	3
POLI:3428	Statecraft, Diplomacy, and World Order	3
POLI:3450	Problems in Comparative Politics	3
POLI:3503	Politics of Terrorism	3
POLI:3505	Civil Wars	3
POLI:3506	Consequences of War	3
POLI:3509	International Courts: The Intersection of Law and Politics	3
POLI:3518	Water Wars: Conflict and Cooperation	3
POLI:3527	Civil War Research Lab	3
POLI:3530	Diplomacy Lab	arr.
POLI:3550	Problems of International Politics	3
POLI:3603	War and Film	3
HIST:2156/ JSTU:2156	Arabs and Jews in Palestine and Israel	3
HIST:2420/ GRMN:2720	Germany in the World	3-4
HIST:2465	Europe Since 1945	3
HIST:2684/ ASIA:2684	Korean War: Local and Global History	3
HIST:2804	The Middle East Through Graphic Novels and Animated Film	3
HIST:2810	The Modern Middle East	3
HIST:3106	History Behind the Headlines	3
HIST:3108	History of Human Rights	3
HIST:3145	Europe and the United States in the Twentieth Century	3
HIST:3147	The Cold War	3
HIST:3155	The World Since 1945	3
HIST:3242	The United States in World Affairs	3-4
HIST:3494/ RUSS:3494	The Russian Revolutions and Their Legacies	3
HIST:4478	Holocaust in History and Memory	3

International Business and Economic Relations Track

The international business and economic relations track requires the following coursework (minimum of 16 s.h.).

Course #	Title	Hours
Two of these:		
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
SEES:2910	The Global Economy	3
8-9 s.h. from these, including courses from at least two departments (minimum 3 s.h. per department):		
POLI:2417	Comparative Environmental Policy	3
POLI:3035	Careers in Political Science and International Relations	3
POLI:3424	Global Development	3
POLI:3432	Agriculture Politics and Policy	3
POLI:3504	Globalization	3
ECON:3335	Money, Banking, and Financial Markets	3
ECON:3345	Global Economics and Business	3
ECON:3620	Economic Growth and Development	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ECON:4110	International Economics	3

ENTR:4460	Entrepreneurship and Global Trade	3
FIN:4240	International Finance (prerequisite required)	3
HIST:1115/ SEES:1115	The History of Oil	3
HRTS:3904/IS:3904	Business, Labor, and Human Rights	1-3
MGMT:3450	International Business Environment	3
MKTG:4300	International Marketing (prerequisite required)	3
SEES:3090/ GHS:3070	Hungry Planet: Global Geographies of Food	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3
SEES:3800	Environmental Policy	3
URP:3350/ ECON:3750/ SEES:3940	Transportation Economics	3

Regional Politics and Relationships Track

The regional politics and relationships track requires the following coursework (minimum of 15 s.h.).

Course #	Title	Hours
This course:		
POLI:1400	Introduction to Comparative Politics	3
12 s.h. from these, including courses from at least two departments (minimum 3 s.h. per department):		
POLI:1401	Introduction to Russian Politics	3
POLI:1449	Introduction to European Politics	3
POLI:2415	Latin American Politics	3
POLI:2500	Politics of Natural Disasters	3
POLI:3035	Careers in Political Science and International Relations	3
POLI:3405	Authoritarian Politics	3
POLI:3408	Chinese Politics and Society	3
POLI:3420	Southeast Asia: Politics and Development	3
POLI:3422	Horn of Africa: Politics and Transnational Issues	3
POLI:3423	The Middle East: Policy and Diplomacy	3
POLI:3424	Global Development	3
POLI:3426	Outliers: Comparing Odd Countries	3
POLI:3428	Statecraft, Diplomacy, and World Order	3
POLI:3430	Environmental Politics and Indigeneity	3
POLI:3432	Agriculture Politics and Policy	3
POLI:3450	Problems in Comparative Politics	3
POLI:3527	Civil War Research Lab	3
POLI:3530	Diplomacy Lab	arr.
POLI:3550	Problems of International Politics	3
GWSS:3326/ GHS:3327	The Politics of Progress: NGOs, Development, and Sexuality	3
HIST:1602/ ASIA:1602	Civilizations of Asia: China from the 17th Century to the Present	3
HIST:1604/ ASIA:1604	Civilizations of Asia: Japan	3-4
HIST:1606/ ASIA:1606/ RELS:1606	Civilizations of Asia: South Asia	3-4
HIST:1607/ ASIA:1607	Civilizations of Asia: Korea	3-4
HIST:1609/ ASIA:1609	India Now! Surveying the World's Largest Democracy	3-4
HIST:1708	Civilizations of Africa	3
HIST:2155/ JSTU:2155	Global Jewish History	3
HIST:2156/ JSTU:2156	Arabs and Jews in Palestine and Israel	3
HIST:2420/ GRMN:2720	Germany in the World	3-4
HIST:2465	Europe Since 1945	3
HIST:2804	The Middle East Through Graphic Novels and Animated Film	3
HIST:3145	Europe and the United States in the Twentieth Century	3
HIST:3289/ NAIS:3289	The Atlantic World c. 1450-1850	3
HIST:3427/ GWSS:3427	Family, Gender, and Society in Early Modern Europe	3
HIST:3470	France From 1815 to Present	3
HIST:3501/ LAS:3501	Rebel Island: A History of Cuba	3
HIST:3502/ LAS:3502/ NAIS:3502	History of Mexico	3
HIST:3515/ LAS:3515	Introduction to Modern Latin America	3
HIST:3522/ LATS:3522	Indigenous Women and Rural Unrest in Latin America	3
HIST:3652/ ASIA:3652	Twentieth-Century China	3
HIST:3685/ ASIA:3685	Modern Korean History	3
HIST:3760/ AFAM:3760	The Making of Modern Africa	3
HIST:3810	History of the Modern Middle East	3
HIST:4433/ FREN:4433	France Under Nazi Occupation, 1940-1944	3-4
HIST:4666/ ASIA:4166	Topics in Asian History	3

Transnational Issues Track

The transnational issues track requires the following coursework (minimum of 15 s.h.).

Course #	Title	Hours
15 s.h. from these, including courses from at least three departments (minimum 3 s.h. per department):		
POLI:2417	Comparative Environmental Policy	3
POLI:2500	Politics of Natural Disasters	3
POLI:3035	Careers in Political Science and International Relations	3
POLI:3411	Democracy: Global Trends and Struggles	3
POLI:3422	Horn of Africa: Politics and Transnational Issues	3
POLI:3424	Global Development	3
POLI:3428	Statecraft, Diplomacy, and World Order	3
POLI:3430	Environmental Politics and Indigeneity	3
POLI:3432	Agriculture Politics and Policy	3
POLI:3450	Problems in Comparative Politics	3
POLI:3509	International Courts: The Intersection of Law and Politics	3
POLI:3527	Civil War Research Lab	3
POLI:3530	Diplomacy Lab	arr.
POLI:3550	Problems of International Politics	3
ANTH:1046/ GWSS:1046/ SEES:1046/ SJUS:1046	Environmental Politics in India	3
ANTH:2151/ GWSS:2151/IS:2151	Global Migration in the Contemporary World	3
CRIM:3415	Global Criminology	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ECON:3760	Health Economics	3
GHS:2674/ GWSS:2674/ RELS:2674	Food, Body, and Belief: A Global Perspective	3
GHS:3030/ CPH:3240	Global Health Today	1
GHS:3036	Ethics, Policy, and Global Health	3
GHS:3037	Technology to Improve Global Health	3
GHS:3050/ ASP:3135/ SSW:3135	Global Aging	3
GHS:3110/ ANTH:3110/ CBH:4200/ NAIS:3110	Colonialism and Indigenous Health Equity	3
GHS:3120	Global Maternal and Child Health	3
GHS:3150/ CBH:3150/JMC:3150	Media and Health	3
GHS:3230	Health Experience of Immigrants, Migrants, and Refugees	3
GHS:3325	Global Epidemics	3
GHS:3500/ CPH:3500	Global Public Health	3
GHS:3560	Global Garbage and Global Health	3
GHS:3720	Contemporary Issues in Global Health	3
GHS:3850/ HHP:3850	Promoting Health Globally	3
GHS:4003	Case Studies in Global Health Inequities	3
GWSS:2190/ ANTH:2190/IS:2190	Love Rules: Law and the Family Across Cultures	3
GWSS:2650/ GHS:2650	Global Reproduction	3
GWSS:3010/ GHS:3015	Transnational Sexualities	3
GWSS:3118/ ANTH:3118/ COMM:3118	Politics of Reproduction	3
GWSS:3157/ HIST:3157	Gender, Sexuality, and Human Rights	3
GWSS:3350/ ANTH:3125/IS:3350	Transnational Feminism	3
HIST:1115/ SEES:1115	The History of Oil	3
HIST:3108	History of Human Rights	3
HIST:3128	Topics in Global Environmental History	3
HIST:3131/ SEES:3131	Unnatural Disasters: A Global History	3
HIST:3171	Slavery in World History	3
HIST:3427/ GWSS:3427	Family, Gender, and Society in Early Modern Europe	3
HIST:3508/ GHS:3508/LAS:3508	Disease and Health in Latin American History	3
HIST:3755/ GHS:3555/IS:3555	Understanding Health and Disease in Africa	3
HRTS:3905/IS:3905	Topics in Human Rights	1-3
HRTS:3906	Global Crises and Human Rights	3
HRTS:3910/IS:3910	Approaches to Advocacy: From Theory to Practice	3
IS:3116/JMC:3116	Media and Global Cultures	3
IS:4131/ COMM:4131	Globalization and Culture	3
SEES:1020	The Global Environment	3
SEES:1070	Contemporary Environmental Issues	3
SEES:1090	Globalization and Geographic Diversity	3
SEES:2110/ GHS:2110	Eight Billion and Counting: Introduction to Population Dynamics	3
SEES:3090/ GHS:3070	Hungry Planet: Global Geographies of Food	3

SEES:3110/ GHS:3111	Geography of Health	3
SEES:3300/ GHS:3300	Envisioning Future Worlds: Sustainable Development and Its Alternatives	3
SEES:3331	Human Dimensions of Climate	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3
SEES:3800	Environmental Policy	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3
URP:3350/ ECON:3750/ SEES:3940	Transportation Economics	3

Self-Defined Track

Students may create their own track with permission from the director of undergraduate studies. A self-defined track may not duplicate an existing track or another academic program of study at the University of Iowa. It must consist of at least 15 s.h. of coursework, which must include 3 s.h. of credit earned in courses from three different departments (9 s.h. total).

Honors

Honors in the Major

Students majoring in international relations have the opportunity to graduate with honors in the major. Departmental honors students must maintain a UI grade-point average (GPA) of at least 3.33 and a major GPA of at least 3.50. In addition to maintaining the minimum GPA requirements and minimum major requirements, honors students must complete a final honors thesis, POLI:4801 Honors Senior Seminar in International Relations.

National Honor Society

The department sponsors a chapter of Pi Sigma Alpha. Students who have met the expectations for membership in Pi Sigma Alpha are invited to join. Contact the Department of Political Science honors advisor for more information.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the international relations major.

Career Advancement

Because international relations and the international community are so important, a major in international relations is an excellent choice for any student considering a career in either the public or private sector, including the diplomatic service, intelligence organizations, multinational corporations, nongovernmental organizations, international organizations, think tanks, public health agencies, the media, and numerous other professions. The international relations major also prepares students to pursue postbaccalaureate degrees such as a JD, MA, or PhD.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: POLI:1500 Introduction to International Relations.

Before the fifth semester begins: all core courses and the methods course.

Before the seventh semester begins: at least one of the statistics/research/experiential courses, at least 12 s.h. in the track, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: all core courses, the methods course, the remaining statistics/research/experiential course, and all track requirements.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

International Relations, BS

- Conflict and Foreign Policy Track [p. 614]
- Transnational Issues Track [p. 616]

Conflict and Foreign Policy Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
POLI:1500	Introduction to International Relations [b]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [d]		3
	Hours	**14-16**

Spring

HIST:1403 or HIST:3155 or HIST:1101	The West and the World: Modern or The World Since 1945 or The Modern World	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		2
	Hours	**15-17**

Second Year

Fall

POLI:1501	Introduction to American Foreign Policy [b, f]	3
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
Elective course [d]		2
	Hours	**15-16**

Spring

POLI:3000	Analyzing Political Data	3
POLI:3512	International Conflict	3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
Elective course [d]		3
	Hours	**16-17**

Third Year

Fall

POLI:3516	The Politics of International Economics	3
Major: statistics/research/experiential course [g]		3 - 4
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: Values and Society [e]		3
Elective course [d]		3
	Hours	**15-16**

Spring

Major: conflict and foreign policy track course [f]		3
Major: statistics/research/experiential course [g]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15-16**

Fourth Year

Fall

POLI:4802	International Relations Senior Seminar Preparation	1
Major: conflict and foreign policy track course [f]		3
Major: conflict and foreign policy track course [f]		3
GE CLAS Core: Natural Sciences without Lab		3
Elective course [d]		3
Elective course [d]		3
	Hours	**16**

Spring

POLI:4801 or POLI:4800	Honors Senior Seminar in International Relations or Senior Seminar in International Relations	3
Major: conflict and foreign policy track course [f]		3
GE CLAS Core: Natural Sciences with Lab [e]		4
Elective course [d]		3
Elective course [d]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**121-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f The conflict and foreign policy track requires POLI:1501 and at least 12 s.h. of additional courses (15 s.h. total); must include courses from at least two departments (minimum 3 s.h. per department). See the General Catalog for list of approved courses.

g Students must take 6 s.h. in statistical methods, research processes, and experiential learning courses. See the General Catalog for list of approved courses.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Transnational Issues Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
POLI:1500	Introduction to International Relations [b]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**14-16**
Spring		
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Quantitative or Formal Reasoning [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
Elective course [e]		3
Elective course [e]		3
	Hours	**16-18**
Second Year		
Fall		
HIST:3155 or HIST:1101 or HIST:1403	The World Since 1945 or The Modern World or The West and the World: Modern	3
Major: transnational issues track course [f]		3
GE CLAS Core: Natural Sciences with Lab [c]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
Elective course [e]		2
	Hours	**16-17**
Spring		
POLI:3000	Analyzing Political Data	3
POLI:3512	International Conflict	3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [e]		3
Elective course [e]		2
	Hours	**15-16**
Third Year		
Fall		
Major: transnational issues track course [f]		3
Major: statistics/research/experiential course [g]		3 - 4
GE CLAS Core: Values and Society [c]		3
GE CLAS Core: Social Sciences [c]		3
Elective course [e]		3
	Hours	**15-16**
Spring		
Major: transnational issues track course [f]		3
Major: transnational issues track course [f]		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**
Fourth Year		
Fall		
POLI:3516	The Politics of International Economics	3
POLI:4802	International Relations Senior Seminar Preparation	1
Major: transnational issues track course [f]		3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: Natural Sciences without Lab [c]		3
Elective course [e]		3
	Hours	**16**
Spring		
POLI:4800 or POLI:4801	Senior Seminar in International Relations or Honors Senior Seminar in International Relations	3
Major: statistics/research/experiential course [g]		3 - 4
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15-16**
	Total Hours	**122-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f The transnational issues track requires at least 15 s.h. of additional courses, including courses from at least three

departments (minimum 3 s.h. per department). See the General Catalog for list of approved courses.

g Students must take 6 s.h. in statistical methods, research processes, and experiential learning courses. See the General Catalog for list of approved courses.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

International Relations, Minor

Requirements

The undergraduate minor in international relations requires a minimum of 15 s.h. in coursework approved for the international relations major, including at least 9 s.h. in courses numbered 3000 or above and at least 12 s.h. taken at the University of Iowa. Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Students may count a maximum of 9 s.h. earned in coursework from one department toward the minor. To view the selection of courses available, see the BA in international relations [p. 604] or the BS in international relations [p. 610] in the catalog.

Courses for the minor in international relations must include the following.

Course #	Title	Hours
This course:		
POLI:1500	Introduction to International Relations	3
One of these:		
POLI:3512	International Conflict	3
POLI:3516	The Politics of International Economics	3

Iowa Sciences Academy

Director

- Lori Adams (Biology)

Faculty: https://isa.uiowa.edu/people

Website: https://isa.uiowa.edu/

The Iowa Sciences Academy (ISA) is home to a range of programs that support the success of undergraduate students interested in research and scientific communication. Through ISA programs, students have access to hands-on research, professional development, and scientific outreach opportunities. The Iowa Sciences Academy strives to build a strong community of students, staff, and faculty engaged in the sciences.

The Science Alliance Internship program supports qualified first- and second-year students interested in exploring research on campus. The program aims to enrich the undergraduate experience through coursework, mentor matching, career guidance, and creating a cohort of students with similar interests in science and research. Competitive wages to carry out research in laboratories and access to a summer program for science alliance interns are provided.

The Maximizing Access to Research Careers (UI-MARC) is a National Institutes of Health (NIH) funded program that supports the academic and personal success of qualified junior and senior students committed to pursuing a PhD in science. The goal of the UI-MARC research training program is to develop a cohort of undergraduates who complete their baccalaureate degree and transition into and complete biomedical, research-focused higher degree programs (e.g., PhD). A yearly stipend, funding for conference travel, tuition support, and access to external summer research experiences are provided.

The mission of the National Science Foundation (NSF) funded Louis Stokes Alliance for Minority Participation (UI-LSAMP) program is to support and increase the nation's STEM workforce, broaden undergraduate participation in research, and create a sense of community and support for students with a declared major in science, technology, engineering, mathematics, and pre-health professions. UI-LSAMP facilitates professional development and finding laboratory experiences for STEM majors transferring from community colleges. Selected students receive stipends for each term.

The Latham Science Engagement Initiative provides the opportunity for sophomore, junior, and senior students to interact with highly talented undergraduate students across science disciplines. The program prepares students to communicate science in the public sphere, work in multidisciplinary settings, and demonstrate the broader impact of scientific research. Students selected for the program complete two courses, design and implement science outreach projects, and participate in an event that highlights their achievements.

Admission

Students must apply for each program individually to be considered for admission. Requirements for admission vary from program to program. Admission to some programs may require an interview. For more information, including the online application forms, visit the Iowa Sciences Academy website.

In general, applicants should:

- have a strong interest in pursuing a research career;
- have a qualifying academic major;
- have a strong academic record (e.g., a grade-point average of at least 3.00); and
- meet additional requirements as specified by the individual program.

Courses

Iowa Sciences Academy Courses

ISA:1040 Exploring Research **1 s.h.**
Professional and career development; tours of scientific research facilities and laboratories on campus; network with professors and graduate students; explore different types of research environments on campus; learn how to identify and contact potential research mentors.

ISA:1041 Entering Research **1 s.h.**
Complement to independent scientific research experience; students meet weekly to share research experiences; students gain experience searching peer-reviewed literature databases; reading and summarizing peer-reviewed scientific papers.

ISA:2040 Professionalism in the Scientific Community **1 s.h.**
Development of communication skills and appropriate professional conduct while maintaining ethical standards; further understanding of ethical issues in student's field, improve communication of student's research to the public, and understanding the significance of professional conduct, networking, and diversity within student's field.

ISA:2041 Career Exploration and Specification **1 s.h.**
Students define career goals, increase knowledge about the process of obtaining a graduate or professional degree, and create personal plans for future academic and research endeavors.

ISA:3040 Critical Analysis of Primary Literature **1 s.h.**
Development of critical thinking and research skills through analysis of primary scientific research literature to demystify and humanize research science; how to analyze components of a good empirical article; students present a research paper from literature in their field of interest as preparation to contribute to future empirical manuscripts. Requirements: minimum of 60 s.h. earned and junior or senior standing.

ISA:3041 Pathways to Post-Undergraduate Education **1 s.h.**
Successful preparation for graduate school application process; students learn how to write their own curriculum vita, personal statements, research statements, and graduate school application action plan. Requirements: minimum of 60 s.h. earned and junior or senior standing.

ISA:3992 Iowa Sciences Academy Undergraduate Research **0 s.h.**
Registration in a section taught by student's research mentor. Requirements: participation in Iowa Sciences Academy.

ISA:4040 Teaching Your Undergraduate Research 1 s.h.
Scientific teaching principles (e.g., backwards design, active learning, formative assessment); students develop a teaching unit based on some aspect of their research and teach it to the class in preparation for future interviews where the ability to explain the background and significance for their research is a highly valued skill. Requirements: minimum of 60 s.h. earned, junior or senior standing, and undergraduate research experience.

ISA:4041 Senior Capstone Project 1 s.h.
Structure for development, planning, and implementation of a culminating project for the Iowa Sciences Academy; students dedicate three to five hours per week to the project and are encouraged to connect their projects to community issues or problem; integration of external learning experiences and activities including interviews, scientific observations, or internships.

Journalism and Mass Communication

Director

- Melissa Tully

Undergraduate majors: journalism and mass communication (BA); sport media and culture (BA)

Undergraduate minors: media management; news and media literacy; sport media and culture

Graduate degrees: MA in mass communication; MA in strategic communication; PhD in mass communication

Faculty: https://journalism.uiowa.edu/people

Website: https://journalism.uiowa.edu/

The School of Journalism and Mass Communication offers two undergraduate majors, three minors, and three graduate degree programs. Undergraduate students in all majors may use approved journalism and mass communication courses to satisfy the Historical Perspectives, Social Sciences, Sustainability, Understanding Cultural Perspectives, and Values and Society requirements of the College of Liberal Arts and Sciences GE CLAS Core [p. 22], and the school's First-Year Seminar is designed specifically for entering undergraduate students.

The school is accredited by the Accrediting Council on Education in Journalism and Mass Communications.

Certificates

The School of Journalism and Mass Communication administers the Certificate in Event Management in collaboration with the departments of Communication Studies, Health, Sport, and Human Physiology, and Marketing. It also collaborates with the Department of Management and Entrepreneurship to offer the Certificate in Nonprofit Leadership and Philanthropy.

Event Management

See the Certificate in Event Management [p. 466] in the catalog.

Nonprofit Leadership and Philanthropy

See the Certificate in Nonprofit Leadership and Philanthropy [p. 2209] in the catalog.

Professional Enrichment

Internships

The school encourages journalism and mass communication undergraduate majors to complete at least one internship. The school's internship coordinator helps students find appropriate positions.

Journalism and mass communication undergraduate majors may earn up to a total of 4 s.h. of internship credit, registering for JMC:2100 Internship in Journalism and Mass Communication. Completing an internship will fulfill the Study Abroad, Community Engagement, Research, Internship, Professional Practice, or Teaching (SCRIPT) requirement for the journalism and mass communication major, but internship credit counts toward the total journalism and mass communication (JMC) credit that students may apply toward a BA degree (maximum of 56 s.h.).

Students may also take internships for no credit through CCP:1005 Internship in Liberal Arts and Sciences.

Students are also encouraged to pursue opportunities for experience on campus through student media, including The Daily Iowan, Daily Iowan TV (DITV), KRUI-FM radio, and The Adler Agency.

Activities

The school engages in a variety of activities for the enrichment of students, faculty, and the entire campus. Speakers visit campus each year under lectureships funded by the Li Chen Fund and the M. Holly McGranahan Lecture series. In addition, guest speakers are funded through the Hearst Visiting Professionals Program. Campus organizations for students include Kappa Tau Alpha (KTA), a national society honoring scholarship in journalism, the National Association of Black Journalists (NABJ), the Online News Association (ONA), the Public Relations Student Society of America (PRSSA), Ed on Campus (EOC), and the Association for Women in Sports Media (AWSM).

Financial Support

More than $200,000 in scholarships and awards is disbursed to students in the School of Journalism and Mass Communication each year. Scholarship information and applications are available each fall. Visit Undergraduate Awards and Scholarships on the School of Journalism and Mass Communication website or contact the school.

Additionally, the school has a limited number of annual awards to encourage and support journalism and mass communication majors who seek an international experience or an immersive internship experience.

The school offers research and teaching assistantships for graduate students; preference is given to PhD students. Journalism and mass communication students have been successful in winning competitive fellowships open to all graduate students; applicants must be nominated by the graduate committee.

Programs

Undergraduate Programs of Study

Majors

- Major in Journalism and Mass Communication (Bachelor of Arts) [p. 631]
- Major in Sport Media and Culture (Bachelor of Arts) [p. 643]

Minors

- Minor in Media Management [p. 647]
- Minor in News and Media Literacy [p. 649]
- Minor in Sport Media and Culture [p. 650]

Graduate Programs of Study

- Master of Arts in Mass Communication [p. 652]
- Master of Arts in Strategic Communication [p. 654]
- Doctor of Philosophy in Mass Communication [p. 657]

Facilities

The School of Journalism and Mass Communication is housed in the Philip D. Adler Journalism and Mass Communication Building. The 65,000-square-foot building has computer labs for audio, video, design, writing, and web publishing; a student center; the Iowa Stories Lab; and the Moeller Media Research Lab. The building is also home to offices of the Iowa High School Press Association; the university's award-winning student newspaper, The Daily Iowan; Daily Iowan TV (DITV), a student-run newscast; and the Journal of Communication Inquiry.

Courses

- Journalism and Mass Communication Courses [p. 622]
- Sport Media and Culture Courses [p. 629]

Journalism and Mass Communication Courses

JMC:1000 First-Year Seminar 1-2 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

JMC:1010 Introduction to Experiential Learning 1 s.h.
Exploring experiential learning opportunities in journalism and mass communication while connecting students to faculty experts and career resources.

JMC:1050 Sport and the Media 3 s.h.
Examination of sport and media's intimate relationship; aesthetic, cultural, political, economic, and industrial factors that shape it. GE: Values and Society. Same as SMC:1050.

JMC:1100 Introduction to Media Effects 3 s.h.
Application of social science methods and media theory to understanding effects of news, advertising, entertainment, and social media. GE: Social Sciences.

JMC:1200 Introduction to Media and Culture 3 s.h.
Historical development of journalism in the United States; cultural, historical content. GE: Historical Perspectives.

JMC:1300 Introduction to Journalism and Strategic Communication 3 s.h.
Understanding foundational theories and practices of contemporary journalism and strategic communication; unique public service mission of journalism; cultural, social, organizational roles of public relations; journalism and public relations (PR) industry opportunities, problems, and solutions; structural inequalities in journalism and strategic communication impacting industry diversity and media representation.

JMC:1500 Introduction to Social Media 3 s.h.
Prehistory of social media and identification of ideas, events, and elements in ancient and historical times; earliest days of online posting and interacting; first instances of social engagement on the Web; how social media (journalism, politics, health care, romance and lifestyle, entertainment, war and terrorism, professions and jobs) affects individual areas of life, culture, and society; what's next and how social media changes lives in the future and affects the fate of humanity. GE: Values and Society.

JMC:1600 Writing Fundamentals 1 s.h.
The importance of grammar; recognition of common errors in the student's own writing, with a focus on fixing these problems.

JMC:1800 Environmental Communication 3 s.h.
How information created by scientists about environmental issues is used by media, public relations practitioners, law makers, regulators, and decision makers in governments, organizations, and corporations, as well as by lay citizens; analysis of strategies to get scientific knowledge to the public arena in ways that inform, educate, and empower the public; examination of how this information can be used to mislead or confuse the public. GE: Sustainability. GE: Sustainability; Values and Society.

JMC:2001 Exploring Nonprofits: Communities, Communication, and Changemakers 3 s.h.
Explore real-world examples of nonprofit organizations and hear from guest speakers who are leaders in the field; gain practical insights into the challenges and successes of the sector; examine the various types of nonprofit organizations, including arts, culture, human services, environment, animals, health, international, religion, education, and more; discover the innumerable career paths within the nonprofit sector, including roles in marketing, communications, grant writing, program management, fundraising, finance, human resources, advocacy, and more.

JMC:2005 Preparing for Internship Success Seminar 1-2 s.h.
Facilitates student career exploration and professional development; gain job search skills and resources; identify and learn more about various career paths; and focus on professionalism, résumé development, and interviewing in preparation for an internship search. Prerequisites: JMC:1300 with a minimum grade of C-. Requirements: journalism and mass communication major.

JMC:2010 Reporting and Writing 3 s.h.
Fundamental skills of journalistic reporting and writing. Prerequisites: JMC:1300 with a minimum grade of C- and JMC:1600 with a minimum grade of C- and (JMC:1100 with a minimum grade of C- or JMC:1200 with a minimum grade of C- or JMC:1500 with a minimum grade of C-). Requirements: journalism major.

JMC:2020 Multimedia Storytelling 3 s.h.
Fundamental skills of multimedia storytelling. Prerequisites: JMC:1300 with a minimum grade of C- and JMC:1600 with a minimum grade of C- and (JMC:1100 with a minimum grade of C- or JMC:1200 with a minimum grade of C- or JMC:1500 with a minimum grade of C-). Requirements: journalism major.

JMC:2030 Visual Communication and Design 3 s.h.
Introduction to visual communication design through lectures and hands-on projects; key professional production skills, including technical aspects of graphics and graphic design software; use of visual communication design skills to create effective layouts and design pieces; topics include elements and principles of design, visual perception theories, typography, color theory, representation, composition, information design, and ethical and inclusive practices of visual communication design; how to become more effective visual communicators and designers; preparation for upper-level journalism and mass communication coursework. Prerequisites: JMC:1300 with a minimum grade of C- and (JMC:1100 with a minimum grade of C- or JMC:1200 with a minimum grade of C- or JMC:1500 with a minimum grade of C-). Requirements: journalism and mass communication major.

JMC:2084 Sport and Film 3 s.h.
Sport films as means of exploring contemporary ideas about sport in the U.S.; focus on narrative structure, characterization, historical, and political contexts; formal aspects of film analysis (e.g., editing, lighting, cinematography). Same as AMST:2084, SMC:2084, SPST:2084.

JMC:2100 Internship in Journalism and Mass Communication 0-3 s.h.
Faculty-supervised professional work experience in journalism and mass communication. Prerequisites: JMC:2020 and JMC:2010. Requirements: journalism major.

JMC:2101 Digital Media and the Future of Sport 3 s.h.
Emergence and significance of internet blogs, social media, convergence journalism, video games, and fantasy sports; economic, regulatory, and cultural forces that shape new media sport journalism and entertainment. Same as AMST:2101, SMC:2101, SPST:2101.

JMC:2150 News and Knowledge: Chinese Culture, History, and Journalism 1 s.h.
Chinese culture, and social and cultural issues as perceived by people inside and outside China from a journalistic view.

JMC:2350 Student Media Experience 0 s.h.
Opportunities to participate in student-generated television, radio, and web and print media in a semi-professional environment that enables students to apply academic curriculum in a structured, practical setting.

JMC:2400 Journalism and Mass Communication Media Experience 1-3 s.h.
Educational opportunities involving small groups of students in unique journalism, strategic communication, and/or media-related experiences; students serve as journalism and/or communication consultants for an organization; in-class preparation complements off-campus work with a designated industry partner; the organization will vary according to faculty expertise, industry partner availability, and location.

JMC:2410 Adler Agency 1-3 s.h.
Simulated experience of working in a professional agency. Students will build upon the knowledge base acquired in previous courses and focus on a practical, collaborative effort to create output of a sufficiently high standard. Requirements: journalism and mass communication major.

JMC:2415 Prep Sports Report 1-3 s.h.
Covering high school athletics in several communities, including Solon, Mt. Vernon, and Lisbon, Iowa as if working in a sports department. Requirements: journalism and mass communication major or sport media and culture major. Same as SMC:2415.

JMC:2500 Community Media 3 s.h.
The boundaries of community can be set in many ways —by geography, age, ability, race, ethnicity, and more —or by intersection of several of these factors; students engage deeply with media representations of different types of communities, discuss basic concepts of identity and community, and explore some of the major fault lines, biases, and privileges in contemporary life; students critique common stereotypes that often show up in media coverage of marginalized communities to better practice storytelling across difference, focusing on how stories from communities that are underrepresented or misrepresented by media can be amplified. GE: Understanding Cultural Perspectives.

JMC:2600 Freedom of Expression 3 s.h.
Philosophy, history, political science, and legal studies blended into a semester-long meditation on the meaning of freedom of expression, especially in the United States, and specifically on the U.S. Supreme Court; special attention given to the way in which freedom of expression enters into societal debates about benefits and challenges of diversity, and whether and how to rectify structural relationships of inequality; as students learn the history and tradition of how Americans have understood this concept, they reflect on their own perspectives and engage with others who may have different ideas from their own. GE: Understanding Cultural Perspectives.

JMC:2700 Media Ethics 3 s.h.
Application of ethical principles in journalistic decision-making; consideration of potentially conflicting values, loyalties, and goals that force professional journalists to make difficult choices.

JMC:3000 Peer Assistant 0 s.h.
Opportunities to assist course instructors, facilitate classroom activities, and provide mentorship and outreach to journalism and mass communication students.

JMC:3116 Media and Global Cultures 3 s.h.
Communication as a vital component for any effort to create social change; necessary communication to reach out to target audiences—people and communities in need—from campaigns persuading communities to change knowledge, attitudes, and practices to aiding other development efforts in areas of health, education, rural development, or sustainable agricultural practices; importance of communication as an integral part to any effort aimed at creating large-scale social change. Same as IS:3116.

JMC:3118 Political Communication 3 s.h.
A comprehensive exploration of media and politics, tracing the evolution of political communication from the print era to the digital age, focusing on American politics. Examine key historical milestones, technological innovations, and socio-political contexts that have shaped the dynamics of political communication over time.

JMC:3122 Influencers, Artificial Intelligence, and Digital Games 3 s.h.
Explores the impact of digital games on online lives, from social media and online news to the capitalist logic of AI and influencers. Special emphasis given to how industrial contexts for media production shape cultural values as expressed through design aesthetics and interactive technologies, especially in influencers, AI, and digital games.

JMC:3123 Advocacy Communication 3 s.h.
Explore how organizations, businesses, nonprofits, and grassroots groups attempt to shape public policy through use of traditional and new media, direct communication, and lobbying.

JMC:3124 Entertainment Media 3 s.h.
Explore the technological revolution as it has profoundly shaped entertainment media, analyzing the parallels and differences among a variety of digitized media (movies, music, television, books, even video games); everything has changed, from the distribution to consumption to creation.

JMC:3142 Media and Social Change 3 s.h.
Students explore the myriad ways that people and organizations use media (e.g., writing, video, social media) for civic engagement, activism, and political participation; drawing on a broad range of cases and issues, students examine historical and contemporary social movements and activism. Same as IS:3142.

JMC:3150 Media and Health 3 s.h.
Potential and limits of mass media's ability to educate the public about health; research and theory on the influence of information and entertainment media; theories, models, assumptions of mass communication in relation to public health issues. Same as CBH:3150, GHS:3150.

JMC:3165 African Americans and the Media 3 s.h.
Exploration of the theoretical notion of racialism in various genres of mass communication (i.e., music, print media, television/cable, film, social media); analysis and discussion of contemporary images and messages in media related to African American culture with close attention to impact of stereotypes, historical myths, stigmas, problematic representations, biased framing, and traditional racism. Same as AFAM:3925.

JMC:3175 Gender and Mass Media 3 s.h.
Media images and representations of the body in terms of gender; impact on people, society; media and body image, sexuality, gender roles, gender and power, race, ethnicity, class, age; critical analysis of mediated images.

JMC:3182 Sport, Scandal, and Strategic Communication in Media Culture 3 s.h.
Use of sport scandal to consider relationship between sport and media in American and global popular culture; broad range of case studies used to consider what constitutes a sport scandal, how this definition shifts in different circumstances; crucial roles media play in creating, communicating, and diffusing these crises; how phenomenon of sports scandal has intensified along with emergence of cable television, internet, and social media. Same as SMC:3182, SPST:3182.

JMC:3183 Sport and the Media 3 s.h.
Examination of sport and media's intimate relationship; aesthetic, cultural, political, economic, and industrial factors that shape it. Same as SPST:3175.

JMC:3184 Narrative Sports Journalism 3 s.h.
Historical review of long-form sports journalism to understand development of subjects, form, and technique of sports coverage and long-form nonfiction writing; students read several long-form articles and books that incorporate reporting about sports, and propose an original long-form work about sports. Same as SMC:3184, SPST:3184.

JMC:3185 Topics in Understanding Media 3 s.h.
Focus on particular area, issue, approach, or body of knowledge; may include international media, media criticism, new technologies, history of documentary photography, literary journalism, media management.

JMC:3186 Athletes, Activism, and Social Media 3 s.h.
Examine the relationship between sport and media. Media create many of the values, beliefs, feelings, and problems commonly connected to sports. Sports cannot be properly understood without taking into account their relationship to media. Same as SMC:3186.

JMC:3187 American College Athletics: A Big Money Tradition Unlike Any Other 3 s.h.
Explore the series of events that led college football to go from almost being banned by the government to being an industry worth more than $20 billion. Students will learn about the social, cultural, and financial history of college athletes to better understand how we got to where we are and where we might be going. Same as SMC:3187.

JMC:3188 Staging the World's Game: Soccer and Media 3 s.h.
Explore the complex relationship between soccer and the media companies that cover it; discuss television contracts; read about and discuss the role of video games and fantasy sports, the growth of women’s soccer, television documentaries and dramas that introduce U.S. audiences to the European game, how governments and corporations use soccer to launder their international reputations, and how fans use social media to mobilize collective action. Same as SMC:3188.

JMC:3191 Journalism and Mass Communication Theories 3 s.h.
Provides a historical and contemporary overview of journalism and mass communication theories, processes, and effects; reviews the scientific method and ways of conducting theoretically informed journalism and mass communication research.

JMC:3400 Topics in Writing/Storytelling 3-4 s.h.
Topics may include public affairs, law, science, business, medicine, intercultural affairs, education, computer-assisted reporting. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-. Requirements: journalism major.

JMC:3401 Beat Reporting and Writing 3 s.h.
Choose and follow an area of interest, known in journalism circles as a "beat." Examples of newsroom beats are education, health, arts and entertainment, sports, crime and safety, business, city government, and state government. Prerequisites: JMC:2010 with a minimum grade of C-.

JMC:3403 Public Affairs Reporting and Writing 3 s.h.
Combination of a skills-based course and a seminar-style course. Become familiar with the skills needed to produce excellent reporting on matters of policy and public affairs; learn how to successfully file requests for public records; learn the law and practice of making public records requests at the state and federal levels; create a piece of original enterprise reporting on public affairs that relies on public records. Prerequisites: JMC:2010 with a minimum grade of C-.

JMC:3408 Investigative Reporting and Writing 3 s.h.
Enterprise reporting; emphasis on reporter as researcher, organizer, writer of complex stories in a variety of contexts. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-. Requirements: journalism and mass communication major.

JMC:3410 Magazine Reporting and Writing 3-4 s.h.
Finding ideas, researching, interviewing; problems of organization and style; identification of audiences and markets; development of writing skills. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-. Requirements: journalism major.

JMC:3411 Newscast Reporting and Writing 3-4 s.h.
Principles of gathering, writing, editing, and reporting the news; techniques and concepts as a foundation for understanding, successfully writing, and delivering broadcast news. Prerequisites: JMC:2020 with a minimum grade of C- and JMC:2010 with a minimum grade of C-. Requirements: journalism major.

JMC:3412 Strategic Communication Writing 3-4 s.h.
Principles and practices of persuasive writing; focus on public relations; may include editorials, op-ed pieces, magazine essays, reviews. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-. Requirements: journalism major.

JMC:3413 Sports Writing 3-4 s.h.
Introduction to the history, culture, industry, and practice of sports writing. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-.

JMC:3414 Basic Elements of Book Writing 3-4 s.h.
Basic elements involved in writing a novel or a nonfiction book; students will research, write, and workshop either a nonfiction book or novel proposal; they will complete a chapter outline and one chapter from their manuscript, and constructively edit and evaluate the work of fellow classmates through individual workshop sessions; course will culminate in an author's pavilion where students will select five minutes from their chapter to read to an audience. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-. Requirements: journalism major.

JMC:3415 Writing Across Cultures 3-4 s.h.
Forms of travel writing and other types of cross-cultural reporting; skills, knowledge, understandings vital to writing well about an increasingly multicultural and diverse world. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-. Requirements: journalism major.

JMC:3420 Content Marketing 3-4 s.h.
Tools for creating great content, as well as tactics for getting that content in front of the right audiences with the right message at the right time. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-. Requirements: journalism and mass communication major.

JMC:3421 Sport Content Marketing 3 s.h.
Tools for creating great sport content, as well as tactics for getting that content in front of the right audiences with the right message at the right time. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-.

JMC:3425 Personal Branding 3-4 s.h.
Develop a brand and presence on social media and mobile platforms; learn about social media influencing and how to create compelling content; how to draw attention to a brand, reporting, and news in a crowded online environment; how to make shareable content for social media; best practices and ways to promote work to develop and deepen connection with audiences. Prerequisites: JMC:2020 with a minimum grade of C- and JMC:2010 with a minimum grade of C-. Requirements: journalism major.

JMC:3430 Political Public Relations 3-4 s.h.
How strategic communication goals, objectives, strategies, and tactics can influence public debate on policy issues; students apply this knowledge for the benefit of a real-world client, producing a portfolio of work by the end of the semester. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-. Requirements: journalism and mass communication major.

JMC:3436 Cross-Platform Storytelling 3 s.h.
Produce content across multiple media platforms using a story concept. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-.

JMC:3440 Multimedia Narratives 3-4 s.h.
Builds on skills learned in JMC:2020 to develop compelling multipart digital stories; focus on a range of storytelling techniques and tools to create in-depth stories that incorporate visual, audio, text, and data; students strengthen their digital storytelling skills by producing various multimedia projects, such as podcasts and digital long-form stories; project-based with opportunities to produce individual and collaborative work. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-. Requirements: journalism major.

JMC:3445 Journalistic Writing in Spanish 3 s.h.
Spanish writing skills; introduction to style and practice of journalistic reporting and writing. Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above. Same as LAS:3020, SPAN:3020.

JMC:3460 Arts and Culture Reporting and Writing 3-4 s.h.
Writing about arts and culture in a range of formats (e.g., news, profiles, features, criticism, essays); emphasis on original reporting that draws on resources, issues, people, and events on campus and in the community, especially in visual and performing arts. Prerequisites: JMC:2020 with a minimum grade of C- and JMC:2010 with a minimum grade of C-. Requirements: journalism major.

JMC:3470 Narrative Journalism 3-4 s.h.
Process of writing the true story; development of skills in researching, interviewing, information gathering, organization, story-telling techniques, writing final story; story publication in magazines, newspapers, journals, online. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-. Requirements: journalism major.

JMC:3490 Feature Reporting and Writing 3-4 s.h.
Storytelling techniques for magazine, newspaper, website features; stylistic flair; human elements in stories; research, interviewing, and reporting. Prerequisites: JMC:2010 with a minimum grade of C- and JMC:2020 with a minimum grade of C-. Requirements: journalism major.

JMC:3500 Topics in Managing/Planning 3 s.h.
Focus on particular area, issue, approach, or body of knowledge.

JMC:3505 Audiences and Analytics 3 s.h.
Comprehensive understanding of audiences and consumers in the digital era; focus on developing essential analytical skills necessary for strategic communication professionals in the digital age. Students will acquire digital literacy skills to practice strategic communication effectively.

JMC:3510 Media and Marketing Research 3 s.h.
Solutions to problems related to communication channels, content, users, and audiences sought daily by media and communication professionals to understand what the public thinks, feels, and does about ideas, events, and trends; learn about audience needs; ways to improve or change content; systematic and methodical ways to investigate problems and figure out how best to tackle communication problems related to media content, audiences, media practice, and media institutions.

JMC:3520 Business of Media: Profits, People, and Power 3 s.h.
How U.S. media is managed; decision-making in a current highly charged, rapidly changing media culture; how major company decision makers seek competitive advantage, and their consequent successes and failures in doing so.

JMC:3530 Social Media Marketing 3 s.h.
Social media marketing as an ever-changing area that seems to only grow in importance for everyone from academic institutions to nonprofits to businesses big and small; each of these entities and more has an online brand and goals that social media can help them meet.

JMC:3540 The Business of Sport Communication 3 s.h.
Critical and practical approach to understanding contemporary sports media and business practices that mark it; focus on sports media industries and institutions; branding, marketing, demographic, public relations, and promotional factors that shape content. Same as SMC:3540, SPST:3181.

JMC:3550 Editing 3-4 s.h.
Principles and process of editing content for publication; micro- and macroediting, headline writing, other aspects of editing.

JMC:3560 Crisis Communication 3 s.h.
Principles and practices of effective communication during organizational crises. Examine case studies, theoretical models, and strategic frameworks for crisis communication used by corporations, government agencies, and nonprofit organizations; develop practical skills in creating and executing crisis communication plans.

JMC:3600 Topics in Designing/Producing 3-4 s.h.
Analysis and solution of problems with communication strategies and/or media products; public relations, newsletter production, radio, media research, web basics, global media, interviewing, public relations fund raising. Prerequisites: JMC:2020 with a minimum grade of C- and JMC:2030 with a minimum grade of C-. Requirements: journalism major.

JMC:3603 Newscast Production 3-4 s.h.
Electronic news gathering; conceptualization, shooting, editing basic news packages. Prerequisites: JMC:2020 with a minimum grade of C- and JMC:2030 with a minimum grade of C-. Requirements: journalism major.

JMC:3610 Graphic Design 3-4 s.h.
Problems of design, layout and production; practical and aesthetic considerations; digital techniques; creative projects. Prerequisites: JMC:2020 with a minimum grade of C- and JMC:2030 with a minimum grade of C-. Requirements: journalism major.

JMC:3611 Web Design 3-4 s.h.
Foundational concepts of interactive design, prototyping, and production; projects focus on web-based communication pieces. Prerequisites: JMC:2020 with a minimum grade of C- and JMC:2030 with a minimum grade of C-. Requirements: journalism major.

JMC:3612 Nonfiction Narrative Podcasting 3 s.h.
Examine the elements that contribute to a compelling series and learn the fundamentals of audio storytelling from pre-production through post-production. Prerequisites: JMC:2020 with a minimum grade of C- and JMC:2030 with a minimum grade of C-.

JMC:3630 Photography 3-4 s.h.
Techniques; basic craft, location shooting, editing photographs; group critiques of assignments. Prerequisites: JMC:2020 with a minimum grade of C- and JMC:2030 with a minimum grade of C-.

JMC:3640 Information and Data Visualization 3-4 s.h.
How to find and tell stories using data; hands-on introduction to data visualization, data analysis and data literacy for journalists and communications professionals. Prerequisites: (JMC:2020 with a minimum grade of C- and JMC:2030 with a minimum grade of C-) or CS:2110 or IGPI:5110.

JMC:3650 Video Production 3-4 s.h.
Intermediate video pre-production, production, and post-production. Prerequisites: JMC:2020 with a minimum grade of C- and JMC:2030 with a minimum grade of C-. Requirements: journalism major.

JMC:3660 Audio Production 3-4 s.h.
Techniques; basic craft, audio recording, audio editing; individual and group production; group critiques of assignments. Prerequisites: JMC:2020 with a minimum grade of C- and JMC:2030 with a minimum grade of C-. Requirements: journalism major.

JMC:3670 Social Media Production 3 s.h.
High-quality content creation for social media and mobile platforms; use of branding guidelines and design best practices to create posts for various social media platforms; use of SEO and social search; lighting and audio techniques for producing social media content; current industry trends and preferred practices for designing, directing, and editing compelling visual content for multiple digital platforms. Prerequisites: JMC:2020 with a minimum grade of C- and JMC:2030 with a minimum grade of C-.

JMC:3700 Nonprofit Internship 3 s.h.
Faculty-supervised professional work experience with a nonprofit organization with associated academic content.

JMC:3710 Fundraising Fundamentals 3 s.h.
Nonprofit organization reliance on raised funds to survive and thrive; basic concepts of fundraising for successful nonprofit organization; work with a nonprofit organization to explore basic fundraising techniques that nonprofits typically use including donor research, annual fund campaigns (phone, mail, email), capital campaigns, events, cause-related marketing, grants, planned giving, and donor stewardship; when and how to use different fundraising strategies to meet an organization's goals. Same as MUSM:3710.

JMC:3720 Nonprofit Communications 3 s.h.
Practical experience planning and writing fundraising materials; how yearly fundraising helps approximately 1.5 million nonprofit organizations receive more than $3 billion from individuals, foundations, and corporations to help people in need, advocate for causes, support research/arts/culture, and enhance opportunities for public and/or their members. Same as MUSM:3720.

JMC:4100 Advanced Topics in Writing/ Storytelling 3-4 s.h.
Project journalism; extended magazine pieces, explanatory/ investigative journalism, series for newspapers, or task-force projects by entire class on a major issue, with goal of publication. Prerequisites: JMC:3400 or JMC:3401 or JMC:3403 or JMC:3408 or JMC:3410 or JMC:3411 or JMC:3412 or JMC:3413 or JMC:3414 or JMC:3415 or JMC:3420 or JMC:3421 or JMC:3425 or JMC:3430 or JMC:3436 or JMC:3440 or SPAN:3020 or JMC:3460 or JMC:3470 or JMC:3490. Requirements: journalism major.

JMC:4105 Iowa Community News 3 s.h.
Public affairs reporting; introducing and utilizing community-engaged storytelling techniques. Learn about government reporting and covering underrepresented groups; work with the goal of publishing project stories in an Iowa newspaper. Prerequisites: JMC:3400 or JMC:3401 or JMC:3403 or JMC:3408 or JMC:3410 or JMC:3411 or JMC:3412 or JMC:3413 or JMC:3414 or JMC:3415 or JMC:3420 or JMC:3421 or JMC:3425 or JMC:3430 or JMC:3436 or JMC:3440 or SPAN:3020 or JMC:3460 or JMC:3470 or JMC:3490.

JMC:4115 Enterprise Reporting and Writing 3 s.h.
Explore the art of great feature writing, building on the tools learned in foundational journalism classes to become stronger reporters and writers with the goal of writing compelling narratives that help readers feel. Covers the process from beginning to end, including idea generation, source-building, observation, note-taking and interviewing. Explore the craft of writing, including story structure, creating an impactful lead, how, when and why to use quotes, and the tricks to keep a reader engaged through a longer piece. Prerequisites: JMC:3400 or JMC:3401 or JMC:3403 or JMC:3408 or JMC:3410 or JMC:3411 or JMC:3412 or JMC:3413 or JMC:3414 or JMC:3415 or JMC:3420 or JMC:3421 or JMC:3425 or JMC:3430 or JMC:3436 or JMC:3440 or JMC:3445 or JMC:3460 or JMC:3470 or JMC:3490.

JMC:4125 Advanced Strategic Storytelling 3-4 s.h.
Advanced tools for creating great content; tactics for getting that content in front of the right audiences with the right message at the right time. Prerequisites: JMC:3412 or JMC:3420 or JMC:3421 or JMC:3430 or JMC:3436 or JMC:3440 or JMC:3600 or JMC:3603 or JMC:3610 or JMC:3611 or JMC:3612 or JMC:3630 or JMC:3640 or JMC:3650 or JMC:3660 or JMC:3670. Requirements: journalism major.

JMC:4300 Photo Storytelling 3-4 s.h.
Builds on photography skills learned in JMC:3630; may include documentary photography, advanced photography methods and techniques. Prerequisites: JMC:3630.

JMC:4310 Advanced Topics in Designing/ Producing 3-4 s.h.
Journalism and mass communication skills; may include editing, broadcasting, design, multimedia. Prerequisites: JMC:3600 or JMC:3603 or JMC:3610 or JMC:3611 or JMC:3612 or JMC:3630 or JMC:3640 or JMC:3650 or JMC:3660 or JMC:3670. Requirements: journalism major.

JMC:4315 Strategic Communication Campaigns 3-4 s.h.
Development and presentation of public relations campaigns for client organizations; communication theory and research techniques applied to analyzing and solving public relations problems through objective-based strategic planning. Prerequisites: JMC:3412 or JMC:3420 or JMC:3421. Requirements: journalism and mass communication major.

JMC:4325 Advanced Newscast Writing and Production 3 s.h.
Advanced training and experience in producing, writing, and reporting news packages and newscasts. Prerequisites: JMC:3411 or JMC:3603.

JMC:4335 Multimedia Production for Publication 3 s.h.
Build upon the knowledge base acquired in previous journalism and mass communication courses and focus on creating professional quality, commercially viable content for media. Prerequisites: (JMC:3400 or JMC:3401 or JMC:3403 or JMC:3408 or JMC:3410 or JMC:3411 or JMC:3412 or JMC:3413 or JMC:3414 or JMC:3415 or JMC:3420 or JMC:3421 or JMC:3425 or JMC:3430 or JMC:3436 or JMC:3440 or SPAN:3020 or JMC:3460 or JMC:3470 or JMC:3490) and (JMC:3600 or JMC:3603 or JMC:3610 or JMC:3611 or JMC:3612 or JMC:3630 or JMC:3640 or JMC:3650 or JMC:3660 or JMC:3670).

JMC:4345 Audio and Video Storytelling 3 s.h.
Build on the skills used in the 3000-level audio and video Journalism and Mass Communication courses. Prerequisites: JMC:3411 or JMC:3436 or JMC:3440 or JMC:3603 or JMC:3612 or JMC:3650 or JMC:3660 or JMC:3670.

JMC:4350 Advanced Graphic Design 3-4 s.h.
Advanced design, layout, and production; practical and aesthetic considerations; digital techniques; creative projects. Prerequisites: JMC:3610. Requirements: journalism major.

JMC:4360 Visual Branding and Design 3-4 s.h.
Use a variety of design research and visual communication methods to produce public-facing visual marketing materials for a client. Prerequisites: JMC:3610 or JMC:3611 or JMC:3630 or JMC:3640 or JMC:3670. Requirements: journalism major.

JMC:4400 Capstone 3-4 s.h.
Application and practice of classroom experience to a specific project with guidance from a faculty member. Prerequisites: (JMC:3400 or JMC:3401 or JMC:3403 or JMC:3408 or JMC:3410 or JMC:3411 or JMC:3412 or JMC:3413 or JMC:3414 or JMC:3415 or JMC:3420 or JMC:3421 or JMC:3425 or JMC:3430 or JMC:3436 or JMC:3440 or SPAN:3020 or JMC:3460 or JMC:3470 or JMC:3490) and (JMC:3600 or JMC:3603 or JMC:3610 or JMC:3611 or JMC:3612 or JMC:3630 or JMC:3640 or JMC:3650 or JMC:3660). Requirements: journalism major.

JMC:4900 Special Projects in Mass Communication arr.
Research and readings to fit needs, interests of students.

JMC:4910 Readings in Communication and Mass Communication 1-3 s.h.
Focus on a problem or issue.

JMC:4920 Undergraduate Research 0-3 s.h.
Undergraduate research in the field of journalism and mass communication.

JMC:4955 Honors Project 3 s.h.
Independent research or project for honors students. Requirements: honors standing.

JMC:5220 Foundations of Strategic Communication 3 s.h.
Introduction to the field of strategic communication.

JMC:5225 Digital Strategic Communication 3 s.h.
Explore various digital communication channels, established and new, and understand how the fundamentals of communication apply in this ever-changing, always-on world. Through best practices and purpose-driven, audience-centric content creation processes, students will strategically evaluate and utilize appropriate digital platforms for clearer, more effective communication.

JMC:5230 Strategic Communication Writing 3 s.h.
Writing workshop for MA strategic communication students.

JMC:5235 Strategic Communication Research 3 s.h.
Methodology of social science inquiry, process and instruments of data gathering, evaluation of evidence, and usefulness and appropriateness of various information sources in the service of strategic communication research; blends theory and practice. Prerequisites: JMC:5220.

JMC:5236 Topics in Strategic Communication 3 s.h.
Various topics relevant to strategic communication.

JMC:5238 Strategic Communication Campaigns 3 s.h.
Practice of strategic communication through traditional and new media for purpose of benefiting nonprofit organizations or bringing about social change; examples and strategies from corporate, nonprofit, and social marketing campaigns; application of knowledge for benefit of real-world clients; principles and strategies applied to professional projects. Prerequisites: JMC:5220 and JMC:5230.

JMC:5243 Copywriting for Strategic Communication 3 s.h.
Focusing copy to a targeted audience to move them to action; multiple platforms where copywriting can appear; learn how professional copywriters craft motivational, persuasive messages and continuously refine their skills; build copywriting skills through weekly exercises, peer reviews, and a final portfolio.

JMC:5248 Strategic Political Communication 3 s.h.
Study of political communication; topics range from classic issues (agenda setting) to current debates and emerging topics associated with new media; readings address political communication in the United States.

JMC:5250 Strategic Communication for Nonprofits 3 s.h.
Examination of components, objectives, and initiatives of strategic communications for nonprofit organizations; students specifically examine strategies that inspire and persuade diverse audiences and stakeholders through multi-channel communications with emphasis on audience analysis; in addition to assigned texts, students utilize case studies to examine organizational approaches and identify successful —and unsuccessful—strategies; although focus is primarily on nonprofits, the teaching modules are applicable to diverse industries.

JMC:5255 Strategic Global Communication 3 s.h.
Examination of communications practices around the globe and exploration of different professions and organizations that employ international strategic communications; emphasis on practical application of communications theory, with copious use of real-life case studies and examples from leading expert practitioners; through a combination of projects, discussions, and case studies, students develop a more nuanced understanding of international and intercultural communication strategies while taking into account cultural context, stakeholders, and trends.

JMC:5260 Digital Analytics for Strategic Communication 3 s.h.
Introduction to multiple digital analytics platforms and dashboards; how to align business objectives and digital metrics, ensuring the ability to make more strategic content, marketing, and audience targeting decisions; strategies to assist students in communicating insights and analytics to leadership.

JMC:5266 Risk Communication 3 s.h.
Examination of risk as a central concept in communication process; risk as intrinsically an interdisciplinary concept; literature from a wide range of disciplines and perspectives (communication, psychology, sociology, formal risk analysis); case studies drawn from issues and cultural contexts (environmental, technological or health risks, food safety risks; international military crisis or threats of terrorism, natural disasters); emphasis on comparison of European and American contexts.

JMC:5267 Strategic Health Care Communication 3 s.h.
Breaking down health care to basics; writing and communicating about health care in an understandable way so that hospitals, medical groups, and health care businesses can be better understood when doing business with each other as well as the public and consumers at large; health care writing and communication so consumers can understand, avoid injuries and even death from medical errors shown by studies on health literacy; how doctors and insurance companies can convey their messages in easy-to-understand way to lessen public frustration with the system.

JMC:5269 Media Management for Strategic Communicators 3 s.h.
Looking at media in a completely new way; focus on economics and management of competitive businesses; how modern-day businesses in the media sector succeed or fail and why; decision-making, competition, and outcomes; emphasis on news media companies that operate in public glare and offer rich opportunities for critical observation.

JMC:5270 Leadership Communication 3 s.h.
Using communications skills effectively for leadership in the modern workplace; how technological, global, and demographic developments have combined to transform the field of strategic communications; skills necessary to be effective in an environment of collaboration, teamwork, and self-management across a variety of platforms.

JMC:5285 Strategic Communication Externship 3 s.h.
Externship to allow connection between academic program and professional world; enhancement of skill and knowledge.

JMC:5290 Capstone Project in Strategic Communication 1-3 s.h.
Workshop of capstone projects required for graduation; for students nearing completion of MA in strategic communication. Prerequisites: JMC:5220 and (JMC:5230 or JMC:5235). Requirements: MA in strategic communication program enrollment.

JMC:5600 Teaching Media Writing, Production, and Design 1 s.h.
Preparation to teach media skills courses; core topics include media writing, media production, and media design.

JMC:5955 Masters Research arr.
Independent research for projects, theses.

JMC:6100 Communication and Media Colloquium 1 s.h.
Forum on theoretical or methodological problems in mass communication.

JMC:6200 Humanistic Approaches to Media Communication 3 s.h.
Exploration of foundations, assumptions, and applications of critical/cultural theory and methods; how to understand and critique humanistic research; how to develop ideas, evidence, and arguments that lead to compelling and useful research in media communication.

JMC:6300 Social Scientific Approaches to Media Communication 3 s.h.
Exploration of foundations, assumptions, and application of social science theory and methods to media communication questions; how to understand and critique social science research; how to develop and test questions that lead to rigorous and useful research in media communication.

JMC:6315 Mixed Methods Research and Design 3 s.h.
Paradigms and theories of mixed methods research; how to use and integrate qualitative and quantitative approaches and data to answer research questions; formulating research questions, collecting and analyzing data, choosing an appropriate mixed methods design, and interpreting results; focus on mixed methods research in journalism, mass communication, and media studies; students develop an original project that is connected to their larger research agenda.

JMC:6325 Global Digital Media 3 s.h.
Exploration of media theory, production, consumption, and audiences in comparative international contexts; focus on digital media and contemporary issues, exploration of traditional media theories and concepts, newer approaches that ground understanding of current issues; topics include international media flows and counter flows, media, development, information and communications technology, social change and activism; identity and representation; global popular culture, and social media; research options include developing and conducting original research, proposing an international research project, or conducting country and region-specific research.

JMC:6330 Reading Group 1-3 s.h.
Analysis and discussion of important texts.

JMC:6333 Seminar in Media Communication 3 s.h.
Topics vary.

JMC:6334 Research Methods in Media Communication 3 s.h.
Specialized methods for conducting research in media, communication, and journalism. Topics vary.

JMC:6335 Journalism Studies 3 s.h.
Examine the major research areas of journalism studies; explore a variety of approaches and issues central to the study of journalism, drawing on the fields of sociology, media studies, and technology studies to make sense of its social, cultural, and epistemological consequences; inquiry into the ways in which technology continues to influence and destabilize core definitions of news production, distribution, and consumption.

JMC:6920 PhD Research arr.
Independent research for projects, theses.

JMC:6999 Dissertation arr.

Sport Media and Culture Courses

SMC:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings). Requirements: first- or second-semester standing.

SMC:1050 Sport and the Media 3 s.h.
Examination of sport and media's intimate relationship; aesthetic, cultural, political, economic, and industrial factors that shape it. GE: Values and Society. Same as JMC:1050.

SMC:2084 Sport and Film 3 s.h.
Sport films as means of exploring contemporary ideas about sport in the U.S.; focus on narrative structure, characterization, historical, and political contexts; formal aspects of film analysis (e.g., editing, lighting, cinematography). Same as AMST:2084, JMC:2084, SPST:2084.

SMC:2101 Digital Media and the Future of Sport 3 s.h.
Emergence and significance of internet blogs, social media, convergence journalism, video games, and fantasy sports; economic, regulatory, and cultural forces that shape new media sport journalism and entertainment. Same as AMST:2101, JMC:2101, SPST:2101.

SMC:2400 Sport Media and Culture Experience 1-3 s.h.
Educational opportunities involving small groups of students in unique sport media or sport culture experiences; students serve as consultants for an organization; in-class preparation complements off-campus work with a designated industry partner; the organization will vary according to faculty expertise, industry partner availability, and location.

SMC:2415 Prep Sports Report 1-3 s.h.
Covering high school athletics in several communities, including Solon, Mt. Vernon, and Lisbon, Iowa as if working in a sports department. Requirements: journalism and mass communication major or sport media and culture major. Same as JMC:2415.

SMC:2500 Sport and Technology 3 s.h.
Connections between sport and technology; performance enhancement to Paralympians, sex testing to scientific racism, Fitbits to e-sports, data analytics and journalism; cultural approaches to understanding how science, medicine, and technology impact active bodies, sporting industries, and infrastructure; debates regarding risks and responsibilities; exploration of various roles (e.g., athletes, administrators, architects, engineers, programmers, trainers) in creating and sustaining past, present, and future of sports. Same as SPST:2500.

SMC:3182 Sport, Scandal, and Strategic Communication in Media Culture 3 s.h.
Use of sport scandal to consider relationship between sport and media in American and global popular culture; broad range of case studies used to consider what constitutes a sport scandal, how this definition shifts in different circumstances; crucial roles media play in creating, communicating, and diffusing these crises; how phenomenon of sports scandal has intensified along with emergence of cable television, internet, and social media. Same as JMC:3182, SPST:3182.

SMC:3184 Narrative Sports Journalism 3 s.h.
Historical review of long-form sports journalism to understand development of subjects, form, and technique of sports coverage and long-form nonfiction writing; students read several long-form articles and books that incorporate reporting about sports, and propose an original long-form work about sports. Same as JMC:3184, SPST:3184.

SMC:3186 Athletes, Activism, and Social Media 3 s.h.
Examine the relationship between sport and media. Media create many of the values, beliefs, feelings, and problems commonly connected to sports. Sports cannot be properly understood without taking into account their relationship to media. Same as JMC:3186.

SMC:3187 American College Athletics: A Big Money Tradition Unlike Any Other 3 s.h.
Explore the series of events that led college football to go from almost being banned by the government to being an industry worth more than $20 billion. Students will learn about the social, cultural, and financial history of college athletes to better understand how we got to where we are and where we might be going. Same as JMC:3187.

SMC:3188 Staging the World's Game: Soccer and Media 3 s.h.
Explore the complex relationship between soccer and the media companies that cover it; discuss television contracts; read about and discuss the role of video games and fantasy sports, the growth of women’s soccer, television documentaries and dramas that introduce U.S. audiences to the European game, how governments and corporations use soccer to launder their international reputations, and how fans use social media to mobilize collective action. Same as JMC:3188.

SMC:3540 The Business of Sport Communication 3 s.h.
Critical and practical approach to understanding contemporary sports media and business practices that mark it; focus on sports media industries and institutions; branding, marketing, demographic, public relations, and promotional factors that shape content. Same as JMC:3540, SPST:3181.

SMC:3600 Internship in Sport and Media 1-3 s.h.
Faculty-supervised professional work experience in sport and media. Requirements: major in sport media and culture.

SMC:4500 Sport Media and Culture Capstone 3 s.h.
Application and practice of classroom experience through a specific project with guidance from a faculty member. Prerequisites: (JMC:1050 or SMC:1050 or JMC:3183 or SPST:3175) and (SPST:1074 or AMST:1074 or GWSS:1074).

Journalism and Mass Communication, BA

Media writing and visual storytelling form the core of the undergraduate major in journalism and mass communication. Students are required to take introduction, foundation, application, and capstone courses offered by the school; they develop professional skills while studying the historical, legal, cultural, and institutional roles of media in society. They also complete extensive academic work outside the major, consistent with the university's commitment to the liberal arts and sciences.

First-year students completing a major in journalism and mass communication are advised at the Academic Advising Center. Students who have earned 30 s.h. or more and have declared the journalism and mass communication major are advised by one of the journalism and mass communication academic advisors.

Transfer Students

The School of Journalism and Mass Communication may accept transfer credit earned at other institutions. A maximum of 15 s.h. of approved transfer credit may be applied to the major in journalism and mass communication unless the transfer institution has an approved articulation agreement with the School of Journalism and Mass Communication to count additional coursework. Some journalism coursework taken at other schools may be used to fulfill the GE CLAS Core [p. 22] and/or second area of study requirements. Additional transfer coursework may be used to fulfill the second area of study requirements if accepted by the second area of study program.

Students who wish to apply transfer credit toward School of Journalism and Mass Communication requirements must discuss the proposed transfer credit with a journalism advisor and must have approval from the head of undergraduate studies.

Learning Outcomes

Students will learn to:

- write correctly and clearly;
- conduct research and evaluate information critically;
- present images and information effectively;
- use media tools and technologies appropriately;
- apply basic numerical and statistical concepts accurately;
- evaluate work for accuracy, fairness, style, and clarity; and
- create audience-aware, culturally responsive communication.

Students will explore:

- the multicultural history of media professionals and institutions; and
- the role of media in shaping cultures.

Students will value:

- the First Amendment and free speech;
- equity and inclusion for a diverse global community; and
- ethical principles in pursuit of truth, accuracy, and fairness.

Requirements

The Bachelor of Arts with a major in journalism and mass communication requires a minimum of 120 s.h., including at least 43 s.h. in journalism and mass communication courses, plus a second major, certificate, or minor (see the section titled "Second Area of Study"). Students must maintain a grade-point average of at least 2.00 in the major. All students must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students may count a maximum of 56 s.h. earned in School of Journalism and Mass Communication courses (prefix JMC) toward the 120 s.h. required for the degree. Journalism and mass communication majors who also complete another major or minor offered by the School of Journalism and Mass Communication must earn a minimum of 56 s.h. from courses offered outside of the school.

Students may choose to complete the BA with a major in journalism and mass communication without a track or declare one of three optional tracks: multimedia production and design, reporting and writing, or strategic communication. All students must complete the introduction and foundation course requirements. Application and capstone course requirements vary for each track.

Each student works with an assigned educational advisor and/or faculty mentor to develop a study plan that meets the major's requirements. Requirements for the major are consistent with the program's accreditation requirements; the school cannot make exceptions.

The BA with a major in journalism and mass communication requires the following coursework.

Requirements	Hours
Introduction Courses	7
Foundation Courses	15
Application Courses	18
Capstone Course	3
Experiential Learning Course: SCRIPT	
Second Area of Study	

Introduction Courses

Students must complete these courses before they enroll in JMC:2010 Reporting and Writing or JMC:2020 Multimedia Storytelling. Students must complete these courses except for JMC:1600 Writing Fundamentals before enrolling in JMC:2030 Visual Communication and Design.

Course #	Title	Hours
One of these completed with a grade of C-minus or higher:		
JMC:1100	Introduction to Media Effects	3
JMC:1200	Introduction to Media and Culture	3
JMC:1500	Introduction to Social Media	3
Both of these completed with a grade of C-minus or higher:		
JMC:1300	Introduction to Journalism and Strategic Communication	3
JMC:1600	Writing Fundamentals	1

Foundation Courses

Before students enroll in most Writing/Storytelling courses, they must complete JMC:2010 and JMC:2020. Before students enroll in a Designing/Producing course, they must complete JMC:2020 and JMC:2030.

Course #	Title	Hours
All three of these completed with a grade of C- minus or higher:		
JMC:2010	Reporting and Writing	3
JMC:2020	Multimedia Storytelling	3
JMC:2030	Visual Communication and Design	3
And both of these:		
JMC:2600	Freedom of Expression	3
JMC:2700	Media Ethics	3

Application Courses

Managing/Planning

All students take one managing/planning course. The list of acceptable courses varies according to optional tracks.

Managing/Planning—No Optional Track and Multimedia Production and Design Track

Course #	Title	Hours
One of these:		
JMC:3500	Topics in Managing/Planning	3
JMC:3505	Audiences and Analytics	3
JMC:3510	Media and Marketing Research	3
JMC:3520	Business of Media: Profits, People, and Power	3
JMC:3530	Social Media Marketing	3
JMC:3540	The Business of Sport Communication	3
JMC:3550	Editing	3
JMC:3720	Nonprofit Communications	3

Managing/Planning—Reporting and Writing Track

Course #	Title	Hours
One of these:		
JMC:3500	Topics in Managing/Planning (advisor input required for course topic)	3
JMC:3505	Audiences and Analytics	3
JMC:3510	Media and Marketing Research	3
JMC:3520	Business of Media: Profits, People, and Power	3
JMC:3540	The Business of Sport Communication	3
JMC:3550	Editing	3

Managing/Planning—Strategic Communication Track

Course #	Title	Hours
One of these:		
JMC:3500	Topics in Managing/Planning (advisor input required for course topic)	3
JMC:3505	Audiences and Analytics	3
JMC:3510	Media and Marketing Research	3
JMC:3520	Business of Media: Profits, People, and Power	3
JMC:3530	Social Media Marketing	3
JMC:3540	The Business of Sport Communication	3
JMC:3720	Nonprofit Communications	3

Understanding Media

All students complete one course from the following list.

Course #	Title	Hours
One of these:		
JMC:2101	Digital Media and the Future of Sport	3
JMC:3116	Media and Global Cultures	3
JMC:3118	Political Communication	3
JMC:3122	Influencers, Artificial Intelligence, and Digital Games	3
JMC:3123	Advocacy Communication	3
JMC:3124	Entertainment Media	3
JMC:3142	Media and Social Change	3
JMC:3150	Media and Health	3
JMC:3165	African Americans and the Media	3
JMC:3175	Gender and Mass Media	3
JMC:3182	Sport, Scandal, and Strategic Communication in Media Culture	3
JMC:3183	Sport and the Media	3
JMC:3184	Narrative Sports Journalism	3
JMC:3185	Topics in Understanding Media	3
JMC:3186	Athletes, Activism, and Social Media	3
JMC:3187	American College Athletics: A Big Money Tradition Unlike Any Other	3
JMC:3188	Staging the World's Game: Soccer and Media	3
JMC:3191	Journalism and Mass Communication Theories	3

Designing/Producing

All students select designing/producing courses from the following list; the number of required courses in this category varies according to optional tracks. Students who do not declare an optional track and students on the strategic communication track must take two Designing/Producing courses. Students on the multimedia production and design track must take three Designing/Producing courses. Students

on the reporting and writing track must take one Designing/Producing course.

Course #	Title	Hours
JMC:3600	Topics in Designing/Producing	3
JMC:3603	Newscast Production	3
JMC:3610	Graphic Design	3
JMC:3611	Web Design	3
JMC:3612	Nonfiction Narrative Podcasting	3
JMC:3630	Photography	3
JMC:3640	Information and Data Visualization	3
JMC:3650	Video Production	3
JMC:3660	Audio Production	3
JMC:3670	Social Media Production	3

Writing/Storytelling

All students take writing/storytelling courses. The number of courses needed and the list of acceptable courses vary according to optional tracks.

Writing/Storytelling—No Optional Track

Course #	Title	Hours
Two of these:		
JMC:3400	Topics in Writing/Storytelling	3
JMC:3401	Beat Reporting and Writing	3
JMC:3403	Public Affairs Reporting and Writing	3
JMC:3408	Investigative Reporting and Writing	3
JMC:3410	Magazine Reporting and Writing	3
JMC:3411	Newscast Reporting and Writing	3
JMC:3412	Strategic Communication Writing	3
JMC:3413	Sports Writing	3
JMC:3414	Basic Elements of Book Writing	3
JMC:3415	Writing Across Cultures	3
JMC:3420	Content Marketing	3
JMC:3421	Sport Content Marketing	3
JMC:3425	Personal Branding	3
JMC:3430	Political Public Relations	3
JMC:3436	Cross-Platform Storytelling	3
JMC:3440	Multimedia Narratives	3
JMC:3445	Journalistic Writing in Spanish	3
JMC:3460	Arts and Culture Reporting and Writing	3
JMC:3470	Narrative Journalism	3
JMC:3490	Feature Reporting and Writing	3

Writing/Storytelling—Multimedia Production and Design Track

Course #	Title	Hours
One of these:		
JMC:3400	Topics in Writing/Storytelling	3
JMC:3401	Beat Reporting and Writing	3
JMC:3403	Public Affairs Reporting and Writing	3
JMC:3408	Investigative Reporting and Writing	3
JMC:3410	Magazine Reporting and Writing	3
JMC:3411	Newscast Reporting and Writing	3
JMC:3412	Strategic Communication Writing	3
JMC:3413	Sports Writing	3
JMC:3414	Basic Elements of Book Writing	3
JMC:3415	Writing Across Cultures	3
JMC:3420	Content Marketing	3
JMC:3421	Sport Content Marketing	3
JMC:3425	Personal Branding	3
JMC:3430	Political Public Relations	3
JMC:3436	Cross-Platform Storytelling	3
JMC:3440	Multimedia Narratives	3
JMC:3445	Journalistic Writing in Spanish	3
JMC:3460	Arts and Culture Reporting and Writing	3
JMC:3470	Narrative Journalism	3
JMC:3490	Feature Reporting and Writing	3

Writing/Storytelling—Reporting and Writing Track

Course #	Title	Hours
One of these:		
JMC:3401	Beat Reporting and Writing	3
JMC:3403	Public Affairs Reporting and Writing	3
And two of these:		
JMC:3400	Topics in Writing/Storytelling (advisor input required for course topic)	3
JMC:3401	Beat Reporting and Writing (if not taken as a required course)	3
JMC:3403	Public Affairs Reporting and Writing (if not taken as a required course)	3
JMC:3408	Investigative Reporting and Writing	3
JMC:3410	Magazine Reporting and Writing	3
JMC:3411	Newscast Reporting and Writing	3
JMC:3413	Sports Writing	3
JMC:3414	Basic Elements of Book Writing	3
JMC:3415	Writing Across Cultures	3
JMC:3425	Personal Branding	3
JMC:3436	Cross-Platform Storytelling	3
JMC:3440	Multimedia Narratives	3

JMC:3445	Journalistic Writing in Spanish	3
JMC:3460	Arts and Culture Reporting and Writing	3
JMC:3470	Narrative Journalism	3
JMC:3490	Feature Reporting and Writing	3

Writing/Storytelling—Strategic Communication Track

Course #	Title	Hours
This course:		
JMC:3412	Strategic Communication Writing	3
And one of these:		
JMC:3400	Topics in Writing/Storytelling (advisor input required for course topic)	3
JMC:3420	Content Marketing	3
JMC:3421	Sport Content Marketing	3
JMC:3425	Personal Branding	3
JMC:3430	Political Public Relations	3
JMC:3436	Cross-Platform Storytelling	3
JMC:3440	Multimedia Narratives	3

Capstone Course

All students must take one capstone class. The list of acceptable courses varies according to optional tracks.

No Optional Track

Course #	Title	Hours
One of these:		
JMC:4100	Advanced Topics in Writing/ Storytelling	3
JMC:4105	Iowa Community News	3
JMC:4115	Enterprise Reporting and Writing	3
JMC:4125	Advanced Strategic Storytelling	3
JMC:4300	Photo Storytelling	3
JMC:4310	Advanced Topics in Designing/Producing	3
JMC:4315	Strategic Communication Campaigns	3
JMC:4325	Advanced Newscast Writing and Production	3
JMC:4335	Multimedia Production for Publication	3
JMC:4345	Audio and Video Storytelling	3
JMC:4350	Advanced Graphic Design	3
JMC:4360	Visual Branding and Design	3
JMC:4400	Capstone	3

Multimedia Production and Design Track

Course #	Title	Hours
One of these:		
JMC:4100	Advanced Topics in Writing/ Storytelling (advisor input required for course topic)	3
JMC:4105	Iowa Community News	3
JMC:4125	Advanced Strategic Storytelling	3
JMC:4300	Photo Storytelling	3
JMC:4310	Advanced Topics in Designing/Producing	3
JMC:4325	Advanced Newscast Writing and Production	3
JMC:4335	Multimedia Production for Publication	3
JMC:4345	Audio and Video Storytelling	3
JMC:4350	Advanced Graphic Design	3
JMC:4360	Visual Branding and Design	3
JMC:4400	Capstone (advisor input required for course topic)	3

Reporting and Writing Track

Course #	Title	Hours
One of these:		
JMC:4100	Advanced Topics in Writing/ Storytelling	3
JMC:4105	Iowa Community News	3
JMC:4115	Enterprise Reporting and Writing	3
JMC:4125	Advanced Strategic Storytelling	3
JMC:4325	Advanced Newscast Writing and Production	3
JMC:4335	Multimedia Production for Publication	3
JMC:4345	Audio and Video Storytelling	3
JMC:4400	Capstone (advisor input required for course topic)	3

Strategic Communication Track

Course #	Title	Hours
One of these:		
JMC:4100	Advanced Topics in Writing/ Storytelling (advisor input required for course topic)	3
JMC:4125	Advanced Strategic Storytelling	3
JMC:4315	Strategic Communication Campaigns	3
JMC:4335	Multimedia Production for Publication	3
JMC:4345	Audio and Video Storytelling	3
JMC:4360	Visual Branding and Design	3
JMC:4400	Capstone (advisor input required for course topic)	3

Experiential Learning Requirement: SCRIPT

Every student majoring in journalism and mass communication must complete at least one experiential education course from Study Abroad, Community Engagement, Research, Internship, Professional Practice, or Teaching (SCRIPT). Courses that satisfy the SCRIPT requirement are as follows.

Study Abroad

Any study abroad program is accepted, including global internships, virtual programs, short-term faculty-led programs, and summer, semester, or year-long coursework abroad. Study abroad courses typically have a prefix of ABRD or INTL. More information on course options can be found in the Study Abroad [p. 2215] section of the catalog.

Community Engagement

Community-engaged courses (CEC) administered by the School of Journalism and Mass Communication, as designated by the Office of Community Engagement, may be used for this requirement.

Course #	Title	Hours
JMC:3720	Nonprofit Communications	3
EVNT:3154	Foundations of Event Management	3
EVNT:3260	Event Management Workshop	3

Research

Research with faculty oversight including research assistantships (RAs), independent student research projects, and research-driven courses as determined by the School of Journalism and Mass Communication may be used for this requirement.

Course #	Title	Hours
JMC:4920	Undergraduate Research	0-3
JMC:4955	Honors Project	3
SPST:4999	Honors Project	1-3
URES:3992	Undergraduate Research and Creative Projects	0
URES:3993	Undergraduate Research and Creative Projects	1-4
URES:3994	Undergraduate Research and Creative Projects	1-4
URES:3995	Independent Creative Research by Undergraduates Summer Internship	0

Internship

Both academic and non-credit internship courses are accepted.

Course #	Title	Hours
JMC:2005	Preparing for Internship Success Seminar	1-2
JMC:2100	Internship in Journalism and Mass Communication	0-3
JMC:3700	Nonprofit Internship	3
CCP:1201	Academic Internship	1-3
EVNT:2110	Internship in Event Management	3
SMC:3600	Internship in Sport and Media	1-3
SPST:3600	Internship in Sport and Culture	1-3

Professional Practice

Professional practice includes academic media experiences led by faculty and non-credit participation in student media.

Course #	Title	Hours
JMC:2350	Student Media Experience	0
JMC:2400	Journalism and Mass Communication Media Experience	1-3
JMC:2410	Adler Agency	1-3
JMC:2415	Prep Sports Report	1-3
SMC:2400	Sport Media and Culture Experience	1-3

Teaching

Undergraduate teaching assistantships (UTA), peer mentorships, and executive leadership roles in student media may be used for this requirement.

Course #	Title	Hours
JMC:3000	Peer Assistant	0
CLAS:4100	Peer Assistant	1-2

Optional Journalism Electives

Students may earn elective credit by completing additional journalism and mass communication courses (prefix JMC), but they may not exceed a maximum of 56 s.h. earned in the School of Journalism and Mass Communication toward the 120 s.h. required for the degree.

Course #	Title	Hours
JMC:1000	First-Year Seminar	1-2
JMC:1050	Sport and the Media	3
JMC:1800	Environmental Communication	3
JMC:2001	Exploring Nonprofits: Communities, Communication, and Changemakers	3
JMC:2005	Preparing for Internship Success Seminar	1-2
JMC:2084	Sport and Film	3
JMC:2100	Internship in Journalism and Mass Communication	0-3
JMC:2150	News and Knowledge: Chinese Culture, History, and Journalism	1
JMC:2400	Journalism and Mass Communication Media Experience	1-3
JMC:2410	Adler Agency	1-3
JMC:2415	Prep Sports Report	1-3
JMC:2500	Community Media	3
JMC:3700	Nonprofit Internship	3
JMC:3710	Fundraising Fundamentals	3
JMC:4900	Special Projects in Mass Communication	arr.
JMC:4910	Readings in Communication and Mass Communication	1-3
JMC:4920	Undergraduate Research	0-3
JMC:4955	Honors Project	3

Second Area of Study

Every student majoring in journalism and mass communication must complete a second area of study. The second area of study enables students to acquire a substantial body of knowledge or expertise in a relevant area, learn how another discipline views the world, and/or develop a companion set of skills to those in journalism and mass communication.

Requirements for the Second Area of Study

Students must complete the requirements for the journalism and mass communication major (at least 43 s.h.) and must satisfy the school's second area of study requirement in one of three ways.

Option 1

Students complete a second major.

Option 2

Students complete an undergraduate certificate. Students may not double count courses for their journalism and mass communication major and a certificate being used as their second area of study.

Option 3

Students complete an undergraduate minor. Students may not double count courses for their journalism and mass communication major and a minor being used as their second area of study. The minor in media management may not be used as the second area of study.

Combined Programs

BA in Journalism and Mass Communication/MA in Strategic Communication

The combined BA/MA program enables students to begin work toward the MA in strategic communication while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the BA and MA degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see the MA in strategic communication in the catalog.

Students must have a 3.25 University of Iowa grade-point average (GPA) upon application and a 3.00 cumulative GPA upon completion of the undergraduate degree.

Honors

Honors in the Major

Students majoring in journalism and mass communication have the opportunity to graduate with honors in the major. Students in the school's honors program must have a grade-point average (GPA) of at least 3.50 in work for the major and a UI cumulative GPA of at least 3.33. To graduate with honors in the major, they complete JMC:4955 Honors Project, earning 3 s.h. of credit in work guided by a faculty member. The honors project may be a thesis or a professional project and typically is completed during the last semester of the senior year.

National Honor Society

The school's chapter of Kappa Tau Alpha, the national society honoring scholarship in journalism and mass communication, was founded in 1936 and is named for former director Leslie G. Moeller. Students are considered for membership if their GPA places them in the top 10% of their class and they have completed at least five semesters of university work, including a minimum of 9 s.h. in journalism and mass communication skills courses. Contact the school's Kappa Tau Alpha advisor for details.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the journalism and mass communication major. Visit Honors in Journalism on the school's website or contact the school's honors advisor for details.

Career Advancement

The major prepares students for careers in the field. Graduates find employment in a variety of areas, such as public relations, advertising, marketing, political communication, health communication, philanthropy and fundraising communication, newspapers, magazines, radio, TV, online communications and social media, publication design, photojournalism, and media research.

The school's internship and assessment coordinator helps students seeking career guidance and employment opportunities. The school compiles and publicizes notices of professional jobs open to journalism and mass communication students and graduates. It also cooperates with the university's Pomerantz Career Center in providing career guidance and placement services as well as workshops and programs on seeking jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Students must declare the journalism and mass communication major by the first semester of their sophomore year in order to be eligible for the Four-Year Graduation Plan. The following checkpoints include the required work in journalism and mass communication plus a second area of study, but they do not include the requirements of a second major, since the Four-Year Graduation Plan does not apply to second majors.

Complete during any semester: To fulfill the SCRIPT experiential learning requirement, complete an approved course in at least one of the following categories: study abroad, community engagement, research, internship, professional practice, or teaching.

Before the fifth semester begins: JMC:1100 Introduction to Media Effects or JMC:1200 Introduction to Media and Culture or JMC:1500 Introduction to Social Media, JMC:1300

Introduction to Journalism and Strategic Communication, and JMC:1600 Writing Fundamentals; choose a second area of study; and complete at least one-half of the semester hours required for graduation.

Before the sixth semester begins: JMC:2600 Freedom of Expression, JMC:2020 Multimedia Storytelling, and JMC:2010 Reporting and Writing or JMC:2030 Visual Communication and Design.

Before the seventh semester begins: JMC:2010 Reporting and Writing or JMC:2030 Visual Communication and Design (if not already taken), JMC:2700 Media Ethics, one managing/planning or one understanding media course, one writing/storytelling or one designing/producing course, and at least three-quarters of the semester hours required for graduation.

During the seventh semester: two additional writing/storytelling or designing/producing courses, and one understanding media or one managing/planning course.

During the eighth semester: one writing/storytelling or designing/producing course, one capstone course, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Journalism and Mass Communication, BA

- No Optional Track [p. 637]
- Multimedia Production and Design Track [p. 638]
- Reporting and Writing Track [p. 639]
- Strategic Communication Track [p. 641]

No Optional Track

Course	Title	Hours
Academic Career		
Any Semester		
SCRIPT Experiential Learning requirement [a]		0 - 4
GE CLAS Core: Sustainability [b]		
	Hours	**0-4**
First Year		
Fall		
JMC:1500 or JMC:1100 or JMC:1200	Introduction to Social Media [c, d] or Introduction to Media Effects or Introduction to Media and Culture	3
JMC:1600	Writing Fundamentals [c]	1
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [f]		3
	Hours	**15-17**
Spring		
JMC:1300	Introduction to Journalism and Strategic Communication [c]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences with Lab [g]		4
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
Elective course [f]		1
	Hours	**15-17**
Second Year		
Fall		
JMC:2010	Reporting and Writing [h]	3
JMC:2020	Multimedia Storytelling [h, i]	3
JMC:2600	Freedom of Expression [d]	3
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
Elective course [f]		2
Choose second area of study by this semester [j]		
Experiential Learning: begin planning for SCRIPT requirement [a]		
	Hours	**15-16**
Spring		
JMC:2030	Visual Communication and Design [i]	3
JMC:2700	Media Ethics	3
Major: second area of study course [j]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
Elective course [f]		2
Internship: apply for summer internships (not required for the degree but strongly encouraged)		
If interested in an optional track for the JMC major, choose one by this semester [k]		
	Hours	**15-16**
Third Year		
Fall		
Major: designing/producing course (prefix JMC, numbered 36XX)		3
Major: writing/storytelling course (prefix JMC, numbered 34XX)		3
Major: second area of study course [j]		3
GE CLAS Core: Quantitative or Formal Reasoning [g]		3
GE CLAS Core: Historical Perspectives or Social Sciences or Values and Society [g, l]		3
	Hours	**15**
Spring		
Major: designing/producing course (prefix JMC, numbered 36XX)		3
Major: writing/storytelling course (prefix JMC, numbered 34XX)		3
Major: second area of study course [j]		3
GE CLAS Core: Natural Sciences without Lab [g]		3
GE CLAS Core: Historical Perspectives or Social Sciences or Values and Society [g, l]		3
Internship: apply for summer internships (not required for the degree but strongly encouraged)		
	Hours	**15**

Fourth Year	
Fall	
Major: capstone course (prefix JMC, numbered 4100-4400)	3
Major: understanding media course (prefix JMC, numbered 31XX or 2101)	3
Major: second area of study course [j]	3
Major: second area of study course or elective [j]	3
GE CLAS Core: Literary, Visual, and Performing Arts [g]	3
Hours	**15**
Spring	
Major: managing/planning course (prefix JMC, numbered 35XX or 3720)	3
Major: second area of study course [j]	3
Major: second area of study course or elective [j]	3
Major: second area of study course or elective [j]	3
GE CLAS Core: International and Global Issues [g]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]	
Hours	**15**
Total Hours	**120-130**

a Every student majoring in journalism and mass communication must complete at least one experiential education course from Study Abroad, Community Engagement, Research, Internship, Professional Practice, or Teaching (SCRIPT). Courses that satisfy the SCRIPT requirement can be found in the General Catalog.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Students must complete these courses with a C-minus or higher before taking JMC:2010, JMC:2020, and JMC:2030.

d Fulfills a major requirement and may fulfill a GE requirement.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

h Students must complete these courses with a C-minus or higher before taking writing/storytelling courses (JMC:34XX).

i Students must complete these courses with a C-minus or higher before taking designing/producing courses (JMC:36XX).

j Students must complete a second area of study. There are three options: 1) complete a second major; 2) complete an undergraduate certificate; or 3) complete an undergraduate minor (except the Media Management minor). Students may not double count courses for their JMC major and a certificate or minor being used as their second area of study.

k Students who choose a track will pick from 3000 and 4000-level courses designated for their track.

l Depending on which major introduction course is taken, students must still complete two of the following GE requirements: Historical Perspectives, Social Sciences, Values and Society.

m Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Multimedia Production and Design Track

Course	Title	Hours
Academic Career		
Any Semester		
SCRIPT Experiential Learning requirement [a]		0 - 4
GE CLAS Core: Sustainability [b]		
	Hours	**0-4**
First Year		
Fall		
JMC:1300	Introduction to Journalism and Strategic Communication [c]	3
JMC:1600	Writing Fundamentals [c]	1
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [e]		3
	Hours	**15-17**
Spring		
JMC:1500 or JMC:1200 or JMC:1100	Introduction to Social Media [c, f] or Introduction to Media and Culture or Introduction to Media Effects	3
JMC:2600	Freedom of Expression [f]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
Elective course [e]		2
	Hours	**15-17**
Second Year		
Fall		
JMC:2020	Multimedia Storytelling [g, h]	3
JMC:2030	Visual Communication and Design [g]	3
GE CLAS Core: Natural Sciences with Lab [i]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5

Elective course [e]		1
Experiential Learning: begin planning for SCRIPT requirement [a]		
	Hours	**15-16**
Spring		
JMC:2010	Reporting and Writing [h]	3
Major: designing/producing course (prefix JMC, numbered 36XX) [j]		3
Major: second area of study course [k]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [e]		2
Internship: apply for summer internships (not required for the degree but strongly encouraged)		
	Hours	**15-16**
Third Year		
Fall		
JMC:2700	Media Ethics	3
Major: designing/producing course (prefix JMC, numbered 36XX) [j]		3
Major: second area of study course [k]		3
GE CLAS Core: Quantitative or Formal Reasoning [i]		3
GE CLAS Core: Historical Perspectives or Social Sciences or Values and Society [i, l]		3
	Hours	**15**
Spring		
Major: designing/producing course (prefix JMC, numbered 36XX) [j]		3
Major: writing/storytelling course (prefix JMC, numbered 34XX) [j]		3
Major: second area of study course [k]		3
GE CLAS Core: Natural Sciences without Lab [i]		3
GE CLAS Core: Historical Perspectives or Social Sciences or Values and Society [i, l]		3
Internship: apply for summer internships (not required for the degree but strongly encouraged)		
	Hours	**15**
Fourth Year		
Fall		
Major: managing/planning course (prefix JMC, numbered 35XX or 3720) [j]		3
Major: understanding media course (prefix JMC, numbered 31XX or 2101) [j]		3
Major: second area of study course [k]		3
Major: second area of study course or elective [k]		3
GE CLAS Core: Literary, Visual, and Performing Arts [i]		3
	Hours	**15**
Spring		
Major: capstone course [j]		3
Major: second area of study course [k]		3
Major: second area of study course or elective [k]		3
Major: second area of study course or elective [k]		3
GE CLAS Core: International and Global Issues [i]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**15**
	Total Hours	**120-130**

a Every student majoring in journalism and mass communication must complete at least one experiential education course from Study Abroad, Community Engagement, Research, Internship, Professional Practice, or Teaching (SCRIPT). Courses that satisfy the SCRIPT requirement can be found in the General Catalog.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Students must complete these courses with a C-minus or higher before taking JMC:2010, JMC:2020, and JMC:2030.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Fulfills a major requirement and may fulfill a GE requirement.

g Students must complete these courses with a C-minus or higher before taking designing/producing courses (JMC:36XX).

h Students must complete these courses with a C-minus or higher before taking writing/storytelling courses (JMC:34XX).

i GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

j Choose from list of approved courses for this track.

k Students must complete a second area of study. There are three options: 1) complete a second major; 2) complete an undergraduate certificate; or 3) complete an undergraduate minor (except the Media Management minor). Students may not double count courses for their JMC major and a certificate or minor being used as their second area of study.

l Depending on which major introduction course is taken, students must still complete two of the following GE requirements: Historical Perspectives, Social Sciences, Values and Society.

m Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Reporting and Writing Track

Course	Title	Hours
Academic Career		
Any Semester		
SCRIPT Experiential Learning requirement [a]		0 - 4
GE CLAS Core: Sustainability [b]		
	Hours	**0-4**

First Year

Fall

JMC:1300	Introduction to Journalism and Strategic Communication [c]	3
JMC:1600	Writing Fundamentals [c]	1
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [e]		3
	Hours	**15-17**

Spring

JMC:1200 or JMC:1500 or JMC:1100	Introduction to Media and Culture [c, f] or Introduction to Social Media or Introduction to Media Effects	3
JMC:2600	Freedom of Expression [f]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
Elective course [e]		2
	Hours	**15-17**

Second Year

Fall

JMC:2010	Reporting and Writing [g]	3
JMC:2020	Multimedia Storytelling [g, h]	3
GE CLAS Core: Natural Sciences with Lab [i]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
Elective course [e]		1
Experiential Learning: begin planning for SCRIPT requirement [a]		
	Hours	**15-16**

Spring

JMC:2030	Visual Communication and Design [h]	3
JMC:3401 or JMC:3403	Beat Reporting and Writing or Public Affairs Reporting and Writing	3
Major: second area of study course [j]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [e]		2
Internship: apply for summer internships (not required for the degree but strongly encouraged)		
	Hours	**15-16**

Third Year

Fall

JMC:2700	Media Ethics	3
Major: writing/storytelling course (prefix JMC, numbered 34XX) [k]		3
Major: second area of study course [j]		3
GE CLAS Core: Quantitative or Formal Reasoning [i]		3
GE CLAS Core: Historical Perspectives or Social Sciences or Values and Society [i, l]		3
	Hours	**15**

Spring

Major: designing/producing course (prefix JMC, numbered 36XX) [k]		3
Major: writing/storytelling course (prefix JMC, numbered 34XX) [k]		3
Major: second area of study course [j]		3
GE CLAS Core: Natural Sciences without Lab [i]		3
GE CLAS Core: Historical Perspectives or Social Sciences or Values and Society [i, l]		3
Internship: apply for summer internships (not required for the degree but strongly encouraged)		
	Hours	**15**

Fourth Year

Fall

Major: capstone course [k]		3
Major: managing/planning course (prefix JMC, numbered 35XX) [k]		3
Major: second area of study course [j]		3
Major: second area of study course or elective [j]		3
GE CLAS Core: Literary, Visual, and Performing Arts [i]		3
	Hours	**15**

Spring

Major: understanding media course (prefix JMC, numbered 31XX or 2101) [k]		3
Major: second area of study course [j]		3
Major: second area of study course or elective [j]		3
Major: second area of study course or elective [j]		3
GE CLAS Core: International and Global Issues [i]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**15**
	Total Hours	**120-130**

a Every student majoring in journalism and mass communication must complete at least one experiential education course from Study Abroad, Community Engagement, Research, Internship, Professional Practice, or Teaching (SCRIPT). Courses that satisfy the SCRIPT requirement can be found in the General Catalog.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Students must complete these courses with a C-minus or higher before taking JMC:2010, JMC:2020, and JMC:2030.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate

Programs Office with questions concerning the World Languages requirement.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Fulfills a major requirement and may fulfill a GE requirement.

g Students must complete these courses with a C-minus or higher before taking writing/storytelling courses (JMC:34XX).

h Students must complete these courses with a C-minus or higher before taking designing/producing courses (JMC:36XX).

i GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

j Students must complete a second area of study. There are three options: 1) complete a second major; 2) complete an undergraduate certificate; or 3) complete an undergraduate minor (except the Media Management minor). Students may not double count courses for their JMC major and a certificate or minor being used as their second area of study.

k Choose from list of approved courses for this track.

l Depending on which major introduction course is taken, students must still complete two of the following GE requirements: Historical Perspectives, Social Sciences, Values and Society.

mPlease see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Strategic Communication Track

Course	Title	Hours
Academic Career		
Any Semester		
SCRIPT Experiential Learning requirement [a]		0 - 4
GE CLAS Core: Sustainability [b]		
	Hours	**0-4**
First Year		
Fall		
JMC:1200 or JMC:1500 or JMC:1100	Introduction to Media and Culture [c, d] or Introduction to Social Media or Introduction to Media Effects	3
JMC:1600	Writing Fundamentals [c]	1
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [f]		3
	Hours	**15-17**
Spring		
JMC:1300	Introduction to Journalism and Strategic Communication [c]	3
JMC:2600	Freedom of Expression [d]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
Elective course [f]		2
	Hours	**15-17**
Second Year		
Fall		
JMC:2010	Reporting and Writing [g]	3
JMC:2020	Multimedia Storytelling [g, h]	3
GE CLAS Core: Natural Sciences with Lab [i]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
Elective course [f]		1
Experiential Learning: begin planning for SCRIPT requirement [a]		
	Hours	**15-16**
Spring		
JMC:2030	Visual Communication and Design [h]	3
JMC:3412	Strategic Communication Writing	3
Major: second area of study course [j]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
Elective course [f]		2
Internship: apply for summer internships (not required for the degree but strongly encouraged)		
	Hours	**15-16**
Third Year		
Fall		
Major: designing/producing course (prefix JMC, numbered 36XX) [k]		3
Major: managing/planning course (prefix JMC, numbered 35XX or 3720) [k]		3
Major: second area of study course [j]		3
GE CLAS Core: Quantitative or Formal Reasoning [i]		3
GE CLAS Core: Historical Perspectives or Social Sciences or Values and Society [i, l]		3
	Hours	**15**
Spring		
JMC:2700	Media Ethics	3
Major: designing/producing course (prefix JMC, numbered 36XX) [k]		3
Major: second area of study course [j]		3
GE CLAS Core: Natural Sciences without Lab [i]		3
GE CLAS Core: Historical Perspectives or Social Sciences or Values and Society [i, l]		3
Internship: apply for summer internships (not required for the degree but strongly encouraged)		
	Hours	**15**
Fourth Year		
Fall		
Major: understanding media course (prefix JMC, numbered 31XX or 2101) [k]		3
Major: writing/storytelling course (prefix JMC, numbered 34XX) [k]		3
Major: second area of study course [j]		3
Major: second area of study course or elective [j]		3
GE CLAS Core: Literary, Visual, and Performing Arts [i]		3
	Hours	**15**

Spring	
Major: capstone course [k]	3
Major: second area of study course [j]	3
Major: second area of study course or elective [j]	3
Major: second area of study course or elective [j]	3
GE CLAS Core: International and Global Issues [i]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]	
Hours	**15**
Total Hours	**120-130**

a Every student majoring in journalism and mass communication must complete at least one experiential education course from Study Abroad, Community Engagement, Research, Internship, Professional Practice, or Teaching (SCRIPT). Courses that satisfy the SCRIPT requirement can be found in the General Catalog.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Students must complete these courses with a C-minus or higher before taking JMC:2010, JMC:2020, and JMC:2030.

d Fulfills a major requirement and may fulfill a GE requirement.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Students must complete these courses with a C-minus or higher before taking writing/storytelling courses (JMC:34XX).

h Students must complete these courses with a C-minus or higher before taking designing/producing courses (JMC:36XX).

i GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

j Students must complete a second area of study. There are three options: 1) complete a second major; 2) complete an undergraduate certificate; or 3) complete an undergraduate minor (except the Media Management minor). Students may not double count courses for their JMC major and a certificate or minor being used as their second area of study.

k Choose from list of approved courses for this track.

l Depending on which major introduction course is taken, students must still complete two of the following GE requirements: Historical Perspectives, Social Sciences, Values and Society.

m Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Sport Media and Culture, BA

The sport media and culture major examines the complex and dynamic relationship between sporting organizations and media companies, and how this relationship shapes the cultures of sports in the U.S. and beyond. Students take courses in the area of sport and media and the area of sport and culture in order to gain an understanding of how cultural meanings are shaped and contested through sport.

Coursework provides students with the critical skills necessary to understand sport media's relationships to economics, politics, and education. A focus on race, class, gender, and sexuality in sports is central to the major.

Learning Outcomes

Graduates of the BA in sport media and culture learn how to study sports critically and understand their complex relationships with cultural meanings. This entails an understanding of:

- contemporary U.S. sports' relationship with media and how this relationship intersects with other institutions and contexts including politics and the economy;
- the diversity of sporting experiences in the U.S., including how opportunities for and the nature of participation are influenced by social class, race, ethnicity, nationality, gender, sexuality, age, and ability/disability; as well as how that diversity is represented in sport media;
- the historical and cultural forces that shape the relationship between U.S. sport and media from the 19th century to the present;
- U.S. sport media's relationship to global sport media and the historical, political, and social factors that impact it; and
- the theories and research methods that allow students to forge their own well-informed and clearly communicated critical studies of sport media.

Requirements

The Bachelor of Arts with a major in sport media and culture requires a minimum of 120 s.h., including 33 s.h. in sport media and culture courses, plus a second major, certificate, or minor (see the section titled "Second Area of Study"). Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. At least 24 s.h. of credit for the major must be earned at the University of Iowa. Students must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students may count a maximum of 56 s.h. of sport media and culture courses (prefix SMC) toward the 120 s.h. required for the degree. Sport media and culture majors who also complete another major or minor offered by the School of Journalism and Mass Communication must earn a minimum of 56 s.h. from courses offered outside of the school.

The BA with a major in sport media and culture requires the following coursework.

Requirements	Hours
Foundation Courses	6
Sport and Media Courses	12
Sport and Culture Courses	12
Capstone Course	3
Second Area of Study	

Foundation Courses

Course #	Title	Hours
Both of these:		
SMC:1050	Sport and the Media	3
SPST:1074	Inequality in American Sport	3

Sport and Media Courses

In addition to the following courses, students with a second major in journalism and mass communication may take JMC:3413 Sports Writing, JMC:3421 Sport Content Marketing, or JMC:3530 Social Media Marketing (when the topic is "Sports") as one of the two courses numbered 3000 or above.

Students may use a maximum of 3 s.h. of internship credit to satisfy major requirements.

Course #	Title	Hours
At least 6 s.h. from these:		
SMC:2084	Sport and Film	3
SMC:2101	Digital Media and the Future of Sport	3
SMC:2400	Sport Media and Culture Experience	1-3
SMC:2415	Prep Sports Report	1-3
SMC:2500	Sport and Technology	3
At least 6 s.h. from these:		
SMC:3182	Sport, Scandal, and Strategic Communication in Media Culture	3
SMC:3184	Narrative Sports Journalism	3
SMC:3186	Athletes, Activism, and Social Media	3
SMC:3187	American College Athletics: A Big Money Tradition Unlike Any Other	3
SMC:3188	Staging the World's Game: Soccer and Media	3
SMC:3540	The Business of Sport Communication	3
SMC:3600	Internship in Sport and Media (only 3 s.h. of internship credit satisfies major requirements)	1-3

Sport and Culture Courses

Students may only use 3 s.h. of internship credit to satisfy major requirements.

Course #	Title	Hours
At least 6 s.h. from these:		
SPST:2077	Sport and Religion in America	3
SPST:2078	Women, Sport, and Culture	3
SPST:2079	Race and Ethnicity in Sport	3
SPST:2170	Sport and Globalization	3
SPST:2847	Hawkeye Nation: On Iowa and Sport	3
At least 6 s.h. from these:		
SPST:3078	Archiving Women's History	3

SPST:3171	Baseball in America	3
SPST:3172	Football in America	3
SPST:3173	Cultures of Basketball	3
SPST:3176	Sport and Nationalism	3
SPST:3178	History of Sport in the United States	3
SPST:3500	The Olympics	3
SPST:3600	Internship in Sport and Culture (only 3 s.h. of internship credit satisfies major requirements)	1-3

Capstone Course

Course #	Title	Hours
This course:		
SMC:4500	Sport Media and Culture Capstone	3

Optional Sport Media and Culture Electives

Students may earn elective credit by completing additional sport media and culture coursework from the following.

Course #	Title	Hours
SMC:1000	First-Year Seminar	1
SPST:3193	Independent Study	1-3
SPST:4999	Honors Project	1-3

Second Area of Study

Every student majoring in sport media and culture must complete a second area of study. The second area of study enables students to acquire a substantial body of knowledge or expertise in a relevant area, learn how another discipline views the world, and/or develop a companion set of skills to those in sport media and culture.

Students must complete the requirements for the sport media and culture major (at least 33 s.h.) and must satisfy the second area of study requirement in one of three ways.

Option 1

Students complete a second major.

Option 2

Students complete an undergraduate certificate. Students may not double count courses for the major and a certificate being used as their second area of study.

Option 3

Students complete an undergraduate minor. Students may not double count courses for the major and a minor being used as their second area of study.

Honors

Honors in the Major

Students majoring in sport media and culture have the opportunity to graduate with honors in the major. They must maintain a University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.50 in the major.

The honors project is usually undertaken in a student's final semester. Students should identify a potential project topic and advisor from the sport media and culture faculty the semester before. Work for the honors project is done under the supervision of a faculty member with expertise in the topic the student is exploring. Projects typically take the form of traditional scholarly research. However, they also can be organized around public engagement, the digital humanities, or other formats decided on in consultation with the faculty advisor.

Students should enroll in SPST:4999 Honors Project.

Students who pursue honors projects in two departments may not submit the same project for both unless special permission is obtained from each department. Such an option would require more substance and depth than projects undertaken in one department. Students should check with honors advisors from both departments before they pursue such projects.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. University honors students must maintain a 3.33 UI cumulative GPA, complete 12 s.h. of coursework designated as honors courses, and complete 12 s.h. of an experiential learning project. Visit Honors at Iowa for more details.

Membership in the UI Honors Program is not required to earn honors in the sport media and culture major.

Career Advancement

Students who major in sport media and culture can pursue a wide variety of exciting career paths within and beyond the growing and diverse field of sport media. These include more established careers in storytelling (writing, public relations, and marketing) as well as emerging professions in social media, podcasting, digital market research, and analytics. The major also provides students with a firm background in the critical and contextual analysis of sport media institutions that can prepare them for careers in law or for socially committed organizations that seek to transform sport by making it more equitable, diverse, and inclusive.

The School of Journalism and Mass Communication and the Pomerantz Career Center offer multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: declaration of the major.

Before the sixth semester begins: second area of study determined.

Before the seventh semester begins: SMC:1050 Sport and the Media, SPST:1074 Inequality in American Sport, at least four additional sport media and culture courses, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least eight sport media and culture courses.

During the eighth semester: SMC:4500 Sport Media and Culture Capstone (if not already taken), all remaining coursework in the major, including all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Sport Media and Culture, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
SPST:1074	Inequality in American Sport [b, c]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences without Lab [d]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**14-16**
Spring		
SMC:1050	Sport and the Media [c]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences with Lab [d]		4
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
	Hours	**14-16**
Second Year		
Fall		
Major: sport and culture course (2000-level) [f, g]		3
Major: sport and media course (2000-level) [g]		3
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
Elective course [h]		3
	Hours	**16-17**
Spring		
Major: sport and culture course (2000-level) [f, g]		3
Major: sport and media course (2000-level) [g]		3
GE CLAS Core: Social Sciences [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
Elective course [h]		3
Internship: apply for summer internships (not required for the degree but strongly encouraged)		
	Hours	**16-17**
Third Year		
Fall		
Major: sport and culture course (3000-level) [g]		3
Major: sport and media course (3000-level) [g]		3
Major: second area of study course [i]		3
Major: second area of study course or elective [h, i]		3
GE CLAS Core: Historical Perspectives [d]		3
	Hours	**15**
Spring		
Major: sport and culture course (3000-level) [g]		3
Major: second area of study course [i]		3
Major: second area of study course [i]		3
Major: second area of study course or elective [h, i]		3
GE CLAS Core: Values and Society [d]		3
Internship: apply for summer internships (not required for the degree but strongly encouraged)		
	Hours	**15**
Fourth Year		
Fall		
Major: sport and media course (3000-level) [g]		3
Major: second area of study course or elective [h, i]		3
Major: second area of study course or elective [h, i]		3
Major: second area of study course or elective [h, i]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
	Hours	**15**
Spring		
SMC:4500	Sport Media and Culture Capstone	3
Major: second area of study course or elective [h, i]		3
Major: second area of study course or elective [h, i]		3
Major: second area of study course or elective [h, i]		3
GE CLAS Core: International and Global Issues or elective course [d, h, j]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**120-126**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Students should complete these foundation courses as early as possible.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement

exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Note: SPST:2170 also satisfies both the Sustainability and the International and Global Issues GE requirements.

g See the General Catalog for list of approved courses.

h Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

i Students must complete a second area of study. There are three options: 1) complete a second major; 2) complete an undergraduate certificate; or 3) complete an undergraduate minor. Students may not double count courses for their SMC major and a certificate or minor being used as their second area of study.

j Students who completed SPST:2170 for the major have already satisfied the International and Global Issues GE requirement.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Media Management, Minor

Requirements

The minor in media management requires a minimum of 15 s.h. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Courses for the minor may not be taken pass/nonpass.

Students may apply a maximum of 6 s.h. toward both the minor in media management and any major, minor, or certificate housed in the School of Journalism and Mass Communication or the John Pappajohn Entrepreneurial Center.

The minor prepares students to work in media industries and areas that focus on audiences and business. Students completing this minor will also have a foundation to pursue advanced degrees related to media management.

The minor in media management requires the following coursework.

Required Courses

Course #	Title	Hours
Two of these:		
JMC:3505	Audiences and Analytics	3
JMC:3510	Media and Marketing Research	3
JMC:3520	Business of Media: Profits, People, and Power	3

Elective Courses

Some of the entrepreneurial management courses (prefix ENTR) have prerequisites; students must complete all of a course's prerequisites before they may register for a course.

Course #	Title	Hours
Three of these, with at least one journalism and mass communication course (prefix JMC):		
JMC:2700	Media Ethics	3
JMC:3500	Topics in Managing/Planning	3
JMC:3505	Audiences and Analytics (if not taken as a required course)	3
JMC:3510	Media and Marketing Research (if not taken as a required course)	3
JMC:3520	Business of Media: Profits, People, and Power (if not taken as a required course)	3
JMC:3530	Social Media Marketing	3
JMC:3540	The Business of Sport Communication	3
JMC:3550	Editing	3
JMC:3720	Nonprofit Communications	3
COMM:2085	Media Industries and Organizations	3
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3100	Entrepreneurial Finance	3
ENTR:3200	Entrepreneurial Marketing	3
ENTR:3500	Social Entrepreneurship	3
ENTR:3600	Social Media Strategies for Entrepreneurial Ventures	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Media Management, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The minor in media management requires a minimum of 15 s.h.		
Students must maintain a GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Courses for the minor may not be taken pass/nonpass.		
Students may apply a maximum of 6 s.h. toward both the minor in media management and any major, minor or certificate housed in Journalism and Mass Communication or the John Pappajohn Entrepreneurial Center.		
	Hours	**0**
First Year		
Any Semester		
Students typically begin taking courses for the media management minor during spring semester of their second year. [a]		
	Hours	**0**
Second Year		
Spring		
JMC:3510 or JMC:3520 or JMC:3505	Media and Marketing Research [b, c] or Business of Media: Profits, People, and Power or Audiences and Analytics	3
	Hours	**3**
Third Year		
Fall		
JMC:3510 or JMC:3520 or JMC:3505	Media and Marketing Research [b, c] or Business of Media: Profits, People, and Power or Audiences and Analytics	3
	Hours	**3**
Spring		
Minor: elective course [d]		3
	Hours	**3**
Fourth Year		
Fall		
Minor: elective course (JMC prefix) [d]		3
	Hours	**3**

Spring	
Minor: elective course [d]	3
Hours	**3**
Total Hours	**15**

a Some of the entrepreneurial management courses (prefix ENTR) have prerequisites; students must complete all of a course's prerequisites before they may register for the course.
b Students must take two courses from JMC:3505, JMC:3510, JMC:3520.
c JMC:3520 is typically offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
d See General Catalog for list of approved courses.

News and Media Literacy, Minor

Requirements

The minor in news and media literacy requires a minimum of 15 s.h. in mass communication courses, including 6 s.h. in courses numbered 3000 or above. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Courses for the minor may not be taken pass/nonpass.

Students may earn the minor in news and media literacy or the journalism and mass communication major, but not both.

The minor provides students with an introduction to news and media literacy; it does not prepare them for careers in media.

The minor in news and media literacy requires the following coursework.

Required Courses

Course #	Title	Hours
One of these:		
JMC:1100	Introduction to Media Effects	3
JMC:1200	Introduction to Media and Culture	3
JMC:1300	Introduction to Journalism and Strategic Communication	3
JMC:1500	Introduction to Social Media	3
JMC:1800	Environmental Communication	3
One of these:		
JMC:2600	Freedom of Expression	3
JMC:2700	Media Ethics	3

Elective Courses

Course #	Title	Hours
9 s.h with at least 6 s.h. numbered 3000 or above:		
JMC:2084	Sport and Film	3
JMC:2101	Digital Media and the Future of Sport	3
JMC:2500	Community Media	3
JMC:3116	Media and Global Cultures	3
JMC:3118	Political Communication	3
JMC:3122	Influencers, Artificial Intelligence, and Digital Games	3
JMC:3123	Advocacy Communication	3
JMC:3124	Entertainment Media	3
JMC:3142	Media and Social Change	3
JMC:3150	Media and Health	3
JMC:3165	African Americans and the Media	3
JMC:3175	Gender and Mass Media	3
JMC:3182	Sport, Scandal, and Strategic Communication in Media Culture	3
JMC:3183	Sport and the Media	3
JMC:3184	Narrative Sports Journalism	3
JMC:3185	Topics in Understanding Media	3
JMC:3186	Athletes, Activism, and Social Media	3
JMC:3187	American College Athletics: A Big Money Tradition Unlike Any Other	3
JMC:3188	Staging the World's Game: Soccer and Media	3
JMC:3191	Journalism and Mass Communication Theories	3
JMC:3500	Topics in Managing/Planning	3
JMC:3505	Audiences and Analytics	3
JMC:3510	Media and Marketing Research	3
JMC:3520	Business of Media: Profits, People, and Power	3
JMC:3530	Social Media Marketing	3
JMC:3540	The Business of Sport Communication	3
JMC:3550	Editing	3
JMC:3720	Nonprofit Communications	3

Sport Media and Culture, Minor

Requirements

The undergraduate minor in sport media and culture requires a minimum of 15 s.h. of coursework, including 6 s.h. in courses numbered 3000 or above. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Students may apply a maximum of 6 s.h. toward both the minor in sport media and culture and any major, minor, or certificate administered by the School of Journalism and Mass Communication or the Department of American Studies.

The minor in sport media and culture requires the following coursework.

Required Course

Course #	Title	Hours
One of these:		
SMC:1050	Sport and the Media	3
SPST:1074	Inequality in American Sport	3

Sport and Media Courses

Course #	Title	Hours
At least 6 s.h. from these, including at least 3 s.h. numbered 3000 or above:		
SMC:2084	Sport and Film	3
SMC:2101	Digital Media and the Future of Sport	3
SMC:2400	Sport Media and Culture Experience	1-3
SMC:2415	Prep Sports Report	1-3
SMC:2500	Sport and Technology	3
SMC:3182	Sport, Scandal, and Strategic Communication in Media Culture	3
SMC:3184	Narrative Sports Journalism	3
SMC:3186	Athletes, Activism, and Social Media	3
SMC:3187	American College Athletics: A Big Money Tradition Unlike Any Other	3
SMC:3188	Staging the World's Game: Soccer and Media	3
SMC:3540	The Business of Sport Communication	3
JMC:3413	Sports Writing	3
JMC:3421	Sport Content Marketing	3
JMC:3530	Social Media Marketing (only with the subtitle of Sports)	3

Sport and Culture Courses

Course #	Title	Hours
At least 6 s.h. from these, including at least one course numbered 3000 or above:		
SPST:2077	Sport and Religion in America	3
SPST:2078	Women, Sport, and Culture	3
SPST:2079	Race and Ethnicity in Sport	3
SPST:2170	Sport and Globalization	3
SPST:2847	Hawkeye Nation: On Iowa and Sport	3
SPST:3171	Baseball in America	3
SPST:3172	Football in America	3
SPST:3173	Cultures of Basketball	3
SPST:3178	History of Sport in the United States	3
SPST:3500	The Olympics	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Sport Media and Culture, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in sport media and culture requires a minimum of 15 s.h. of coursework, including 6 s.h. in courses numbered 3000 or above.		
Students must maintain a GPA of at least 2.00 in all courses for the minor.		
Coursework in the minor may not be taken pass/nopass.		
Students may apply a maximum of 6 s.h. toward both the minor in sport media and culture and any major, minor, or certificate administered by the School of Journalism and Mass Communication or the Department of American Studies.		
	Hours	**0**
First Year		
Any Semester		
Students typically begin taking courses for the sport media and culture minor during spring semester of their second year, but may begin it at any time.		
	Hours	**0**
Second Year		
Spring		
SPST:1074 or SMC:1050	Inequality in American Sport or Sport and the Media	3
	Hours	**3**
Third Year		
Fall		
Minor: sport and media course (any level) [a]		3
	Hours	**3**
Spring		
Minor: sport and culture course (any level) [a]		3
	Hours	**3**

Fourth Year	
Fall	
Minor: sport and media course (3000-level) [a]	3
Hours	**3**
Spring	
Minor: sport and culture course (3000-level) [a]	3
Hours	**3**
Total Hours	**15**

a See the General Catalog for list of approved courses.

Mass Communication, MA

Learning Outcomes

A candidate for a research master's degree is expected to demonstrate knowledge in the chosen discipline and to synthesize and create new knowledge, making a contribution to the field in an appropriate timeframe.

- Make a contribution to the scholarship of the field: synthesize existing knowledge; identify and access appropriate resources and other sources of relevant information; critically analyze and evaluate one's own findings and those of others; apply existing research methodologies, techniques, and technical skills; and communicate in a style appropriate to the discipline.
- Demonstrate commitment to advancing the values of scholarship: keep abreast of current advances within one's field and related areas; show commitment to personal professional development through engagement in professional societies and other knowledge transfer modes; and show a commitment to creating an environment that supports learning through teaching, collaborative inquiry, mentoring, or demonstration.
- Demonstrate professional skills: adhere to ethical standards in the discipline and listen, give, and receive feedback effectively.

Requirements

The School of Journalism and Mass Communication offers a Master of Arts in mass communication. The MA program requires 34 s.h. with a thesis. Students who plan to continue on to doctoral studies in the school can complete the required coursework for the master's degree, plus one additional course, and successfully pass a qualifying examination; a thesis is not required.

Students in the MA program in mass communication must complete the following coursework. They are required to take at least two courses in the School of Journalism and Mass Communication selected from the methods, theory, or electives areas.

Course #	Title	Hours
All of these:		
JMC:6100	Communication and Media Colloquium (taken at least four times for 1 s.h. each; should enroll every semester for entire program of study)	4
JMC:6200	Humanistic Approaches to Media Communication	3
JMC:6300	Social Scientific Approaches to Media Communication	3
JMC:6999	Dissertation (must register for at least 3 s.h.)	3
CLAS:5100	Practicum: College Teaching and Professional Development for Teaching Assistants	1
Additional professionalization courses		2
Methods area courses		3
Theory area courses		3
Electives		12

For a more detailed description of the MA program in mass communication, contact the School of Journalism and Mass Communication.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Admission to the program is for fall entry.

Career Advancement

This is an academically oriented degree that prepares students for doctoral studies or a career in research.

The MA program is designed to meet the needs of:

- journalism and mass communication students who have earned a bachelor's degree and wish to continue their education; MA students can be considered for admission into the doctoral program after completion of all their MA degree requirements; and
- experienced journalists or communicators who wish to prepare themselves for teaching by earning the MA, possibly continuing on to earn their PhD.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Mass Communication, MA

Course	Title	Hours
Academic Career		
Any Semester		
34 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
JMC:6200	Humanistic Approaches to Media Communication	3
Methods, Theory, Concentration, or Elective course [b, c]		3
Methods, Theory, Concentration, or Elective course [b, c]		3
RHET:5100	Practicum: College Teaching and Professional Development for Teaching Assistants [d]	1
JMC:6100	Communication and Media Colloquium [e]	1
	Hours	**11**

Spring		
JMC:6300	Social Scientific Approaches to Media Communication	3
Methods, Theory, Concentration, or Elective course [b, c]		3
Methods, Theory, Concentration, or Elective course [b, c]		3
JMC:6100	Communication and Media Colloquium [e]	1
	Hours	**10**
Second Year		
Fall		
Methods, Theory, Concentration, or Elective course [b, c]		3
Methods, Theory, Concentration, or Elective course [b, c]		3
Additional Professionalization course [d]		2
JMC:6100	Communication and Media Colloquium [e]	1
	Hours	**9**
Spring		
Elective course [c, f]		3
JMC:6100	Communication and Media Colloquium [e]	1
Final Exam [g]		
	Hours	**4**
	Total Hours	**34**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Students are required to complete 3 s.h. of methods area, 3 s.h. of theory area, 6 s.h. of concentration area, and 6 s.h. of elective coursework.

c Work with faculty advisor to determine appropriate graduate coursework; see the General Catalog and department website for specifics.

d Students are required to take a total of 3 s.h. of professionalization courses including RHET:5100; consult with faculty advisor to determine which courses best align with career goals.

e Registration required every semester.

f Non-thesis option requires the completion of one additional course instead of a thesis.

g Must complete the master's curriculum with one additional course instead of a thesis; successful completion of qualifying exam in the fourth semester of the program.

Strategic Communication, MA

Learning Outcomes

A candidate for a professional master's degree is expected to demonstrate knowledge and skills in the chosen discipline. Graduates will:

- be able to generate innovative and integrative solutions to communication problems that impact organizations and communities;
- evaluate and apply strategic communication and public relations theories broadly conceived to a range of social, cultural, and other contextual and communicative settings;
- learn to interpret and contribute to strategic communication research using qualitative and quantitative methods;
- demonstrate familiarity with relevant subfields of scholarship, synthesize existing knowledge, and identify and access appropriate resources and other sources of relevant information;
- grow their human capital through the attainment of relevant communication knowledge and skills and the ability to be effective team members and leaders in a diverse and complex world; and
- demonstrate professional skills, adhere to ethical standards in the discipline, and listen, give, and receive feedback effectively.

Requirements

The Master of Arts in strategic communication requires a minimum of 30 s.h. of graduate credit. Courses for the program are offered online.

The curriculum consists of core courses, electives, and a capstone project. In most courses, students are encouraged to introduce case studies and projects from their workplace.

The MA in strategic communication requires the following coursework.

Core Courses

Course #	Title	Hours
All of these:		
JMC:5220	Foundations of Strategic Communication	3
JMC:5225	Digital Strategic Communication	3
JMC:5230	Strategic Communication Writing	3
JMC:5235	Strategic Communication Research	3
JMC:5290	Capstone Project in Strategic Communication	3

Electives

In consultation with their advisors, students earn 15 s.h. in elective coursework. At least 9 s.h. of electives must be in journalism and mass communication courses (prefix JMC) numbered 5000 or above.

Students are strongly encouraged to select coursework from the following list.

Course #	Title	Hours
JMC:5236	Topics in Strategic Communication	3
JMC:5238	Strategic Communication Campaigns	3
JMC:5243	Copywriting for Strategic Communication	3
JMC:5248	Strategic Political Communication	3
JMC:5250	Strategic Communication for Nonprofits	3
JMC:5255	Strategic Global Communication	3
JMC:5260	Digital Analytics for Strategic Communication	3
JMC:5266	Risk Communication	3
JMC:5267	Strategic Health Care Communication	3
JMC:5269	Media Management for Strategic Communicators	3
JMC:5270	Leadership Communication	3
JMC:5285	Strategic Communication Externship	3

Students may choose other electives appropriate for their individual programs, drawing from courses offered by the School of Journalism and Mass Communication or by other University of Iowa departments and programs. A combined maximum of 6 s.h. of courses numbered 3000–4999 or approved graduate transfer credit is permitted.

With the approval of the student's advisor, additional elective options include but are not limited to the following list.

Course #	Title	Hours
Journalism and mass communication courses (prefix JMC) numbered 3000-7999		
Event management courses (prefix EVNT) numbered 3000-7999		
Approved graduate-level transfer credit		
ASP:3150	Psychology of Aging	3
CCP:3107	Social Media for Your Job Search	1
CSED:4140	Foundations of Leadership for Community Agencies	3
CW:4745/ WRIT:4745	The Sentence: Strategies for Writing	3
CW:4760/ WRIT:4760	The Art of Revision: Rewriting Prose for Clarity and Impact	3
EALL:4130/ MUSM:4150	Introduction to Grant Writing	3
ENTR:3200	Entrepreneurial Marketing	3
GHS:3850/ HHP:3850	Promoting Health Globally	3
GWSS:3154	Sexuality in the United States	3
MBA:8160	Managerial Economics	3
MBA:8180	Managerial Finance	3

MGMT:3600/ RELS:3701/ SSW:3600/ NURS:3600	Nonprofit Organizational Effectiveness II	3
MGMT:4600/ MUSM:4600	Nonprofit Ethics and Governance	3
MGMT:9150/ HMP:6360/ PBAF:6278/ RELS:6070/ SPST:6010/ SSW:6247/ URP:6278	Nonprofit Organizational Effectiveness I	3
MKTG:3000	Introduction to Marketing Strategy	3
MUSM:3001/ ANTH:3001/ EDTL:3001/ SIED:3001	Introduction to Museum Studies	3
POLI:3111	American Public Policy	3
POLI:3516	The Politics of International Economics	3
PSQF:6205	Design of Instruction	3
PSQF:6211	Universal Design and Accessibility for Online Instruction	3
PSQF:6215	Online Instruction: Design and Facilitation	3
PSQF:6216	Tools and Utilities for Online Teaching	3
SOC:4225	The Social Psychology of Leadership	3
SRM:3147	Sport Event Management	3
SRM:3157	Managerial Operations in Sport and Recreation	3
SRM:3178	Communications and Public Relations in Sports	3
WRIT:3005/ CW:3005/ INTD:3005	Professional and Creative Business Communication	3

Combined Programs

BA in Journalism and Mass Communication/MA

The combined BA/MA program enables students to begin work toward the MA in strategic communication while completing the bachelor's degree in journalism and mass communication. Students admitted to the program may count 12 s.h. of credit toward both the BA and MA degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences.

MA/MBA

The combined Master of Business Administration/MA in strategic communication program aims to meet the evolving needs of the market by producing graduates with a unique skill set that integrates advanced communication strategies with robust business acumen for the digital world. Offered by Tippie Professional Programs (Tippie College of Business) and the College of Liberal Arts and Sciences; see the Master of Business Administration, MBA [p. 1274] in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applications for admission to the program are accepted all year.

Career Advancement

The strategic communication program is designed for professionals in a wide variety of areas, such as corporate and organizational communication, public relations, integrated marketing communication, advertising, political and public affairs communication, health communication, event management, risk communication, and professional writing. The program focuses on the skills, knowledge, and experience that working professionals need, including the ability to anticipate and meet the challenges of radical change in the media landscape.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Strategic Communication, MA

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 2.75 is required. [c]		
	Hours	**0**
First Year		
Fall		
JMC:5220	Foundations of Strategic Communication [d]	3
Elective course [e]		3
	Hours	**6**
Spring		
JMC:5230	Strategic Communication Writing [d]	3
Elective course [e]		3
	Hours	**6**
Summer		
JMC:5236	Topics in Strategic Communication [f]	3
	Hours	**3**
Second Year		
Fall		
JMC:5225	Digital Strategic Communication [d]	3
JMC:5235	Strategic Communication Research [d]	3

Elective course [e]		3
	Hours	**9**
Spring		
JMC:5290	Capstone Project in Strategic Communication [d]	3
Elective course [e]		3
	Hours	**6**
	Total Hours	**30**

a Most students take two courses per semester with some summer courses; program courses are offered online.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Students must complete JMC:5220, JMC:5225, JMC:5230, JMC:5235, JMC:5290; work with faculty advisor to determine required core coursework and sequence.

e In consultation with their advisors, students earn 15 s.h. in elective coursework. At least 9 s.h. of electives must be in journalism and mass communication courses (prefix JMC) numbered 5000 or above. See the General Catalog for list of approved courses.

f SJMC usually offers a JMC:5236 topics course in summer. Students may also opt to take an elective across the university.

Mass Communication, PhD

Learning Outcomes

A candidate for a doctoral degree is expected to demonstrate mastery of knowledge in the field of communication and to synthesize and create new knowledge, making an original and substantial contribution to the discipline in an appropriate time frame.

- Make an original and substantial contribution to the discipline: think originally and independently to develop concepts and methodologies, and identify new research opportunities within the field of communication.
- Demonstrate advanced research skills: synthesize existing knowledge; identify and access appropriate resources and other sources of relevant information; critically analyze and evaluate one's own findings and those of others; master application of existing research methodologies, techniques, and technical skills; and communicate in a style appropriate to the field of communication.
- Demonstrate commitment to advancing the values of scholarship: keep abreast of current advances within one's field and related areas; show commitment to personal professional development through engagement in professional societies and other knowledge transfer modes; and show a commitment to creating an environment that supports learning through teaching, collaborative inquiry, mentoring, or demonstration.
- Demonstrate professional skills: adhere to ethical standards in the discipline and listen, give, and receive feedback effectively.

Requirements

The Doctor of Philosophy program in mass communication requires 72 s.h. of graduate credit. The program provides training in research methods, communication theory, and teaching skills.

The program emphasizes interdisciplinary studies, with coursework and research tailored to each student's interests under the guidance of faculty members. The school offers several areas of strength to support graduate student research in both traditional and digital media: critical/cultural studies, digital media, global media, health communication, journalism studies, and sports media.

Students in the PhD program in mass communication must complete the following curriculum.

Course #	Title	Hours
JMC:6100	Communication and Media Colloquium (taken four times for 1 s.h. each; should enroll every semester for first two years of study)	4
JMC:6200	Humanistic Approaches to Media Communication	3
JMC:6300	Social Scientific Approaches to Media Communication	3
JMC:6920	PhD Research (for guided reading)	3
JMC:6999	Dissertation (must register for at least 4 s.h.)	4
CLAS:5100	Practicum: College Teaching and Professional Development for Teaching Assistants	1
Additional professionalization courses		3
Methods area courses		3
Theory area courses		3
Electives		15
Credit from master's degree and/or additional PhD courses		30

For a more detailed description of the PhD program, contact the School of Journalism and Mass Communication.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Admission to the program is for fall entry.

Career Advancement

Students in this program prepare for careers as teachers and industry researchers.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Mass Communication, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; maximum of 30 s.h. of graduate transfer credits from master's allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
CLAS:5100	Practicum: College Teaching and Professional Development for Teaching Assistants	1
JMC:6100	Communication and Media Colloquium [c]	1
JMC:6300	Social Scientific Approaches to Media Communication	3
Methods Area course [d, e]		3
	Hours	**8**
Spring		
JMC:6100	Communication and Media Colloquium [c]	1
JMC:6200	Humanistic Approaches to Media Communication	3
Theory Area course [d, e]		3

Elective course [d, e]		3
Qualifying Exam [f]		
	Hours	**10**
Second Year		
Fall		
JMC:6100	Communication and Media Colloquium [c]	1
Additional Professionalization courses [g]		3
Elective course [d, e]		3
Elective course [d, e]		3
	Hours	**10**
Spring		
JMC:6100	Communication and Media Colloquium [c]	1
JMC:6920	PhD Research [h]	3
Elective course [d, e]		3
Elective course [d, e]		3
	Hours	**10**
Third Year		
Fall		
JMC:6999	Dissertation [i]	1
Present Dissertation Proposal at PhD Seminar		
Exam: Doctoral Comprehensive Exam [j]		
	Hours	**1**
Spring		
JMC:6999	Dissertation [i]	1
	Hours	**1**
Fourth Year		
Fall		
JMC:6999	Dissertation [i]	1
	Hours	**1**
Spring		
JMC:6999	Dissertation [i]	1
Exam: Doctoral Final Exam [k]		
	Hours	**1**
	Total Hours	**42**

a Students entering with a bachelor's degree must work with their faculty advisor to complete 30 s.h. of appropriate graduate coursework. Students entering with fewer that 30 s.h. of coursework from the master's degree must work with their faculty advisor to complete the needed appropriate graduate coursework.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Taken four times for 1 s.h. each; students should enroll every semester for first two years of study.

d Students are required to complete 3 s.h. of methods area, 3 s.h. of theory area, and 15 s.h. of elective coursework.

e Work with faculty advisor to determine appropriate graduate coursework; see the General Catalog and department website for specifics.

f Completed at the end of first year to directly assess understanding of content from two approaches courses.

g Students are required to take a total of 3 s.h. of professionalization courses; consult with faculty advisor to determine which courses best align with career goals.

h Prior to comprehensive exam, work with faculty advisor and committee to build the proposals literature review; see the General Catalog and department website for specifics.

i Minimum total of 4 s.h. of thesis credit required.

j Writing and defending the dissertation proposal satisfies the comprehensive exam requirement. The dissertation proposal must clearly indicate the logical steps necessary for the completion of the project and suggest a plan of action.

k Dissertation defense.

Languages, Linguistics, Literatures, and Cultures

Chair

- Jill Beckman

Undergraduate majors: Asian Languages and Literature, BA; French, BA; German, BA; International Studies, BA; Italian, BA; Linguistics, BA; Russian, BA; Translation, BA

Undergraduate minors: American Sign Language; Arabic Studies; Asian Languages and Literature; French; German; International Studies; Italian; Korean Studies; Linguistics; Russian; Translation for Global Literacy

Graduate degrees: French and Francophone World Studies, MA; French and Francophone World Studies, PhD; Linguistics, MA; Linguistics, PhD; Literary Translation, MFA

Graduate certificate: Literary Translation

Faculty: https://lllc.uiowa.edu/people

Website: https://lllc.uiowa.edu/

The Department of Languages, Linguistics, Literatures, and Cultures (LLLC) fosters interdisciplinary scholarship in languages, linguistics, literatures, and cultures. It encourages synergy and collaboration among its faculty and enhances opportunities for cross-cultural course development and research.

Undergraduate and graduate programs in the department serve students with varied interests and career aspirations. Students are educated to become global citizens who understand and are understood by diverse populations. They are trained to be critical thinkers and problem solvers who are also capable scholars, lucid writers, and proficient speakers.

The department offers instruction in numerous fields related to language, linguistics, literature, and culture.

Language for GE CLAS Core

Undergraduate students in all majors may satisfy the World Languages requirement of the College of Liberal Arts and Sciences GE CLAS Core [p. 22] with course sequences in American Sign Language, Arabic, Chinese, French, German, Italian, Japanese, Korean, Russian, and Swahili. For more information regarding pathways to fulfill the World Languages GE CLAS Core requirement, including options to take four levels of one world language, two levels each of two different languages, or three levels of a world language plus a World Language and Cultural Exploration course, see GE CLAS Core [p. 22] in the catalog.

Students who have had experience with a world language should take the appropriate University of Iowa World Languages Placement Test, which helps determine the level at which they should begin study of the language. If no placement test exists, students should contact the general education coordinator to determine the level at which they should begin language study at the University of Iowa.

Related Certificates

Cognitive Science of Language

The Graduate College offers the graduate Certificate in Cognitive Science of Language. Designed to complement doctoral study, the certificate program ensures that students have training in interdisciplinary approaches to the study of language along with a strong theoretical grounding in their PhD discipline. See the Certificate in Cognitive Science of Language [p. 1730] in the catalog for more information.

International Business

The College of Liberal Arts and Sciences and the Tippie College of Business offer the undergraduate Certificate in International Business. The program entails the study of international business and economics; international relations and institutions; a language; and the art, literature, culture, and/or politics of a geographic area. Students who major in Asian Languages and Literature (both Chinese and Japanese subprograms) or Russian are likely to satisfy the certificate's cultural immersion requirement through major requirements. For more information, see the Certificate in International Business [p. 1230] (Tippie College of Business) in the catalog.

Study Abroad

The department strongly encourages its students to study abroad to accelerate language learning and deepen cultural understanding. Many students participate in summer, semester, and year-long study abroad programs. There are many resources available for funding study, intern, or research abroad. It may also be possible for students to apply University of Iowa financial aid to their study abroad programs. Interested students should discuss study abroad programs with their academic advisor or see Study Abroad [p. 2215] (University College) in the catalog.

Summer Internships

Students are encouraged to enrich their programs of study through internships designed to combine work experience abroad or in the United States with study or research projects. The university's Pomerantz Career Center maintains a list of internships.

Student Associations

Students have many opportunities to enrich their studies in languages and literature while living in Iowa City. The university sponsors student associations for students from many countries. All University of Iowa students are welcome to join. Various international community groups sponsor cultural events and holiday celebrations throughout the year.

Programs

Undergraduate Programs of Study

Majors

- Major in Asian Languages and Literature (Bachelor of Arts) [p. 688]
- Major in French (Bachelor of Arts) [p. 693]
- Major in German (Bachelor of Arts) [p. 698]
- Major in International Studies (Bachelor of Arts) [p. 702]
- Major in Italian (Bachelor of Arts) [p. 715]
- Major in Linguistics (Bachelor of Arts) [p. 718]
- Major in Russian (Bachelor of Arts) [p. 722]
- Major in Translation (Bachelor of Arts) [p. 725]

Minors

- Minor in American Sign Language [p. 730]
- Minor in Arabic Studies [p. 732]
- Minor in Asian Languages and Literature [p. 733]
- Minor in French [p. 736]
- Minor in German [p. 737]
- Minor in International Studies [p. 739]
- Minor in Italian [p. 740]
- Minor in Korean Studies [p. 741]
- Minor in Linguistics [p. 743]
- Minor in Russian [p. 744]
- Minor in Translation for Global Literacy [p. 745]

Graduate Programs of Study

- Master of Arts in French and Francophone World Studies [p. 747]
- Master of Arts in Linguistics [p. 749]
- Master of Fine Arts in Literary Translation [p. 751]
- Doctor of Philosophy in French and Francophone World Studies [p. 756]
- Doctor of Philosophy in Linguistics [p. 758]
- Certificate in Literary Translation [p. 761]

Facilities

The Center for Language and Culture Learning provides a wide variety of facilities and services, including a 24-computer Instructional Technology Center (ITC), five All-In-One Studios/small group study rooms equipped with video production and editing software, a Computer Assisted Language Learning Lab with 25 computers integrated with Sanako software for language practice, and virtual reality hardware and development space.

The center provides spaces for quiet study as well as for group meetings. Departments, programs, and student organizations are welcome to host conversation hours, film nights, study groups, workshops, and more. Peer education services include peer tutoring programs in many of the languages taught at the university with both in-person and online availability, as well as Independent Language Study, through which faculty, staff, or students can be paired with a tutor to learn a language not taught at UI. Tutors are trained to use the Three Ms for Effective Learning, which include developing a growth mindset, using memory strategies to retain knowledge, and reflecting on learning gains.

A-F Courses

- Arabic Studies Courses [p. 660]
- Asian Languages and Literature Courses [p. 661]
- Chinese Courses [p. 663]
- English as a Second Language Courses [p. 664]
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Arabic Studies Courses

ARAB:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Taught in English. Requirements: first- or second-semester standing.

ARAB:1001 Elementary Modern Standard Arabic I 5 s.h.
Speaking, listening, reading, and writing skills. GE: World Languages First Level Proficiency.

ARAB:1002 Elementary Modern Standard Arabic II 5 s.h.
Continuation of ARAB:1001. Requirements: ARAB:1001. GE: World Languages Second Level Proficiency.

ARAB:2001 Intermediate Modern Standard Arabic I 5 s.h.
Communication in speaking and writing; cultural topics. Requirements: ARAB:1002. GE: World Languages Third Level Proficiency.

ARAB:2002 Intermediate Modern Standard Arabic II 5 s.h.
Continuation of ARAB:2001. Requirements: ARAB:2001. GE: World Languages Fourth Level Proficiency.

ARAB:2006 Transnational Solidarities 3-4 s.h.
Examination of connections forged by intellectuals, activists, and political thinkers in struggles against systems of colonialism, imperialism, capitalism, and state violence throughout the 20th century; opportunities to make connection with other struggles against racism, supremacy, patriarchy, and domination; optional discussion section taught in Arabic. Taught in English. Requirements: for 4 s.h. option—ARAB:1002. Same as SJUS:2006, WLLC:2006.

ARAB:2010 The Modern Arabic Short Story 3 s.h.
Introduction to the modern Arabic short story from the late 19th century to the present day; examination of the development of the genre, as well as depictions of political struggle, gender, class, and religion; taught in English.

ARAB:2012 Modern Palestinian Literature and Culture 3 s.h.
Examines modern Palestinian literature and culture from the beginning of the twentieth century until the contemporary period. Explores works of literature and art focusing on topics such as the 1948 Nakba, the 1967 Naksa, resistance literature, exile and alienation, gender and sexuality, and prison literature. Works are situated within the larger socio-political context examining how the Palestinian struggle for liberation has impacted artistic production. Taught in English.

ARAB:2060 Arab-American Immigration: Society, Identity, and Culture 3 s.h.
Overview of the Arab-American immigration experience since the early 20th century. Taught in English.

ARAB:2525 We Are What We Eat: Food Culture in the Middle East and North Africa 3 s.h.
Explores the cultural significance of food practices, traditions, and rituals, highlighting their role in shaping daily life and social structures. Students examine how language and food intersect to convey meaning, preserve heritage, and facilitate intercultural exchange. Students develop a nuanced appreciation of the Middle East and North Africa's diverse culinary traditions while enhancing their intercultural competency and language skills in cultural contexts. Taught in English. GE: World Language and Cultural Exploration.

ARAB:3005 Culture and Resistance: The Modern Middle East 3-4 s.h.
Introduction to literature, cinema, and music of the Modern Middle East; how artists from Arab world, Turkey, and Iran explore their political terrain; how they depict issues of gender and sexuality; impact of the Arab Spring; exploration of art as expression and resistance; intersection between cultural and political; short stories, graphic novels, film, music, and visual arts. Taught in English.

ARAB:3011 Advanced Modern Standard Arabic I 3 s.h.
Advanced Arabic grammar and syntax, composition writing, formal conversation (similar to conversations on Arabic mass media); classical Arabic texts, other materials written for persons whose first or official language is Arabic. Requirements: ARAB:2002.

ARAB:3012 Advanced Modern Standard Arabic II 3 s.h.
Continuation of ARAB:3011; advanced Arabic grammar and syntax, composition writing, formal conversation (similar to conversations on Arabic mass media); classical Arabic texts, other materials written for persons whose first or official language is Arabic. Requirements: ARAB:3011.

ARAB:3030 Media Arabic 3 s.h.
Introduction to vocabulary, expressions, and terminology used in Arab print and broadcast media; supplements study in modern standard Arabic. Taught in Arabic. Requirements: ARAB:1002.

ARAB:3050 Arab Culture Through Dialects 3 s.h.
Communication in dialectal Arabic, Arabic dialectology, cultural topics, music and film in dialectal Arabic. Requirements: ARAB:1001; non-native or non-heritage speaker of Arabic.

ARAB:3060 Introduction to Arabic-English Translation 3 s.h.
Thorough introduction to translation (including theory) with particular emphasis on development of Arabic-to-English translation techniques and acquisition of related knowledge above and beyond language skills; basic problems commonly encountered during translation; development and application of an appropriate strategy for future translations. Prerequisites: ARAB:2001 with a minimum grade of C.

ARAB:3498 Internship/Community Engagement arr.
Internship with the Translate Iowa Project. Taught in English. Requirements: TRNS:2000 or TRNS:3179 or TRNS:3202 or ENGL:3724 or JPNS:3201 or SPAN:3030 or SPAN:3050 or SPAN:4980. Same as TRNS:3498.

ARAB:4990 Independent Study arr.
Material not covered in regularly offered courses; independent study guided by an instructor.

Asian Languages and Literature Courses

ASIA:1000 First-Year Seminar 1-2 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

ASIA:1005 Scripts and Trips: A Journey Through East Asia 3 s.h.
Survey of Chinese, Japanese, and Korean. Students learn one of the languages and its culture through the lens of a traveler. Overview of the languages from a comparative perspective; learning basic language skills and intercultural competence to navigate in a country where one of the three languages is spoken; and collaboratively creating a digital travel guide. GE: World Language and Cultural Exploration.

ASIA:1016 Classical Chinese Short Fiction 1 s.h.
Reading and discussion of classical Chinese short fiction in English translation. Taught in English. Recommendations: completion of required ESL courses. Same as WLLC:1016.

ASIA:1040 Introduction to Asian Religions 3 s.h.
Religious beliefs, practices in India, China, Japan. GE: Values and Society. Same as HIST:1610, RELS:1404.

ASIA:1060 Introduction to Buddhism 3 s.h.
Development of Buddhism in India, its spread across Asia, and arrival in the West; exploration of diverse Buddhist philosophies, practices, and cultures; readings from India, Tibet, China, Japan, Korea, and Southeast Asia. GE: Values and Society. Same as HIST:1612, RELS:1506.

ASIA:1502 Asian Humanities: India 3 s.h.
Introduction to 4,000 years of South Asian civilization through popular stories. Taught in English. GE: Values and Society. Same as RELS:1502, SOAS:1502.

ASIA:1510 Ghost Stories and Tales of the Weird in Premodern Chinese Literature 3 s.h.
Reading of Chinese literature concerning ghosts, marvels, and supernatural from the first millennium B.C.E. through the 1800s; readings analyzed against changing historical and religious contexts. Taught in English. Recommendations: completion of all required ESL courses. GE: Interpretation of Literature. Same as WLLC:1510.

ASIA:1601 Civilizations of Asia: China From Origins to the 17th Century 3 s.h.
Introductory survey of Chinese history and civilization from its origins to 1800; exploration of traditions in politics, social organization, thought, religion, and culture. GE: Historical Perspectives. Same as HIST:1601.

ASIA:1602 Civilizations of Asia: China from the 17th Century to the Present 3 s.h.
Introductory survey of Chinese history from the 17th century to present; exploration of political, social, economics, and culture. GE: Historical Perspectives; International and Global Issues. Same as HIST:1602.

ASIA:1604 Civilizations of Asia: Japan 3-4 s.h.
GE: Historical Perspectives; International and Global Issues. Same as HIST:1604.

ASIA:1606 Civilizations of Asia: South Asia 3-4 s.h.
Civilization of a vast region that includes India, Pakistan, Bangladesh, Nepal, and Sri Lanka. GE: Historical Perspectives; International and Global Issues. Same as HIST:1606, RELS:1606.

ASIA:1607 Civilizations of Asia: Korea 3-4 s.h.
Introduction to Korean history and culture; how meanings of "Korea" and "Koreans" changed from ancient times to present; relevant issues of politics, society, and culture; events that shaped ancient Korean states—Koryo state (918-1392), the Choson dynasty (1392-1910), Japanese colonization (1910-1945), and the two Koreas (1945-present); how present perspectives on Korea have influenced understandings of its past. GE: Historical Perspectives; International and Global Issues. Same as HIST:1607.

ASIA:1609 India Now! Surveying the World's Largest Democracy 3-4 s.h.
Introduction to India and its place in global economics, politics, religion, science, and culture since independence in 1947; India's contributions and adaptations to contemporary world, gender roles, changing sexual standards, and new ways India enters American lives—from globalized Bollywood films and music to new foods, fashions, and lifestyles; students examine the quiet revolution of affirmative action that has brought self-respect to millions, and market liberalization that has heightened economic inequality; consideration of ongoing challenges to world's largest democracy and contemporary efforts, both peaceful and violent, to address them. GE: Values and Society. Same as HIST:1609.

ASIA:1670 Korea in the World 3 s.h.
Comprehensive and critical understanding of Korea's place in the world; emphasis on historical and sociocultural roots of various aspects of life on the contemporary Korean peninsula (both North and South Korea); comprehensive list of topics including cultural production (K-pop and film), religions, economy, gender relations, cuisine, politics, and prospects for reunification. Taught in English. Same as KORE:1670, RELS:1670.

ASIA:2001 Global Science Fiction 3 s.h.
Science fiction from around the world; spanning poetry, fiction, drama, film, television, comics, mobile phone games, and music; produced on six continents. Taught in English. GE: Understanding Cultural Perspectives. Same as FREN:2010, RUSS:2001, TRNS:2001, WLLC:2001.

ASIA:2127 Books of the Silk Roads 3 s.h.
Manuscripts and global manuscript cultures from a comparative, interdisciplinary perspective; history of the book in the East and West; diverse material supports, physical formats, and written layouts of manuscripts of the 1st to 19th centuries, including social and cultural contexts; manuscript traditions of particular cultural spheres (Europe, the Middle East and North Africa, India, East Asia) and historical processes of diffusion, remediation, and obsolescence. Taught in English. GE: World Language and Cultural Exploration. Same as CLSA:2127, JPNS:2127.

ASIA:2222 Women in Premodern East Asian Literature 3 s.h.
Reading of East Asian literature portraying women from the first millennium B.C.E. through the 1800s; discussion of issues related to representations of women and conventional social, familial roles in premodern China, Korea, and Japan; cross-cultural comparison of different perceptions and portrayals of women in premodern East Asian literary traditions. Taught in English. Recommendations: completion of all ESL courses. GE: Understanding Cultural Perspectives. Same as GWSS:2222, WLLC:2222.

ASIA:2231 Introduction to the Art of China 3 s.h.
Visual arts of China and their history; emphasis on understanding in context of Chinese civilization, history. Same as ARTH:2220.

ASIA:2248 The Invention of Writing: From Cuneiform to Computers 3 s.h.
Invention of writing as one of the most momentous events in the history of human civilizations; how the use of written sign systems, notations, maps, graphs, encryptions, and most recently, computer programs have consequences that reach deeply into all aspects of people's lives; how writing fascinates and delights, fosters reflexive thinking and facilitates development of complex societies, and gives rise to institutions of social power and control; students explore the invention of writing and its consequences in broad international and interdisciplinary context. Taught in English. Same as ANTH:2248, CLSA:2048, COMM:2248, GRMN:2248, HIST:2148, IS:2248, LING:2248, TRNS:2248, WLLC:2248.

ASIA:2450 India Beat: The Aesthetics and Politics of India Today 3 s.h.
Ways in which music forms a crucial part of Indian public sphere, reflecting and shaping culture, society, and economy; wide range of genres commonly performed and heard across India and South Asia today (i.e., film music, several folk forms, classical, semi-classical, Indipop, rock) and locating each of them in their respective historical, cultural, and socioeconomic contexts; exploration of themes and questions (i.e., emergence and impact of technologies of mass production, distribution of music in colonial and post-independence India). GE: Values and Society. Same as MUS:2450.

ASIA:2515 Introduction to Chinese Religious Thought: How Best to Live 3 s.h.
Overview of how different Chinese religious traditions are addressing central questions about human existence and the best ways to live. Same as RELS:2515.

ASIA:2684 Korean War: Local and Global History 3 s.h.
Examination of the Korean War as a local, regional, and global event; major topics of the war including its origins, methods of warfare, refugee question, war crimes, POWs, propaganda, memory, and commemoration from the perspective of multiple nations; discussion and analysis of scholarly works, textbooks, diplomatic documents, memoirs, fiction, visual sources, and film. Same as HIST:2684.

ASIA:2887 Perspectives on Korea 3 s.h.
History of Korea from earliest times to present; changing meanings of Korea and Koreans; relevant issues of politics, society, and culture; events that shaped ancient Korean kingdoms, the Choson dynasty (1392-1910), Japanese occupation, and divided Korean peninsula; how present perspectives on Korea have influenced understandings of its past; placement of Korea within a regional and global context to examine Korea's relationship with the world. Same as HIST:2687.

ASIA:3055 Death, Dying, and Beyond in Asian Religions 3 s.h.
Survey of cultural and religious approaches to the dying process, post-death rituals, and conceptions about the afterlife in different religions in Asia. Same as RELS:3055.

ASIA:3208 Classical Chinese Literature Through Translation 3 s.h.
Reading of English translations of classical Chinese literature; discussion of special features of classical Chinese as a source language for translation; issues in translation practice and theory with focus on trends in translation of Classical Chinese literary works to English. Taught in English. Recommendations: completion of required ESL courses. Same as TRNS:3208, WLLC:3208.

ASIA:3255 Copy and Paste: Methods of Reproduction in Asian Art 3 s.h.
Introduction to methods of reproduction in Asian art that predates photography, encompassing technologies of graphic reproduction (manual, mechanical, and somewhere in between); exploration of themes including piece-mold bronze casting, stamping and seals, rubbing, molding and mass production, woodblock printing, trace-copying calligraphy, and free-hand copying of paintings; overarching concepts across different subjects (e.g., authorship and authenticity, value of copies and impact on canon formation, relationship between technology and style, question of aura in—and before—the age of mechanical reproduction). Same as ARTH:3255.

ASIA:3270 Themes in Asian Art History 3 s.h.
Same as ARTH:3270.

ASIA:3650 Chinese History From 1600 to 1911 3 s.h.
Chinese history from the 17th to early 20th century, history of the Qing dynasty (1644-1911); Qing's role in shaping aspects of today's politics in China and the mentality of Chinese people; foundation of Manchu state in early 17th century, Ming-Qing transition in 1644, politics and society during the high Qing era, decline of the empire under foreign invasion and inner rebellions in the 19th century, collapse of the dynasty in 1911. Same as HIST:3650.

ASIA:3652 Twentieth-Century China 3 s.h.
Communist revolution from 1920s to founding of People's Republic of China in 1949; Mao Zedong's radical policies, Cultural Revolution; Deng Xiaoping's economic reforms; China today. Same as HIST:3652.

ASIA:3655 Zen Buddhism 3 s.h.
Same as HIST:3655, RELS:3655.

ASIA:3685 Modern Korean History 3 s.h.
Transformation of Choson Korea to North and South Koreas; local, regional, and global transformations in Korea from the late 19th century to present; severing of historic ties with China; encounters with the West and Japan; new ideas of civilization and political community; erasure of Choson as a country in 1910; colonial experience; civil war; industrialization; creation of North Korea; democratic movement in South Korea and spread of diasporic communities abroad; Korean peninsula as a laboratory for analyzing compressed communist and capitalist modernities of the 20th century. Same as HIST:3685.

ASIA:3700 Topics in Global Cinema 3 s.h.
Identification of new models and methods to investigate cinema's relationship to current global issues beyond traditional scholarly focus in Western Europe and the United States; exploration of an emerging field, moving away from the paradigm of national cinema and bringing together shared theoretical frameworks while acknowledging different historical and cultural contexts. Taught in English. Same as JPNS:3700, TRNS:3700, WLLC:3700.

ASIA:4166 Topics in Asian History 3 s.h.
Same as HIST:4666.

ASIA:4301 Honors Tutorial arr.

ASIA:4506 Senior Honors Thesis arr.

ASIA:4507 Topics in Asian Studies arr.
Topics vary.

ASIA:6483 Multilingual Education and Applied Linguistics 3 s.h.
Introduction to research in language teaching and learning, drawing on theories and research in applied linguistics, sociolinguistics, anthropology, and psychology; students gain understanding of fundamentals in second language acquisition, educational linguistics, applied linguistics, and methods used in teaching and learning second/foreign languages; applications and implications of research considered when reviewing multilingual education policy and practice. Same as EDTL:6483, SLA:6506.

ASIA:6501 MA Thesis arr.
Offered fall semesters.

ASIA:6502 MA Thesis arr.
Offered spring semesters.

ASIA:6520 Seminar: South Asian Religion 3 s.h.
Topics in South Asian religions. Same as RELS:6520.

ASIA:7606 Readings in Chinese History arr.
Same as HIST:7606.

Chinese Courses

High school students and University of Iowa students who would like to learn Chinese but do not plan to use Chinese to satisfy the World Languages requirement of the College of Liberal Arts and Sciences GE CLAS Core may wish to take the beginning Chinese courses CHIN:1115 and CHIN:1116 in sequence and may follow them with the second-year courses CHIN:2101 and CHIN:2102. See the following course descriptions.

CHIN:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first-semester standing.

CHIN:1030 Introduction to Chinese Ethnic Folk Dance 1 s.h.
China has 56 ethnic minorities and each has a unique culture; folk dances of Chinese minorities reflect peculiarities of each ethnic group's religious, cultural, and historical narrative. Taught in English.

CHIN:1101 Conversational Chinese I 1 s.h.
Introduction to modern Chinese, with focus on communication "survival" skills for discussing oneself, family, daily activities, interests, personal preferences, food, shopping, travel, lodging; situational activities and performance.

CHIN:1102 Conversational Chinese II 1 s.h.
Continuation of CHIN:1101, with focus on speaking and listening.

CHIN:1111 First-Year Chinese: First Semester 5 s.h.
Sound system of Mandarin Chinese, basic sentence patterns; aural understanding, speaking, reading, writing. Offered fall semesters. GE: World Languages First Level Proficiency.

CHIN:1112 First-Year Chinese: Second Semester 5 s.h.
Continuation of CHIN:1111. Offered spring semesters. Prerequisites: CHIN:1111. GE: World Languages Second Level Proficiency.

CHIN:1115 Beginning Chinese I 3 s.h.
Introduction to modern standard Chinese; development of students' functional language ability.

CHIN:1116 Beginning Chinese II 3 s.h.
Continuation of CHIN:1115. Requirements: CHIN:1115 or equivalent as demonstrated in written and oral exams.

CHIN:1121 Beginning Chinese III 3 s.h.
Continuation of CHIN:1116; instruction in all four language skills of listening, speaking, reading, and writing; students further develop their understanding of Chinese culture through language learning. Prerequisites: CHIN:1116.

CHIN:1122 Beginning Chinese IV 3 s.h.
Continuation of CHIN:1121; instruction in all four language skills of listening, speaking, reading, and writing through task-based and task-supported curriculum; students further develop their understanding of historical and contemporary Chinese culture. Prerequisites: CHIN:1121.

CHIN:1504 China Beyond Walls 3 s.h.
Literary and philosophical texts of China in English translation. GE: Values and Society.

CHIN:1702 Chinese Popular Culture 3 s.h.
Introduction to popular culture from the People's Republic of China, Taiwan, Hong Kong, and the Chinese diaspora; shifting relationships among cultural production, media and technology, and political thought; influences of Japan, Korea, and the West; materials drawn from film, television shows, music, new media, popular literature, comics, magazines, advertising, fashion, art, and material culture; no previous knowledge of Chinese is required. GE: Literary, Visual, and Performing Arts.

CHIN:1800 Chinese Calligraphy and Culture 3 s.h.
Introduction to historical development of Chinese script, Chinese calligraphy theories, representative calligraphers, and writing Chinese script using a Chinese writing brush. GE: Values and Society.

CHIN:2101 Second-Year Chinese: First Semester 5 s.h.
Continuation of CHIN:1112. Offered fall semesters. Prerequisites: CHIN:1112 or Chinese Placement score of 301 or higher. GE: World Languages Third Level Proficiency.

CHIN:2102 Second-Year Chinese: Second Semester 5 s.h.
Continuation of CHIN:2101. Offered spring semesters. Prerequisites: CHIN:2101. GE: World Languages Fourth Level Proficiency.

CHIN:2103 Accelerated Second-Year Chinese: First Semester 3 s.h.
Intermediate Chinese. Requirements: grades of C or higher in CHIN:1111 and CHIN:1112, and one summer of Chinese study in China. GE: World Languages Third Level Proficiency.

CHIN:2104 Accelerated Second-Year Chinese: Second Semester 3 s.h.
Intermediate Chinese. Prerequisites: grade of C or higher in CHIN:2103. GE: World Languages Fourth Level Proficiency.

CHIN:3101 Third-Year Chinese: First Semester 3 s.h.
Reading of advanced modern Chinese texts; speaking, writing. Offered fall semesters. Prerequisites: CHIN:2102 or CHIN:2104 or Chinese Placement score of 451 or higher.

CHIN:3102 Third Year Chinese: Second Semester 3 s.h.
Continuation of CHIN:3101. Offered spring semesters. Prerequisites: CHIN:3101.

CHIN:3103 Business Chinese I 3 s.h.
Skill development in communicating with Chinese counterparts on a number of domains in business translations; first of a two-course sequence. Prerequisites: CHIN:2102 or CHIN:2104.

CHIN:3104 Business Chinese II 3 s.h.
Skill development in communicating with Chinese counterparts on a number of domains in business translations; second of a two-course sequence. Prerequisites: CHIN:3102 or CHIN:3103.

CHIN:3201 Workshop in Chinese Literary Translation 3 s.h.
Translation from Chinese to English with emphasis on literary translation; issues in theory and practice of translation; special features of Chinese as a source language for translation. Prerequisites: CHIN:3102. Same as TRNS:3202.

CHIN:3302 Introduction to Chinese Linguistics 3 s.h.
Aspects of modern Chinese linguistics, such as Chinese phonology, syntax, pedagogical grammar, history of the language. Taught in English. Same as LING:3302, SLA:3302.

CHIN:3341 Chinese Literature: Poetry 3 s.h.
Readings in classical and modern Chinese poetry in English translation. Taught in English. Recommendations: sophomore or higher standing.

CHIN:4101 Classical Chinese: First Semester 3 s.h.
Introduction to basic knowledge of classical Chinese; appreciation of traditional Chinese culture through reading idiomatic phrases and ancient fables with vivid and interesting plots. Prerequisites: CHIN:2102 or CHIN:2104.

CHIN:4102 Classical Chinese: Second Semester 3 s.h.
Continuation of CHIN:4101. Prerequisites: CHIN:4101.

CHIN:4103 Fourth-Year Chinese: First Semester 3 s.h.
Proficiency through oral and written discussions of modern texts. Offered fall semesters. Prerequisites: CHIN:3102 or Chinese Placement score of 601 or higher.

CHIN:4104 Fourth-Year Chinese: Second Semester 3 s.h.
Offered spring semesters. Prerequisites: CHIN:4103.

CHIN:4150 Advanced Reading and Writing in Chinese 3 s.h.
Essays in aspects of contemporary Chinese society to further understanding of Chinese society and to expand reading and writing skills. Taught in Chinese. Prerequisites: CHIN:2101.

CHIN:4203 Modern Chinese Writers 3 s.h.
Readings in modern and contemporary Chinese fiction; in English translation. Taught in English. Recommendations: sophomore or higher standing.

CHIN:4206 Chinese Cinema 3 s.h.
Films from Mainland China, Hong Kong, Taiwan, and Chinese diasporic communities, silent era to present; relationship of film to nation-state, cultural interflows, media technologies, ideologies. English subtitles. Recommendations: sophomore or higher standing.

CHIN:4300 Independent Study arr.
Research, reading, writing, and translation projects for undergraduate students. Prerequisites: CHIN:3102.

CHIN:5103 Readings in Chinese Society 3 s.h.
Academic texts relating to aspects of Chinese society to develop students' academic reading and writing skills. Requirements: CHIN:5102 for non-native Chinese student.

CHIN:5106 Individual Chinese for Advanced Students arr.
Research, translation projects. Prerequisites: CHIN:4104.

CHIN:5107 Advanced Classical Chinese 3 s.h.
Readings from classical texts of early China period. Prerequisites: CHIN:4102.

CHIN:5201 Seminar in Chinese Fiction 3 s.h.
Novels, novelettes; 16th to 18th centuries (Ming and Qing periods). Taught in English. Requirements: ability to read original texts.

CHIN:5202 Seminar in Chinese Literature arr.
Taught in English. Requirements: two years of modern Chinese and one year of classical Chinese.

English as a Second Language Courses

The following courses are for students whose first language is not English. Courses taken to meet the College of Liberal Arts and Sciences English proficiency requirement may not be taken pass/nonpass. English as a Second Language (ESL) courses may not be taken as satisfactory/unsatisfactory. In order to enroll in ESL courses, students must take the English

Proficiency Evaluation (EPE) or receive consent from the ESL office.

ESL:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities).

ESL:1005 ESL Special Topics 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings). Same as CLAS:1005.

ESL:1006 Independent Study in Academic Language and Skill Support 1 s.h.
Academic language skills and resources to achieve academic success including writing, effective reading strategies, vocabulary building, listening and note taking, speech fluency and clarity; exploration of study skills and strategies; cultural expectations in U.S. academic settings including academic integrity; culture shock; time management skills; techniques to stay motivated and manage stress; overcoming barriers to student success; assignments emphasize demonstration of language skill development and self-reflection. Requirements: completion of all ESL requirements.

ESL:4006 Individual English Language Support 1-4 s.h.
Foundational English language skills and resources to achieve academic success including writing, effective reading strategies, vocabulary building, listening and note-taking, speech fluency and clarity; exploration of study skills and strategies; cultural expectations in U.S. academic settings including academic integrity; culture shock; time management skills; techniques to stay motivated and manage stress; overcoming barriers to student success; assignments emphasize demonstration of language skill development and self-reflection.

ESL:4050 Focused Academic English Language Support 1 s.h.
Academic language skills and resources to achieve academic success; overcoming barriers to student success; assignments emphasize demonstration of language skill development and self-reflection.

ESL:4100 English as a Second Language: Academic Oral Skills 3 s.h.
Speaking skills for the U.S. academic setting and society; pronunciation, grammar, vocabulary; structured opportunity to develop fluency.

ESL:4130 English as a Second Language: Academic Listening Skills 3 s.h.
Development of listening skills for students whose first language is not English; focus on listening skills necessary for success in a U.S. academic setting; academic lectures, note-taking skills, fast-paced classroom discussions. Requirements: undergraduate standing.

ESL:4180 English as a Second Language: Academic Writing and Grammar for Undergraduates 4 s.h.
Exploration of iterative steps of drafting and revising academic writing; emphasis on the need to ultimately produce writings that communicate clearly and meet required standards; process oriented; students improve writing fluency (comprehensibility and cohesion) and their ability to select from a variety of appropriate grammatical functions (at word and clausal level) to produce a fluent and accurate result to succeed in all requirements of academic writing and communication.

ESL:4200 English as a Second Language: Academic Reading Skills 3 s.h.
Increasing reading speed and comprehension of university-level writing and vocabulary; exercises, discussion, and note-taking assignments to develop critical analysis skills.

ESL:6200 English as a Second Language: Academic Writing and Grammar for Graduates 3 s.h.
Students learn how to be confident, fluent, and independent writers, and become proficient with conventions and requirements of academic writing in their respective disciplines; selection of appropriate grammatical functions —at the word and clausal level—for success in academic communication.

French Courses

French courses numbered 4000–4999 are intended primarily for advanced undergraduates; graduate students should consult with their advisors before registering for these courses.

FREN:1000 First-Year Seminar 1-2 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Taught in English. Requirements: first- or second-semester standing.

FREN:1001 Elementary French I 4 s.h.
Introduction to reading, writing, listening, and speaking; for students who have no knowledge of French. GE: World Languages First Level Proficiency.

FREN:1002 Elementary French II 4 s.h.
Continuation of FREN:1001; introduction to reading, writing, listening, and speaking. Prerequisites: FREN:1001 or French Placement score of 110 or higher. GE: World Languages Second Level Proficiency.

FREN:1005 Texts and Contexts: French-Speaking World 3 s.h.
Development of skills in reading, understanding, and critically engaging with literary texts, and of research skills for informed inquiry; sense of oneself as a situated reader; range of texts reflecting diversity of French and Francophone writers. Taught in English. GE: Interpretation of Literature.

FREN:1006 Global Sports and National Cultures 3 s.h.
Overview of the relationship between sports and national cultures in countries around the world; focus on how athletic competitions play a role in the formation of collective identities; includes the Olympic Games in ancient Greece, hockey in Canada, cycling in France, traditional wrestling in Senegal, cricket in England and India, and soccer in Europe, Africa, and Latin America. GE: International and Global Issues.

FREN:1007 Nature/Ecology French Philosophy and Fiction 3 s.h.
Representations of the natural world in literary works from 16th to 20th centuries and in film; readings in English translation. Taught in English. GE: Interpretation of Literature.

FREN:1009 Introduction to Language Learning 1 s.h.
Preparation for world language study at college level, including study and review strategies. Taught in English.

FREN:1010 First-Year French Review 5 s.h.
FREN:1001 and FREN:1002 combined in one intensive course. GE: World Languages Second Level Proficiency.

FREN:1040 French for Travelers 2 s.h.
Basic language skills for tourists wanting to increase their French language skills.

FREN:1500 Trip to Belgium, France, and Switzerland 3 s.h.
An imaginary trip across the French-speaking countries of Europe—Belgium, France, and Switzerland—focusing on the language, culture, and history of different cities and regions; taught in English. GE: World Language and Cultural Exploration.

FREN:1510 Cultural Misunderstandings: France and U.S.A. 3 s.h.
Key moments in the history of relations between the United States and France, from similarities underlying democratic principles to recent divergent worldviews. Taught in English. GE: International and Global Issues.

FREN:1600 French and Francophone Cultural Activities 1 s.h.
Credit for attendance and participation at French and Francophone cultural events, including scholarly talks, film screenings, art exhibits, literary readings, conversation hours, French Culture Club meetings, and volunteering as a translator for a medical clinic.

FREN:2001 Intermediate French I 4 s.h.
Prerequisites: FREN:1010 or FREN:1002 or French Placement score of 176 or higher. Requirements: completion of prerequisites or two years of high school French. GE: World Languages Third Level Proficiency.

FREN:2002 Intermediate French II 4 s.h.
Continuation of FREN:2001. Prerequisites: FREN:2001 or French Placement score of 231 or higher. Requirements: completion of prerequisites or three years of high school French. GE: World Languages Fourth Level Proficiency.

FREN:2010 Global Science Fiction 3 s.h.
Science fiction from around the world; spanning poetry, fiction, drama, film, television, comics, mobile phone games, and music; produced on six continents. Taught in English. GE: Understanding Cultural Perspectives. Same as ASIA:2001, RUSS:2001, TRNS:2001, WLLC:2001.

FREN:2473 Cinderella 3 s.h.
Comparative analysis of Cinderella stories from around the world including Asia, Europe, Africa, South America; readings, discussion, workshops, and writing; consideration of visual and material presentation of Cinderella stories in physical books. Taught in English. Same as TRNS:2473, WLLC:2473.

FREN:3000 Third-Year French 3 s.h.
Development of reading skills in French; composition and review of basic grammar structures. Prerequisites: FREN:2002 or French Placement score of 311 or higher.

FREN:3007 French Phonetics 3 s.h.
Introduction to French phonetics; sounds of French in isolation and in context to improve pronunciation; audio exercises that emphasize sounds (nasal vowels, [u]-[y] contrast) and prosodic features (intonation, syllabification, liaison). Requirements: FREN:2002 or French Placement score higher than 311.

FREN:3020 Oral Expression in French I 3 s.h.
First in a two-course sequence. Prerequisites: FREN:2002 or French Placement score of 311 or higher.

FREN:3060 Introduction to Reading and Writing in Literature 3 s.h.
Development of analytical, organizational skills for interpretation of literature; readings in prose, poetry, drama, criticism; emphasis on reading and essay writing. Prerequisites: FREN:2002 or French Placement score of 311 or higher.

FREN:3120 French Civilization 3 s.h.
Examination of what constitutes French culture and civilization from pre-Roman period to later 20th-century. Taught in French. Requirements: prior or concurrent enrollment in FREN:3060.

FREN:3130 Francophone Cultures 3 s.h.
Study of cultures of the Caribbean, the Indian Ocean, the Maghreb, Sub-Saharan Africa, South Est Asia, Quebec, and Louisiana; approaches include literature, cinema, music, the arts, and media; introduction to field of Francophone studies and promotion of linguistic and cultural diversity. Taught in French. Requirements: prior or concurrent enrollment in FREN:3060.

FREN:3160 Study Abroad: Culture 3 s.h.
Geography, history, architecture, painting, music of France; readings, slides, video and audio cassettes, visits to sites of cultural significance. Prerequisites: FREN:2002.

FREN:3232 French Literary Translation Workshop 3 s.h.
Workshop in literary translation from French to English; practical, ethical, and theoretical questions about translation; focus on specific complication of French-English language pair; mapping style, genre, and literary influences of French authors for purpose of translation. Taught in French. Requirements: prior or concurrent enrollment in FREN:3060. Same as TRNS:3232.

FREN:3240 Media French 3 s.h.
Introduction to French press and media; students acquire knowledge related to media (e.g., newspapers, magazines, television, radio, social media); introduction to French national newspapers and television stations and their political and cultural orientations; students study articles obtained from different media to develop vocabulary and oral and written comprehension skills; study and discussion of current events in sports, politics, culture, society, and other fields. Taught in French. Requirements: prior or concurrent enrollment in FREN:3060.

FREN:3250 Topics in French Studies I 3 s.h.
Requirements: prior or concurrent enrollment in FREN:3060.

FREN:3300 French Grammar 3 s.h.
Study of word forms, sentence patterns for more accurate use of French. Prerequisites: FREN:2002 or French Placement score of 311 or higher. Requirements: completion of prerequisites or four years of high school French.

FREN:3360 Study Abroad: Language 3 s.h.
Written and spoken French; listening, speaking, reading, writing in cultural contexts. Prerequisites: FREN:2002.

FREN:3410 Business French 3 s.h.
Language of economics and business; practice in business correspondence and communication, active use of business vocabulary. Offered fall semesters. Requirements: prior or concurrent enrollment in FREN:3060.

FREN:4007 Topics in French Linguistics 3 s.h.
Concepts to aid in understanding how the French language works; major areas of linguistics—pronunciation (phonetics and phonology), the structure of words (morphology), the structure of sentences (syntax) and meaning (semantics). Prerequisites: FREN:3300 and FREN:3060.

FREN:4015 Francophone Cinema 3-4 s.h.
Study of pioneering and contemporary Francophone fictional and documentary films from the Caribbean, the Indian Ocean, the Maghreb and Sub-Saharan Africa; cinematic vocabulary and critical concepts related to Francophone intellectual history to closely examine emergence and vibrancy of Francophone cinema, colonial, and postcolonial elements that characterize it, and ideological engagement of filmmakers; exploration of challenges and ground-breaking dynamics of distribution, funding, spectatorship, and free training in filmmaking in Dakar. Taught in English. Requirements: for 4 s.h. option—prior enrollment in FREN:3060 and FREN:3300.

FREN:4020 Oral Expression in French II 3 s.h.
Last in a two-course sequence. Prerequisites: FREN:3020 or FREN:3300 or FREN:3007.

FREN:4026 French Women Writers 3-4 s.h.
Survey of 20th- and 21st-century French women's literature; introduction to French feminist thought; optional discussion section taught in French. Taught in English. Requirements: for 4 s.h. option—FREN:3060 and FREN:3300. Same as GWSS:4026.

FREN:4070 Introduction to the Study of Meaning 3 s.h.
Introduction to the study of meanings and language use in context; meaning outside the literal semantic interpretation of words used including presuppositions and goals of speaker, expectation of listener, speech acts, conversational implicatures, deixis, discourse functions, and other relevant topics. Taught in English. Prerequisites: LING:3001. Same as LING:4070.

FREN:4080 Post-Colonial Literature in France 3 s.h.
Literatures and cultures of Arabo-French (Beur) and Afro-French immigrations. Taught in French. Prerequisites: FREN:3300 and FREN:3060.

FREN:4090 Quebec Literature 3 s.h.
Study of Quebec literature and culture, First Nations' literature and écriture migrante; films and mixed media art enhance analysis of texts, historical and political contexts, and critical understanding of national and linguistic identity and relation between Quebec society, First Nations, immigration, and diversity. Taught in French. Prerequisites: FREN:3300 and FREN:3060.

FREN:4100 French Cinema 3-4 s.h.
Introduction to history of French Cinema. Taught in English. Requirements: for 4 s.h. option—prior enrollment in FREN:3060 and FREN:3300. GE: Literary, Visual, and Performing Arts.

FREN:4110 Francophone Studies: Literature and the Arts 3 s.h.
Study of literature, cultures, and visual arts of the Caribbean, the Indian Ocean, Sub-Saharan Africa, and the South Pacific; major theoretical paradigms in Francophone studies; variety of topics and interdisciplinary approaches. Taught in French. Prerequisites: FREN:3060 and FREN:3300.

FREN:4210 Slavery Museums, Memorials, and Statues in the United States, Europe, and the Global South 3-4 s.h.
Comparative study of museums, memorials, statues, performances, and artistic works that encapsulate the entangled history and memory of transoceanic slave trades and slavery in the United States, the Caribbean, the Indian Ocean, Sub-Saharan Africa, and Europe (France and the United Kingdom); critical tools to analyze public debates over politically charged monuments; exploration of transnational and political predicaments of the contemporary world; approaches include trauma theories, memory studies, history, postcolonial ecocriticism, cultural anthropology, heritage studies and museology, and Francophone cultural critique. Taught in English. Requirements: for 4 s.h. option—prior enrollment in FREN:3060 and FREN:3300. Same as MUSM:4310, WLLC:4210.

FREN:4433 France Under Nazi Occupation, 1940-1944 3-4 s.h.
Political, economic, social, and cultural conditions that prevailed following the Nazi conquest of France in 1940; examination of this period of upheaval through work of prominent historians of France; representations of occupied France in literary works, documentary, and fictional films produced during the war and in the politically fraught culture of collective memorialization that formed in aftermath of this national trauma. Taught in English. Requirements: for 4 s.h. option—prior enrollment in FREN:3060 and FREN:3300. Same as HIST:4433.

FREN:4520 Versailles Under the Sun King 3-4 s.h.
Survey of culture and literature related to the court of King Louis XIV at Versailles, France. Taught in English. Requirements: for 4 s.h. option—prior enrollment in FREN:3060 and FREN:3300.

FREN:4540 Gender and Sexuality in French Cinema 3-4 s.h.
Cultural, historical, and semiotic approach to studying constructions of gender identity and discourses on sexuality in French cinema from 1920s to present; optional discussion section taught in French. Taught in English. Requirements: for 4 s.h. option—prior enrollment in FREN:3060 and FREN:3300. Same as GWSS:4540.

FREN:4750 Topics in French Studies II 3 s.h.
French and/or Francophone literature or culture. Taught in French. Prerequisites: FREN:3060 and FREN:3300.

FREN:4911 French for Reading/Research 2 s.h.

FREN:4912 French for Reading/Research 2 s.h.

FREN:4990 Independent Study arr.
Prerequisites: FREN:3300 and FREN:3060.

FREN:4995 Honors Research and Thesis 3 s.h.
Prerequisites: FREN:3300 and FREN:3060.

FREN:5000 Teaching and Learning Languages 3 s.h.
Readings in pedagogical theory and practice, second language acquisition; experience designing activities for teaching and assessment with critiques based on current theories and approaches; development of reflective practices toward one's language teaching. Taught in English. Same as GRMN:5001, SLA:5000, SPAN:5000, WLLC:5000.

FREN:5001 Introduction to Graduate Study 2 s.h.
Expectations, resources, and opportunities of graduate study; introduction to coursework, development of preprofessional competencies. Taught in English.

FREN:5020 Comparative Stylistics 3 s.h.
Translation from English to French, and French to English, including literary texts. Taught in English.

FREN:6001 Reimagining Humanities Scholarship 0-1 s.h.
Students focus on rethinking humanities research by questioning traditional scholarly periodizations, developing an awareness of how scholarship can incorporate questions of diversity and inclusion, and exploring alternate career pathways; cross-disciplinary workshop.

FREN:6005 Colloquium: Teaching French 3 s.h.
Professional training to teach in elementary and intermediate French program; individualized mentoring and pedagogical guidance; for graduate student teaching assistants. Taught in English.

FREN:6015 The Renaissance in France 3 s.h.
Survey of literature from the French Renaissance. Taught in French.

FREN:6020 Studies in the Seventeenth Century 3 s.h.

FREN:6025 Studies in the Eighteenth Century 3 s.h.
Studies of French and/or Francophone literature and culture of the 18th century. Taught in French.

FREN:6080 Modern French Novel 3 s.h.
Taught in French.

FREN:6130 Francophone Thought 3 s.h.
Comparative study of intellectual, literary, cultural, social, and historical developments in the Caribbean, the Indian Ocean, the Maghreb, and Sub-Saharan Africa; approaches include cultural theory, literary criticism, cinema, visual arts, women's studies, memory and trauma studies, postcolonial ecologies, and cultural anthropology; examination of key conceptual paradigms and cultivation of skills in critical thinking methodologies; students acquire theoretical tools to explore an interdisciplinary scholarly field and learn to establish connections between the main components of the course and their own research interests. Taught in French. Same as GWSS:6130.

FREN:6750 Topics in French Studies 3 s.h.

FREN:6755 French Literature of the 20th/21st Centuries 3 s.h.
Advanced survey of French Literature 1900-present in areas of novel, theater, poetry, and essay. Taught in French.

FREN:7000 Thesis arr.

FREN:7990 Independent Study arr.

G-L Courses

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German Courses

GRMN:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first or second semester standing.

GRMN:1001 Elementary German I 4 s.h.
Understanding and speaking "everyday German"; reading and writing skills; acquaintance with the German-speaking world through discussion, readings, videos. GE: World Languages First Level Proficiency.

GRMN:1002 Elementary German II 4 s.h.
Continuation of GRMN:1001. Prerequisites: GRMN:1001 or German Placement score of 100 or higher. GE: World Languages Second Level Proficiency.

GRMN:1010 First-Year German Review 5 s.h.
Accelerated review in preparation for third-semester German. Requirements: previous study of German, typically one to two years of high-school German. GE: World Languages Second Level Proficiency.

GRMN:1200 Disabilities and Inclusion in Writing and Film Around the World 3 s.h.
Exploration of human experiences of dis/ability and exclusion/inclusion. Taught in English. GE: Understanding Cultural Perspectives. Same as DST:1200, GHS:1200, WLLC:1200.

GRMN:1500 German Cultural Activities 1 s.h.
Attendance and participation at events related to culture and history of German-speaking countries; reflection papers in English; includes scholarly talks, film screenings, art exhibits, literary readings, and music or theater performances; most events in English.

GRMN:1550 German Food, History, and Culture: Beyond Bier and Bratwurst 3 s.h.
This course provides a basic introduction to the language, history, and culture of German-speaking Europe through the study of food; topics include popular and well-known foods, regional dishes, food-focused celebrations, the history of food, and the importance of food in the history of German-speaking Europe; German food vocabulary, regional language and culture, the geography of German-speaking Europe, the influence of immigrant communities and diversity in the German-speaking countries, and the history of German-speaking immigrants in the Midwest will also be considered; taught in English, no knowledge of German is needed. GE: World Language and Cultural Exploration.

GRMN:1685 German Cultural History 3 s.h.
Overview of two thousand years of German cultural history, with an emphasis on well-known medieval architectural monuments and musical compositions from the 18th century onward. GE: World Language and Cultural Exploration.

GRMN:2001 Intermediate German I 4 s.h.
Proficiency in spoken and written German, German-speaking cultures of Europe; emphasis on speaking and reading skills. Taught in German. Prerequisites: GRMN:1002 or GRMN:1010 or German Placement score of 350 or higher. GE: World Languages Third Level Proficiency.

GRMN:2002 Intermediate German II 4 s.h.
Continuation of GRMN:2001; proficiency in spoken and written German; German-speaking cultures of Europe; emphasis on speaking and reading skills. Taught in German. Prerequisites: GRMN:2001 or German Placement score of 400 or higher. GE: World Languages Fourth Level Proficiency.

GRMN:2248 The Invention of Writing: From Cuneiform to Computers 3 s.h.
Invention of writing as one of the most momentous events in the history of human civilizations; how the use of written sign systems, notations, maps, graphs, encryptions, and most recently, computer programs have consequences that reach deeply into all aspects of people's lives; how writing fascinates and delights, fosters reflexive thinking and facilitates development of complex societies, and gives rise to institutions of social power and control; students explore the invention of writing and its consequences in broad international and interdisciplinary context. Taught in English. Same as ANTH:2248, ASIA:2248, CLSA:2048, COMM:2248, HIST:2148, IS:2248, LING:2248, TRNS:2248, WLLC:2248.

GRMN:2275 Scandinavian Crime Fiction 3 s.h.
Contemporary Scandinavian crime novel in its literary, historical, geographic, cultural, and social context. Taught in English. GE: Literary, Visual, and Performing Arts.

GRMN:2600 Witch Hunts in Fact and Fiction: A Global History of Exclusion 3-4 s.h.
Survey of the phenomenon of witchcraft and its persecution past and present; students read a historical study that sheds new light on the history of European witch hunts while demonstrating that witch hunts are not simply part of European past; how belief that certain people are able to cause harm by supernatural powers endures throughout the world today; discussion and analysis of exemplary works of fiction about witchcraft persecutions, mostly from German background. Taught in English. GE: Understanding Cultural Perspectives.

GRMN:2618 Film and Literature of the Holocaust 3-4 s.h.
European and American films (e.g., documentaries, feature films); literature of the Holocaust in English translation (e.g., survivor memoirs, testimony, poetry, philosophical essays, graphic novels). Taught in English. GE: Values and Society. Same as WLLC:2618.

GRMN:2620 Anne Frank and Her Story 3-4 s.h.
Analysis of the *Diary of Anne Frank,* its media adaptations, and related materials (e.g., fictionalizations, additional first-hand accounts); examination of Holocaust in the Netherlands, Belgium, and other countries outside Germany; anti-Semitism, discrimination, tolerance, resistance, identity formation, human aspiration and belief. Taught in English. GE: Understanding Cultural Perspectives. Same as WLLC:2620.

GRMN:2630 German Cinema: Greatest Hits 3-4 s.h.
Overview of German cinema; expressionist film of the Weimar Republic; Nazi cinema; post-war cinema; East German film; New German Cinema; post-unification and contemporary cinema. Taught in English. GE: Literary, Visual, and Performing Arts.

GRMN:2666 Pact With the Devil 3-4 s.h.
Pact with the devil has served as a metaphor for humankind's desire to surpass the limits of knowledge and power and engage with the forbidden; students explore a variety of works—mostly from German literature and culture—from early modern time to present, and critique different twists that fascination with the forbidden takes with regard to women. Taught in English. GE: Literary, Visual, and Performing Arts. Same as WLLC:2666.

GRMN:2675 The Politics of Memory: Holocaust, Genocide, and 9/11 3-4 s.h.
How contested legacies of genocide, global violent conflict, and 9/11 continue to pose an urgent and generationally mediated challenge for critical politics of memory; various approaches to effective or failed coming-to-terms with injurious and difficult past (e.g., Holocaust, Armenian genocide); analysis of museums, sites of memory, and artwork. Taught in English. GE: Understanding Cultural Perspectives. Same as MUSM:2675.

GRMN:2720 Germany in the World 3-4 s.h.
The Federal Republic of Germany's increasing prominence in post-Cold War international affairs against backdrop of 20th-century history; Germany's role in the European Union and the changing relationship between Europe and the United States. Taught in English. GE: International and Global Issues. Same as HIST:2420.

GRMN:2785 Cyborgs, Monsters, and the Uncanny 3-4 s.h.
Literature, film, and theory of the monstrous and uncanny from short stories (e.g., Kafka) to science fiction (e.g., *A Cyborg Manifesto*) and horror films (e.g., *Dracula*). Taught in English. GE: Literary, Visual, and Performing Arts.

GRMN:2949 Accountability, War Crimes, and Justice 3-4 s.h.
Introduction to current juridical and nonjuridical approaches to hold perpetrators (e.g., states, state actors, individuals) of war crimes accountable in international criminal and humanitarian law; students examine concepts such as universal jurisdiction, which has been successfully deployed in German courts, and corporate accountability through recent case studies. Taught in English. Same as WLLC:2949.

GRMN:3010 Stories in German 3 s.h.
Stories and other relatively short prose by representative authors; discussion and response; varied topics. Taught in German. Requirements: GRMN:2002 or equivalent transfer coursework or a placement test score at the GRMN:2002 level or higher.

GRMN:3103 Composition and Conversation I 3 s.h.
Improvement of overall language ability with particular emphasis in areas of speaking and writing; may include vocabulary-building activities and review of selected grammar topics. Taught in German. Requirements: GRMN:2002 or equivalent transfer coursework or a placement test score at the GRMN:2002 level or higher.

GRMN:3104 Composition and Conversation II 3 s.h.
Improvement of general language abilities with emphasis in areas of speaking, writing, and vocabulary; content drawn from newspapers, magazines, internet, television, recent films, and social media; students also have the opportunity to explore individual interests. Taught in German. Requirements: GRMN:2002 or equivalent transfer coursework or a placement test score at the GRMN:2002 level or higher.

GRMN:3195 German Linguistics Lab I 3 s.h.
Hands-on research experience collecting and analyzing linguistic data. Requirements: at least one linguistics course.

GRMN:3214 Business German 3 s.h.
World of German business, role of German-speaking countries in world trade; emphasis on professional communication and workplace culture. Taught in German. Requirements: GRMN:2002 or equivalent transfer coursework or a placement test score at the GRMN:2002 level or higher.

GRMN:3236 German Film 3 s.h.
Overview 1925-1987; examples of avant-garde films of the Weimar Republic, propagandist filmmaking from the Third Reich, filmmaking traditions of the German Democratic Republic (GDR) and the Federal Republic of Germany (FRG). Requirements: GRMN:2002 or equivalent transfer coursework or a placement test score at the GRMN:2002 level or higher.

GRMN:3405 German Cultural History 3 s.h.
Major historical persons, events, and places; art and architecture, music, and intellectual life; Middle Ages to 19th century; emphasis on mythical historical persons and places. Taught in German. Requirements: GRMN:2002 or equivalent transfer coursework or a placement test score at the GRMN:2002 level or higher.

GRMN:3501 German Writers Engaged 3 s.h.
Literary works from various genres. Taught in German. Requirements: GRMN:2002 or equivalent transfer coursework or a placement test score at the GRMN:2002 level or higher.

GRMN:3845 The Structure of German 3 s.h.
Structure analysis of German words and sentences; emphasis on vocabulary expansion and writing with increased grammatical accuracy and complexity. Taught in German. Requirements: GRMN:2002 or equivalent transfer coursework or a placement test score at the GRMN:2002 level or higher.

GRMN:3850 Twentieth- and Twenty-first-Century German Children's Literature 3 s.h.
Exploration of the concept of childhood within broader contexts of history and culture unique to Germany—what lessons are inherent in German children's literature and how has childhood developed accordingly, and what does it mean for a child to be a "reader;" evolution of child-rearing and gender roles over the decades; how Germany holds a solid corner of classic children's literature; examination of canonical texts and more recent child-centered contributions to Germany's literary scene; students connect with local elementary, middle, and/or high schools on a German project. Taught in German. Prerequisites: GRMN:3103 or GRMN:3104.

GRMN:3855 The Sounds of German 3 s.h.
Analysis of sounds and sound system of German; practice in listening and speaking. Taught in German. Requirements: GRMN:2002 or equivalent transfer coursework or a placement test score at the GRMN:2002 level or higher.

GRMN:3860 German Language and Society 3 s.h.
Introduction to sociolinguistics in context of German-speaking countries; major topics include German dialects, regional and social variation in contemporary German, minority and immigrant languages in German-speaking countries, language and national identity, multilingualism, educational policies related to language teaching and learning, linguistic purism, language use in digital contexts, and language change. Taught in German. Requirements: GRMN:2002 or equivalent transfer coursework or a placement test score at the GRMN:2002 level or higher. Same as LING:3860.

GRMN:4195 German Linguistics Lab II 3 s.h.
Hands-on research experience collecting and analyzing linguistic data. Requirements: at least one linguistics course.

GRMN:4315 German Society Today 3 s.h.
Government and political structure, economy, mass media, education, social and cultural life of Germany, Austria, and Switzerland from the end of World War II to present. Taught in German. Prerequisites: GRMN:3501 or GRMN:3103 or GRMN:3104.

GRMN:4800 Seminar in Comparative Literature 3 s.h.
Focus on comparative, interdisciplinary, theoretical, and/or inter-arts topic; topics vary; required for comparative literature major. Taught in English. Same as GWSS:4800, TRNS:4800, WLLC:4801.

GRMN:4900 Independent Study arr.
Independent work completed under the supervision of Department of German faculty members. Requirements: German major or minor.

GRMN:4910 Peer Tutoring in German arr.
Opportunities to participate in classroom and tutoring activities and engage with students in language learning; for advanced students.

GRMN:4920 Research in German Studies arr.
Supplemental research and writing for introductory German studies courses taught in English (GRMN:2500 through GRMN:2999).

GRMN:4990 Honors Research 3 s.h.
Students work with a Department of German faculty member to identify a topic for an honors thesis; research and preliminary writing. Requirements: three years of college-level German and GPA of at least 3.50 in German.

GRMN:4991 Honors Thesis 3 s.h.
Completion of honors thesis in consultation with a faculty mentor. Requirements: honors standing and GRMN:4990.

GRMN:4995 German Graduation Portfolio 0 s.h.
Completion of the Global Seal of Biliteracy and submission of a representative sample of past course assignments in German. To be completed in a student's final year of study.

GRMN:5000 German Reading for Graduate Students 3 s.h.
Grammar review, vocabulary building, extensive reading of sophisticated texts. Offered spring semesters. Prerequisites: GRMN:1002 or GRMN:1010. Requirements: non-German graduate standing.

GRMN:5001 Teaching and Learning Languages 3 s.h.
Readings in pedagogical theory and practice, second language acquisition; experience designing activities for teaching and assessment with critiques based on current theories and approaches; development of reflective practices toward one's language teaching. Taught in English. Same as FREN:5000, SLA:5000, SPAN:5000, WLLC:5000.

GRMN:7000 Advanced Studies arr.
Independent work completed under the supervision of Department of German faculty members. Requirements: German graduate standing.

International Studies Courses

IS:1000 Designing Your International Studies Major 1 s.h.
Importance of interdisciplinarity, global perspectives, and world language study for 21st-century liberal education; intentional planning of courses and other out-of-class experiences to prepare students for life and career after college.

IS:1101 Cultural Anthropology 3 s.h.
Comparative study of culture, social organization. GE: Social Sciences; Values and Society. Same as ANTH:1101.

IS:2000 Introduction to International Studies 3 s.h.
Introduction to the interdisciplinary field of international studies; globalization, colonialism, inequality, and global challenges. GE: International and Global Issues.

IS:2009 World Travel: Cross-Cultural Skills for International Business, Education, and Service 3 s.h.
Cross-cultural skills and ethics for international business, education, and service.

IS:2013 Issues in International Studies 1-3 s.h.
Modules focusing on varied topics, taught by international studies faculty members.

IS:2020 World Events Today! 3 s.h.
Current events that introduce students to political and cultural developments throughout the world. GE: Understanding Cultural Perspectives.

IS:2042 Intercultural Communication 3 s.h.
Culture defined as a system of taken-for-granted assumptions about the world that influence how people think and act; cultural differences that produce challenges and opportunities for understanding and communication; those differences from several theoretical perspectives; opportunities to examine culture and cultural differences in practical, experience-driven ways. Same as COMM:2042, SSW:2042.

IS:2115 Introduction to Human Rights 3 s.h.
Analysis and evaluation of the international human rights program; relationship between human rights and international law. Same as HRTS:2115.

IS:2151 Global Migration in the Contemporary World 3 s.h.
Examination of social, economic, and cultural dimensions of global migration in the contemporary world from a transnational and anthropological perspective; primary focus is on migration to the United States, but in comparison to other migration trajectories. Recommendations: an introductory course in cultural anthropology is useful, but not required. GE: Understanding Cultural Perspectives. Same as ANTH:2151, GWSS:2151.

IS:2190 Love Rules: Law and the Family Across Cultures 3 s.h.
Recent debates over legalizing gay marriage remind us that the law is not an abstract concept, it is a social creation that emphasizes certain cultural norms over others, both powerful and changeable; family law outlines what one cultural vision of relationships—those between lovers, parent and child, and between kin—supposedly should look like in a given society, a vision always marked by gendered, racial, and sexual divisions of power; students consider what happens when legal norms intersect with diverse ways that people make families through topics including marriage, divorce, custody, and surrogacy across the world. Same as ANTH:2190, GWSS:2190.

IS:2248 The Invention of Writing: From Cuneiform to Computers 3 s.h.
Invention of writing as one of the most momentous events in the history of human civilizations; how the use of written sign systems, notations, maps, graphs, encryptions, and most recently, computer programs have consequences that reach deeply into all aspects of people's lives; how writing fascinates and delights, fosters reflexive thinking and facilitates development of complex societies, and gives rise to institutions of social power and control; students explore the invention of writing and its consequences in broad international and interdisciplinary context. Taught in English. Same as ANTH:2248, ASIA:2248, CLSA:2048, COMM:2248, GRMN:2248, HIST:2148, LING:2248, TRNS:2248, WLLC:2248.

IS:2400 Global Citizenship and the College Student 3 s.h.
An interdisciplinary and highly interactive course that aims to spark discussion and new understandings of the complex and contested concept of “global citizenship,” with focus given to the lived experiences of and relevancies for college-aged students. GE: International and Global Issues.

IS:2500 Working Internationally 1 s.h.
Information on international job sectors; presentations by experts in the field; advice on what is required to work internationally.

IS:2560 Global Food Migrations 3 s.h.
Understanding how food influences and is influenced by social, political, and cultural factors. GE: International and Global Issues.

IS:2700 Introduction to Latin American Studies 3 s.h.
Cultures of Latin American countries with emphasis on cultural history and cultural production; interdisciplinary survey. Taught in English. GE: World Language and Cultural Exploration. Same as LAS:2700, PORT:2700, SPAN:2700.

IS:2902 The Arts and Human Rights 1-3 s.h.
Examination of emerging human rights issues in the arts from an interdisciplinary and international perspective. Same as HRTS:2902.

IS:2903 Technology and Human Rights 1-3 s.h.
Examination of emerging human rights issues in technology from an interdisciplinary and international perspective. Same as HRTS:2903.

IS:2907 Literature and Human Rights 1-3 s.h.
Examination in human rights in literature from an interdisciplinary and international perspective. Same as HRTS:2907.

IS:2908 Governance and Human Rights 1-3 s.h.
Examination of emerging human rights related to governance issues from an interdisciplinary and international perspective. Same as HRTS:2908.

IS:2909 Human Rights Lab 1-3 s.h.
Discussion-based examination of emerging human rights issues from an interdisciplinary and international perspective. Same as HRTS:2909.

IS:2955 Human Rights and Islam 3 s.h.
Exploration of social forces, legal regimes, and cultural norms that have shaped discourse on human rights in a global context with reliance on a systems thinking framework; examination of intersections of rights, culture, society, and law in the last 2,000 years; consideration of interplay between institutional (formal) and societal (informal) powers that shape human rights norms; origins and evolution of discourse on rights across cultures and throughout history. GE: International and Global Issues. Same as RELS:2955.

IS:3010 Writing and Research for the World 3 s.h.
How to research and write on international and global topics in various genres; preparation for a local or international project which addresses international issues in a systematic way. Requirements: junior or higher standing.

IS:3011 Global Research: Strategies and Skills 1 s.h.
Skill development in international research; academic projects; work with research librarian; activity-based introduction to article, statistical, and governmental databases; research and popular materials; information discovery process (tools and search strategies); enhancement of critical thinking skills. Same as GHS:3011, ULIB:3011.

IS:3012 Service Learning in International Studies 3 s.h.
Internationally focused service learning in local communities.

IS:3020 Writing Projects in International Studies 0-3 s.h.
Writing project completed with the supervision of an approved faculty mentor.

IS:3116 Media and Global Cultures 3 s.h.
Communication as a vital component for any effort to create social change; necessary communication to reach out to target audiences—people and communities in need—from campaigns persuading communities to change knowledge, attitudes, and practices to aiding other development efforts in areas of health, education, rural development, or sustainable agricultural practices; importance of communication as an integral part to any effort aimed at creating large-scale social change. Same as JMC:3116.

IS:3142 Media and Social Change 3 s.h.
Students explore the myriad ways that people and organizations use media (e.g., writing, video, social media) for civic engagement, activism, and political participation; drawing on a broad range of cases and issues, students examine historical and contemporary social movements and activism. Same as JMC:3142.

IS:3190 Global Debt 3 s.h.
Economies as cultural systems that emphasize the role of worldviews and "meaning-making" in organizing economies; debt as a key mechanism in creation and maintenance of relationships; focus on how exchange, distribution, and obligation serve to shore up or sever various social institutions and links between debt, inequality, and power; debt in various forms, from a round of drinks to student loans, and from the U.S. mortgage crisis to development aid; diverse array of economies—from gift exchange to ceremonial destruction of wealth, and from Melanesia to Wall Street—to evaluate assumptions that undergird different systems of debt and credit. Requirements: introductory course in anthropology or international studies or gender, women's, and sexuality studies. Same as ANTH:3190, SJUS:3190.

IS:3198 Understanding Health in an Unequal World: Anthropology and Global Health Policy 3 s.h.
Global health has grown as an area of practice and study, with well-being and livelihoods of increasing numbers of people now deeply influenced by these ideas, practices, and policies; students engage with ways that global health programs have influenced experiences of health and illness by those who participate in these programs, critically analyzing how global health interacts with local dynamics of inequality, race, gender, and power. Same as ANTH:3199, GHS:3199.

IS:3350 Transnational Feminism 3 s.h.
Exploration of feminist perspectives from the United States and outside of the United States; how geopolitics shapes understanding of familiar feminist issues (e.g., reproduction, cultural practices, sexualities, poverty); emphasis on global south regions and populations. Same as ANTH:3125, GWSS:3350.

IS:3550 Special Topics in International Studies 1-3 s.h.
Special topics related to international studies.

IS:3555 Understanding Health and Disease in Africa 3 s.h.
Cultural, historical, and political framework for the delivery of health care services in African nations. Recommendations: junior or higher standing. Same as GHS:3555, HIST:3755.

IS:3904 Business, Labor, and Human Rights 1-3 s.h.
Examination of emerging human rights issues in labor and business from an interdisciplinary and international perspective. Same as HRTS:3904.

IS:3905 Topics in Human Rights 1-3 s.h.
Examination of emerging human rights issues from an interdisciplinary and international perspective. Same as HRTS:3905.

IS:3910 Approaches to Advocacy: From Theory to Practice 3 s.h.
Examine the application of advocacy models to the practice of human rights advocacy. Students explore real-life human rights and humanitarian advocacy initiatives, learn to apply a variety of advocacy models, and critically analyze challenges faced by practitioners working in the field of human rights advocacy. Same as HRTS:3910.

IS:3990 Independent Study in International Studies arr.
Research on a topic of international significance. Requirements: international studies major.

IS:4131 Globalization and Culture 3 s.h.
How context for everyday experience has increasingly become globally determined (e.g., ever-increasing transnational migration of people, spread of American culture, growth of international corporations and trade, rise of international conflict and transnational activism); range of theoretical and critical readings on globalization; various phenomena and perspectives regarding topic; themes directly relevant to lives of modern youth; how globalization affects opportunities and risks, identities and relationships. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899). Same as COMM:4131.

IS:4990 International Studies Senior Project 3 s.h.
Prerequisites: IS:3010. Requirements: international studies major.

IS:4991 Honors Thesis in International Studies 3 s.h.
Prerequisites: IS:3010. Requirements: international studies major.

Italian Courses

ITAL:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Taught in English. Requirements: first- or second-semester standing.

ITAL:1030 Italian for Travelers 2 s.h.
Basic language skills for tourists; for students with no previous Italian.

ITAL:1050 Italy Live 3 s.h.
Introduction to Italian language and culture designed for students whose first contact with the language is in Italy; offered through Consortium of Universities for International Studies study abroad program (CUIS/CIMBA) in Paderno del Grappa, Italy.

ITAL:1101 Elementary Italian I 5 s.h.
Beginning instruction in Italian for students with no prior experience in speaking, reading, or understanding Italian. GE: World Languages First Level Proficiency.

ITAL:1102 Elementary Italian II 5 s.h.
Continuation of ITAL:1101; beginning instruction in speaking, reading, and understanding Italian. Prerequisites: ITAL:1101. GE: World Languages Second Level Proficiency.

ITAL:1103 Intensive Elementary Italian 4,6 s.h.
ITAL:1101 and ITAL:1102 combined in one semester; fundamentals of Italian language and culture including reading, writing, comprehension, and speaking skills. Requirements: two years of another world language. GE: World Languages Second Level Proficiency.

ITAL:2203 Intermediate Italian I 4 s.h.
Improvement of skills in writing, speaking, and comprehension beyond the level of elementary Italian. Prerequisites: ITAL:1102. GE: World Languages Third Level Proficiency.

ITAL:2204 Intermediate Italian II 4 s.h.
Improvement of skills in writing, speaking, and comprehension beyond the level of elementary Italian. Prerequisites: ITAL:2203. GE: World Languages Fourth Level Proficiency.

ITAL:2205 Exploring Italy: Culture, Society, and Communication 3 s.h.
Introduction to diverse aspects of Italian culture and society; examines Italy's position in the global context. Taught in English. GE: World Language and Cultural Exploration. GE: World Language and Cultural Exploration.

ITAL:2440 Italian Arts for International Success 3 s.h.
Exploration of Italy's centuries-old artistic tradition; students become familiar with some of the most important manifestations of Italian culture and reflect on how the arts have been informing business initiatives. Taught in English. GE: Literary, Visual, and Performing Arts.

ITAL:2550 Images of Modern Italy 3-4 s.h.
Survey of Italy's history since Unification; diverse aspects of modern Italian culture and society through visual and textural materials; optional discussion sections taught in Italian. Taught in English. Requirements: for students earning 4 s.h.—ITAL:2204. GE: Historical Perspectives; Values and Society.

ITAL:2660 The Italian American Experience 3 s.h.
Exploration of Italian American presence in the U.S. by investigating historical background, multifaceted reality, heritage, and contribution to national culture; examination of Italian American ethnicity as portrayed in American literature, film, and television through an interdisciplinary approach; analysis of how Italian American writers and filmmakers have represented their community and contributed to shape their own cultural identity. Taught in English. GE: Understanding Cultural Perspectives.

ITAL:2770 The Mafia and the Movies 3 s.h.
Exploration of the myth of the Mafia and mobsters and examination of its function through a selection of Italian films; students investigate the multifaceted nature of Italian organized crime, and consider its historical, geographical, social, and economical dimensions. Taught in English. GE: International and Global Issues.

ITAL:2880 Italian Food Culture 3 s.h.
Introduction to Italian food culture; students explore how Italian culinary tradition was born and evolved over time, often reflecting historical and economic developments in the country; the different geographical regions of Italy and how each region established its own food culture, while at the same time being part of a national food culture; how Italian food has become a defining element of Italianness in the world, with focus on the birth of Italian-American foodways. Taught in English. GE: Values and Society.

ITAL:2990 Independent Study arr.

ITAL:3305 Advanced Italian 3-4 s.h.
Improvement of skills in writing, speaking, and comprehension beyond the level of intermediate Italian; activities include class discussions, oral presentations, compositions, readings of modern texts, review and expansion of grammar. Prerequisites: ITAL:2204.

ITAL:3306 Advanced Italian II 3-4 s.h.
Improvement of skills in writing, speaking, and comprehension beyond the level of intermediate Italian; activities include class discussions, oral presentations, compositions, readings of modern texts, review and expansion of grammar. Prerequisites: ITAL:2204.

ITAL:4500 Undergraduate Capstone Project 1-3 s.h.
Culmination of undergraduate major in translation or minor in translation for global literacy; translation manuscript or scholarly/research thesis on topics relevant to scope of major or minor. Requirements: approval of the director of undergraduate studies for translation. Same as TRNS:4500.

ITAL:4550 Topics in Italian Studies 3 s.h.
Varied topics. Requirements: ITAL:2204.

ITAL:4633 Dante's Inferno 3-4 s.h.
A virtual poetic journey through Hell; critical reading of Dante's *Inferno*, the first volume of *The Divine Comedy*, and the many ways this text has been interpreted and reinterpreted; while primary focus is on Dante's work, other texts and media are introduced to enhance the reading. Taught in English; discussion sessions in Italian. Requirements: for Italian majors taking 4 s.h. option—ITAL:2204.

ITAL:4660 Transcultural Texts and Translations 3 s.h.
Exploration of transcultural texts and films that have contributed to reshape the Italian cultural landscape; analysis and discussion of topics including migration and diaspora, belonging and exclusion, memory and nostalgia, prejudices and other obstacles to integration, use of language as a means of rejection and connection, struggles of new generations, hybrid identities, and imagined transformations that foster constructive interactions between cultures, histories, and languages; reflection and engagement in the practice of translation as a way of honing linguistic and cultural competency. Taught in Italian. Recommendations: at least one course taught in Italian at the 2000 level or above. Same as TRNS:4660.

ITAL:4667 Modern Italian Fiction 3 s.h.
Survey of major developments in Italian fiction, from birth of the modern novel in the 19th century to present-day transcultural narratives. Taught in English and Italian. Requirements: ITAL:2204.

ITAL:4668 Modern Italian Poetry and Theater 3 s.h.
Survey of major developments in modern Italian poetry and theater in relation to historical and cultural context. Taught in Italian. Requirements: ITAL:2204.

ITAL:4990 Independent Study arr.

ITAL:4998 Honors Research and Thesis 3 s.h.

Japanese Courses

JPNS:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first-semester standing.

JPNS:1001 First-Year Japanese: First Semester 5 s.h.
Modern Japanese. Offered fall semesters. GE: World Languages First Level Proficiency.

JPNS:1002 First-Year Japanese: Second Semester 5 s.h.
Continuation of JPNS:1001. Offered spring semesters. Prerequisites: JPNS:1001. GE: World Languages Second Level Proficiency.

JPNS:1506 Ghostly Japan 3 s.h.
Introduction to premodern, modern, and contemporary Japanese culture; special attention given to the relationship of classical texts to contemporary novels, short stories, manga, anime, music, and film; students consider relationships of textual and visual cultures, high art and low art, moments of crisis and the everyday, the sacred and the profane, men and women. Taught in English. GE: Values and Society.

JPNS:2001 Second-Year Japanese: First Semester 5 s.h.
Continuation of JPNS:1002. Offered fall semesters. Prerequisites: JPNS:1002. GE: World Languages Third Level Proficiency.

JPNS:2002 Second-Year Japanese: Second Semester 5 s.h.
Continuation of JPNS:2001. Offered spring semesters. Prerequisites: JPNS:2001. GE: World Languages Fourth Level Proficiency.

JPNS:2010 Self-Paced Kanji for All Levels 2 s.h.
Supplements the kanji learning of students at any level who have completed JPNS:1001 and have no background in languages using Chinese characters. Students develop effective strategies and skills for learning kanji independently, with guidance tailored to individual progress. For those seeking extra instruction and practice with kanji to enhance their mastery and confidence. Ideal for students who want flexible, focused support in kanji acquisition. Prerequisites: JPNS:1001.

JPNS:2127 Books of the Silk Roads 3 s.h.
Manuscripts and global manuscript cultures from a comparative, interdisciplinary perspective; history of the book in the East and West; diverse material supports, physical formats, and written layouts of manuscripts of the 1st to 19th centuries, including social and cultural contexts; manuscript traditions of particular cultural spheres (Europe, the Middle East and North Africa, India, East Asia) and historical processes of diffusion, remediation, and obsolescence. Taught in English. GE: World Language and Cultural Exploration. Same as ASIA:2127, CLSA:2127.

JPNS:2250 Introduction to the Art of Japan 3 s.h.
Chronological survey of Japan's visual arts in their historical and cultural contexts from Neolithic age to present; extensive use of slides, films, other visual materials. Taught in English. Same as ARTH:2250.

JPNS:3001 Third-Year Japanese I 4 s.h.
Modern Japanese; focus on speaking, listening, reading, writing; materials related to everyday life and civilization in Japan. Offered fall semesters. Prerequisites: JPNS:2002 with a minimum grade of C.

JPNS:3002 Third-Year Japanese II 4 s.h.
Continuation of JPNS:3001. Offered spring semesters. Prerequisites: JPNS:3001 with a minimum grade of C.

JPNS:3107 Classical Japanese: First Semester 3 s.h.
Introduction to vocabulary, grammar, and calligraphic scripts of classical Japanese through readings of primary literary and historic sources; instruction in English, readings in classical and modern Japanese. Prerequisites: JPNS:3002.

JPNS:3128 Introduction to Japanese Linguistics 3 s.h.
Basic structural features of the Japanese language; topics include typological and historical background, writing system, phonetics, phonology, syntax, semantics, pragmatics, and language variation; recommended for students who wish to have a deeper understanding of the Japanese language as well as non-Indo-European languages. Taught in English. Prerequisites: JPNS:1002.

JPNS:3201 Workshop in Japanese Literary Translation 3 s.h.
Workshop in translation from Japanese to English, with emphasis on literary translation; issues in theory and practice of translation; special features of Japanese as a source language for translation. Taught in Japanese. Corequisites: JPNS:3001, if not taken as a prerequisite. Same as TRNS:3201.

JPNS:3202 Traditional Japanese Literature in Translation 3 s.h.
Japanese literature and culture from 7th to 19th centuries including tales, folklore, poetry, drama, and visual culture; topics vary and may address traditional literature through manga/anime, gaming and play, foodways, supernatural and the uncanny, animals and humans, nature and disaster, travel and landscape, gender and sexuality, and women's writing. Taught in English.

JPNS:3203 Modern Japanese Fiction in Translation 3 s.h.
Introduction to modern Japanese literature from 1868 to present; focus on representative short stories, novels, and manga; the twin advent of modern Japanese language and the modern novel; rise of autobiographical "I-novel"; Japanese *bundan* (literary establishment), high modernity, and *ero guro nansensu* (erotic grotesque nonsense); stories of the war and its endless postwar; the neo-traditional and the avant-garde; literature of economic collapse and internationalization. Taught in English.

JPNS:3204 Topics in Japanese Literature in Translation 1-3 s.h.
Topics vary. Taught in English.

JPNS:3205 Major Authors in Modern Japanese Literature 3 s.h.
Modern Japanese literary works in English translation; topics vary. Taught in English.

JPNS:3206 Warriors' Dreams 3 s.h.
Images of the warrior in traditional Japanese literature from ancient legendary heroes, medieval warrior monks, and ninja to the unifying generals, masterless samurai, and women revolutionaries of early modern Japan; students discover what is truth and what is fiction when encountering the warrior in popular culture today. Taught in English.

JPNS:3207 Japan Illuminated: Japanese Literature and Visual Culture 3 s.h.
How text and image have been used together to tell stories across 1,000 years of Japanese culture; students read and view illustrated handscrolls, calligraphy, maps, mandalas, early board games, woodblock prints, modern print media, manga and anime; emphasis on visual analysis and material culture. Taught in English.

JPNS:3208 Japanese Film 3 s.h.
History of Japanese cinema with particular attention paid to Japanese conventions and innovations that differ from classical Hollywood or European paradigms (*benshi* silent-film narrators, *jidaigeki* period films, wartime propaganda, postwar melodrama, avant-garde Japanese New Wave, rise of Japanese documentary, anime); screenings may include works by world famous directors (Mizoguchi, Ozu, Kurosawa) and recent masters (Nishikawa Miwa, Koreeda Hirokazu, Mitani Koki). Taught in English.

JPNS:3210 Japanese Theater 3 s.h.
Major forms of Japanese theater and performance including No and kyogen, the bunraku puppet theater, kabuki, shingeki "Western" theater, benshi film narration, butoh modern dance, counterculture and street theater of the 1960s, Japanese musicals; focus on textual analysis and performance practices; weekly screenings of theatrical performances and student-led staged readings of contemporary performances. Taught in English.

JPNS:3401 Language in Japanese Society 3 s.h.
Aspects of the Japanese language that reflect culture, social structures of Japan; communication styles and strategies, cross-cultural communication, language in media, metaphors. Prerequisites: JPNS:1002.

JPNS:3402 Japan: Culture and Communication 3 s.h.
How Japanese-speaking people communicate; what factors determine the way they speak; how they communicate nonverbally; how people convey messages and emotions in various social settings. Taught in English. Prerequisites: JPNS:1002.

JPNS:3500 Japanese for Professional Purposes 3 s.h.
Introduction to essential linguistic skills and practical knowledge needed to effectively communicate in Japanese in various professional contexts and in socially appropriate manners; recommended for anyone interested in working in Japan or using Japanese at work. Prerequisites: JPNS:2002 with a minimum grade of B-. Corequisites: JPNS:3001.

JPNS:3601 Contemporary Japanese Culture 3 s.h.
Japanese media and culture including manga (comics), anime (animation), films, video games, television drama, fashion, music, sports, food, and contemporary art in the 20th and 21st centuries; students explore aspects of Japanese society relating to youth and otaku cultures, technology and humanity, gender and sexuality, power and violence, obscenity and censorship, beauty and fashion, and global consumption of and participation in Japanese pop culture. Taught in English.

JPNS:3700 Topics in Global Cinema 3 s.h.
Identification of new models and methods to investigate cinema's relationship to current global issues beyond traditional scholarly focus in Western Europe and the United States; exploration of an emerging field, moving away from the paradigm of national cinema and bringing together shared theoretical frameworks while acknowledging different historical and cultural contexts. Taught in English. Same as ASIA:3700, TRNS:3700, WLLC:3700.

JPNS:4001 Fourth-Year Japanese I 3 s.h.
Modern Japanese; focus on reading, writing, speaking, listening. Offered fall semesters. Prerequisites: JPNS:3002 with a minimum grade of C.

JPNS:4002 Fourth-Year Japanese II 3 s.h.
Continuation of JPNS:4001. Offered spring semesters. Prerequisites: JPNS:4001 with a minimum grade of C.

JPNS:4201 Genji Lab 3 s.h.
Hands-on examination of traditional Japanese culture through Murasaki Shikibu's classic, *Tale of Genji*; students discover art, literature, and material culture described in the *Tale of Genji* through lab-based experimentation with brush and ink, pigments, papermaking and decoration, incense blending, textile matching, music, etc. Taught in English.

JPNS:5301 Japanese Linguistics 3 s.h.
Japanese language as linguistic system; basic linguistic terminology; sound systems, grammar, meanings, usages.

JPNS:5902 Individual Japanese for Advanced Students arr.

JPNS:7101 Readings in Modern Japanese 3 s.h.
Readings in modern Japanese.

Korean Courses

KORE:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first-semester standing.

KORE:1101 First-Year Korean: First Semester 4 s.h.
Modern Korean; speaking, listening, reading, writing. Offered fall semesters. GE: World Languages First Level Proficiency.

KORE:1102 First-Year Korean: Second Semester 4 s.h.
Continuation of KORE:1101. Offered spring semesters. Prerequisites: KORE:1101. GE: World Languages Second Level Proficiency.

KORE:1135 Cultural Fusion: Korean Pop Culture in a Globalized World 3 s.h.
Explores the general characteristics of Korean culture, language differences between North and South Korea, gender and generational disparities, and the use of English and other languages in Korea. Part of the BTAA Korean e-school program; taught in English.

KORE:1670 Korea in the World 3 s.h.
Comprehensive and critical understanding of Korea's place in the world; emphasis on historical and sociocultural roots of various aspects of life on the contemporary Korean peninsula (both North and South Korea); comprehensive list of topics including cultural production (K-pop and film), religions, economy, gender relations, cuisine, politics, and prospects for reunification. Taught in English. Same as ASIA:1670, RELS:1670.

KORE:2101 Second-Year Korean: First Semester 4 s.h.
Continuation of KORE:1102; conversation and readings in intermediate Korean language; Korean culture. Prerequisites: KORE:1102. GE: World Languages Third Level Proficiency.

KORE:2102 Second-Year Korean: Second Semester 4 s.h.
Continuation of KORE:2101. Prerequisites: KORE:2101. GE: World Languages Fourth Level Proficiency.

KORE:3070 Topics in Korean Studies 3 s.h.
Varied topics in Korean studies.

KORE:3100 Introduction to Korean Linguistics 3 s.h.
Introduction to various topics in Korean linguistics including sentence structures, sound patterns, word formation, discourse structures, and historical background of Korean language. Taught in English. Recommendations: two years of Korean language study. Same as LING:3101.

KORE:3101 Third-Year Korean: First Semester 3 s.h.
Continuation of KORE:2102; advanced intermediate Korean—conversation and grammar skills beyond basic intermediate level; vocabulary expansion with increasingly complex, abstract concepts; how to advance one's opinion and discuss thoughts, ideas. Requirements: KORE:2102 with a minimum grade of C-.

KORE:3102 Third-Year Korean: Second Semester 3 s.h.
Continuation of KORE:3101; conversation and grammar skills beyond basic intermediate level; writing skills for formal occasions; advanced discussion skills—how to advance one's opinion and share thoughts and ideas; traditional and modern Korean culture. Requirements: KORE:3101 with a minimum grade of C-.

KORE:3200 Introduction to Korean-English Translation 3 s.h.
Opportunity to develop skills and methods in translating texts from Korean into English; students practice reading and translating various types of Korean texts (e.g., novels, cartoons, movie/drama subtitles, newspaper articles) based on the foundation learned in Korean language courses; students analyze translated works before translation and discussion of how to approach translating various genres depending on targeted audiences, purposes, and circumstances. Taught in English and Korean. Prerequisites: KORE:1102 with a minimum grade of C.

KORE:4000 Fourth Year Korean: First Semester 3 s.h.
Continuation of KORE:3102; development of intermediate high to advanced-level Korean; enlarging vocabulary, exploring Korean sentence structures, reading various types of texts, listening to authentic Korean materials; Korean society and culture; content-based learning methodology. Requirements: KORE:3102 with a minimum grade of C-.

KORE:4001 Fourth Year Korean: Second Semester 3 s.h.
Continuation of KORE:4000; development of intermediate high- to advanced-level Korean speaking ability; enlarging vocabulary, exploring Korean sentence structures, reading various types of texts, and listening to authentic Korean materials; Korean society and culture; materials provided to prepare for Korean standardized tests; content-based learning methodology. Requirements: KORE:4000 with a minimum grade of C-.

KORE:5102 Individual Korean for Advanced Students arr.
Korea's modern/traditional culture, history, and current social issues; reading, translating authentic articles. Prerequisites: KORE:3102.

Linguistics

LING:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

LING:1003 English Grammar 3 s.h.
Recognizing nouns, verbs, adverbs, adjectives, and other parts of speech; sentence analysis; subjects, objects; types of sentences; passives, relative clauses; for students with little or no background in English grammar study. Does not count toward the linguistics major. Same as WRIT:1003.

LING:1010 Language and Society 3 s.h.
Correlations between social and linguistic behavior; methods for discovering and describing socially significant language behavior; educational and political implications of findings. GE: Social Sciences.

LING:1040 Language Rights 3 s.h.
Language minorities and linguistic human rights in the United States and worldwide; language and identity, culture, power; case studies of language rights deprivation. GE: International and Global Issues. Same as ANTH:1040.

LING:1050 Language and Formal Reasoning 3 s.h.
Semantics and sentence structure of English; word meanings, meaning connected to truth conditions, reasoning based on logical connectives and quantifiers, evaluation of valid and invalid arguments. GE: Quantitative or Formal Reasoning.

LING:1060 Languages of the World 3 s.h.
Overview of structural similarities and differences in human language; survey of the world's major language families; emphasis on sentence and word structure, sound systems, and modes of classification. GE: Social Sciences.

LING:1070 Language Attitudes: Is How You Sound How You Are Seen? 3 s.h.
Pretend that you are making a phone call to ask about ordering a textbook and the person who answers is a stranger to you; you will immediately start to form opinions about that person (and about any other talkers you interact with) based upon the way they speak—where they are from, whether they are a native speaker of English, and even how well educated they are—and whether you are aware or not, these opinions and impressions you have will influence your interaction with that person and are based in language ideologies that all people have regarding how others sound; students explore common language ideologies and reflect upon their own. Taught in English. GE: Understanding Cultural Perspectives. Same as SPAN:1070.

LING:1075 World Englishes 3 s.h.
Explore the diversity of Englishes within the United States and around the world; consider language contact, language change, language mixing, dialects, accents, and various Englishes with a focus on the geographic, cultural, and political forces that have driven this linguistic diversity; develop an understanding of linguistic concepts and principles that apply to all human language. GE: World Language and Cultural Exploration.

LING:1080 Communicating Across Linguistic Differences 3 s.h.
Encourages students to view successful communication as a shared responsibility. Students from a variety of backgrounds explore their attitudes toward linguistic differences, build awareness of phonology and language acquisition, gain familiarity with diverse Englishes, and practice intercultural communication strategies. Taught in English. GE: World Language and Cultural Exploration.

LING:1090 Language and Globalization 3 s.h.
The effects of globalization on language use and structure; the future of linguistic diversity; applying concepts of sustainability to language endangerment and language revival. GE: International and Global Issues.

LING:2010 Research Practicum arr.
Individual participation in faculty research projects.

LING:2090 Special Project arr.

LING:2248 The Invention of Writing: From Cuneiform to Computers 3 s.h.
Invention of writing as one of the most momentous events in the history of human civilizations; how the use of written sign systems, notations, maps, graphs, encryptions, and most recently, computer programs have consequences that reach deeply into all aspects of people's lives; how writing fascinates and delights, fosters reflexive thinking and facilitates development of complex societies, and gives rise to institutions of social power and control; students explore the invention of writing and its consequences in broad international and interdisciplinary context. Taught in English. Same as ANTH:2248, ASIA:2248, CLSA:2048, COMM:2248, GRMN:2248, HIST:2148, IS:2248, TRNS:2248, WLLC:2248.

LING:2900 Language and Gender 3 s.h.
Gender-related language variation; current research on gender-specific linguistic forms and usage in the United States and other language communities; introduction to relevant principles of linguistic theory and analysis. GE: Values and Society.

LING:3001 Introduction to Linguistics 3 s.h.
Introduction to the study of human language: sounds and their contrasts and variation, words and meaningful subunits, sentence structure, historical change.

LING:3005 Articulatory and Acoustic Phonetics 3 s.h.
Production and transcription of sounds in human languages; physics of sound, computer analysis of speech sounds. Offered fall semesters. Same as SLA:3400.

LING:3010 Syntactic Analysis 3 s.h.
Introduction to sentence structures and basic abstract relations that characterize them, including word category, word order, hierarchical organization; problem sets from English and other languages as basis for discussion, analysis. Offered spring semesters. Prerequisites: LING:3001.

LING:3020 Phonological Analysis 3 s.h.
Introduction to analysis of sound systems; generative phonological theory; practice in phonological analysis using data from a variety of languages. Offered spring semesters. Prerequisites: LING:3001 and LING:3005.

LING:3030 Child Language-Linguistic Perspectives 3 s.h.
Linguistic theory as applied to first-language learning, including acquisition of sounds, syntax and word meaning, acquisition strategies, properties of input, theories of first-language acquisition. Prerequisites: LING:3001.

LING:3040 Topics in Linguistics 3 s.h.
Varied topics in linguistics; for undergraduates. Requirements: LING:3001 or LING:3020 or LING:3080 or LING:5020.

LING:3080 History of the English Language 3 s.h.
Development of phonological and grammatical structure of English, from Old to Modern English; selected issues in the history of England. Same as WRIT:3080.

LING:3101 Introduction to Korean Linguistics 3 s.h.
Introduction to various topics in Korean linguistics including sentence structures, sound patterns, word formation, discourse structures, and historical background of Korean language. Taught in English. Recommendations: two years of Korean language study. Same as KORE:3100.

LING:3105 Linguistic Aspects of the Lusophone World 3-4 s.h.
Introduction to Portuguese incorporating formal (theoretical), historical, and sociolinguistic perspectives; linguistic analysis of phonetics/phonology, morphology, and syntax; origins of Portuguese and its expansion to Africa, Asia, and Latin America. Taught in English. Same as PORT:3105, SPAN:3105.

LING:3116 Basic Neuroscience for Speech and Hearing 3 s.h.
Basic anatomy, physiology of central nervous system; emphasis on neural systems involved in normal and disordered communication. Offered fall semesters. Requirements: biology, zoology, or physiology course. Same as CSD:3116.

LING:3117 Psychology of Language 3 s.h.
Introduction to scientific study of language use; language approached from a multidisciplinary perspective, integrating theories and methods of psycholinguistics, neuropsychology, and communication sciences and disorders. GE: Social Sciences. Same as CSD:3117.

LING:3118 Language Acquisition 1-3 s.h.
Models of children's language acquisition; child language/communication development from infancy through school age, in context of current developmental research. Requirements: for CSD:3118—LING:3001 and PSY:1001; for LING:3118—LING:3001 or LING:3117. GE: Social Sciences. Same as CSD:3118.

LING:3190 Psycholinguistic Aspects of Bilingualism 3-4 s.h.
Interaction of two languages in a bilingual in terms of sound system, words, and grammar; different meanings of bilingualism, how bilingualism and multilingualism can change across lifespan. Taught in English. Requirements: linguistics or language acquisition course. Same as PSY:3190.

LING:3195 Linguistics Lab I 1-3 s.h.
Hands-on research experience collecting and analyzing linguistic data. Requirements: at least one linguistics course.

LING:3290 Statistical and Experimental Methods in Linguistics 3 s.h.
Introduction to basic experimental design; critical analysis of scientific claims; overview of common methods in experimental linguistics; introduction to statistics with emphasis on common data types in linguistics. Prerequisites: (LING:3010 or LING:5010) and (LING:3020 or LING:5020). Requirements: advanced standing in linguistics program and completion of core courses in syntax and phonetics/phonology at undergraduate or graduate level.

LING:3302 Introduction to Chinese Linguistics 3 s.h.
Aspects of modern Chinese linguistics, such as Chinese phonology, syntax, pedagogical grammar, history of the language. Taught in English. Same as CHIN:3302, SLA:3302.

LING:3410 Exploring TESL for Fulbright Students 1 s.h.
Introduction to second language acquisition, structure of English, and methods of teaching English to speakers of other languages; opportunities to observe theory in action; students read and discuss articles, observe a variety of teachers and skills, and reflect on their experiences and how they can prepare for future teaching assignments during the Fulbright experience. Taught in English. Requirements: application to Fulbright program. Recommendations: prior or concurrent enrollment in LING:3001.

LING:3670 Language Processes 3 s.h.
Psychological processes involved in using languages, including speech perception and production, the meaning of words, understanding and producing sentences, and basics of discourse and pragmatics; developmental and neural bases of language processes. Prerequisites: (PSY:2811 with a minimum grade of C- and PSY:2601 with a minimum grade of C-) or CSD:1015 or LING:3001. Same as PSY:3670.

LING:3860 German Language and Society 3 s.h.
Introduction to sociolinguistics in context of German-speaking countries; major topics include German dialects, regional and social variation in contemporary German, minority and immigrant languages in German-speaking countries, language and national identity, multilingualism, educational policies related to language teaching and learning, linguistic purism, language use in digital contexts, and language change. Taught in German. Requirements: GRMN:2002 or equivalent transfer coursework or a placement test score at the GRMN:2002 level or higher. Same as GRMN:3860.

LING:4010 Undergraduate Practicum in Teaching English as a Second Language 3 s.h.
Practicum experience for undergraduate linguistics majors with an emphasis in teaching English as a second language (TESL); readings and reflection on academic writing, international student writing, and providing feedback on written work; training in the policies and procedures of the Department of Rhetoric's Writing Center; mentored experience in working with international student writers. Prerequisites: LING:3005 and LING:4040. Corequisites: LING:4050. Requirements: undergraduate major in linguistics with TESL emphasis, and minimum cumulative UI GPA of 3.33.

LING:4020 Morphology 3 s.h.
Lexicon and principles of word formation; principal processes of inflection, derivation, and compounding found in the world's languages; relation to phonology, syntax; practice in morphological analysis from a variety of languages. Prerequisites: LING:3001.

LING:4040 The Structure of English 3 s.h.
Descriptive analysis of English, including word and sentence structure; focus on relevance to teaching English as a second language. Offered fall semesters. Prerequisites: LING:3001.

LING:4050 Methods of Teaching English as a Second Language 3 s.h.
Observations of ESL classes at the University of Iowa; design and presentation of short lessons, text evaluation, demonstrations of innovative approaches of the last decade; materials. Offered spring semesters. Prerequisites: LING:3005 and LING:4040.

LING:4070 Introduction to the Study of Meaning 3 s.h.
Introduction to the study of meanings and language use in context; meaning outside the literal semantic interpretation of words used including presuppositions and goals of speaker, expectation of listener, speech acts, conversational implicatures, deixis, discourse functions, and other relevant topics. Taught in English. Prerequisites: LING:3001. Same as FREN:4070.

LING:4090 Practical Phonetics 3 s.h.
Contemporary articulatory and acoustic research, including second-language acquisition, elicitation and computer analysis of primary linguistic data. Prerequisites: LING:3005.

LING:4195 Linguistics Lab II 1-3 s.h.
Hands-on research experience collecting and analyzing linguistic data. Requirements: at least one linguistics course.

LING:4291 Statistical and Experimental Methods in Linguistics I 3 s.h.
Introduction to basic experimental design; critical analysis of scientific claims; overview of common methods in experimental linguistics; research preparation and follow-up. Prerequisites: LING:3010 or LING:3020. Requirements: advanced standing in undergraduate linguistics program or graduate standing in linguistics. Same as CSD:4291.

LING:4292 Statistical and Experimental Methods in Linguistics II 3 s.h.
Introduction to statistics with emphasis on common data types in linguistics; coding in R. Prerequisites: LING:4291. Same as CSD:4292.

LING:4589 Philosophy of Language 3 s.h.
Main issues in contemporary philosophy of language; topics may include theories of meaning, truth, belief, interpretation, translation, speech acts, performatives, rule following, reference, naming, propositional attitudes, metaphor. Same as PHIL:4589.

LING:4900 Honors: Research and Thesis arr.
Guided independent research to earn departmental honors. Prerequisites: LING:3001 and LING:3005. Corequisites: LING:3010 and LING:3020. Requirements: permission from departmental honors advisor.

LING:5000 Proseminar: Morphosyntax 1 s.h.
Basic morphological analysis of languages other than English; morphological markers of syntactic relations (morphosyntax), such as case/agreement, possession, switch reference and other inflectional marking. Corequisites: LING:5010.

LING:5010 Introduction to Syntax 3 s.h.
Methods and argumentation for formal analysis of sentence structure through induction from language data of central concepts and relations; hypothesis testing, empirical bases of theoretical concepts. Corequisites: LING:5000. Same as SLA:5010.

LING:5020 Introduction to Phonology 3 s.h.
Analysis of sound systems, focus on early generative phonological theory; extensive practice in analysis using data from a variety of languages; linguistic argumentation. Prerequisites: LING:3005.

LING:5030 First Language Acquisition 3 s.h.
Child language from a crosslinguistic perspective. Prerequisites: LING:3005 and (LING:4040 or LING:5010).

LING:5050 Principles of Language Creation: Introduction to Constructed Languages 3 s.h.
Introduction to language construction (conlanging) with consideration to the task of building a language from a number of different perspectives—structure, evolution, development, typology, and social function; students apply these ideas, with their knowledge of existing languages and historical, social, and grammatical processes they display, to construct their own languages. Requirements: graduate standing or completion of linguistics upper-level undergraduate coursework.

LING:5070 Practicum in Teaching English as a Second Language 2-3 s.h.
Introduction to assessment design and practice for English as a second language (ESL) classrooms; practical experience in teaching English as a second language through observation and participation in ESL classes; design and teaching of ESL classes under supervision. Prerequisites: LING:4050.

LING:5090 Special Projects arr.
Theoretical and applied topics.

LING:6010 Syntactic Theory 3 s.h.
Current syntactic theory examined through analysis of data sets, readings in recent research; emphasis on argument construction, statement of formal principles. Offered spring semesters. Prerequisites: LING:5010.

LING:6020 Phonological Theory 3 s.h.
Post-SPE phonological theory, including autosegmental phonology, feature geometry, the syllable, optimality theory. Prerequisites: LING:5020. Same as SLA:6011.

LING:6040 Linguistic Structures 3 s.h.
Grammatical and/or phonological structure of a selected language or language family. Prerequisites: LING:5010 and LING:5020.

LING:6050 Language Universals Linguistic Typology 3 s.h.
Proposed universal principles of linguistic structure; approaches to typological classification of languages; patterns in syntactic and morphological structure and constraints on cross-linguistic variation. Prerequisites: LING:6010.

LING:6080 Topics in Second Language Acquisition 3 s.h.
Overview of current second-language acquisition research in the generative linguistic framework; focus on characterizing second language learners' linguistic competence and how it is constrained by principles of universal grammar. Offered fall semesters. Prerequisites: (LING:3010 or LING:5010) and (LING:3020 or LING:5020).

LING:6101 Cognitive Science of Language Proseminar I 3 s.h.
Survey of five major disciplines within language sciences: formal linguistic, communication disorders, psychological, neuroscience, and computational approaches. Requirements: graduate standing in communication sciences and disorders, linguistics, psychology, or neuroscience. Same as CSD:6101, PSY:6101.

LING:6102 Cognitive Science of Language Proseminar II 3 s.h.
Survey of five major disciplines within language sciences: formal linguistic, communication disorders, psychological, neuroscience, and computational approaches. Requirements: graduate standing in communication sciences and disorders, linguistics, psychology, or neuroscience. Same as CSD:6102, PSY:6102.

LING:6190 Topics in Comparative Romance Linguistics 3 s.h.
Comparative study of phonology, morphology, or syntax of the main Romance languages as informed by linguistic theory; diachronic or synchronic perspective. Taught in English. Recommendations: additional graduate coursework in linguistics. Same as SPAN:6190.

LING:6483 Multilingual Education and Applied Linguistics 3 s.h.
Introduction to research in language teaching and learning; theories and research in applied linguistics, sociolinguistics, anthropology, and psychology; fundamentals of second language acquisition, educational linguistics, applied linguistics, and methods used in teaching and learning second/foreign languages; consideration of applications and implications of research when reviewing multilingual education policy and practice.

LING:6486 Sociolinguistics in Education 3 s.h.
Investigate how social, cultural, and political forces influence language use in communities and classrooms. Topics include language contact, language ideology, dialectology and African American language, discourse analysis, communicative competence, language socialization, and language policy and planning. Specific cases from around the world are considered including interrogation of how minoritized languages and their speakers are marginalized in schools and communities. Same as EDTL:6486.

LING:6900 Master's Thesis arr.

LING:7000 Seminar: Spanish Linguistics 3 s.h.
Taught in Spanish. Same as SPAN:7000.

LING:7010 Advanced Syntactic Theory 2-3 s.h.
Recent developments in syntax; comparison of theories, argumentation, and uses of data. Prerequisites: LING:6010.

LING:7040 Topics in Linguistic Theory 2-3 s.h.
Varied topics in linguistic theory; for graduate students.

LING:7090 Seminar: Problems in Linguistics 2-3 s.h.
Intensive study of theoretical and practical problems.

LING:7100 Special Projects arr.

LING:7900 PhD Thesis arr.

R-W Courses

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Russian Courses

RUSS:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Taught in English. Requirements: first- or second-semester standing.

RUSS:1082 Youth Subcultures After Socialism 3 s.h.
Examination of youth subculture (i.e., distinct style and identity, beliefs, value system, fashion and favorite music) on the territory of post-communist Europe and its relations with the mainstream culture; how young people of Russia express their individuality after years of dullness and monotony. GE: Values and Society.

RUSS:1111 First-Year Russian I 5 s.h.
Basic language skills of listening, speaking, reading, and writing Russian; fundamentals of Russian grammar. GE: World Languages First Level Proficiency.

RUSS:1112 First-Year Russian II 5 s.h.
Continuation of RUSS:1111. Requirements: RUSS:1111. GE: World Languages Second Level Proficiency.

RUSS:1131 Introduction to Russian Culture 3 s.h.
Development of cultural history in Russia during the Romanov period (1613-1917); painting, music, architecture, and literature viewed against their political, historical, and social settings. Taught in English. GE: Values and Society. Same as WLLC:1131.

RUSS:1132 Russia Today 3 s.h.
Contemporary Russia, with focus on prevailing social, political, economic, ethnic, environmental conditions; attention to historical evolution of problems, current factors; what these factors might portend for the future. Taught in English. GE: International and Global Issues.

RUSS:1200 Growing Up Russian: A Cultural History of Russian Childhood 3 s.h.
Introduction to Russian language and culture through the lens of children's literature, film, music, and games. Examines how childhood culture shapes the Russian mindset and national identity, considering parallels and contrasts between Russian and American (or other native) childhood experiences. Study the creators of cultural works and explore the historical and political contexts that influenced their production. Taught in English.

RUSS:1531 Slavic Folklore 3 s.h.
Introduction to culture, history, and art of eastern European peoples; pagan, dualistic, and animistic beliefs and their coexistence with Christian faith in eastern Europe. GE: Historical Perspectives; Values and Society.

RUSS:1532 Traces of Ancient Russian Culture (IX-XVII Centuries): Vikings, Mongols, and Tsars 3 s.h.
Early and medieval Slavic history, with focus on Russian art, literature, and religion from 10th through 17th century. Taught in English. GE: Historical Perspectives; Values and Society.

RUSS:2001 Global Science Fiction 3 s.h.
Science fiction from around the world; spanning poetry, fiction, drama, film, television, comics, mobile phone games, and music; produced on six continents. Taught in English. GE: Understanding Cultural Perspectives. Same as ASIA:2001, FREN:2010, TRNS:2001, WLLC:2001.

RUSS:2050 Women From an Unknown Land: The Fight for Independence 3 s.h.
Exploration of past and current issues related to the Caucasus—a mountainous region located where Europe, the Middle East, and Asia meet—forming a geographical and cultural crossroad; topics include those related to women's rights, causes of poverty and ethnic conflicts, and foreign policy including terrorism in the region, the fight for freedom, and the struggle over natural resources. Taught in English. GE: International and Global Issues. Same as WLLC:2050.

RUSS:2100 Russian Mindset: Sex, Business, and Politics 3 s.h.
Deeper insight of Russian mentality through philosophical, historical, cultural, and practical developments that have shaped Russian behavior and thought. GE: Values and Society.

RUSS:2110 Russian Sports: Politics, Scandal, Glory 3 s.h.
Overview of Russian sports from its beginnings in Slavic tribes through the importance of sports as a political tool during Soviet time to the scandals and glory of modern days; focus on the strong cultural background and rigorous traditions that form the powerhouse known as Russian sports; includes Russian sport celebrities of past and present. Taught in English. GE: Historical Perspectives.

RUSS:2111 Second-Year Russian I 4 s.h.
Transition to upper-level study through oral practice, grammar exercises, tapes, videos, readings from the Russian press. Requirements: RUSS:1112. GE: World Languages Third Level Proficiency.

RUSS:2112 Second-Year Russian II 4 s.h.
Continuation of RUSS:2111. Requirements: RUSS:2111. GE: World Languages Fourth Level Proficiency.

RUSS:3111 Third-Year Russian I 4 s.h.
Advanced Russian grammar, reading, conversation, and written skills through oral reports, compositions, conversation. Requirements: RUSS:2112.

RUSS:3112 Third-Year Russian II 4 s.h.
Advanced Russian grammar, reading, conversation, and written skills through oral reports, compositions, conversation. Requirements: RUSS:3111.

RUSS:3113 Russian Composition and Conversation 4 s.h.
Russian oral and aural skills developed through idiomatic usage, stylistics, phonetics, intonation, grammar review; supplemented by short stories, newspaper texts. Taught in Russian. Requirements: RUSS:1112.

RUSS:3122 Tolstoy and Dostoevsky 3-4 s.h.
Tolstoy's War and Peace and Anna Karenina; Dostoevsky's Crime and Punishment, Brothers Karamazov, and short works. Taught in English. Same as TRNS:3122, WLLC:3122.

RUSS:3202 Russian Literature in Translation 1860-1917 3 s.h.
Survey of major works, figures, and trends of 19th- and early 20th-century Russian literature; age of the Russian novel; works of Turgenev (*Fathers and Sons*), Tolstoy (*Confession*), Dostoevsky (*The Idiot*, *The Brothers Karamazov*), and Chekhov (plays). Taught in English. Same as HIST:3492, TRNS:3203, WLLC:3202.

RUSS:3205 Contemporary Russian Prose in Translation 3 s.h.
Examines Russian literature in the post-Soviet era. Engage in close readings of contemporary texts, exploring their cultural, historical, and political contexts. Taught in English.

RUSS:3224 Russian Culture Through Cinema 3 s.h.
Introduction to Russian by exploring classic and contemporary Russian films to help develop a deeper understanding of Russian language and culture, while also building intercultural competencies and engaging with different perspectives. Taught in English.

RUSS:3494 The Russian Revolutions and Their Legacies 3 s.h.
The Russian Revolutions of 1905 and 1917 unquestionably changed the fabric of Russian political and social life, transforming Russia from an autocratic imperial power to the first self-proclaimed socialist federation in Europe; students explore sources, nature, and consequences of the revolutions by intensively analyzing politics, society, and culture in late imperial and Bolshevik Russia; students review events and revolutionary movements of late 19th century, changes in political practices extending from late tsarist period, and development of Leninist and Stalinist ideology after the revolutions. Same as HIST:3494.

RUSS:3990 Special Readings arr.
Russian-language materials determined by student and instructor. Requirements: 16 s.h. of Russian language instruction.

RUSS:4111 Fourth-Year Russian I 4 s.h.
Perfecting spoken Russian and aural comprehension of native speech. Taught in Russian. Requirements: RUSS:3112 or three years of college-level Russian.

RUSS:4112 Fourth-Year Russian II 4 s.h.
Perfecting spoken Russian and aural comprehension of native speech. Taught in Russian. Requirements: RUSS:4111 or three years of college-level Russian.

RUSS:4990 Independent Research arr.
Directed study.

RUSS:4995 Honors arr.
Honors project with a faculty member.

Second Language Acquisition Courses

SLA:3302 Introduction to Chinese Linguistics 3 s.h.
Aspects of modern Chinese linguistics, such as Chinese phonology, syntax, pedagogical grammar, history of the language. Taught in English. Same as CHIN:3302, LING:3302.

SLA:3400 Articulatory and Acoustic Phonetics 3 s.h.
Production and transcription of sounds in human languages; physics of sound, computer analysis of speech sounds. Offered fall semesters. Same as LING:3005.

SLA:4300 Introduction to Spanish Syntax 3 s.h.
Basic principles of generative syntax as applied to analysis of Spanish syntactic structure; extensive syntactic analysis. Taught in Spanish. Prerequisites: SPAN:3100. Same as SPAN:4150.

SLA:5000 Teaching and Learning Languages 3 s.h.
Readings in pedagogical theory and practice, second language acquisition; experience designing activities for teaching and assessment with critiques based on current theories and approaches; development of reflective practices toward one's language teaching. Taught in English. Same as FREN:5000, GRMN:5001, SPAN:5000, WLLC:5000.

SLA:5010 Introduction to Syntax 3 s.h.
Methods and argumentation for formal analysis of sentence structure through induction from language data of central concepts and relations; hypothesis testing, empirical bases of theoretical concepts. Corequisites: LING:5000. Same as LING:5010.

SLA:6011 Phonological Theory 3 s.h.
Post-SPE phonological theory, including autosegmental phonology, feature geometry, the syllable, optimality theory. Prerequisites: LING:5020. Same as LING:6020.

SLA:6506 Multilingual Education and Applied Linguistics 3 s.h.
Introduction to research in language teaching and learning, drawing on theories and research in applied linguistics, sociolinguistics, anthropology, and psychology; students gain understanding of fundamentals in second language acquisition, educational linguistics, applied linguistics, and methods used in teaching and learning second/foreign languages; applications and implications of research considered when reviewing multilingual education policy and practice. Same as ASIA:6483, EDTL:6483.

South Asian Studies Courses

SOAS:1502 Asian Humanities: India 3 s.h.
Introduction to 4,000 years of South Asian civilization through popular stories. Taught in English. GE: Values and Society. Same as ASIA:1502, RELS:1502.

SOAS:4103 Individual Hindi arr.
Readings in medieval and modern Hindi.

SOAS:4802 South Asian Research Seminar arr.
Faculty and student research.

Swahili Courses

SWAH:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Taught in English. Requirements: first- or second-semester standing.

SWAH:1001 Elementary Swahili I 4 s.h.
Development of basic Swahili conversations; introduction to Kiswahili culture, grammar, and vocabulary necessary for communication; asking and responding to simple and short questions. GE: World Languages First Level Proficiency.

SWAH:1002 Elementary Swahili II 4 s.h.
Builds on fundamentals of Kiswahili learned in SWAH:1002; students increase their proficiency in the language; introduction to Swahili language and culture through reading and listening to Swahili authentic materials. Requirements: SWAH:1001. GE: World Languages Second Level Proficiency.

SWAH:1010 Introduction to Swahili Language and Culture 2 s.h.
Introduction to Swahili language, history, and culture for anyone who would like to learn more about East Africa, Swahili language, and culture; multidisciplinary sources include texts, newspapers, booklets, films, music videos, pictures, handouts, websites, and a taste of Swahili cuisine; provides a bird's eye view of East African culture; previous knowledge of Swahili not required.

SWAH:2001 Intermediate Swahili I 4 s.h.
Development of language skills and intercultural understanding; use simple conversation for everyday life topics, language use for daily basis needs using familiar topics, maintain conversation on simple and relevant topics, and exchange information about subjects of interest; students compare discussions and conversations to their own experiences, read literary texts and biographies, and watch video clips, movies, and documentaries to compare and relate the culture to their own backgrounds. Requirements: SWAH:1002. GE: World Languages Third Level Proficiency.

SWAH:2002 Intermediate Swahili II 4 s.h.
Continuation of SWAH:2001; students increase competence in speaking the language and cultural understanding; general Swahili grammar and cultural studies; using the language to talk about job careers, lifestyles, basic rules/policies, complicated situations, purchasing and negotiating prices; development of communicative skills and intercultural understanding by reading a wide variety of texts and types. Requirements: SWAH:2001. GE: World Languages Fourth Level Proficiency.

SWAH:2100 Exploring East African Languages and Cultures 3 s.h.
Introduction to the rich and diverse languages and cultures of East Africa. GE: World Language and Cultural Exploration. GE: World Language and Cultural Exploration.

SWAH:3006 Conversational Swahili 3 s.h.
Extensive practice in production and comprehension of spoken Swahili; students read and interpret simple texts, and write sentences and/or paragraphs about various topics; use of online resources to develop topics of discussion; students improve their Swahili grammar and vocabulary skills through conversations and discussions. Requirements: SWAH:1001 or prior background with Swahili.

SWAH:3007 Advanced Swahili 3 s.h.
Advanced speaking, listening, reading, and writing skills. Requirements: grade of D+ or higher in SWAH:2002.

SWAH:4090 Swahili Independent Study 1-3 s.h.
Material not covered in regularly offered courses; independent study guided by an instructor.

Teaching Assistant Preparation in English Courses

The Teaching Assistant Preparation in English (TAPE) program is designed for prospective teaching assistants whose first language is not English and who need additional work on English communication skills. Entry to the program is determined by a test.

TAPE:5100 Pronunciation, Fluency Building, and Culture 0 s.h.
Attain greater fluency for teaching by making short presentations and participating in natural interactions about U.S. culture; intensive work on pronunciation to help future teaching assistants attain maximum intelligibility.

TAPE:5300 TA Preparation in English: Presentation Skills 0 s.h.
Intelligibility of speech and clarity of expression in presenting and responding; practice in videotaped lectures.

TAPE:5330 TA Preparation in English: Orientation 0 s.h.
Student expectations, typical teacher/student relationships, basic classroom management at the university.

Translation Courses

TRNS:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first-semester standing.

TRNS:1240 World Literature in Translation I 3 s.h.
Reading and analysis of major literary texts from writing's origins to 1700 in the Mediterranean, Asia, and Africa; interrelationship of literature and history. Taught in English. GE: Literary, Visual, and Performing Arts. Same as CLSA:1040.

TRNS:1241 World Literature: 1700 to Present 3 s.h.
Reading and analysis of major literary texts from 18th century to present in chronological sequence; emphasis on interrelationship of literature and history. Requirements: completion of GE CLAS Core Rhetoric. GE: Literary, Visual, and Performing Arts.

TRNS:2000 Translation and Global Society 3 s.h.
Contexts and functions of translation in the age of globalization; how translations are produced, received, and utilized in various contexts; effects of globalization on ethics, aesthetics, and politics of translation; how we understand cultures when they are received or transmitted through translation; effects of these exchanges on the English language. GE: Understanding Cultural Perspectives.

TRNS:2001 Global Science Fiction 3 s.h.
Science fiction from around the world; spanning poetry, fiction, drama, film, television, comics, mobile phone games, and music; produced on six continents. Taught in English. GE: Understanding Cultural Perspectives. Same as ASIA:2001, FREN:2010, RUSS:2001, WLLC:2001.

TRNS:2248 The Invention of Writing: From Cuneiform to Computers 3 s.h.
Invention of writing as one of the most momentous events in the history of human civilizations; how the use of written sign systems, notations, maps, graphs, encryptions, and most recently, computer programs have consequences that reach deeply into all aspects of people's lives; how writing fascinates and delights, fosters reflexive thinking and facilitates development of complex societies, and gives rise to institutions of social power and control; students explore the invention of writing and its consequences in broad international and interdisciplinary context. Taught in English. Same as ANTH:2248, ASIA:2248, CLSA:2048, COMM:2248, GRMN:2248, HIST:2148, IS:2248, LING:2248, WLLC:2248.

TRNS:2473 Cinderella 3 s.h.
Comparative analysis of Cinderella stories from around the world including Asia, Europe, Africa, South America; readings, discussion, workshops, and writing; consideration of visual and material presentation of Cinderella stories in physical books. Taught in English. Same as FREN:2473, WLLC:2473.

TRNS:2578 Translation in the Humanities: Modes and Approaches 3 s.h.
Introduction to translation in several humanistic modes including anthropology, linguistics, film, philosophy, poetry, fiction, comics, memoir, history, religion, the digital humanities, sign languages (including ASL), and the retranslation of classic works. Students learn to view translation approaches as tools for their own life-long linguistic and cultural exploration. No language background or prior exposure to translation required. GE: World Language and Cultural Exploration.

TRNS:3001 Reading for Translation: Text Analysis 3 s.h.
Required skills and vocabulary to identify and discuss elements of literary texts; formal and genre distinctions, historical and theoretical approaches to analyzing literature, and comparative methods.

TRNS:3122 Tolstoy and Dostoevsky 3-4 s.h.
Tolstoy's War and Peace and Anna Karenina; Dostoevsky's Crime and Punishment, Brothers Karamazov, and short works. Taught in English. Same as RUSS:3122, WLLC:3122.

TRNS:3179 Undergraduate Translation Workshop 3 s.h.
Translation exercises, discussion of translation works in progress; alternative strategies for translation projects. Same as CLSA:3979, ENGL:3850.

TRNS:3191 International Literature Today 1,3 s.h.
Same as ENGL:3595, IWP:3191, WLLC:3191.

TRNS:3201 Workshop in Japanese Literary Translation 3 s.h.
Workshop in translation from Japanese to English, with emphasis on literary translation; issues in theory and practice of translation; special features of Japanese as a source language for translation. Taught in Japanese. Corequisites: JPNS:3001, if not taken as a prerequisite. Same as JPNS:3201.

TRNS:3202 Workshop in Chinese Literary Translation 3 s.h.
Translation from Chinese to English with emphasis on literary translation; issues in theory and practice of translation; special features of Chinese as a source language for translation. Prerequisites: CHIN:3102. Same as CHIN:3201.

TRNS:3203 Russian Literature in Translation 1860-1917 3 s.h.
Survey of major works, figures, and trends of 19th- and early 20th-century Russian literature; age of the Russian novel; works of Turgenev (*Fathers and Sons*), Tolstoy (*Confession*), Dostoevsky (*The Idiot*, *The Brothers Karamazov*), and Chekhov (plays). Taught in English. Same as HIST:3492, RUSS:3202, WLLC:3202.

TRNS:3205 Literary Translation Workshop in Ancient Greek and Latin 3 s.h.
Translation from Greek/Latin to English with emphasis on literary translation; issues in theory and practice of translation in the discipline; special features of ancient languages as a source language for translation. Taught in English. Same as CLSG:3200, CLSL:3200.

TRNS:3208 Classical Chinese Literature Through Translation 3 s.h.
Reading of English translations of classical Chinese literature; discussion of special features of classical Chinese as a source language for translation; issues in translation practice and theory with focus on trends in translation of Classical Chinese literary works to English. Taught in English. Recommendations: completion of required ESL courses. Same as ASIA:3208, WLLC:3208.

TRNS:3232 French Literary Translation Workshop 3 s.h.
Workshop in literary translation from French to English; practical, ethical, and theoretical questions about translation; focus on specific complication of French-English language pair; mapping style, genre, and literary influences of French authors for purpose of translation. Taught in French. Requirements: prior or concurrent enrollment in FREN:3060. Same as FREN:3232.

TRNS:3491 Translation Internship 1-3 s.h.
Translation internship. Requirements: permission of the program coordinator of the undergraduate minor in translation for global literacy in consultation with the student's advisor.

TRNS:3498 Internship/Community Engagement arr.
Internship with the Translate Iowa Project. Taught in English. Requirements: TRNS:2000 or TRNS:3179 or TRNS:3202 or ENGL:3724 or JPNS:3201 or SPAN:3030 or SPAN:3050 or SPAN:4980. Same as ARAB:3498.

TRNS:3700 Topics in Global Cinema 3 s.h.
Identification of new models and methods to investigate cinema's relationship to current global issues beyond traditional scholarly focus in Western Europe and the United States; exploration of an emerging field, moving away from the paradigm of national cinema and bringing together shared theoretical frameworks while acknowledging different historical and cultural contexts. Taught in English. Same as ASIA:3700, JPNS:3700, WLLC:3700.

TRNS:4040 Topics in Translation 3-4 s.h.
Examination of special issues related to craft, context, and practice of translation.

TRNS:4050 Independent Study 1-3 s.h.
Focused study on topic of student's choosing under direction of faculty member. Requirements: permission of the student's academic advisor or the program coordinator of the undergraduate minor in translation for global literacy.

TRNS:4131 Critical Reading 3 s.h.
Analysis of different types of texts—theoretical, cultural, political, philosophical, literary, poetic—and exploration of varying ways to frame and read them. Same as WLLC:4131.

TRNS:4470 Translating Style 3 s.h.
How do translators carry style over from one language and cultural milieu to another? To what extent does style structure storytelling? Exploration of these questions through a variety of readings by modern and contemporary stylists who either write in English or translate into English; special attention to what stylistic devices are at work and what their implications are for narration, characterization, and world building.

TRNS:4480 Literature and Translation 3 s.h.
Translation in the broadest sense; originality, authority, authorship, accuracy, ownership, audience; issues problematizing differences between medium and message.

TRNS:4500 Undergraduate Capstone Project 1-3 s.h.
Culmination of undergraduate major in translation or minor in translation for global literacy; translation manuscript or scholarly/research thesis on topics relevant to scope of major or minor. Requirements: approval of the director of undergraduate studies for translation. Same as ITAL:4500.

TRNS:4660 Transcultural Texts and Translations 3 s.h.
Exploration of transcultural texts and films that have contributed to reshape the Italian cultural landscape; analysis and discussion of topics including migration and diaspora, belonging and exclusion, memory and nostalgia, prejudices and other obstacles to integration, use of language as a means of rejection and connection, struggles of new generations, hybrid identities, and imagined transformations that foster constructive interactions between cultures, histories, and languages; reflection and engagement in the practice of translation as a way of honing linguistic and cultural competency. Taught in Italian. Recommendations: at least one course taught in Italian at the 2000 level or above. Same as ITAL:4660.

TRNS:4800 Seminar in Comparative Literature 3 s.h.
Focus on comparative, interdisciplinary, theoretical, and/or inter-arts topic; topics vary; required for comparative literature major. Taught in English. Same as GRMN:4800, GWSS:4800, WLLC:4801.

TRNS:5210 International Translation Workshop 1,3 s.h.
International writers pair with University of Iowa translators to write new works of poetry and fiction in English; second-language fluency not required for international writers. Same as IWP:5205.

TRNS:5491 Translation Internship arr.

TRNS:5500 Advanced Translation Practice 1-3 s.h.
Substantial translation project guided by a faculty advisor; readings and assignments designed to help translator with particular tasks and challenges presented by the project; translation and critical/reflective writing. Prerequisites: TRNS:6459 and TRNS:7460. Requirements: advanced-level translator in literary translation MFA program.

TRNS:5999 Publishing, Prizes, and Prestige 3 s.h.
Introduction to contemporary world literature and its producers, circulation, and gatekeepers; students award the annual Translator's Choice Award for a literary translation published in the previous calendar year. Taught in English.

TRNS:6000 The Craft and Contexts of Translation 1,3 s.h.
Focus on craft and contexts of translation practice; provides students with information and experience regarding the profession and practice of translation; readings, reflective writing, and participation at guest events that focus on topics and practices relevant to the craft and professional contexts of translation.

TRNS:6050 Independent Study arr.

TRNS:6399 Writing About Translation 3 s.h.
Hands-on, skills-building seminar on the forms of commentary about translation, such as review essays, interviews, video/audio podcasts, craft critique, prefaces, and critical studies; readings will include exemplary texts and method studies. Corequisites: TRNS:6000.

TRNS:6400 Thesis arr.
Translation thesis with critical introduction.

TRNS:6444 Thesis Workshop 3 s.h.
Intensive multi-language workshop; focus on MFA thesis manuscript and critical paratext; translations from various languages into English. Prerequisites: TRNS:7460. Requirements: second-year standing in MFA literary translation.

TRNS:6459 Issues in Translation 3 s.h.
Contemporary and historical theories.

TRNS:6555 Translator-in-Residence Workshop 3 s.h.
Translation workshop facilitated by the translator-in-residence; focus on review and revision of student manuscripts; readings on technique and theories, translation practice, and manuscript review.

TRNS:7460 Translation Workshop 3 s.h.
Requirements: at least one world language. Same as IWP:7460.

World Languages, Literatures, and Cultures

WLLC:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first-semester standing.

WLLC:1016 Classical Chinese Short Fiction 1 s.h.
Reading and discussion of classical Chinese short fiction in English translation. Taught in English. Recommendations: completion of required ESL courses. Same as ASIA:1016.

WLLC:1131 Introduction to Russian Culture 3 s.h.
Development of cultural history in Russia during the Romanov period (1613-1917); painting, music, architecture, and literature viewed against their political, historical, and social settings. Taught in English. GE: Values and Society. Same as RUSS:1131.

WLLC:1200 Disabilities and Inclusion in Writing and Film Around the World 3 s.h.
Exploration of human experiences of dis/ability and exclusion/inclusion. Taught in English. GE: Understanding Cultural Perspectives. Same as DST:1200, GHS:1200, GRMN:1200.

WLLC:1510 Ghost Stories and Tales of the Weird in Premodern Chinese Literature 3 s.h.
Reading of Chinese literature concerning ghosts, marvels, and supernatural from the first millennium B.C.E. through the 1800s; readings analyzed against changing historical and religious contexts. Taught in English. Recommendations: completion of all required ESL courses. GE: Interpretation of Literature. Same as ASIA:1510.

WLLC:1777 Language Work in the Age of AI: The Products and the Poetry 3 s.h.
Artificial intelligence tools now draft legal contracts in Mandarin, subtitle K-dramas in Arabic, and help poets rethink meter, yet every act of translation—human or machine—rests on interpretation, not mythical one-to-one equivalence; students explore that paradox while learning to deploy AI responsibly across world languages.

WLLC:2001 Global Science Fiction 3 s.h.
Science fiction from around the world; spanning poetry, fiction, drama, film, television, comics, mobile phone games, and music; produced on six continents. Taught in English. GE: Understanding Cultural Perspectives. Same as ASIA:2001, FREN:2010, RUSS:2001, TRNS:2001.

WLLC:2006 Transnational Solidarities 3-4 s.h.
Examination of connections forged by intellectuals, activists, and political thinkers in struggles against systems of colonialism, imperialism, capitalism, and state violence throughout the 20th century; opportunities to make connection with other struggles against racism, supremacy, patriarchy, and domination; optional discussion section taught in Arabic. Taught in English. Requirements: for 4 s.h. option—ARAB:1002. Same as ARAB:2006, SJUS:2006.

WLLC:2050 Women From an Unknown Land: The Fight for Independence 3 s.h.
Exploration of past and current issues related to the Caucasus—a mountainous region located where Europe, the Middle East, and Asia meet—forming a geographical and cultural crossroad; topics include those related to women's rights, causes of poverty and ethnic conflicts, and foreign policy including terrorism in the region, the fight for freedom, and the struggle over natural resources. Taught in English. GE: International and Global Issues. Same as RUSS:2050.

WLLC:2222 Women in Premodern East Asian Literature 3 s.h.
Reading of East Asian literature portraying women from the first millennium B.C.E. through the 1800s; discussion of issues related to representations of women and conventional social, familial roles in premodern China, Korea, and Japan; cross-cultural comparison of different perceptions and portrayals of women in premodern East Asian literary traditions. Taught in English. Recommendations: completion of all ESL courses. GE: Understanding Cultural Perspectives. Same as ASIA:2222, GWSS:2222.

WLLC:2248 The Invention of Writing: From Cuneiform to Computers 3 s.h.
Invention of writing as one of the most momentous events in the history of human civilizations; how the use of written sign systems, notations, maps, graphs, encryptions, and most recently, computer programs have consequences that reach deeply into all aspects of people's lives; how writing fascinates and delights, fosters reflexive thinking and facilitates development of complex societies, and gives rise to institutions of social power and control; students explore the invention of writing and its consequences in broad international and interdisciplinary context. Taught in English. Same as ANTH:2248, ASIA:2248, CLSA:2048, COMM:2248, GRMN:2248, HIST:2148, IS:2248, LING:2248, TRNS:2248.

WLLC:2473 Cinderella 3 s.h.
Comparative analysis of Cinderella stories from around the world including Asia, Europe, Africa, South America; readings, discussion, workshops, and writing; consideration of visual and material presentation of Cinderella stories in physical books. Taught in English. Same as FREN:2473, TRNS:2473.

WLLC:2618 Film and Literature of the Holocaust 3-4 s.h.
European and American films (e.g., documentaries, feature films); literature of the Holocaust in English translation (e.g., survivor memoirs, testimony, poetry, philosophical essays, graphic novels). Taught in English. GE: Values and Society. Same as GRMN:2618.

WLLC:2620 Anne Frank and Her Story 3-4 s.h.
Analysis of the *Diary of Anne Frank,* its media adaptations, and related materials (e.g., fictionalizations, additional first-hand accounts); examination of Holocaust in the Netherlands, Belgium, and other countries outside Germany; anti-Semitism, discrimination, tolerance, resistance, identity formation, human aspiration and belief. Taught in English. GE: Understanding Cultural Perspectives. Same as GRMN:2620.

WLLC:2666 Pact With the Devil 3-4 s.h.
Pact with the devil has served as a metaphor for humankind's desire to surpass the limits of knowledge and power and engage with the forbidden; students explore a variety of works—mostly from German literature and culture—from early modern time to present, and critique different twists that fascination with the forbidden takes with regard to women. Taught in English. GE: Literary, Visual, and Performing Arts. Same as GRMN:2666.

WLLC:2949 Accountability, War Crimes, and Justice 3-4 s.h.
Introduction to current juridical and nonjuridical approaches to hold perpetrators (e.g., states, state actors, individuals) of war crimes accountable in international criminal and humanitarian law; students examine concepts such as universal jurisdiction, which has been successfully deployed in German courts, and corporate accountability through recent case studies. Taught in English. Same as GRMN:2949.

WLLC:3000 Big Ten Academic Alliance CourseShare: Lower-Level Language 0-5 s.h.
Opportunity for students from universities across the Big Ten to participate in language courses together; part of the Big Ten Academic Alliance (BTAA) CourseShare program; not an elementary/intermediate language sequence.

WLLC:3001 Big Ten Academic Alliance CourseShare: Elementary I 1-6 s.h.
Opportunity for students from universities across the Big Ten to participate in courses together; part of the Big Ten Academic Alliance (BTAA) CourseShare program; first in a language sequence.

WLLC:3002 Big Ten Academic Alliance CourseShare: Elementary II 1-6 s.h.
Opportunity for students from universities across the Big Ten to participate in courses together; part of the Big Ten Academic Alliance (BTAA) CourseShare program; second in a language sequence. Requirements: WLLC:3001 or equivalent language background.

WLLC:3003 Big Ten Academic Alliance CourseShare: Intermediate I 1-6 s.h.
Opportunity for students from universities across the Big Ten to participate in courses together; part of the Big Ten Academic Alliance (BTAA) CourseShare program; third in a language sequence. Requirements: WLLC:3002 or equivalent language background.

WLLC:3004 Big Ten Academic Alliance CourseShare: Intermediate II 1-6 s.h.
Opportunity for students from universities across the Big Ten to participate in courses together; part of the Big Ten Academic Alliance (BTAA) CourseShare program; fourth in a language sequence. Requirements: WLLC:3003 or equivalent language background.

WLLC:3005 Big Ten Academic Alliance CourseShare: Upper-Level Language 1-6 s.h.
Opportunity for students from universities across the Big Ten to participate in language courses together; part of the Big Ten Academic Alliance (BTAA) CourseShare program. Requirements: WLLC:3004 or equivalent language background.

WLLC:3105 Contraception Across Time and Cultures 3 s.h.
Methods and history of contraception; issues of unwanted pregnancy and birth control in fiction, film, and media around the world. Same as CLSA:3105, GHS:3105, GWSS:3105.

WLLC:3122 Tolstoy and Dostoevsky 3-4 s.h.
Tolstoy's War and Peace and Anna Karenina; Dostoevsky's Crime and Punishment, Brothers Karamazov, and short works. Taught in English. Same as RUSS:3122, TRNS:3122.

WLLC:3185 Global Women's Cinema 3 s.h.
Introduction to contemporary women's cinema and feminist filmmaking from around the world; emphasis on post-1968 period and cinema produced outside the United States. Same as GWSS:3185.

WLLC:3191 International Literature Today 1,3 s.h.
Same as ENGL:3595, IWP:3191, TRNS:3191.

WLLC:3202 Russian Literature in Translation 1860-1917 3 s.h.
Survey of major works, figures, and trends of 19th- and early 20th-century Russian literature; age of the Russian novel; works of Turgenev (*Fathers and Sons*), Tolstoy (*Confession*), Dostoevsky (*The Idiot*, *The Brothers Karamazov*), and Chekhov (plays). Taught in English. Same as HIST:3492, RUSS:3202, TRNS:3203.

WLLC:3208 Classical Chinese Literature Through Translation 3 s.h.
Reading of English translations of classical Chinese literature; discussion of special features of classical Chinese as a source language for translation; issues in translation practice and theory with focus on trends in translation of Classical Chinese literary works to English. Taught in English. Recommendations: completion of required ESL courses. Same as ASIA:3208, TRNS:3208.

WLLC:3700 Topics in Global Cinema 3 s.h.
Identification of new models and methods to investigate cinema's relationship to current global issues beyond traditional scholarly focus in Western Europe and the United States; exploration of an emerging field, moving away from the paradigm of national cinema and bringing together shared theoretical frameworks while acknowledging different historical and cultural contexts. Taught in English. Same as ASIA:3700, JPNS:3700, TRNS:3700.

WLLC:3991 Cultural Studies Conference 1 s.h.
Attendance and participation in a conference of importance to world and cultural studies; discussion of preparatory readings in weekly meetings.

WLLC:4131 Critical Reading 3 s.h.
Analysis of different types of texts—theoretical, cultural, political, philosophical, literary, poetic—and exploration of varying ways to frame and read them. Same as TRNS:4131.

WLLC:4210 Slavery Museums, Memorials, and Statues in the United States, Europe, and the Global South 3-4 s.h.
Comparative study of museums, memorials, statues, performances, and artistic works that encapsulate the entangled history and memory of transoceanic slave trades and slavery in the United States, the Caribbean, the Indian Ocean, Sub-Saharan Africa, and Europe (France and the United Kingdom); critical tools to analyze public debates over politically charged monuments; exploration of transnational and political predicaments of the contemporary world; approaches include trauma theories, memory studies, history, postcolonial ecocriticism, cultural anthropology, heritage studies and museology, and Francophone cultural critique. Taught in English. Requirements: for 4 s.h. option —prior enrollment in FREN:3060 and FREN:3300. Same as FREN:4210, MUSM:4310.

WLLC:4801 Seminar in Comparative Literature 3 s.h.
Focus on comparative, interdisciplinary, theoretical, and/or inter-arts topic; topics vary; required for comparative literature major. Taught in English. Same as GRMN:4800, GWSS:4800, TRNS:4800.

WLLC:5000 Teaching and Learning Languages 3 s.h.
Readings in pedagogical theory and practice, second language acquisition; experience designing activities for teaching and assessment with critiques based on current theories and approaches; development of reflective practices toward one's language teaching. Taught in English. Same as FREN:5000, GRMN:5001, SLA:5000, SPAN:5000.

WLLC:5005 Heritage and Dual Language Teaching 3 s.h.
Theoretical issues (e.g., ideological, educational, linguistic) of heritage language teaching and learning; pedagogical issues including curriculum development and assessment for dual language programs in the United Statues; focus on teaching heritage language learners (those who learned a language other than English at home) or dual language education (those who develop academic skills in their native language while building skills in a different language) in the United States. Taught in English. Same as SPAN:5005.

WLLC:6320 Topics in Contemporary Critical Theory 3 s.h.
Focused discussion of critical discourses and paradigms that have contributed to development of contemporary literary and cultural theory.

WLLC:7001 Language Justice: Multilingual Community Engagement and Scholarship 3 s.h.
Application of language justice to lived experiences of multilingual individuals; exploration of how communities can incorporate language justice into shared spaces and interactions within those spaces; engagement with local community groups that support multilingual Iowans whose personal language practices are less valued than the default monolingual English norm. Taught in English. Same as SPAN:7001.

English as a Second Language

The University of Iowa offers English as a Second Language (ESL) instruction in two distinct, but related, programs: ESL credit classes and the Teaching Assistant Preparation in English program (TAPE).

These programs meet the needs of students whose first language is not English. ESL credit classes help students raise their English proficiency so they can complete a degree successfully. TAPE helps graduate students improve their oral competence in English so they may assume classroom teaching responsibilities.

English as a Second Language is administered by the Department of Languages, Linguistics, Literatures, and Cultures.

Programs

ESL Credit Program

English as a Second Language credit courses provide academic language support to students, based on their performance on the English Placement Evaluation (EPE), so that students can succeed in university coursework. ESL courses are offered to help students increase their proficiency in four skill areas: reading, writing, speaking, and listening. Each course offers 3–4 s.h. of credit, which undergraduates may count as elective credit toward graduation. Courses are taught by ESL lecturers and by teaching assistants pursuing advanced degrees in linguistics.

Courses taken to meet the College of Liberal Arts and Sciences English proficiency requirement must be completed with a grade of C or higher for undergraduate students. If an undergraduate student earns a grade of C-minus or lower in an ESL course, the course must be retaken in order for the student to fulfill the ESL course requirement. Courses taken by graduate students for English proficiency must be completed with a grade of C-minus or higher. An ESL course must be taken on an A–F graded basis and may not be taken pass/non-pass or satisfactory/unsatisfactory. Undergraduate students are not allowed to drop ESL courses once the semester begins. A student held for ESL courses may not enroll in a Rhetoric course or an Interpretation of Literature course until the ESL requirement is completed.

Visit the ESL Credit Program website for more information.

Teaching Assistant Preparation in English (TAPE)

The Teaching Assistant Preparation in English program (TAPE) is designed for graduate students whose first language is not English, who need additional work on English communication, and who will hold teaching assistantships while enrolled at the University of Iowa. Only students who need the program and who have sufficient competence in English to profit from it are eligible. TAPE courses are open to graduate students who have been evaluated for TA certification and to others if space is available. Students are taught by full-time professional ESL instructors.

Asian Languages and Literature, BA

The BA program in Asian languages and literature gives students the opportunity to develop advanced skills in an Asian language while they study the people, literatures, and cultures of Asia. Students choose one of two tracks: Chinese or Japanese.

Many other disciplines work well as second majors for Asian languages and literature students, such as history, art history, political science, religion, sociology, journalism, business, and anthropology.

Learning Outcomes

Culture and Literature Knowledge

Students will have:

- knowledge about the target literature and culture, from premodern to modern and contemporary;
- the cultural foundation and critical thinking skills necessary to engage with relevant primary and secondary materials; and
- the ability to communicate their knowledge of Chinese or Japanese culture and language effectively.

Language Competence

Students will be able to:

- carry out tasks in various circumstances and interact with others in different social settings and everyday situations in a culturally appropriate manner;
- understand relatively uncomplicated texts that describe events and personal feelings, while they understand the essence of various types of lengthy, more complex written materials; and
- critically assess materials and produce coherent writing based on the acquired information.

Linguistics Knowledge

Students will have:

- basic knowledge of sociocultural aspects of the language; and
- skills to see through the stereotypes and myths of the target culture in order to have a better understanding of both the target culture and their own.

Requirements

The Bachelor of Arts with a major in Asian languages and literature requires a minimum of 120 s.h., including 30–32 s.h. of work for the major, depending on the track. Students choose one of two tracks: Chinese or Japanese. The credit required for the major depends on the choice of track. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Furthering Language Incentive Program (FLIP) credit may not be counted toward the major.

The amount of approved transfer credit that may be applied to the major varies by track; students should consult their advisors about courses taken at other institutions, including study abroad.

Students may earn the Asian languages and literature major and minor if the minor emphasis language (Chinese or Japanese) differs from the major language track.

The BA with a major in Asian languages and literature requires the following work.

Tracks

- Chinese Track [p. 688]
- Japanese Track [p. 689]

Chinese Track

Students in the Chinese track must complete the following coursework.

Requirements	Hours
Prerequisite Chinese Language Courses	
Chinese Language Courses	12
Gateway Courses	6
Literature and Culture Courses	6
Linguistics and Advanced Language Studies Courses	6

Prerequisite Chinese Language Courses

Students must successfully complete the prerequisite courses or the equivalent before they enroll in the required courses. These courses do not count as credit earned toward track requirements.

Course #	Title	Hours
This sequence:		
CHIN:1111	First-Year Chinese: First Semester	5
CHIN:1112	First-Year Chinese: Second Semester	5
CHIN:2101	Second-Year Chinese: First Semester	5
CHIN:2102	Second-Year Chinese: Second Semester	5

Chinese Language Courses

Course #	Title	Hours
All of these:		
CHIN:3101	Third-Year Chinese: First Semester	3
CHIN:3102	Third Year Chinese: Second Semester	3
CHIN:4103	Fourth-Year Chinese: First Semester	3
CHIN:4104	Fourth-Year Chinese: Second Semester	3

Gateway Courses

Course #	Title	Hours
This course:		
CHIN:1504	China Beyond Walls	3
At least 3 s.h. from these:		
CHIN:1702	Chinese Popular Culture	3
CHIN:1800	Chinese Calligraphy and Culture	3

ASIA:1060/ HIST:1612/ RELS:1506	Introduction to Buddhism	3
ASIA:1510/ WLLC:1510	Ghost Stories and Tales of the Weird in Premodern Chinese Literature	3
ASIA:1602/ HIST:1602	Civilizations of Asia: China from the 17th Century to the Present	3
ASIA:2222/ GWSS:2222/ WLLC:2222	Women in Premodern East Asian Literature	3
ASIA:2515/ RELS:2515	Introduction to Chinese Religious Thought: How Best to Live	3
ASIA:3208/ TRNS:3208/ WLLC:3208	Classical Chinese Literature Through Translation	3
ASIA:3650/ HIST:3650	Chinese History From 1600 to 1911	3
ASIA:3652/ HIST:3652	Twentieth-Century China	3

Literature and Culture Courses

Course #	Title	Hours
Two of these:		
CHIN:3201/ TRNS:3202	Workshop in Chinese Literary Translation	3
CHIN:3341	Chinese Literature: Poetry	3
CHIN:4203	Modern Chinese Writers	3
CHIN:4206	Chinese Cinema	3

Linguistics and Advanced Language Studies Courses, Chinese

Course #	Title	Hours
Two of these:		
CHIN:3302/ LING:3302/ SLA:3302	Introduction to Chinese Linguistics	3
CHIN:4101	Classical Chinese: First Semester	3
CHIN:4150	Advanced Reading and Writing in Chinese	3

Chinese Track Electives

The courses and requirements in the preceding lists represent the minimum hours required to complete the Chinese track. Students may also choose additional Chinese elective courses (prefix CHIN), but they may only apply a maximum of 56 s.h. of courses in Chinese to the 120 s.h. required for graduation. Elective Chinese courses will not count toward Chinese requirements for the major. Independent studies and arranged hours may be used as elective hours but are not counted toward the requirements for the major.

Japanese Track

Students in the Japanese track must complete the following coursework.

Requirements	Hours
Prerequisite Japanese Language Courses	
Third- and Fourth-Year Japanese Courses	14
Literature and Translation Courses	9
Linguistics and Advance Language Studies Courses	6
Cultural Studies Course	3

Students may apply a maximum of 12 s.h. of approved transfer credit toward track requirements. Those who are planning to study abroad should consult with their Japanese track advisors in advance to determine whether their planned coursework abroad will be accepted toward track requirements.

Prerequisite Japanese Language Courses

Students must successfully complete the prerequisite courses or the equivalent before they enroll in required courses. These courses do not count as credit earned toward track requirements.

Course #	Title	Hours
All of these:		
JPNS:1001	First-Year Japanese: First Semester	5
JPNS:1002	First-Year Japanese: Second Semester	5
JPNS:2001	Second-Year Japanese: First Semester	5
JPNS:2002	Second-Year Japanese: Second Semester	5

Third- and Fourth-Year Japanese Courses

Course #	Title	Hours
Both of these sequences:		
JPNS:3001 & JPNS:3002	Third-Year Japanese I and Third-Year Japanese II	8
JPNS:4001 & JPNS:4002	Fourth-Year Japanese I and Fourth-Year Japanese II	6

Literature and Translation Courses

Course #	Title	Hours
9 s.h. from these:		
JPNS:3201/ TRNS:3201	Workshop in Japanese Literary Translation	3
JPNS:3202	Traditional Japanese Literature in Translation	3
JPNS:3203	Modern Japanese Fiction in Translation	3
JPNS:3204	Topics in Japanese Literature in Translation	1-3
JPNS:3205	Major Authors in Modern Japanese Literature	3
JPNS:3206	Warriors' Dreams	3
JPNS:3207	Japan Illuminated: Japanese Literature and Visual Culture	3
JPNS:3208	Japanese Film	3
JPNS:3210	Japanese Theater	3
JPNS:3601	Contemporary Japanese Culture	3
JPNS:4201	Genji Lab	3

Linguistics and Advanced Language Studies Courses, Japanese

Course #	Title	Hours
At least 6 s.h. from these:		
JPNS:3107	Classical Japanese: First Semester	3

JPNS:3128	Introduction to Japanese Linguistics	3
JPNS:3401	Language in Japanese Society	3
JPNS:3402	Japan: Culture and Communication	3
JPNS:3500	Japanese for Professional Purposes	3

Cultural Studies Course

Course #	Title	Hours
One of these:		
ASIA:1005	Scripts and Trips: A Journey Through East Asia	3
JPNS:1506	Ghostly Japan	3
JPNS:2250/ ARTH:2250	Introduction to the Art of Japan	3

Japanese Track Electives

The courses and requirements in the preceding lists represent the minimum hours required to complete the Japanese track. Students may choose additional Japanese elective courses (prefix JPNS), but they may only apply a maximum of 56 s.h. of courses in Japanese to the 120 s.h. required for graduation. Elective Japanese courses will not count toward Japanese requirements for the major. Independent studies and arranged hours may be used as elective hours but are not counted toward the requirements for the major.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

Asian languages and literature majors must complete designated pedagogy and linguistics courses in the department in addition to the coursework required for their major.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students earning a major in Asian languages and literature with a minimum grade-point average (GPA) of 3.50 in the major and an overall minimum GPA of 3.33 have the opportunity to graduate with honors in the major. Students interested in earning honors in the major should seek the consent of the department chair and a faculty sponsor (an Asian specialist from any department) for departmental honors work. Students must register for ASIA:4301 Honors Tutorial and ASIA:4506 Senior Honors Thesis and must complete an acceptable thesis based on original research.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the Asian languages and literature major.

Financial Support

Undergraduate students have access to financial aid and scholarship resources.

Career Advancement

Asian languages and literature graduates pursue careers in education, government, communication, business, and other fields in the United States and beyond. The program also provides an excellent background for advanced study in the humanities and social sciences and in professional schools, such as law and business. The number of Americans who can speak Asian languages is relatively small, so many career opportunities exist for individuals trained in these areas.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: begin language work.

Before the fifth semester begins: at least first-year language competency.

Before the seventh semester begins: at least second-year language competency and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least third-year, first-semester language competency and one additional course in the major (for the Japanese track, two additional courses in the major).

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Asian Languages and Literature, BA

- Chinese Track [p. 690]
- Japanese Track [p. 691]

Chinese Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**

First Year

Fall

CHIN:1111	First-Year Chinese: First Semester [b]	5
CHIN:1504	China Beyond Walls [c]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
Elective course		1
CSI:1600	Success at Iowa	1
	Hours	**13-14**

Spring

CHIN:1112	First-Year Chinese: Second Semester [b]	5
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
Major: gateway course [e]		3
Elective course		1
	Hours	**15-16**

Second Year

Fall

CHIN:2101	Second-Year Chinese: First Semester [b]	5
Major: literature and culture course [e]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
Elective course [f]		3
	Hours	**17**

Spring

CHIN:2102	Second-Year Chinese: Second Semester [b]	5
Major: linguistics and advanced language studies course [e]		3
GE CLAS Core: Natural Sciences without Lab [d]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**17**

Third Year

Fall

CHIN:3101	Third-Year Chinese: First Semester	3
Major: linguistics and advanced language studies course [e]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
Elective course [f]		3
Elective course [f]		2
	Hours	**15**

Spring

CHIN:3102	Third Year Chinese: Second Semester	3
Major: literature and culture course [e]		3
GE CLAS Core: International and Global Issues [d]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**

Fourth Year

Fall

CHIN:4103	Fourth-Year Chinese: First Semester	3
GE CLAS Core: Historical Perspectives [d]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**

Spring

CHIN:4104	Fourth-Year Chinese: Second Semester	3
GE CLAS Core: Social Sciences [d]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [g]		
	Hours	**15**
	Total Hours	**122-124**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b CHIN:1111, CHIN:1112, CHIN:2101, and CHIN:2102 do not count for credit toward the major. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin major level coursework and not be required to take semesters 1-4 of the language.

c Fulfills a major requirement and may fulfill a GE requirement.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e See the General Catalog for list of approved courses.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Japanese Track

Course	Title	Hours
Academic Career		
Any Semester		
Students may apply a maximum of 12 s.h. of approved transfer credit toward track requirements. [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**

First Year

Fall

JPNS:1001	First-Year Japanese: First Semester [c]	5
Major: literature and translation course [d]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**

Spring

JPNS:1002	First-Year Japanese: Second Semester [c]	5
Major: cultural studies course [d]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Historical Perspectives [e]		3
Elective course [f]		2
	Hours	**16-17**

Second Year

Fall

JPNS:2001	Second-Year Japanese: First Semester [c]	5
Major: linguistics and advanced language studies course [d]		3
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
Elective course [f]		1
	Hours	**15**

Spring

JPNS:2002	Second-Year Japanese: Second Semester [c]	5
Major: literature and translation course [d]		3
GE CLAS Core: Natural Sciences without Lab [e]		3
Elective course [f]		3
Elective course [f]		1
	Hours	**15**

Third Year

Fall

JPNS:3001	Third-Year Japanese I	4
Major: literature and translation course [d]		3
GE CLAS Core: Natural Sciences with Lab [e]		4
Elective course [f]		3
Elective course [f]		2
	Hours	**16**

Spring

JPNS:3002	Third-Year Japanese II	4
Major: linguistics and advanced language studies course [d]		3
GE CLAS Core: International and Global Issues [e]		3
Elective course [f]		3
Elective course [f]		2
	Hours	**15**

Fourth Year

Fall

JPNS:4001	Fourth-Year Japanese I	3
GE CLAS Core: Values and Society [e]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**

Spring

JPNS:4002	Fourth-Year Japanese II	3
GE CLAS Core: Social Sciences [e]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [g]		
	Hours	**15**
	Total Hours	**122-124**

a Students who are planning to study abroad should consult with their Japanese track advisors in advance to determine whether their planned coursework abroad will be accepted toward track requirements.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c JPNS:1001, JPNS:1002, JPNS:2001, and JPNS:2002 do not count for credit toward the major. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin major level coursework and not be required to take semesters 1-4 of the language.

d See the General Catalog for list of approved courses.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

French, BA

Learning Outcomes

At the time of graduation, majors will have reached the equivalent of the intermediate high/advanced low level on the American Council on the Teaching of Foreign Languages (ACTFL) scale in the four areas of speaking, listening, reading, and writing with a special emphasis on language, literature, and culture, or French and Arabic, depending on their track.

French majors will be able to:

- interact orally and in writing at a level sufficient for effective communication on a wide range of topics with French-speaking interlocutors from the Francophone world and across cultures;
- analyze, synthesize, engage critically, and effectively present written information and argumentation on what is heard, read, or viewed in the literatures and cultures of the Francophone world—France, North- and sub-Saharan Africa, the Indian Ocean, the Caribbean, and the French-speaking communities of North America; and
- gain knowledge of the various Francophone cultures of the world, and reflect upon and deal appropriately with their linguistic, cultural, and artistic history and diversity.

Requirements

The Bachelor of Arts with a major in French requires a minimum of 120 s.h., including 33–38 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Furthering Language Incentive Program (FLIP) credit may not be counted toward the major.

The French Language and Culture Advanced Placement (AP) exam with a score of 4 or higher is considered to be equivalent to FREN:3000 Third-Year French. Transfer credit may be accepted, and students are encouraged to participate in study abroad, but the last two courses in the major must ordinarily be completed at the University of Iowa. Transfer credit is evaluated on an individual basis by the faculty in charge of study abroad.

Students majoring in French complete one of two tracks: language, literature, and culture or French and Arabic.

The language, literature, and culture track of the French major is designed for students with interests in language and translation, in French and Francophone literary and cultural expression, and for those with interdisciplinary interests in cinema, communication studies, history, international studies, political science, or journalism. The French and Arabic track is designed for students interested in combining the study of the French and Arabic languages with the history, politics, and religions of Middle Eastern cultures.

Language, Literature, and Culture Track Requirements

Students in the language, literature, and culture track complete a set of three lower-level courses, four foundation courses, and four elective courses (typically 33–37 s.h.).

Students who intend to earn licensure to teach in elementary and/or secondary schools must also complete the College of Education's Teacher Education Program (TEP), which requires education courses and student teaching (see the section titled "Teacher Licensure" that follows).

Lower-Level Courses

If students place out of FREN:2001 or FREN:2002, they must take an additional 3 s.h. course numbered 3000–4999 from the electives list; see the section "Language, Literature, and Culture Courses" that follows. Students who place out of both courses must take two additional electives numbered 3000–4999.

Course #	Title	Hours
All of these:		
FREN:2001	Intermediate French I	4
FREN:2002	Intermediate French II	4
One French course (prefix FREN) numbered 1000-2999 except FREN:1001, FREN:1002, and FREN:1040; may be taught in English		3

Language, Literature, and Culture Foundation Courses

Course #	Title	Hours
All of these:		
FREN:3060	Introduction to Reading and Writing in Literature	3
FREN:3300	French Grammar	3
FREN:4007	Topics in French Linguistics	3
FREN:4020	Oral Expression in French II	3

Language, Literature, and Culture Elective Courses

Students complete at least four electives courses (12–16 s.h.). At least two of the elective courses must be numbered above 4000; this requirement is in addition to the 4000-level foundation coursework in French. Only one of the elective courses may be in the French subject area (prefix FREN) taught in English; this restriction does not apply to courses taught in English with an additional semester hour in French.

Courses in French stylistics and textual analysis, another language, economics, political science, and/or business are recommended as additional coursework outside the major.

Course #	Title	Hours
Four of these, with at least two numbered 4000 or above:		
FREN:3000	Third-Year French	3
FREN:3020	Oral Expression in French I	3
FREN:3007	French Phonetics	3
FREN:3120	French Civilization	3
FREN:3160	Study Abroad: Culture	3
FREN:3232	French Literary Translation Workshop	3
FREN:3240	Media French	3
FREN:3360	Study Abroad: Language	3
FREN:3410	Business French	3
FREN:4015	Francophone Cinema (taught in English)	3-4
FREN:4026	French Women Writers (taught in English)	3-4
FREN:4070	Introduction to the Study of Meaning (taught in English)	3

FREN:4080	Post-Colonial Literature in France	3
FREN:4090	Quebec Literature	3
FREN:4100	French Cinema (taught in English)	3-4
FREN:4110	Francophone Studies: Literature and the Arts	3
FREN:4210	Slavery Museums, Memorials, and Statues in the United States, Europe, and the Global South (taught in English)	3-4
FREN:4433	France Under Nazi Occupation, 1940-1944 (taught in English)	3-4
FREN:4520	Versailles Under the Sun King (taught in English)	3-4
FREN:4540	Gender and Sexuality in French Cinema (taught in English)	3-4
FREN:4750	Topics in French Studies II	3

French and Arabic Track

Students in the French and Arabic track complete five foundation courses and six or seven elective courses (typically 37–38 s.h.).

French and Arabic Foundation Courses

Course #	Title	Hours
All of these:		
FREN:3060	Introduction to Reading and Writing in Literature	3
FREN:3300	French Grammar	3
FREN:4007	Topics in French Linguistics	3
FREN:4020	Oral Expression in French II	3
One of these:		
FREN:3007	French Phonetics	3
FREN:3020	Oral Expression in French I	3

French and Arabic Elective Courses

Elective requirements include six to seven courses (22–23 s.h.) in addition to the foundation coursework in French. Only one of the elective courses may be in the French subject area (prefix FREN) taught in English; this restriction does not apply to courses taught in English with an additional semester hour in French or Arabic.

French and Arabic Electives: Language, Literature, and Culture

Students complete two courses from the language, literature and culture electives; see the preceding section titled "Language, Literature, and Culture Elective Courses" for courses that may be used for this area. At least one of these elective courses must be numbered 4000 or above.

French and Arabic Electives: Arabic Language

Students complete one of the following sequences for a total of 9–11 s.h.

Course #	Title	Hours
One of these sets of courses:		
ARAB:2001 & ARAB:2002	Intermediate Modern Standard Arabic I and Intermediate Modern Standard Arabic II	10
ARAB:2002 & ARAB:3011 & ARAB:3012	Intermediate Modern Standard Arabic II and Advanced Modern Standard Arabic I and Advanced Modern Standard Arabic II	11
Or this set of courses:		
ARAB:3011 & ARAB:3012	Advanced Modern Standard Arabic I and Advanced Modern Standard Arabic II	6
A third Arabic course (prefix ARAB) selected in consultation with faculty		3

French and Arabic Electives: Middle Eastern Cultures

Students complete two courses on Middle Eastern cultures. These courses may be in the subject of French (prefix FREN) or Arabic (prefix ARAB) and taught in French, Arabic, or English; courses from other departments may also be approved. The following courses count toward this requirement without additional approval.

Course #	Title	Hours
ARAB:2006	Transnational Solidarities	3-4
ARAB:2012	Modern Palestinian Literature and Culture	3
ARAB:3005	Culture and Resistance: The Modern Middle East	3-4

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must have a grade-point average (GPA) of at least 3.50 for work undertaken in the department and a cumulative University of Iowa GPA of at least 3.33.

To graduate with honors in the major, departmental honors students must register for FREN:4995 Honors Research and Thesis or one honors-designated course numbered above 4000. They must complete an honors thesis or the equivalent (e.g., translation, comparative stylistics, cultural studies, or research) in French and must present their work to a faculty committee.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the French major.

Career Advancement

Students majoring in French may combine their studies with courses in education to prepare for jobs in high school teaching. They may go on to graduate study in areas such as French, comparative literature, and other interdisciplinary areas as preparation for college-level teaching. They may also combine other skills and studies with their major in French to prepare for challenging career opportunities in international government, business, finance, travel, communications, and other fields where the knowledge of more than one language is essential.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the third semester begins: competence in first-year French.

Before the fifth semester begins: second-year French (FREN:2002 Intermediate French II).

Before the seventh semester begins: two of the four requirements for the major, FREN:3060 Introduction to Reading and Writing in Literature, FREN:3300 French Grammar, one or two other courses in the major, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: one elective numbered 4000 or above and three more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

French, BA

- French and Arabic Track [p. 695]
- Language, Literature, and Culture Track [p. 696]

French and Arabic Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
FREN:1001	Elementary French I [b, c]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Values and Society [d]		3
Elective course [e]		2
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
FREN:1002	Elementary French II [b, c]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: Historical Perspectives [d]		3
Elective course [e]		1
	Hours	**14-15**
Second Year		
Fall		
ARAB:1001	Elementary Modern Standard Arabic I [f]	5
FREN:2001	Intermediate French I [b, c]	4
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
	Hours	**15**
Spring		
ARAB:1002	Elementary Modern Standard Arabic II [f]	5
FREN:2002	Intermediate French II [b, c]	4
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
	Hours	**16**
Third Year		
Fall		
FREN:3020 or FREN:3007	Oral Expression in French I or French Phonetics	3
FREN:3060	Introduction to Reading and Writing in Literature	3
FREN:3300	French Grammar	3
Major: Arabic language course (beyond first year) [g]		3 - 5
GE CLAS Core: Natural Sciences without Lab [d]		3
	Hours	**15-17**
Spring		
ARAB:2006	Transnational Solidarities [g]	3
FREN:4020 or FREN:4007	Oral Expression in French II or Topics in French Linguistics	3
Major: Arabic language course (beyond first year) [g]		3 - 5

Major: French language, literature, and culture course (taught in French) [g]		3
Elective course [e]		3
	Hours	**15-17**
Fourth Year		
Fall		
ARAB:2012	Modern Palestinian Literature and Culture [g]	3
Major: Arabic language course (beyond first year, if needed) or elective course [e, g]		3 - 5
Major: French language, literature, and culture course (taught in French, numbered above 4000) [g]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15-17**
Spring		
FREN:4007 or FREN:4020	Topics in French Linguistics or Oral Expression in French II	3
GE: Social Sciences [d]		3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**118-126**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b FREN:1001, FREN:1002, FREN:2001, and FREN:2002 do not count for credit toward the major. Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin major level coursework and not be required to take semesters 1-4 of the language.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f ARAB:1001 and ARAB:1002 do not count for credit toward the major.

g Requirements for the French and Arabic track include six to seven track courses (22 s.h.) in addition to the foundation coursework in French.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Language, Literature, and Culture Track

Course	Title	Hours
Academic Career		
Any Semester		
The French language and Culture Advanced Placement (AP) exam with a score of 4 or higher is considered to be equivalent FREN:3000 Third-Year French.		
Students are encouraged to participate in study abroad, but the last two courses in the major must ordinarily be completed at the University of Iowa.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
FREN:1001	Elementary French I [b, c]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Values and Society [d]		3
Elective course [e]		3
CSI:1600	Success at Iowa	1
	Hours	**14-15**
Spring		
FREN:1002	Elementary French II [b, c]	4
Major: French elective course (prefix FREN, numbered 1000-2999) [f]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: Historical Perspectives [d]		3
	Hours	**16-17**
Second Year		
Fall		
FREN:2001	Intermediate French I [c]	4
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
Elective course [e]		3
Elective course [e]		2
	Hours	**15**
Spring		
FREN:2002	Intermediate French II [c]	4
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
Elective course [e]		3
Elective course [e]		2
	Hours	**16**

Third Year

Fall

FREN:3300	French Grammar	3
Major: French language, literature, and culture elective course (numbered above 3000) [g]		3 - 4
GE CLAS Core: Natural Sciences without Lab [d]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15-16**

Spring

FREN:3060	Introduction to Reading and Writing in Literature	3
FREN:4020	Oral Expression in French II	3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**

Fourth Year

Fall

Major: French language, literature, and culture elective course (numbered above 3000) [g]		3 - 4
Major: French language, literature, and culture elective course (numbered above 4000) [g]		3 - 4
GE: Social Sciences [d]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15-17**

Spring

FREN:4007	Topics in French Linguistics	3
Major: French language, literature, and culture elective course (numbered above 4000) [g]		3 - 4
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15-16**
	Total Hours	**121-127**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b FREN:1001 and FREN:1002 do not count for credit toward the major. Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin major level coursework and not be required to take semesters 1-4 of the language.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Exceptions include FREN:1001, FREN:1002, FREN:1040. May be taught in English.

g Students must complete at least four elective courses (12-16 s.h.). At least two of the courses must be numbered above 4000; this requirement is in addition to the 4000-level foundation coursework in French. Only one elective may be in the French subject area (prefix FREN) taught in English; this restriction does not apply to courses taught in English with an additional semester hour in French.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

German, BA

Learning Outcomes

The BA in German is directed toward graduates' ability to converse effectively in German; write coherent short texts; interpret literary, cultural, and linguistic phenomena; and exhibit an understanding of alternative cultural perspectives.

- Interpersonal speaking: the capacity to engage effectively in conversations in German on a range of topics, recount events and personal experiences, and produce explanations and descriptions; correlates with "intermediate high" on the American Council on the Teaching of Foreign Languages (ACTFL) scale.
- Writing: the capacity to produce a cohesive piece of writing in German, such as an essay, a paper, or a narrative.
- Interpretation and analysis: the capacity to critically interpret and analyze literary texts and other cultural artifacts written in German using appropriate sources to support their arguments.
- Cultural understanding: the capacity to demonstrate understanding of alternative cultural perspectives acquired through coursework, study abroad, and other cross-cultural experiences.

Requirements

The Bachelor of Arts with a major in German requires a minimum of 120 s.h., including at least 30 s.h. of work for the major. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Students who plan to earn licensure to teach in elementary and/or secondary schools should see the "Teacher Licensure" section that follows.

GRMN:3501 German Writers Engaged or the equivalent is a prerequisite for some other German literature courses. Students should enroll in GRMN:4995 German Graduation Portfolio in their final year of study.

A maximum of 15 s.h. of approved transfer credit may be counted toward the major, including study abroad coursework. Students may count up to 18 s.h. earned from the Academic Year in Freiburg program toward the major in German.

Students who begin a German major with no previous German language experience must complete the following courses or their equivalents. The course GRMN:2002 Intermediate German II (or the equivalent) is a prerequisite for all courses numbered 3000 or above. The major may include up to 6 s.h. total from the courses GRMN:2001 Intermediate German I or GRMN:2002 Intermediate German II, or from equivalent transfer, Furthering Language Incentive Program (FLIP), or Advanced Placement (AP) credit.

Course #	Title	Hours
GRMN:1001	Elementary German I	4
GRMN:1002	Elementary German II	4
GRMN:2001	Intermediate German I	4
GRMN:2002	Intermediate German II	4

The BA with a major in German requires the following coursework.

Requirements	Hours
Language Core Courses	9
Culture Core Courses	6
Linguistics Course	3
Graduation Portfolio	0
Electives	12

Language Core Courses

Courses GRMN:3103 and GRMN:3104 may be taken in any order.

Course #	Title	Hours
Three of these:		
GRMN:3103	Composition and Conversation I	3
GRMN:3104	Composition and Conversation II	3
GRMN:3214	Business German	3
GRMN:3845	The Structure of German	3

Culture Core Courses

Course #	Title	Hours
This course:		
GRMN:3501	German Writers Engaged	3
One of these:		
GRMN:3010	Stories in German	3
GRMN:3236	German Film	3
GRMN:3850	Twentieth- and Twenty-first-Century German Children's Literature	3

Linguistics Course

Course #	Title	Hours
One of these:		
GRMN:3855	The Sounds of German	3
GRMN:3860	German Language and Society	3

Graduation Portfolio

Course #	Title	Hours
This course:		
GRMN:4995	German Graduation Portfolio	0

Electives

Students must take four electives (12 s.h.) of additional German courses (prefix GRMN). All students pursuing a German major are encouraged to take as many courses taught in German as possible, especially those who have completed their World Languages requirement in German before beginning their studies at the University of Iowa.

Course #	Title	Hours
12 s.h. from these:		
German courses (prefix GRMN) numbered 3000-4999		
Up to three German courses (prefix GRMN) numbered 1500-1999 and 2500-2999, taught in English		

Up to 6 s.h. from GRMN:2001, GRMN:2002, equivalent transfer credit, Furthering Language Incentive Program, or Advanced Placement credit with a score of 4 or higher

Either GRMN:4900 Independent Study or GRMN:4920 Research in German Studies may be applied once toward the major, but not both. For students pursuing a German major with honors, GRMN:4990 Honors Research and GRMN:4991 Honors Thesis will both count as electives toward the major.

Students pursuing a second major in an adjacent field that overlaps with German (i.e., linguistics, history, cinematic arts, art history, etc.) can consult with the director of undergraduate studies in German to see if they might apply a non-German course (prefix GRMN) numbered 3000 or above with predominantly German-based content towards the 30 s.h. of coursework required for the German major.

These courses do not count toward the major.

Course #	Title	Hours
GRMN:1200	Disabilities and Inclusion in Writing and Film Around the World	3
GRMN:2248	The Invention of Writing: From Cuneiform to Computers	3
GRMN:2275	Scandinavian Crime Fiction	3
GRMN:4800	Seminar in Comparative Literature	3

Study Abroad

The University of Iowa offers a number of opportunities for study in Germany, Switzerland, and Austria. Students frequently choose to participate in the summer USAC Lüneburg program, the Dortmund University Exchange, or the Academic Year in Freiburg program at the Albert Ludwig University of Freiburg. Students should consult Study Abroad and the German undergraduate advisor to select a program that fits their interests.

For German majors, the year-long Freiburg program provides the most comprehensive linguistic and professional preparation for a future career involving German. The Academic Year in Freiburg program is offered by a consortium made up of the University of Iowa, Michigan State University, the University of Michigan, and the University of Wisconsin–Madison.

Students arrive during the first week of September and participate in a four-week intensive language program. Then they take a blend of special program classes and regular German university courses. Organized field trips are designed to give students a broader perspective on German culture. Vacation periods permit extensive travel throughout Europe, and students are encouraged to use weekends for shorter trips in the region.

To apply, students must have reached at least second-year standing by the beginning of the program, have completed at least the first four semesters of college German or the equivalent with a GPA of at least 3.00 in German, and be in good academic standing at a U.S. college or university.

Students earn resident credit in all courses successfully completed in the program. They may count up to 18 s.h. earned at Freiburg toward the major.

For more information about study abroad opportunities, contact International Programs Study Abroad.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students majoring in German have the opportunity to graduate with honors in the major. Students who choose to graduate with honors in German must satisfy the following requirements.

- Maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.50 in all coursework for the major.
- Complete GRMN:4990 Honors Research or the equivalent, such as one course for the major (3 s.h.) as an honors contract course. For equivalent courses taken abroad, students should consult with the honors advisor or director of undergraduate studies in German.
- Complete GRMN:4991 Honors Thesis.
- Submit an acceptable honors thesis, and present and discuss their research findings in a defense meeting with their faculty mentor and two additional UI faculty members.

The courses GRMN:4990 Honors Research and GRMN:4991 Honors Thesis will count toward the 30 s.h. for the major. Students are encouraged to participate in the Office of Undergraduate Research (OUR) and apply for research scholarships.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the German major.

Career Advancement

Students majoring in German may combine their studies with courses in education to prepare for positions in high school teaching and administration. Many combine other skills and studies with their major in German to prepare for careers in business, travel, communications, foreign service, and other fields where the knowledge of languages is essential.

German graduates go on to earn graduate and professional degrees in German, English as a second language, history, library science, medicine, law, and sustainable agriculture. They find work in industries with strong connections to

German-speaking countries and organizations such as the Goethe Institutes in the United States.

Completion of a German major ensures that students enter their professional lives as informed global citizens with a strong skill set in cross-cultural literacy. German is spoken by an estimated 126 million people, with the largest number of native speakers in the European Union. Germany has the third largest economy across the globe and was until recently the largest export nation in the world.

Coursework builds strong reading, communication, and teamwork skills, which are sought by many employers.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the third semester begins: language competency equal to first-year German.

Before the fifth semester begins: language competency equal to second-year German.

Before the seventh semester begins: four courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester: two or three additional courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

German, BA

Course	Title	Hours
Academic Career		
Any Semester		
Students must complete at least 21 s.h. of courses taught in German, with the remaining 9 s.h. fulfilled by courses taught in either German or English.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
GRMN:1001	Elementary German I [b]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c, d]		3
CSI:1600	Success at Iowa	1
Elective course [e]		3
	Hours	**14-15**
Spring		
GRMN:1002	Elementary German II [b]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: Values and Society [d, f]		3
Elective course [e]		3
	Hours	**16-17**
Second Year		
Fall		
GRMN:2001	Intermediate German I [b, g]	4
GE CLAS Core: Literary, Visual, and Performing Arts [d, h]		3
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
Elective course [e]		3
Elective course [e]		2
	Hours	**15**
Spring		
GRMN:2002	Intermediate German II [b, g]	4
GE CLAS Core: International and Global Issues [d, i]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
Elective course [e]		3
Elective course [e]		1
	Hours	**15**
Third Year		
Fall		
GRMN:3501	German Writers Engaged	3
Major: German elective course (if needed) [j]		3
Major: language core course [k]		3
GE CLAS Core: Natural Sciences without Lab [d]		3
Elective course [e]		3
	Hours	**15**
Spring		
GRMN:3860 or GRMN:3855	German Language and Society or The Sounds of German	3
Major: German elective course (if needed) [j]		3
Major: language core course [k]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**
Fourth Year		
Fall		
GRMN:3236 or GRMN:3850 or GRMN:3010	German Film [l] or Twentieth- and Twenty-first-Century German Children's Literature or Stories in German	3
Major: German elective course (if needed) [j]		3
Major: language core course [k]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**
Spring		
GRMN:4995	German Graduation Portfolio	0
Major: German elective course (taught in German) [j]		3
GE CLAS Core: Social Sciences [d]		3

Elective course [e]	3
Elective course [e]	3
Elective course [e]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]	
Hours	**15**
Total Hours	**120-122**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

c To satisfy both the GE CLAS Core Understanding Cultural Perspectives requirement and part of the 12 s.h. elective requirement for the major, students may opt to take one of following GRMN courses that are taught in English: GRMN:2600, GRMN:2620, GRMN:2675.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f To satisfy both the GE CLAS Core Values and Society requirement and part of the 12 s.h. elective requirement for the major, students may opt to take GRMN:2618.

g The major may include up to 6 s.h. total from the courses GRMN:2001 Intermediate German I or GRMN:2002 Intermediate German II, or from equivalent transfer, Furthering Language Incentive Program (FLIP), or Advanced Placement (AP) credit.

h To satisfy both the GE CLAS Core Literary, Visual, and Performing Arts requirement and part of the 12 s.h. elective requirement for the major, students may opt to take one of following GRMN courses that are taught in English: GRMN:2630, GRMN:2666, GRMN:2785.

i To satisfy both the GE CLAS Core International and Global Issues requirement and part of the 12 s.h. elective requirement for the major, students may opt to take GRMN:2720.

j Students must take four electives (12 s.h.) of additional German courses (prefix GRMN). Students may apply up to 9 s.h. of German courses (prefix GRMN) taught in English towards the major, selected from courses numbered 1501-1999 and 2500-2999. Either GRMN:4900 or GRMN:4920 may be applied toward the major, but not both. For students pursuing a German major with honors, GRMN:4990 and GRMN:4991 will both count as electives toward the major.

k Students must complete three courses from the following: GRMN:3103, GRMN:3104, GRMN:3214, GRMN:3845. GRMN:3103 and GRMN:3104 can be taken in any order.

l GRMN:3010 is typically offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

mPlease see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

International Studies, BA

International studies students learn that the complexity of current world conditions requires a multidisciplinary approach to problem solving. They take core international studies courses to learn key concepts and practical skills, and extend their education by choosing from an array of internationally focused courses from the social sciences, humanities, and the arts.

Students are also encouraged to develop real-world intercultural skills by studying abroad, engaging locally with international communities, participating in service learning and internships, and conducting research. Through academic and cocurricular experiences, students become prepared to positively contribute to the world.

As a second major, international studies can add cross-cultural skills and perspectives to degrees in business, health sciences, journalism, and the arts.

Learning Outcomes

Students will be able to:

- recognize that the complexity of current world conditions requires a multidisciplinary approach to problem solving;
- analyze and synthesize information about key topics in international studies;
- demonstrate intellectual open-mindedness when addressing global issues; and
- apply cross-cultural skills when engaging respectfully with people from other countries and diverse communities in the United States.

Requirements

The Bachelor of Arts with a major in international studies requires a minimum of 120 s.h., including at least 43 s.h. of work for the major. Students must complete at least 15 s.h. of work for the major at the University of Iowa. They must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. Students must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The international studies major is flexible, combining core international studies coursework with courses drawn from across the humanities, social sciences, and the arts. Students work closely with an academic advisor to plan their program of study.

Students are encouraged to study or intern abroad and should work with their academic advisor to determine how credits earned from approved study abroad programs or international internships can fulfill the global perspectives, world cultures and societies, and/or language requirements for the major.

To benefit from the interdisciplinary nature of international studies, students choose from a wide range of courses. To ensure that students take courses from varied disciplines, students may count a maximum of 12 s.h. from a single course subject toward the global perspectives [p. 703] and the world cultures and societies [p. 706] requirements (with the exception of international studies courses, prefix IS).

Transfer credit approved by the International Studies Program may be applied to the major.

Students have the option to complete a 15 s.h. concentration. They choose global perspectives courses and world cultures and societies courses approved in one of the three concentrations: global business and communication [p. 710], international human rights and public service [p. 710], or international sustainable development [p. 711].

The BA with a major in international studies requires the following coursework.

Requirements	Hours
Foundation Courses	10
Language Requirement	6
Capstone Course	3
Global Perspectives Courses	12
World Cultures and Societies Courses	12
Optional Concentrations	

Foundation Courses

Students learn the core, multidisciplinary intellectual and interpersonal international studies skill set, and its applications for travel, employment, and understanding global issues.

Course #	Title	Hours
All of these:		
IS:2000	Introduction to International Studies	3
IS:2009	World Travel: Cross-Cultural Skills for International Business, Education, and Service	3
IS:2020	World Events Today!	3
One of these:		
IS:1000	Designing Your International Studies Major	1
IS:2500	Working Internationally	1

Language Requirement

By fulfilling the language requirement, students gain the language competence needed for work and life in the increasingly globalized world.

Students must complete a minimum of two world language courses beyond those required by the GE CLAS Core [p. 22]. If students have not completed the fourth level of a single language in fulfilling the GE CLAS Core requirement, then they must complete the fourth level of a single world language to fulfill the international studies major language requirement.

If a student completes the fourth level of a single language prior to completing the international studies major language requirement, this requirement can be met by completing additional courses in the same language or two courses in a second world language at any level. A single course in a second language may not be used alone. A maximum of one 3 s.h. course from the GE CLAS Core World Language and Cultural Exploration course list may also be used toward the major requirement.

In satisfying this requirement, many students are eligible to receive an additional 4 s.h. of ungraded credit under the Furthering Language Incentive Program (FLIP). This credit may be applied to the minimum 120 s.h. required for graduation, but it does not count toward requirements for the international studies major.

Capstone Course

Students apply their knowledge in internationally focused experiences. They typically complete the capstone course in their third or fourth year.

Course #	Title	Hours
One of these:		
IS:3010	Writing and Research for the World	3
IS:3012	Service Learning in International Studies	3

Global Perspectives Courses

Students learn about global trends, comparisons, and interactions.

Course #	Title	Hours
12 s.h. from these, including 6 s.h. numbered 2000 or above:		
IS:1101/ANTH:1101	Cultural Anthropology	3
IS:2042/ COMM:2042/ SSW:2042	Intercultural Communication	3
IS:2115/HRTS:2115	Introduction to Human Rights	3
IS:2151/ ANTH:2151/ GWSS:2151	Global Migration in the Contemporary World	3
IS:2190/ ANTH:2190/ GWSS:2190	Love Rules: Law and the Family Across Cultures	3
IS:2248/ ANTH:2248/ ASIA:2248/ CLSA:2048/ COMM:2248/ GRMN:2248/ HIST:2148/ LING:2248/ TRNS:2248/ WLLC:2248	The Invention of Writing: From Cuneiform to Computers	3
IS:2400	Global Citizenship and the College Student	3
IS:2560	Global Food Migrations	3
IS:2902/HRTS:2902	The Arts and Human Rights	1-3
IS:2903/HRTS:2903	Technology and Human Rights	1-3
IS:2907/HRTS:2907	Literature and Human Rights	1-3
IS:2908/HRTS:2908	Governance and Human Rights	1-3
IS:2909/HRTS:2909	Human Rights Lab	1-3
IS:3116/JMC:3116	Media and Global Cultures	3
IS:3190/ ANTH:3190/ SJUS:3190	Global Debt	3
IS:3198/ ANTH:3199/ GHS:3199	Understanding Health in an Unequal World: Anthropology and Global Health Policy	3
IS:3350/ ANTH:3125/ GWSS:3350	Transnational Feminism	3
IS:3904/HRTS:3904	Business, Labor, and Human Rights	1-3
IS:3905/HRTS:3905	Topics in Human Rights	1-3
IS:3910/HRTS:3910	Approaches to Advocacy: From Theory to Practice	3
IS:4131/ COMM:4131	Globalization and Culture	3
AFAM:2770/ GHS:2770/ SOC:2770	Black and White Community Politics	3
ANTH:2100	Anthropology and Contemporary World Problems	3
ANTH:2136	Race, Place, and Power: Urban Anthropology	3
ANTH:2140	Food, Drink, and Culture	3
ANTH:2164/ GHS:2164	Culture and Healing: An Introduction to Medical Anthropology	3
ANTH:2181/ ASP:2181/ GHS:2181	The Anthropology of Aging	3
ANTH:2261	Human Impacts on the Environment	3
ANTH:2320/ GHS:2320	Origins of Human Infectious Disease	3
ANTH:3103	Environment and Culture	3
ANTH:3110/ CBH:4200/ GHS:3110/ NAIS:3110	Colonialism and Indigenous Health Equity	3
ANTH:3152/ ASP:3152/ GHS:3152	Anthropology of Caregiving and Health	3
ANTH:3237/ HIST:3137/ MUSM:3237	Politics of the Archaeological Past	3
ANTH:4140/ CBH:4140/ GHS:4140/ GWSS:4140	Feminist Activism and Global Health	3
ARAB:2006/ SJUS:2006/ WLLC:2006	Transnational Solidarities	3-4
ARTH:1030	Themes in Global Art	3
ARTH:1075	Contemporary Art: A Global Perspective	3
ASP:3135/ GHS:3050/ SSW:3135	Global Aging	3
CLSA:3020/ GHS:3021	Mental Health in the Ancient World	3
COMM:4171/ LATS:4171	Community Media	3
CPH:2200	Climageddon: Understanding Climate Change and Associated Impacts on Health	3
CPH:2230	Finding Patient Zero: The Exploration of Infectious Disease Transmission and Pandemic Threats	3

CPH:2400	The U.S. Health System in a Global Context	3
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
CPH:3500/ GHS:3500	Global Public Health	3
CPH:4200	Agriculture, Food Systems, and Sustainability	3
CPH:4220/ GHS:4530/ OEH:4530	Global Road Safety	3
CRIM:2430	Comparative Criminal Justice Systems	3
CRIM:3260	Immigration and Crime	3
CRIM:3415	Global Criminology	3
DANC:2060	Dance and Society in Global Contexts	3
ECON:3345	Global Economics and Business	3
ECON:3620	Economic Growth and Development	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ECON:3760	Health Economics	3
ECON:4110	International Economics	3
ENGL:1510	Introduction to Environmental Literature	3
ENGL:2505	Introduction to Postcolonial Studies	3
ENGL:2510	Selected Transnational Authors	3
ENGL:3510	Topics in Transnational Literature	3
ENGL:3515	Topics in Postcolonial Studies	3
ENGL:3570/ GWSS:3570	Transnational and Postcolonial Writing by Women	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4460	Entrepreneurship and Global Trade	3
FIN:4240	International Finance	3
FREN:1006	Global Sports and National Cultures	3
FREN:4210/ MUSM:4310/ WLLC:4210	Slavery Museums, Memorials, and Statues in the United States, Europe, and the Global South	3-4
GHS:2000/ ANTH:2103	Introduction to Global Health Studies	3
GHS:2660	Global Media Stories of Addiction	3
GHS:3010/ IGPI:3011	Social Science Approaches to Global Health	3
GHS:3030/ CPH:3240	Global Health Today	1
GHS:3034	Doing Harm by Doing Good: The Ethics of Studying, Volunteering, and Working in Global Communities	1
GHS:3035	Engaging in Global Health	1
GHS:3036	Ethics, Policy, and Global Health	3
GHS:3037	Technology to Improve Global Health	3
GHS:3060	Studies in Complementary and Alternative Medicine	3
GHS:3120	Global Maternal and Child Health	3
GHS:3230	Health Experience of Immigrants, Migrants, and Refugees	3
GHS:3325	Global Epidemics	3
GHS:3560	Global Garbage and Global Health	3
GHS:3720	Contemporary Issues in Global Health	3
GHS:3850/ HHP:3850	Promoting Health Globally	3
GHS:4000	Global Health Studies Service Learning: Local Health is Global Health	4
GHS:4001	Social Entrepreneurship and Global Health	3
GHS:4002	Working in Global Health	3
GHS:4003	Case Studies in Global Health Inequities	3
GHS:4100	Topics in Global Health	1-3
GRMN:2949/ WLLC:2949	Accountability, War Crimes, and Justice	3-4
GWSS:2080/ GHS:2080	The Cultural Politics of HIV-AIDS	3
GWSS:2500/ ENGL:2570/ SJUS:2500	Love, War, Activism: Stories About Women From Across the World	3
GWSS:2571/ ENGL:2571/ SJUS:2571	Visualizing Human Rights	3
GWSS:2650/ GHS:2650	Global Reproduction	3
GWSS:2900/ ANTH:2191	Love, Sex, and Money: Sexuality and Exchange Across Cultures	3
GWSS:3010/ GHS:3015	Transnational Sexualities	3
GWSS:3118/ ANTH:3118/ COMM:3118	Politics of Reproduction	3
GWSS:3157/ HIST:3157	Gender, Sexuality, and Human Rights	3
GWSS:3326/ GHS:3327	The Politics of Progress: NGOs, Development, and Sexuality	3
HIST:1101	The Modern World	3
HIST:1115/ SEES:1115	The History of Oil	3
HIST:3106	History Behind the Headlines	1-3
HIST:3108	History of Human Rights	3
HIST:3114	Divided Cities: Global Histories of Segregation	3
HIST:3126	History of Globalization	3

HIST:3128	Topics in Global Environmental History	3
HIST:3131/ SEES:3131	Unnatural Disasters: A Global History	3
HIST:3147	The Cold War	3
HIST:3155	The World Since 1945	3
HIST:3171	Slavery in World History	3
HIST:3242	The United States in World Affairs	3-4
HRTS:3906	Global Crises and Human Rights	3
IWP:3191/ ENGL:3595/ TRNS:3191/ WLLC:3191	International Literature Today	1,3
JMC:3150/ CBH:3150/ GHS:3150	Media and Health	3
JMC:3188/SMC:3188	Staging the World's Game: Soccer and Media	3
JPNS:2127/ ASIA:2127/ CLSA:2127	Books of the Silk Roads	3
LATS:3104/ LAS:3104/ POLI:3104	Immigration Politics	3
LING:1010	Language and Society	3
LING:1040/ ANTH:1040	Language Rights	3
LING:1060	Languages of the World	3
LING:1075	World Englishes	3
LING:1080	Communicating Across Linguistic Differences	3
LING:1090	Language and Globalization	3
LING:2900	Language and Gender	3
LING:3190/ PSY:3190	Psycholinguistic Aspects of Bilingualism	3-4
LING:3410	Exploring TESL for Fulbright Students	1
MGMT:3450	International Business Environment	3
MGMT:4500	Strategy, Innovation and Global Competition	3
MKTG:4300	International Marketing	3
MUS:1310	World Music	3
OEH:4240	Global Environmental Health	3
OEH:4260/ GHS:4260	Global Water and Health	3
PHIL:2429	War, Terrorism, and Torture	3
PHIL:3430	Philosophy of Human Rights	3
POLI:1400	Introduction to Comparative Politics	3
POLI:1510	International Politics of Environmental Issues	3
POLI:1600	Introduction to Political Communication	3
POLI:2417	Comparative Environmental Policy	3
POLI:3405	Authoritarian Politics	3
POLI:3411	Democracy: Global Trends and Struggles	3
POLI:3424	Global Development	3
POLI:3426	Outliers: Comparing Odd Countries	3
POLI:3428	Statecraft, Diplomacy, and World Order	3
POLI:3450	Problems in Comparative Politics	3
POLI:3504	Globalization	3
POLI:3505	Civil Wars	3
POLI:3509	International Courts: The Intersection of Law and Politics	3
POLI:3516	The Politics of International Economics	3
POLI:3518	Water Wars: Conflict and Cooperation	3
RELS:1015	Global Religious Conflict and Diversity	3
RELS:2674/ GHS:2674/ GWSS:2674	Food, Body, and Belief: A Global Perspective	3
RELS:3850	Perspectives on Migration	3
RHET:2090	Conversation Practicum	0-3
RHET:2135/ SJUS:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
SEES:1020	The Global Environment	3
SEES:1070	Contemporary Environmental Issues	3
SEES:1090	Globalization and Geographic Diversity	3
SEES:2013/ BUS:2013/ URP:2013	Introduction to Sustainability	3
SEES:2110/ GHS:2110	Eight Billion and Counting: Introduction to Population Dynamics	3
SEES:2910	The Global Economy	3
SEES:3090/ GHS:3070	Hungry Planet: Global Geographies of Food	3
SEES:3110/ GHS:3111	Geography of Health	3
SEES:3300/ GHS:3300	Envisioning Future Worlds: Sustainable Development and Its Alternatives	3
SEES:3331	Human Dimensions of Climate	3
SEES:3760/ GHS:3760	Hazards and Society	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3
SEES:4000/ SDG:4000	The United Nations Sustainable Development Goals: A Blueprint for a Sustainable Future	3
SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3
SEES:4750/ URP:4750	Environmental Impact Analysis	3

SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3
SPAN:4205/ GHS:4205	Culture, Language, and Health	3
SPST:2170	Sport and Globalization	3
SPST:3176	Sport and Nationalism	3
SPST:3500	The Olympics	3
SRM:1085	Introduction to Travel and Tourism	3
THTR:2320	Playwriting in a Global World	3
TRNS:2000	Translation and Global Society	3
TRNS:3179/ CLSA:3979/ ENGL:3850	Undergraduate Translation Workshop	3
TRNS:4480	Literature and Translation	3
UICB:2190/ ENGL:2901/ HIST:2190	The Book in Global History	3
URP:2056/ PBAF:2056	The Splendor of Cities	3
URP:6253/ PBAF:6253	Designing Sustainable and Healthy Cities	1-3
URP:6297/ PBAF:6297	Financing Economic Development for Poverty Alleviation	3
URP:6400/ PBAF:6400	Sustainable Development: The Kerala Experience	3
WLLC:1200/ DST:1200/ GHS:1200/ GRMN:1200	Disabilities and Inclusion in Writing and Film Around the World	3
WLLC:2001/ ASIA:2001/ FREN:2010/ RUSS:2001/ TRNS:2001	Global Science Fiction	3
WLLC:2473/ FREN:2473/ TRNS:2473	Cinderella	3

World Cultures and Societies Courses

Students gain place-based knowledge.

Course #	Title	Hours
12 s.h. from these, including a minimum of 6 s h. numbered 2000 and above:		
IS:2700/LAS:2700/ PORT:2700/ SPAN:2700	Introduction to Latin American Studies	3
IS:2955/RELS:2955	Human Rights and Islam	3
IS:3142/JMC:3142	Media and Social Change	3
IS:3555/GHS:3555/ HIST:3755	Understanding Health and Disease in Africa	3
IS:4131/ COMM:4131	Globalization and Culture	3
AFAM:3500/ HIST:3160/ RELS:3808	Malcolm X, King, and Human Rights	3
AMST:1290/ GHS:1290/ HIST:1290/ NAIS:1290	Native American Foods and Foodways	3
AMST:3095/ LATS:3095	Central America and Its Diaspora	3
ANTH:1046/ GWSS:1046/ SEES:1046/ SJUS:1046	Environmental Politics in India	3
ANTH:2108/ GWSS:2108	Gendering India	3
ANTH:2160/ GHS:2160	Culture, Health, and Wellness: Southeast Asia in Focus	3
ANTH:2182/ GHS:2182	Africa: Health and Society	3
ANTH:3121/ GWSS:3121	Love, Marriage, and Family in India	3
ARAB:2012	Modern Palestinian Literature and Culture	3
ARAB:2060	Arab-American Immigration: Society, Identity, and Culture	3
ARAB:3005	Culture and Resistance: The Modern Middle East	3-4
ARAB:3030	Media Arabic	3
ARAB:3050	Arab Culture Through Dialects	3
ARTH:1020	Masterpieces: Art in Historical and Cultural Perspectives	3
ARTH:1040	Arts of Africa	3
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II	3
ARTH:1070	Asian Art and Culture	3
ARTH:2020	Western Architecture From Prehistory to the Present	3
ARTH:2120	Art and Architecture of the Islamic World	3
ARTH:2220/ ASIA:2231	Introduction to the Art of China	3
ARTH:2250/ JPNS:2250	Introduction to the Art of Japan	3
ARTH:3020	Paris and the Art of Urban Life	3
ARTH:3160	Themes in African Art	3
ARTH:3225	Modern and Contemporary Art in China	3
ARTH:3270/ ASIA:3270	Themes in Asian Art History	3
ARTH:3375/ RELS:3375	The Great Collision	3
ARTH:3245	Mountains and Waters: Landscape Art of East Asia	3
ARTH:3270	Themes in Asian Art History	3
ASIA:1005	Scripts and Trips: A Journey Through East Asia	3
ASIA:1016/ WLLC:1016	Classical Chinese Short Fiction	1

ASIA:1502/ RELS:1502/ SOAS:1502	Asian Humanities: India	3
ASIA:1609/ HIST:1609	India Now! Surveying the World's Largest Democracy	3-4
ASIA:2450/ MUS:2450	India Beat: The Aesthetics and Politics of India Today	3
CHIN:1030	Introduction to Chinese Ethnic Folk Dance	1
CHIN:1504	China Beyond Walls	3
CHIN:1702	Chinese Popular Culture	3
CHIN:3103	Business Chinese I	3
CHIN:3104	Business Chinese II	3
CHIN:3341	Chinese Literature: Poetry	3
CHIN:4203	Modern Chinese Writers	3
CHIN:4206	Chinese Cinema	3
CLSA:2489/ RELS:2289	Jerusalem: The Holy City	3
CLSA:4452/ RELS:4352	The Dead Sea Scrolls	3
COMM:1898/ LATS:1898	Introduction to Latina/o/x Communication and Culture	3
COMM:2086	Global Media Studies	3
DANC:1150/ LAS:1150	Brazilian Culture and Carnival	3
DANC:2065	Performing Power/ Performing Protest: The Body, Identity, and the Image	3
DANC:2085	Introduction to African Caribbean Dance Practices	3
DANC:2150	Brazilian Social Dance: The Samba	3
ENGL:2330	Topics in Modern British Literature After 1900	3
ENGL:2360	Twentieth-Century British Literature	3
ENGL:2361	Twenty-first-Century British Literature	3
ENGL:2510	Selected Transnational Authors	3
ENGL:2560	Topics in Culture and Identity	3
ENGL:2601	Topics in British Culture and Identity	3
ENGL:3182	Digital Cultures and Literacies	3
ENGL:3329	Literature and Culture of Eighteenth-Century Britain	3
ENGL:3338	Literature and Culture of the Romantic Period	3
ENGL:3339	Literature and Culture of Nineteenth-Century Britain	3
ENGL:3350	Literature and Culture of 20th- and 21st-Century Britain	3
ENGL:3355	British Poetry	3
ENGL:3360	British Fiction	3
ENGL:3467/ LATS:3467	Latina/o/x Literatures and Cultures	3
ENGL:3525	Literature and Culture of the Americas	3
ENGL:3535/ LAS:3535	Topics in Literature and Culture of the Americas	3
ENGL:3540	Literature of the Indian Subcontinent	3
ENGL:3550/ AFAM:3550	African Literature	3
ENGL:3555/ AFAM:3555	Topics in African Cinema	3
FREN:1005	Texts and Contexts: French-Speaking World	3
FREN:1007	Nature/Ecology French Philosophy and Fiction	3
FREN:1510	Cultural Misunderstandings: France and U.S.A.	3
FREN:3120	French Civilization	3
FREN:3130	Francophone Cultures	3
FREN:3232/ TRNS:3232	French Literary Translation Workshop	3
FREN:3240	Media French	3
FREN:3250	Topics in French Studies I	3
FREN:3410	Business French	3
FREN:4015	Francophone Cinema	3-4
FREN:4080	Post-Colonial Literature in France	3
FREN:4090	Quebec Literature	3
FREN:4100	French Cinema	3-4
FREN:4110	Francophone Studies: Literature and the Arts	3
FREN:4433/ HIST:4433	France Under Nazi Occupation, 1940-1944	3-4
FREN:4520	Versailles Under the Sun King	3-4
FREN:4540/ GWSS:4540	Gender and Sexuality in French Cinema	3-4
FREN:4750	Topics in French Studies II	3
GHS:3520/ LATS:3520	Oral Histories of Health Care	3
GRMN:1685	German Cultural History	3
GRMN:2275	Scandinavian Crime Fiction	3
GRMN:2600	Witch Hunts in Fact and Fiction: A Global History of Exclusion	3-4
GRMN:2618/ WLLC:2618	Film and Literature of the Holocaust	3-4
GRMN:2620/ WLLC:2620	Anne Frank and Her Story	3-4
GRMN:2630	German Cinema: Greatest Hits	3-4
GRMN:2666/ WLLC:2666	Pact With the Devil	3-4
GRMN:2675/ MUSM:2675	The Politics of Memory: Holocaust, Genocide, and 9/11	3-4
GRMN:2720/ HIST:2420	Germany in the World	3-4
GRMN:2785	Cyborgs, Monsters, and the Uncanny	3-4
GRMN:3214	Business German	3
GRMN:3236	German Film	3

GRMN:3405	German Cultural History	3
GRMN:3501	German Writers Engaged	3
GRMN:3860/ LING:3860	German Language and Society	3
GRMN:4315	German Society Today	3
HIST:1602/ ASIA:1602	Civilizations of Asia: China from the 17th Century to the Present	3
HIST:1604/ ASIA:1604	Civilizations of Asia: Japan	3-4
HIST:1606/ ASIA:1606/ RELS:1606	Civilizations of Asia: South Asia	3-4
HIST:1607/ ASIA:1607	Civilizations of Asia: Korea	3-4
HIST:1708	Civilizations of Africa	3
HIST:2155/ JSTU:2155	Global Jewish History	3
HIST:2156/ JSTU:2156	Arabs and Jews in Palestine and Israel	3
HIST:2461/ CLSA:2461/ RELS:2361	Middle East and Mediterranean: Alexander to Suleiman	3
HIST:2465	Europe Since 1945	3
HIST:2684/ ASIA:2684	Korean War: Local and Global History	3
HIST:2802	Gender, Religion, and Social Identities in the Modern Middle East	3
HIST:2810	The Modern Middle East	3
HIST:3217/ LAS:3217/ LATS:3217	Latina/o/x Immigration	3
HIST:3251/ AMST:3251	The Office: Business Life in America	3
HIST:3289/ NAIS:3289	The Atlantic World c. 1450-1850	3
HIST:3420/ GHS:3420	Health and Healing in Early Modern Europe	3
HIST:3427/ GWSS:3427	Family, Gender, and Society in Early Modern Europe	3
HIST:3494/ RUSS:3494	The Russian Revolutions and Their Legacies	3
HIST:3501/ LAS:3501	Rebel Island: A History of Cuba	3
HIST:3508/ GHS:3508/LAS:3508	Disease and Health in Latin American History	3
HIST:3515/ LAS:3515	Introduction to Modern Latin America	3
HIST:3522/ LATS:3522	Indigenous Women and Rural Unrest in Latin America	3
HIST:3539/ SEES:3539	History of Environmental (In)Justice in Latin America	3
HIST:3652/ ASIA:3652	Twentieth-Century China	3
HIST:3685/ ASIA:3685	Modern Korean History	3
HIST:3760/ AFAM:3760	The Making of Modern Africa	3
HIST:3810	History of the Modern Middle East	3
HIST:4216/ LAS:4216	Mexican American History	3
HIST:4334	Topics in American Borderlands History	3
HIST:4478	Holocaust in History and Memory	3
HIST:4666/ ASIA:4166	Topics in Asian History	3
ITAL:2440	Italian Arts for International Success	3
ITAL:2550	Images of Modern Italy	3-4
ITAL:2770	The Mafia and the Movies	3
ITAL:4550	Topics in Italian Studies	3
ITAL:4633	Dante's Inferno	3-4
ITAL:4660/ TRNS:4660	Transcultural Texts and Translations	3
ITAL:4667	Modern Italian Fiction	3
ITAL:4668	Modern Italian Poetry and Theater	3
IWP:3191/ ENGL:3595/ TRNS:3191/ WLLC:3191	International Literature Today	1,3
JMC:1500	Introduction to Social Media	3
JPNS:1506	Ghostly Japan	3
JPNS:2127/ ASIA:2127/ CLSA:2127	Books of the Silk Roads	3
JPNS:3201/ TRNS:3201	Workshop in Japanese Literary Translation	3
JPNS:3202	Traditional Japanese Literature in Translation	3
JPNS:3203	Modern Japanese Fiction in Translation	3
JPNS:3204	Topics in Japanese Literature in Translation	1-3
JPNS:3206	Warriors' Dreams	3
JPNS:3207	Japan Illuminated: Japanese Literature and Visual Culture	3
JPNS:3208	Japanese Film	3
JPNS:3210	Japanese Theater	3
JPNS:3401	Language in Japanese Society	3
JPNS:3402	Japan: Culture and Communication	3
JPNS:3500	Japanese for Professional Purposes	3
JPNS:3601	Contemporary Japanese Culture	3
JPNS:4201	Genji Lab	3
KORE:1135	Cultural Fusion: Korean Pop Culture in a Globalized World	3
KORE:3070	Topics in Korean Studies	3
LAS:4700/ ANTH:4700/ HIST:4504/ PORT:4700/ SPAN:4900	Latin American Studies Seminar	3-4
LATS:1700/ SPAN:1700	Latina/o/x Literature in the United States	3

LATS:2280/ HIST:2280	Introduction to Latina/o/x Studies	3
LATS:3100	Latinx Community Engagement	3
LATS:3104/ LAS:3104/ POLI:3104	Immigration Politics	3
LATS:3550/ GWSS:3431	Topics in Latina/o/x Studies: History and Culture	1-3
LATS:4800/ AMST:4800	Latina/o/x Popular Culture	3
LAW:8698	Law in the Muslim World	2-3
LING:3080/ WRIT:3080	History of the English Language	3
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1800	World of the Beatles	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
MUS:3162	All University Steel Band	1-3
MUS:3163	Iowa Steel Band	1
POLI:1401	Introduction to Russian Politics	3
POLI:1449	Introduction to European Politics	3
POLI:2415/ LAS:2415	Latin American Politics	3
POLI:3408	Chinese Politics and Society	3
POLI:3420	Southeast Asia: Politics and Development	3
POLI:3422	Horn of Africa: Politics and Transnational Issues	3
POLI:3423	The Middle East: Policy and Diplomacy	3
RELS:1001	Judaism, Christianity, and Islam	3
RELS:1130/ HIST:1030	Introduction to Islamic Civilization	3
RELS:1350/ AFAM:1250	Introduction to African American Religions	3
RELS:1404/ ASIA:1040/ HIST:1610	Introduction to Asian Religions	3
RELS:1506/ ASIA:1060/ HIST:1612	Introduction to Buddhism	3
RELS:1670/ ASIA:1670/ KORE:1670	Korea in the World	3
RELS:2515/ ASIA:2515	Introduction to Chinese Religious Thought: How Best to Live	3
RELS:2775	The Bible and the Holocaust	3
RELS:2852/ GWSS:2052	Women in Islam and the Middle East	3
RELS:3190/ HIST:3190	Medieval to Modern: The Birth of Protestantism	3
RELS:3655/ ASIA:3655/ HIST:3655	Zen Buddhism	3
RUSS:1082	Youth Subcultures After Socialism	3
RUSS:1131/ WLLC:1131	Introduction to Russian Culture	3
RUSS:1132	Russia Today	3
RUSS:1531	Slavic Folklore	3
RUSS:2050/ WLLC:2050	Women From an Unknown Land: The Fight for Independence	3
RUSS:2100	Russian Mindset: Sex, Business, and Politics	3
RUSS:2110	Russian Sports: Politics, Scandal, Glory	3
RUSS:3202/ HIST:3492/ TRNS:3203/ WLLC:3202	Russian Literature in Translation 1860-1917	3
RUSS:3205	Contemporary Russian Prose in Translation	3
RUSS:3224	Russian Culture Through Cinema	3
SPAN:1800	Writing and Writers From Latin America	3
SPAN:2005	Writing Global Spanish	3
SPAN:2050	Spanish in the United States	3
SPAN:2080	Business Spanish	4
SPAN:2090/ GHS:2090	Medical Spanish in Contemporary Society	4
SPAN:2200/ LAS:2200	Introduction to Spanish American Cultures	3
SPAN:2400	Readings in Spanish Literature	3
SPAN:2500/ LAS:2500	Readings in Spanish American Literature	3
SPAN:2800/ LAS:2800	Screening Latin America	3
SPAN:2900/ LAS:2900	Music of the Hispanic World	3
SPAN:3020/ JMC:3445/LAS:3020	Journalistic Writing in Spanish	3
SPAN:3030	Translation Workshop: English to Spanish	3
SPAN:3050	Translation Workshop: Spanish to English	3
SPAN:3080	Spanish for International Business	3
SPAN:3092/ GHS:3092	Spanish in the Community	3
SPAN:3130	Introduction to Bilingualism	3
SPAN:3205/ GHS:3045	Spanish Health Narratives	3
SPAN:3215/ LAS:3215	Medellin	3
SPAN:3225/ LAS:3225	Latin American Women Writers	3
SPAN:3230	Modern Mexico	3
SPAN:3250	Buenos Aires	3
SPAN:3290/ LAS:3290	Topics in Cinema and Society	3
SPAN:3310/ LAS:3310	Spanish American Short Story	3
SPAN:3320	Spanish American Poetry	3

SPAN:3350	Contemporary Spanish American Literature	3
SPAN:3370	Topics in Literatures and Cultures	3
SPAN:3500	Topics in Culture of the Hispanic World	3
SPAN:3600	Cultures of Spain	3
SPAN:3620	Madrid	3
SPAN:3650	Fitness Culture in Spain	3
SPAN:3820	Modern and Contemporary Spanish Literature	3
SPAN:3840	Contemporary Spanish Short Story	3
SPAN:4205/ GHS:4205	Culture, Language, and Health	3
SPAN:4330	Colonial Spanish American Literature	3
SPAN:4390/ LAS:4390	Topics in Spanish American Literature	3
SPAN:4650	Don Quijote	3
SPAN:4690	Topics in Spanish Literature	3
SPAN:4815/ LAS:4815	Lost Childhoods: Marginal Children of Latin America	3
SPAN:4925/ LAS:4925	Topics in Film Narrative	3
SWAH:1010	Introduction to Swahili Language and Culture	2
THTR:1400	Theatre and Society: Ancients and Moderns	3
THTR:1401	Theatre and Society: Romantics and Rebels	3
WLLC:2222/ ASIA:2222/ GWSS:2222	Women in Premodern East Asian Literature	3
WLLC:3208/ ASIA:3208/ TRNS:3208	Classical Chinese Literature Through Translation	3

Optional Concentrations

Students have the option to complete a 15 s.h. concentration. This may be done by choosing global perspectives courses and world cultures and societies courses that are approved in one of the three concentrations: global business and communication [p. 710], international human rights and public service [p. 710], or international sustainable development [p. 711].

Global Business and Communication

This concentration enables students to understand the complex forces that shape global commerce on the macro and micro levels. Students use multidisciplinary perspectives to understand the economic and cultural impacts of globalization processes, including on globalized systems and cultures of business, communication, and media. It offers social scientific and humanistic approaches to global business and communication. This background enables students who earn the concentration to stand out among entry-level business applicants; students develop the knowledge and skills needed for engaging in ethical and effective intercultural communication and action in the global business world, which are valued by multinational corporations and businesses worldwide.

Course #	Title	Hours
15 s.h. from these:		
IS:2042/ COMM:2042/ SSW:2042	Intercultural Communication	3
IS:3116/JMC:3116	Media and Global Cultures	3
IS:3142/JMC:3142	Media and Social Change	3
IS:3190/ ANTH:3190/ SJUS:3190	Global Debt	3
IS:4131/ COMM:4131	Globalization and Culture	3
COMM:1898/ LATS:1898	Introduction to Latina/o/x Communication and Culture	3
COMM:2086	Global Media Studies	3
COMM:4171/ LATS:4171	Community Media	3
ECON:3345	Global Economics and Business	3
ECON:3620	Economic Growth and Development	3
ENTR:4460	Entrepreneurship and Global Trade	3
FREN:1006	Global Sports and National Cultures	3
FREN:1510	Cultural Misunderstandings: France and U.S.A.	3
FREN:3410	Business French	3
GRMN:3214	Business German	3
HIST:3251/ AMST:3251	The Office: Business Life in America	3
JMC:1500	Introduction to Social Media	3
JPNS:3402	Japan: Culture and Communication	3
JPNS:3500	Japanese for Professional Purposes	3
MGMT:3450	International Business Environment	3
MGMT:4500	Strategy, Innovation and Global Competition	3
MKTG:4300	International Marketing	3
POLI:3516	The Politics of International Economics	3
RHET:2090	Conversation Practicum	0-3
RUSS:2100	Russian Mindset: Sex, Business, and Politics	3
SEES:2910	The Global Economy	3
SPAN:2080	Business Spanish	4
SPAN:3080	Spanish for International Business	3
SRM:1085	Introduction to Travel and Tourism	3
TRNS:2000	Translation and Global Society	3

International Human Rights and Public Service

This concentration is designed to provide a combination of philosophical and practical knowledge related to social justice and human rights. The study of human rights is inherently multidisciplinary, and students have the opportunity to

become familiar with international human rights standards, their application, and implications through coursework in a variety of disciplines. Students are expected to understand how to discuss and address human rights concerns from a number of distinct perspectives and to apply critical thinking skills to complex problems. Students also develop an understanding of the ways that cultural and political-economic systems reflect specific place-based contexts as well as complex world histories of colonization, resistance, migration, and globalization. They gain knowledge and skills that are directly applicable to public service careers in government and nongovernmental organizations, in the United States and abroad, as well as graduate programs of study such as law and public policy.

Course #	Title	Hours
This course:		
IS:2115/HRTS:2115	Introduction to Human Rights	3
3 s.h. from these:		
IS:2903/HRTS:2903	Technology and Human Rights	1-3
IS:2907/HRTS:2907	Literature and Human Rights	1-3
IS:2908/HRTS:2908	Governance and Human Rights	1-3
IS:2909/HRTS:2909	Human Rights Lab	1-3
IS:3904/HRTS:3904	Business, Labor, and Human Rights	1-3
IS:3905/HRTS:3905	Topics in Human Rights	1-3
HRTS:3906	Global Crises and Human Rights	3
And 9 s.h. from these:		
IS:2151/ ANTH:2151/ GWSS:2151	Global Migration in the Contemporary World	3
IS:2955/RELS:2955	Human Rights and Islam	3
AFAM:3500/ HIST:3160/ RELS:3808	Malcolm X, King, and Human Rights	3
ANTH:3110/ CBH:4200/ GHS:3110/ NAIS:3110	Colonialism and Indigenous Health Equity	3
ENGL:2505	Introduction to Postcolonial Studies	3
ENGL:2560	Topics in Culture and Identity	3
FREN:4210/ MUSM:4310/ WLLC:4210	Slavery Museums, Memorials, and Statues in the United States, Europe, and the Global South	3-4
GHS:3034	Doing Harm by Doing Good: The Ethics of Studying, Volunteering, and Working in Global Communities	1
GHS:4003	Case Studies in Global Health Inequities	3
GRMN:2675/ MUSM:2675	The Politics of Memory: Holocaust, Genocide, and 9/11	3-4
GRMN:2949/ WLLC:2949	Accountability, War Crimes, and Justice	3-4
GWSS:2571/ ENGL:2571/ SJUS:2571	Visualizing Human Rights	3
GWSS:3157/ HIST:3157	Gender, Sexuality, and Human Rights	3
GWSS:3326/ GHS:3327	The Politics of Progress: NGOs, Development, and Sexuality	3
HIST:4478	Holocaust in History and Memory	3
LATS:3100	Latinx Community Engagement	3
LATS:3104/ LAS:3104/ POLI:3104	Immigration Politics	3
LING:1040/ ANTH:1040	Language Rights	3
POLI:3509	International Courts: The Intersection of Law and Politics	3
RHET:2135/ SJUS:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
RUSS:2050/ WLLC:2050	Women From an Unknown Land: The Fight for Independence	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3

International Sustainable Development

Students learn about the multiple dimensions of social change and human development in areas of the world categorized as developing societies, including poverty reduction; health; the environment and sustainability; climate change; food security; communication for development; cultures of developing societies; and historical, cultural, and critical perspectives on the idea of modern development. They gain an understanding of development as a cultural and political-economic process that directly influences the environment. Students also study the ways in which direct and indirect policy-making by social, economic, and political institutions affect environmental issues. In this way, they develop an appreciation of the complexity of development and environmental problems in the globalized world. This concentration gives students the knowledge and skills needed for jobs or graduate education in international development and sustainability.

Course #	Title	Hours
15 s.h. from these:		
IS:3555/GHS:3555/ HIST:3755	Understanding Health and Disease in Africa	3
ANTH:1046/ GWSS:1046/ SEES:1046/ SJUS:1046	Environmental Politics in India	3
ANTH:2136	Race, Place, and Power: Urban Anthropology	3
ANTH:2160/ GHS:2160	Culture, Health, and Wellness: Southeast Asia in Focus	3
ANTH:2261	Human Impacts on the Environment	3

CPH:4200	Agriculture, Food Systems, and Sustainability	3
GWSS:3326/ GHS:3327	The Politics of Progress: NGOs, Development, and Sexuality	3
HIST:3128	Topics in Global Environmental History	3
HIST:3131/ SEES:3131	Unnatural Disasters: A Global History	3
HIST:3508/ GHS:3508/LAS:3508	Disease and Health in Latin American History	3
HIST:3539/ SEES:3539	History of Environmental (In)Justice in Latin America	3
POLI:1510	International Politics of Environmental Issues	3
POLI:2417	Comparative Environmental Policy	3
POLI:3420	Southeast Asia: Politics and Development	3
POLI:3424	Global Development	3
SEES:1070	Contemporary Environmental Issues	3
SEES:2013/ BUS:2013/ URP:2013	Introduction to Sustainability	3
SEES:3300/ GHS:3300	Envisioning Future Worlds: Sustainable Development and Its Alternatives	3
SEES:4000/ SDG:4000	The United Nations Sustainable Development Goals: A Blueprint for a Sustainable Future	3

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. International studies honors students must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.33 in all coursework for the major and in all coursework that may be applied to the major.

To graduate with honors in the major, students must complete a minimum of 46 s.h. for the major (an additional 3 s.h.).

Honors students must choose IS:3010 Writing and Research for the World for their capstone option, and complete IS:4991 Honors Thesis in International Studies. Students also are encouraged to present their research in a public venue, such as the Spring Undergraduate Research Festival (SURF).

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the international studies major.

Career Advancement

The flexible structure of the international studies major allows students to tailor the degree to fit a wide range of academic interests and career goals. International studies is an ideal complement to a variety of academic degree programs and many students combine the international studies major with another major such as in world languages, business, journalism, health sciences, or the arts.

International studies alumni find employment in a range of career sectors such as education, nonprofit/nongovernmental organizations (NGOs), business, government, and translation/interpreting.

Specific examples of organizations where recent graduates have found post-graduation opportunities include Doctors without Borders (New York City, New York), the International Visitor Leadership Program/U.S. Department of State (Washington, D.C.), Coyote Logistics (Chicago, Illinois), Peace Corps (Cambodia and Uganda), American Councils for International Education (Washington, D.C.), CET Study Abroad Programs (Greece), RefugeeRISE AmeriCorps (Des Moines and Iowa City, Iowa), Japan Exchange and Teaching Program (Japan), The Bold Italic (San Francisco, California), and Texas Rio Grande Legal Aid (Austin, Texas).

International studies graduates also have used their cross-cultural, interdisciplinary education to win prestigious awards such as the Fulbright English Teaching Assistantship (Czech Republic, Taiwan, Brazil, Russia), the Gilman Scholarship, the Stanley Undergraduate Award for International Research, the Princeton in Latin America Fellowship, and the Critical Language Scholarship.

Additionally, the international studies major is excellent preparation for graduate and professional programs in law, international development, medicine, nonprofit management, higher education, public health, and urban and regional planning.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Students who intend to study abroad during their junior year should schedule an appointment during their fourth semester to meet with an advisor from International Programs Study Abroad; those who intend to study abroad during their senior year should schedule an appointment during their sixth semester.

Before the fifth semester begins: at least two 3 s.h. foundation courses, and one global perspectives course or world cultures and societies course.

Before the seventh semester begins: at least nine courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least 12 courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major (including capstone course if not already taken), all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Iowa Degree in Three

University of Iowa majors who are strongly motivated can graduate with a degree in three years under the Iowa Degree in Three. The program is available to students who can complete more semester hours each term than they would on the Four-Year Graduation Plan.

Students sign an agreement during their first semester of enrollment; meet with an advisor at least once a semester to review their plans and progress; take courses during summer sessions, if necessary; meet specific course checkpoints; and maintain the grade-point average required for the major.

Students are allowed to bring Advanced Placement (AP), College Level Examination Program (CLEP), or transfer credit upon admission to reduce the number of semester hours required for their degree. They should consult their advisor about the program.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

International Studies, BA

Course	Title	Hours
Academic Career		
Any Semester		
The international studies program encourages students to develop cross-cultural skills through study abroad and/or involvement with internationally-focused U.S.-based organizations. [a]		
Honors students must complete IS:4991 Honors Thesis in International Studies.		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
IS:2000	Introduction to International Studies [c]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Values and Society [d]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
First-Year Seminar course with international content encouraged		1
CSI:1600	Success at Iowa	1
	Hours	**15-17**
Spring		
IS:1000 or IS:2500	Designing Your International Studies Major [c] or Working Internationally	1
IS:2009	World Travel: Cross-Cultural Skills for International Business, Education, and Service [c]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
Elective course [f]		3
	Hours	**14-16**
Second Year		
Fall		
IS:2020	World Events Today! [c]	3
Major: world cultures and societies course (may select optional concentration course) [g, h]		3
GE CLAS Core: Natural Sciences without Lab [d]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Spring		
Major: global perspectives course (may select optional concentration course) [g, i]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Third Year		
Fall		
IS:1000 or IS:2500	Designing Your International Studies Major [c] or Working Internationally	1
Major: world cultures and societies course (may select optional concentration course) [g, h]		3
Major: language requirement course [j]		3 - 5
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
Elective course [f]		1
	Hours	**15-17**
Spring		
Major: global perspectives course (may select optional concentration course) [g, i]		3
Major: world cultures and societies course (may select optional concentration course) [g, h]		3
Major: language requirement course [j]		3 - 5
Elective course [f]		3
Elective course [f]		3
	Hours	**15-17**
Fourth Year		
Fall		
Major: global perspectives course (may select optional concentration course) [g, i]		3
Major: world cultures and societies course (may select optional concentration course) [g, h]		3
GE CLAS Core: Social Sciences [d]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**

Spring

IS:3012	Service Learning in International Studies	3
Major: global perspectives course (may select optional concentration course) [g, i]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**121-131**

a Students meet regularly with the international studies academic advisor for help in identifying experiential learning activities and integrating them into their academic plans.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Students earn a minimum of 10 s.h. in foundation courses.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Students have the option to complete a 15 s.h. concentration. They choose global perspectives courses and world cultures and societies courses approved in one of the three concentrations: global business and communication, international human rights and public service, or international sustainable development.

h Students earn a minimum of 12 s.h. in world cultures and societies courses including at least 6 s.h. numbered 2000 or above; see the General Catalog for list of approved courses.

i Students earn a minimum of 12 s.h. in global perspectives courses including at least 6 s.h. numbered 2000 or above; see the General Catalog for list of approved courses.

j Students must complete a minimum of two world language courses beyond that required by the GE CLAS Core program. If students have not completed the fourth level of a single language in fulfilling the GE CLAS Core requirement, then they must complete the fourth level of a single world language to fulfill the international studies major language requirement. If a student completes the fourth level of a single language prior to completed the international studies major language requirement, this requirement can be met by completing additional courses in the same language or two courses in a second world language at at any level. A single course in a second language may not be used alone. A maximum of one 3 s.h. course from the GE CLAS Core World Language and Cultural Exploration course list may also be used toward the major requirement.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Italian, BA

Italian is the gateway to one of the world's richest cultures. Italy has the most United Nations Educational, Scientific and Cultural Organization (UNESCO) world heritage sites—artistic treasures considered to be of universal value—of any country in the world, due to its history as the birthplace of the Roman Empire and the Renaissance. In addition to an internationally recognized cultural patrimony, the country also has one of the world's largest economies. Italy is a world leader in design, fashion, art restoration, the culinary arts, robotics, shipbuilding, electromechanical machinery, machine tool manufacturing, construction machinery, space engineering, pharmaceuticals, and genetic mapping. Music, cinema, and sports also speak Italian.

Students pursue Italian studies for cultural reasons, for travel and study plans in Italy, and because it enhances their competitiveness in today's marketplace. Because an estimated 950 Italian companies have offices in the U.S., and the U.S. is the third-ranked country of destination for Italian export, many employers are seeking people who speak both Italian and English. A major in Italian opens doors to careers in a variety of fields; see Career Advancement in this section of the catalog.

Languages, Culture, and Creativity

The major in Italian provides many opportunities for growth in the language and for increased cultural fluency through dynamic, in-class learning experiences and extracurricular activities.

Learning Outcomes

Students who graduate with a major in Italian will be able to:

- understand Italian spoken language even when delivered at fast native speed;
- communicate effectively in both oral and written discourse, considering varying registers and cultural contexts;
- read with ease all forms of the Italian written language, including complex texts such as specialized articles and literary works;
- reflect with critical insight on a range of topics in Italian literature, history, and contemporary culture;
- explain the significance of a representative selection of figures, texts, and tendencies in the literature and other forms of cultural production from the Italian-speaking world;
- recognize and reflect in an informed way on cultural differences as well as shared values between Italian culture and their native cultures; and
- develop an intellectual engagement and reflective sensibility that will contribute to their lifelong learning.

Requirements

The Bachelor of Arts with a major in Italian requires a minimum of 120 s.h., including 32–33 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students may count a maximum of 9 s.h. (three courses) of approved upper-level transfer or study abroad credit toward the major in Italian, but they must take either ITAL:3305 Advanced Italian or ITAL:3306 Advanced Italian II at the University of Iowa. The Italian Language and Culture Advanced Placement (AP) exam with a score of 4 or higher may be used to complete the GE CLAS Core World Languages requirement and applied to requirements for the Italian major or minor, or used as elective hours.

The BA with a major in Italian requires the following coursework.

Course #	Title	Hours
All of these:		
ITAL:2203	Intermediate Italian I	4
ITAL:2204	Intermediate Italian II	4
ITAL:3305	Advanced Italian	4
ITAL:3306	Advanced Italian II	4
ITAL:4550	Topics in Italian Studies	3
ITAL:4633	Dante's Inferno	4
ITAL:4660	Transcultural Texts and Translations	3
ITAL:4667	Modern Italian Fiction	3
One of these:		
ITAL:2550	Images of Modern Italy	4
A course taught in Italian numbered above 3000		3

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Majors who want to earn teacher licensure should include an additional 2 s.h. in their work for the major. They should consult the director of undergraduate studies.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must have a grade-point average (GPA) of at least 3.50 for work undertaken in the department and a cumulative University of Iowa GPA of at least 3.33.

To graduate with honors in the major, students must register for ITAL:4998 Honors Research and Thesis and one honors-designated course numbered 3000 or above. They must complete an honors thesis or the equivalent (e.g., translation, comparative stylistics, cultural studies, or research) in Italian and must present their work to a faculty committee.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the

University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the Italian major.

Career Advancement

A background in Italian is helpful for students planning careers in international business, tourism, and teaching, as well as for opera singers, musicians, art and art history majors, and for those who study architecture, fashion, and design. With more than a thousand Italian companies doing business in the United States, the major in Italian combines well with career options in a wide variety of fields.

Students majoring in Italian may combine their studies with courses in education to prepare for jobs in high school teaching. They may go on to graduate study in areas such as Italian, comparative literature, and other interdisciplinary areas as preparation for college-level teaching. Some Italian majors go on to law school. Students may also combine other skills and studies with their major in Italian to prepare for challenging career opportunities in international government, business, finance, public relations, journalism, education, archaeology, arts administration, nongovernmental organizations, publishing, library science, politics, travel and tourism, hospitality management, communications, the culinary arts, and in other fields where the knowledge of more than one language is essential.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters to stay on the university's Four-Year Graduation Plan.

Before the third semester begins: competence in first-year Italian.

Before the fifth semester begins: competence in second-year Italian (ITAL:2204 Intermediate Italian II).

Before the seventh semester begins: four courses in the major numbered above 3000 and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: a total of at least five courses in the major numbered above 3000.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and enough semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course choice and sequence will vary and should be discussed with an academic advisor. For more sample plans, see MyUI.

Italian, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
ITAL:1101	Elementary Italian I [b, c]	5
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Values and Society [d]		3
Elective course [e]		2
CSI:1600	Success at Iowa	1
	Hours	**14-15**
Spring		
ITAL:1102	Elementary Italian II [b, c]	5
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
Elective course [e]		1
	Hours	**16-17**
Second Year		
Fall		
ITAL:2203	Intermediate Italian I [b]	4
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
GE CLAS Core: Social Sciences [d]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**16**
Spring		
ITAL:2204	Intermediate Italian II [b]	4
ITAL:2550	Images of Modern Italy [f, g]	3 - 4
GE CLAS Core: International and Global Issues [d]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**16-17**
Third Year		
Fall		
ITAL:3305	Advanced Italian [f]	4
ITAL:4667	Modern Italian Fiction	3
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: Natural Sciences without Lab [d]		3
Elective course [e]		3
	Hours	**16**
Spring		
ITAL:3306	Advanced Italian II [f]	4
ITAL:4550	Topics in Italian Studies	3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**16**

Fourth Year

Fall

ITAL:4633	Dante's Inferno [f]	4
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**16**

Spring

ITAL:4660	Transcultural Texts and Translations	3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**125-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students who have completed four years of a single language in high school have satisfied the GE CLAS Core World Languages requirement. Enrollment in Italian courses requires an online placement exam and consultation with the Director of Italian Studies, unless enrolling in a first-semester-level course.

c ITAL:1101 and ITAL:1102 do not count for credit toward the major. Language level placement will be determined by the online placement test score and consultation with the Director of Italian Studies. Students who place into the 5th semester level of the language will begin major level coursework and not be required to take semesters 1-4 of the language.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Students pursuing the Italian major must take this course for 4 s.h.

g Fulfills a major requirement and may fulfill a GE requirement.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Linguistics, BA

Linguistics as a discipline inquires into the fundamental nature of human language. The ability to learn and speak a language is unique to humans. Language is intrinsic to the human mind, as well as integral to human society. The study of linguistics at the undergraduate level teaches students how to analyze languages, which are highly structured in ways in which most people are not consciously aware.

Undergraduate courses in the linguistics major teach a vocabulary of concepts and notation for analyzing language and a process of analytical reasoning for applying the concepts to forms from specific languages. Students who major in linguistics achieve an informed awareness of language that has applications in many other fields, as well as preparation for continuing in linguistics and other fields that focus on language. The curriculum also provides an introduction to the kind of arguments used in scientific reasoning, using data and techniques that are perhaps more easily accessible to undergraduates than the kind used in laboratory sciences.

Depending on their vocational goals, students planning to major in linguistics should consider furthering their studies either through the MA in linguistics with a professional focus or through the PhD, or they should complete a second major. Appropriate companion fields include languages, anthropology, computer science, English, mathematics, philosophy, psychology, sociology, speech pathology, and elementary and secondary education.

Learning Outcomes

Students will have the ability to:

- identify generalizations in language data;
- apply theoretical concepts to the analysis of language;
- understand and use the scientific method;
- present a valid and sound argument; and
- identify the empirical shortfalls of a linguistic analysis and think creatively about alternative solutions.

Requirements

The Bachelor of Arts with a major in linguistics requires a minimum of 120 s.h., including 30 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The major in linguistics prepares students to do basic language analysis in syntax-semantics (sentence patterns and their relation to meanings) and phonology (sound patterns). Elective courses in a variety of subspecialties enable students to tailor the program to their own interests.

The BA with a major in linguistics requires the following coursework.

Requirements	Hours
Major Courses	15
Electives	15

Major Courses

Students must complete no fewer than 15 s.h. of requirements for the major at the University of Iowa, including LING:3005 Articulatory and Acoustic Phonetics, LING:3010 Syntactic Analysis, and LING:3020 Phonological Analysis.

The course LING:1003 English Grammar does not count toward the linguistics major.

Course #	Title	Hours
All of these:		
LING:3001	Introduction to Linguistics	3
LING:3005	Articulatory and Acoustic Phonetics	3
LING:3010	Syntactic Analysis	3
LING:3020	Phonological Analysis	3
One of these:		
A course in language history, such as LING:3080		3
A course in an old language (classical Greek, Latin, Old English)		3

Electives

Electives are chosen in consultation with a faculty advisor (15 s.h.), bringing the total credit in the major to 30 s.h.

TESL Emphasis

As part of the major in linguistics, students may complete an emphasis in teaching English as a second language (TESL). The TESL emphasis can prepare students to teach English to non-native speakers abroad. It is also excellent preparation for graduate work in second language acquisition. TESL emphasis students complete the requirements for the linguistics major as listed, using the following coursework to partially satisfy the electives requirement.

Course #	Title	Hours
Both of these:		
LING:4040	The Structure of English	3
LING:4050	Methods of Teaching English as a Second Language	3
One of these:		
LING:3030	Child Language-Linguistic Perspectives	3
LING:3670	Language Processes	3
LING:4010	Undergraduate Practicum in Teaching English as a Second Language	3
LING:4090	Practical Phonetics	3

Combined Programs

BA/MA in Linguistics

Undergraduate linguistics majors who plan to earn a master's degree in linguistics have the opportunity to enroll in the Bachelor of Arts/Master of Arts in linguistics degree program. Students in the BA/MA program take selected graduate-level courses while they are still undergraduates and may count 13 s.h. of advanced coursework toward both degrees. Once students complete the requirements for the bachelor's degree, they are granted the BA, and they usually complete the MA one year later.

Students substitute some graduate-level coursework for typical undergraduate requirements. Instead of taking LING:3010 Syntactic Analysis to fulfill the BA syntax requirement, they take LING:5010 Introduction to Syntax, the

first course in the mandatory two-course syntax sequence for MA students. Instead of taking LING:3020 Phonological Analysis to fulfill the BA phonology requirement, they take LING:5020 Introduction to Phonology, the first in the graduate two-course phonology sequence.

To be admitted to the program, students must be working toward an undergraduate major in linguistics, must have completed at least 80 s.h. of undergraduate coursework (typically by the end of their fifth semester), and must have a grade-point average of at least 3.50.

Honors

Honors in the Major

Students majoring in linguistics have the opportunity to graduate with honors in the major. Departmental honors students must complete the required coursework for the major and must prepare an honors thesis, working in consultation with their academic advisor. Departmental honors students must maintain a University of Iowa grade-point average (GPA) of at least 3.33 and a major GPA of at least 3.50.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the linguistics major.

Career Advancement

Linguistics majors have found work teaching English as a second language overseas. Unique teaching opportunities worth exploring include those with the Peace Corps and Teach For America.

A number of companies, such as Microsoft, Xerox, Apple, Hewlett-Packard, and other high-tech firms, regularly hire employees with linguistics degrees. Opportunities also exist for government work, for example, as a special agent linguist for the FBI.

Some graduates choose to pursue advanced study in linguistics or other disciplines. Graduates with bachelor's degrees in linguistics may be admitted to certain graduate programs without additional academic preparation, such as anthropology, English literature, world language specializations, law, library science, philosophy, psychology, and sociology.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: LING:3001 Introduction to Linguistics and one additional linguistics course.

Before the seventh semester begins: three more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

- Linguistics, BA [p. 719]
- Teaching English as a Second Language Emphasis [p. 720]

Linguistics, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
LING:1010	Language and Society [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
Elective course [d]		3
Elective course [d]		2
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
LING:3001	Introduction to Linguistics	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Natural Sciences with Lab [c]		4
GE CLAS Core: Values and Society [c]		3
Elective course [d]		2
	Hours	**15-16**
Second Year		
Fall		
LING:3005	Articulatory and Acoustic Phonetics	3
GE CLAS Core: Quantitative or Formal Reasoning [c, e]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
Elective course [d]		3
	Hours	**16-17**

Spring		
LING:3010	Syntactic Analysis	3
GE CLAS Core: International and Global Issues [c, g]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
Elective course [d]		3
	Hours	**16-17**
Third Year		
Fall		
Major: old language course (classical Greek, Latin, Old English) or LING:3080 History of the English Language		3
Major: linguistics elective [b]		3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: Natural Sciences without Lab [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]		4 - 5
	Hours	**16-17**
Spring		
LING:3020	Phonological Analysis	3
Major: linguistics elective [b]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
Elective course [d]		3
	Hours	**16-17**
Fourth Year		
Fall		
Major: linguistics elective [b]		3
Major: linguistics elective [b]		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
Major: linguistics elective [b]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**124-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students complete linguistics electives (prefix LING) chosen in consultation with an advisor, bringing total credit in the major to 30 s.h. LING:1003 may not be used as an elective course.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Students may choose to take LING:1050 to fulfill this GE requirement.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g Students may choose to take LING:1040 to fulfill this GE requirement.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Teaching English as a Second Language Emphasis

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
LING:1010	Language and Society [b]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
Elective course [d]		3
Elective course [d]		2
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
LING:3001	Introduction to Linguistics	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Natural Sciences with Lab [c]		4
GE CLAS Core: Values and Society [c]		3
Elective course [d]		2
	Hours	**15-16**
Second Year		
Fall		
LING:3005	Articulatory and Acoustic Phonetics	3
GE CLAS Core: Quantitative or Formal Reasoning [c, e]		3

GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
Elective course [d]		3
	Hours	**16-17**
Spring		
LING:3010	Syntactic Analysis	3
GE CLAS Core: International and Global Issues [c, g]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
Elective course [d]		3
	Hours	**16-17**
Third Year		
Fall		
LING:4040	The Structure of English	3
Major: old language course (classical Greek, Latin, Old English) or LING:3080 History of the English Language		3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: Natural Sciences without Lab [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]		4 - 5
	Hours	**16-17**
Spring		
LING:3020	Phonological Analysis	3
LING:4050	Methods of Teaching English as a Second Language	3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]		4 - 5
Elective course [d]		3
Elective course [d]		3
	Hours	**16-17**
Fourth Year		
Fall		
Major: additional TESL emphasis requirement [h]		3
Major: linguistics elective [b]		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
Major: linguistics elective [b]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15**
	Total Hours	**124-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students complete linguistics electives (prefix LING) chosen in consultation with an advisor, bringing total credit in the major to 30 s.h. LING:1003 may not be used as an elective course.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Students may choose to take LING:1050 to fulfill this GE requirement.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g Students may choose to take LING:1040 to fulfill this GE requirement.

h Choose one of these: LING:3030, LING:3670, LING:4010, or LING:4090.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Russian, BA

The Russian major leading to the BA degree trains students in both written and spoken Russian and in Russian literature, culture, and civilization. The department encourages students to pursue a second major (e.g., global health studies, history, linguistics, political science) and to develop their interests in related or complementary fields. Students interested in focusing on a broader interdisciplinary understanding of the region may earn a second major in international studies; see the BA in international studies [p. 702] in the catalog.

Learning Outcomes

Russian majors will:

- enhance their language proficiency and cultural awareness of the Russian-speaking world;
- attain skills to engage critically with histories, cultures, literatures, and other arts, and gain knowledge of the diversified Russian-speaking world (Russia, former Republics of the Soviet Union, and Southern and Western Slavs);
- practice interpersonal, interpretative, and presentational communication skills at levels of increasing complexity as indicated by each course number and description;
- engage with multiple perspectives while practicing linguistic skills and analyzing cultural items, such texts, art and other images, or film and music; and
- develop intercultural competence, helping to engage with those whose first language is other than English.

Study Abroad

Russian is one of the most popular languages on earth. Contact the academic coordinator of the Russian program or International Programs Study Abroad for more information on safe programs abroad where Russian is one of the official languages.

Requirements

The Bachelor of Arts with a major in Russian requires a minimum of 120 s.h., including 31 s.h. of work for the major earned in Russian courses. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students must complete RUSS:2112 Second-Year Russian II or the equivalent before they complete language requirements for the major.

The BA with a major in Russian requires the following coursework.

Requirements	Hours
Language Courses	12
Composition and Conversation Course	4
Gateway Culture Courses	6
Advanced Culture Courses	9

Language Courses

Course #	Title	Hours
All of these:		
RUSS:2112	Second-Year Russian II	4
RUSS:3111	Third-Year Russian I	4
RUSS:3112	Third-Year Russian II	4

Composition and Conversation Course

Course #	Title	Hours
This course:		
RUSS:3113	Russian Composition and Conversation	4

Gateway Culture Courses

Course #	Title	Hours
Two of these (6 s.h.):		
RUSS:1131/ WLLC:1131	Introduction to Russian Culture	3
RUSS:1132	Russia Today	3
RUSS:1531	Slavic Folklore	3
RUSS:1532	Traces of Ancient Russian Culture (IX-XVII Centuries): Vikings, Mongols, and Tsars	3
RUSS:2050/ WLLC:2050	Women From an Unknown Land: The Fight for Independence	3
RUSS:2100	Russian Mindset: Sex, Business, and Politics	3
RUSS:2110	Russian Sports: Politics, Scandal, Glory	3

Advanced Culture Courses

Course #	Title	Hours
Three of these (9 s.h.):		
RUSS:3122/ TRNS:3122/ WLLC:3122	Tolstoy and Dostoevsky	3
RUSS:3202/ HIST:3492/ TRNS:3203/ WLLC:3202	Russian Literature in Translation 1860-1917	3
RUSS:3205	Contemporary Russian Prose in Translation	3
RUSS:3224	Russian Culture Through Cinema	3

Students are urged to choose elective courses in economics, geographical and sustainability sciences, history, political science, global health studies, and international studies. Nearly every avenue of professional training and employment requires a solid background in Russian area studies. For example, criteria for U.S. government employment include substantive knowledge in history, economics, political science, sociological disciplines, scientific specialties, demography, military-related skills, and in some cases, cultural and religious background. In-depth knowledge of literature or linguistics without other substantive background may be of limited practical use in finding employment.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

Majors must complete designated pedagogy and linguistics courses in the department in addition to the coursework required for their major.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. They must have junior or senior standing, a grade-point average (GPA) of at least 3.33 in Russian, and a cumulative University of Iowa GPA of at least 3.33 in order to enroll in the honors program.

Honors students must register for RUSS:4995 Honors. They must complete an honors project (e.g., thesis, translation, cultural studies, or research) in Russian. Students must present their work to a faculty committee as determined by their honors thesis advisor. Contact the department for more information about requirements for graduation with honors in the Russian major.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the Russian major.

Financial Support

Undergraduate students have access to undergraduate awards and scholarships.

Career Advancement

Training in Russian is often an important asset to careers in the natural and physical sciences, engineering, medicine, business, journalism, library and information science, and the social and military sciences. It may also be appropriate preparation for the study of law or international relations as well as Russian language and literature, translation, and other humanistic disciplines.

Some governmental agencies are interested in job candidates who have advanced training in Russian; these agencies give preference to applicants who combine strong language proficiency with a well-rounded background in area studies. Students who develop an exceptional facility with the Russian language may pursue careers in literary and technical translation and interpretation.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: competence in first-year Russian.

Before the fifth semester begins: competence in second-year Russian.

Before the seventh semester begins: competence in third-year Russian, an additional course in the major, and at least 90 s.h. earned toward the degree.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Russian, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
RUSS:1111	First-Year Russian I [b]	5
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
Elective course [d]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
RUSS:1112	First-Year Russian II [b]	5
Major: gateway culture course		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Historical Perspectives [c]		3
Elective course [d]		2
	Hours	**16-17**
Second Year		
Fall		
RUSS:2111	Second-Year Russian I [b]	4
Major: gateway culture course		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: Quantitative or Formal Reasoning [c]		3

Elective course [d]		3
	Hours	**16**
Spring		
RUSS:2112	Second-Year Russian II [e]	4
RUSS:3113	Russian Composition and Conversation	4
Elective course [d]		3
Elective course [d]		3
Elective course [d]		2
	Hours	**16**
Third Year		
Fall		
RUSS:3111	Third-Year Russian I	4
Major: advanced culture course		3
GE CLAS Core: Natural Sciences with Lab [c]		4
Elective course [d]		3
Elective course [d]		2
	Hours	**16**
Spring		
RUSS:3112	Third-Year Russian II	4
Major: advanced culture course		3
GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: Natural Sciences without Lab [c]		3
Elective course [d]		1 - 3
	Hours	**14-16**
Fourth Year		
Fall		
Major: advanced culture course		3
GE CLAS Core: Values and Society [c]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
GE CLAS Core: Social Sciences [c]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [f]		
	Hours	**15**
	Total Hours	**123-127**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b RUSS:1111, RUSS:1112, and RUSS:2111 do not count for credit toward the major. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin major level coursework and not be required to take semesters 1-4 of the language.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Only 3 s.h. from RUSS:2112 applies toward the major.

f Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Translation, BA

Translation is a crucial dimension of global society. Today's extensive exchange of material and nonmaterial cultures across national borders has made interconnectedness a defining feature of globalization. Translation has become at once the object, the conduit, and the method by which global culture gets generated, exchanged, and experienced. To brave this vast geography of interconnectedness requires a special reserve of knowledge and skills (i.e., global literacy) to support intercultural understanding and communication, critical inquiry and creativity, an ethics of trust and empathy, and global engagement and collaboration.

Undergraduate courses in translation equip students with proficiency in the complex, multifarious context in which texts are produced and processed. Critical reflection on and engaged practice of translation present unparalleled opportunities for undergraduate academic inquiry.

Students who major in translation become learned users of translation and critically reflective participants in the global circulation of information, people, and cultures. They graduate ready to fill the growing demand for trained translators to serve as language mediators in global sectors such as business, communication, and diplomacy.

Learning Outcomes

Students will:

- develop critical global literacies necessary for purposeful and productive participation in global professional and cultural environments;
- learn research methods to enhance creativity;
- develop foundational knowledge and practice of translation, in its various modes and contexts, necessary for graduate study in specialized translation programs;
- attain preprofessional competencies toward building a career as professional translators and language mediators; and
- gain awareness of the business and industrial dimensions of translation through networking and building communities.

Requirements

The Bachelor of Arts with a major in translation requires a minimum of 120 s.h., including 33 s.h. of work for the major. A minimum of 21 s.h. for the major must be earned at the University of Iowa. Coursework in the major may not be taken pass/nonpass. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students are encouraged to declare the major as early as possible, especially if they intend to pursue an additional major or minor. Active proficiency in a second language is required for the major; most students who successfully complete the major will need at least 6 s.h. of additional coursework beyond fourth-level proficiency in language study.

Students may count a maximum of 9 s.h. of coursework from another major, minor, or certificate toward the translation major. Students who earn a BA in translation may not earn a minor in translation for global literacy.

The major in translation prepares students to translate from another language into English or vice versa in a variety of fields such as literary, legal, medical, or technical translation. All students should tailor their plan of study to their experience and objectives. Students interested in the major should meet with a faculty member associated with the major program as soon as possible to develop an individualized plan of study.

Courses listed in two or more categories may only be used toward one requirement.

The BA with a major in translation requires the following coursework.

Requirements	Hours
Gateway and Foundation Courses	12
Workshops	6
Seminar	3
Electives	6
Outreach and Engagement	3
Capstone	3
Language Proficiency	

Gateway and Foundation Courses

Course #	Title	Hours
One of these:		
TRNS:1240/ CLSA:1040	World Literature in Translation I	3
TRNS:1241	World Literature: 1700 to Present	3
All of these:		
TRNS:2000	Translation and Global Society	3
TRNS:2578	Translation in the Humanities: Modes and Approaches	3
TRNS:3001	Reading for Translation: Text Analysis	3

Workshops

Course #	Title	Hours
This course:		
TRNS:3179/ CLSA:3979/ ENGL:3850	Undergraduate Translation Workshop	3
One of these:		
TRNS:4050	Independent Study	3
ARAB:3060	Introduction to Arabic-English Translation	3
CHIN:3201/ TRNS:3202	Workshop in Chinese Literary Translation	3
CLSL:3200/ CLSG:3200/ TRNS:3205	Literary Translation Workshop in Ancient Greek and Latin	3
ENGL:4724	Advanced Writers' Seminar: Literary Translation	3
FREN:3232/ TRNS:3232	French Literary Translation Workshop	3
IWP:5205/ TRNS:5210	International Translation Workshop	3
JPNS:3201/ TRNS:3201	Workshop in Japanese Literary Translation	3

KORE:3200	Introduction to Korean-English Translation	3
SPAN:3030	Translation Workshop: English to Spanish	3
SPAN:3050	Translation Workshop: Spanish to English	3
WLLC:3208/ ASIA:3208/ TRNS:3208	Classical Chinese Literature Through Translation	3

Seminar

Course #	Title	Hours
One of these:		
TRNS:4131/ WLLC:4131	Critical Reading	3
TRNS:4470	Translating Style	3

Electives

Students earn 6 s.h. in electives chosen from a list of approved courses in consultation with a faculty advisor. Many different courses can be used to satisfy the electives requirement.

The following are examples of possible electives.

Course #	Title	Hours
ARAB:2012	Modern Palestinian Literature and Culture	3
ARTH:1020	Masterpieces: Art in Historical and Cultural Perspectives	3
ASIA:1510/ WLLC:1510	Ghost Stories and Tales of the Weird in Premodern Chinese Literature	3
FREN:1006	Global Sports and National Cultures	3
GRMN:2275	Scandinavian Crime Fiction	3
IS:2000	Introduction to International Studies	3
JPNS:3208	Japanese Film	3
RUSS:1531	Slavic Folklore	3
SPAN:2050	Spanish in the United States	3

Outreach and Engagement

Course #	Title	Hours
One of these:		
TRNS:3491	Translation Internship	3
TRNS:3498/ ARAB:3498	Internship/Community Engagement	3
Internship or study abroad experience, approved by the translation program		3

Capstone

Course #	Title	Hours
One of these:		
TRNS:4500/ ITAL:4500	Undergraduate Capstone Project	3
Language-specific capstone related to translation in the Department of Languages, Linguistics, Literatures, and Cultures or the Department of Spanish and Portuguese		3

Language Proficiency

Students are required to have language proficiency in the world language from which the student plans to translate, demonstrated by successfully completing an advanced course taught in that language: either a course numbered 4000 or above or a course at the highest level available in that language at the University of Iowa. With the consent of the advisor, exceptions can be made for transfer courses or independent study to meet the language proficiency requirement.

The following are possible choices.

Course #	Title	Hours
ARAB:3060	Introduction to Arabic-English Translation	3
CHIN:4103	Fourth-Year Chinese: First Semester	3
CLSG:3001	Archaic and Classical Periods I	3
CLSG:3002	Archaic and Classical Periods II	3
CLSL:3001	Latin Literature of the Republic I	3
CLSL:3002	Latin Literature of the Republic II	3
FREN:4020	Oral Expression in French II	3
FREN:4080	Post-Colonial Literature in France	3
FREN:4090	Quebec Literature	3
FREN:4110	Francophone Studies: Literature and the Arts	3
FREN:4750	Topics in French Studies II	3
GRMN:3104	Composition and Conversation II	3
GRMN:3501	German Writers Engaged	3
GRMN:3855	The Sounds of German	3
GRMN:3860/ LING:3860	German Language and Society	3
ITAL:4660/ TRNS:4660	Transcultural Texts and Translations	3
ITAL:4667	Modern Italian Fiction	3
ITAL:4668	Modern Italian Poetry and Theater	3
JPNS:4001	Fourth-Year Japanese I	3
KORE:4000	Fourth Year Korean: First Semester	3
RUSS:4111	Fourth-Year Russian I	4
SPAN:4150/ SLA:4300	Introduction to Spanish Syntax	3
SPAN:4170	Second Language Acquisition	3
SPAN:4205/ GHS:4205	Culture, Language, and Health	3
SPAN:4390/ LAS:4390	Topics in Spanish American Literature	3
SPAN:4690	Topics in Spanish Literature	3
SPAN:4815/ LAS:4815	Lost Childhoods: Marginal Children of Latin America	3
SWAH:3007	Advanced Swahili	3

Related Majors and Programs

Translation majors can pursue second degrees or certificates in programs that emphasize language proficiency, writing arts, and international and global inquiry such as ancient civilization, classical languages, creative writing, global health, international business, international relations, international studies, screenwriting, world language education, and world languages, literatures, and cultures.

Honors

Honors in the Major

Students majoring in translation have the opportunity to graduate with honors in the major. Departmental honors students must complete the required coursework for the major and an honors thesis or project. They must attain a grade-point average (GPA) of at least 3.50 in the major, and a cumulative University of Iowa GPA of at least 3.33.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the translation major.

Career Advancement

The translation program approaches translation as a crucial dimension of global literacy and communication, and a valuable career competency for the future. Graduates complete pre-professional training to obtain specializations to serve as translators in global sectors such as business, communication, and diplomacy where there is growing demand for language mediation.

Graduates are strongly encouraged to pursue graduate study in a range of programs, including specialized translation and interpreting programs; area studies; world languages, literatures, and cultures studies; education and teacher-training programs in schools, cultures, and society; global studies; international business; law school; nonprofit management; international development, and other fields in which language proficiency and language mediation are assets.

Graduates find opportunities in a range of professions for which language mediation is desirable: translation services; independent literary or legal/medical/business translation; international businesses; international agencies; publishing and media; refugee/immigrant service organizations; nongovernmental organizations (NGOs); schools and educational institutions; and research and academic institutions.

Translation graduates also receive fellowships to travel and work/teach abroad.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: completion of fourth-level proficiency or two world language courses numbered 2000 or above, TRNS:2000 Translation and Global Society, and one additional major course.

Before the seventh semester begins: three more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Translation, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
The translation major requires 33 s.h. Students may count a maximum of 9 s.h. of coursework from another major, minor, or certificate toward the translation major.		
Students are required to have language proficiency in the world language from which they plan to translate, demonstrated by successfully completing either a course numbered 4000 or above or a course at the highest level available in that language at the University of Iowa. See General Catalog and consult an advisor for more information.		
	Hours	**0**
First Year		
Fall		
TRNS:1240 or TRNS:1241	World Literature in Translation I [b] or World Literature: 1700 to Present	3
TRNS:2000	Translation and Global Society	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**14-16**

Spring

TRNS:1241 or TRNS:1240	World Literature: 1700 to Present [d] or World Literature in Translation I	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [e]		2
Elective course [e]		3
	Hours	**15-17**

Second Year

Fall

TRNS:3001	Reading for Translation: Text Analysis	3
GE CLAS Core: Natural Sciences without Lab [f]		3
GE CLAS Core: World Languages Third Level Proficiency [c]		4 - 5
Elective course [e]		3
Elective course [e]		3
	Hours	**16-17**

Spring

TRNS:2578	Translation in the Humanities: Modes and Approaches	3
TRNS:3179	Undergraduate Translation Workshop	3
GE CLAS Core: Historical Perspectives [f]		3
GE CLAS Core: World Languages Fourth Level Proficiency [c]		4 - 5
Elective course [e]		3
	Hours	**16-17**

Third Year

Fall

TRNS:4131 or TRNS:4470	Critical Reading or Translating Style	3
Advanced language course or elective course [e, g]		3
GE CLAS Core: International and Global Issues [f]		3
GE CLAS Core: Natural Sciences with Lab [f]		4
Elective course [e]		3
	Hours	**16**

Spring

TRNS:4050	Independent Study [h]	3
Advanced language course or elective course [e, g]		3
GE CLAS Core: Social Sciences [f]		3
GE CLAS Core: Values and Society [f]		3
Elective course [e]		3
	Hours	**15**

Fourth Year

Fall

Major: elective course in languages or humanities [i]		3
Major: outreach and engagement component [j]		3
Advanced language course or elective course [e, g]		3
GE CLAS Core: Quantitative or Formal Reasoning [f]		3
Elective course [e]		3
	Hours	**15**

Spring

Major: capstone project [k]		3
Major: elective course in languages or humanities [i]		3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**15**
	Total Hours	**122-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

g Students must demonstrate language proficiency by successfully completing either a course numbered 4000 or above or a course at the highest level available in that language at the University of Iowa. Students should continue language study if proficiency has not yet been reached. See General Catalog and consult an advisor for more information.

h See General Catalog for full list of approved courses.

i Students must complete 6 s.h. in elective courses in consultation with a faculty advisor. See General Catalog for examples of acceptable choices; see advisor for full list of approved courses.

j Students can complete the outreach and engagement requirement in one of three ways: an internship registered as TRNS:3491 or TRNS:3498, or another internship or study abroad experience approved by the translation program.

k Students must complete TRNS:4500 or an approved language-specific capstone related to translation in a Division of World Languages, Literatures, and Cultures department.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all

requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

American Sign Language, Minor

Requirements

The undergraduate minor in American Sign Language (ASL) requires 16 s.h. of ASL coursework, including 12 s.h. in advanced courses numbered 2500 or above taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

The minor must include ASL:2002 American Sign Language IV or demonstrated equivalent proficiency. Only one American Sign Language in English course (prefix ASLE) may be applied to the minor in ASL; if students choose to apply an ASLE course toward the minor, it must be taken for 4 s.h. All ASLE courses are taught in English.

The minor in American Sign Language requires the following coursework.

Course #	Title	Hours
This course:		
ASL:2002	American Sign Language IV	4
At least 12 s.h. from these:		
ASL:3001	American Sign Language V	3
ASL:3100	American Sign Language Conversation	3
ASL:3200	Topics in Deaf Studies	3
ASL:3300	American Deaf Culture	3
ASL:3400	Issues in ASL and Deaf Studies	3
ASL:3500	Deafness in the Media	3
ASL:3600	American Sign Language Literature	3
ASL:3700	Deaf Gain: Reframing Deaf People, Cultures, and Languages	3
ASL:4201/ HIST:4201	History of the American Deaf Community	3-4
ASLE:2500	Introduction to Interpreting	4
ASLE:3905/ EDTL:3905	Teaching Deaf and Hard of Hearing Students	4

Academic Plans

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on track to graduate in the typical four-year time frame to meet the requirements for the ASL minor:

- before the third semester begins, students should have completed ASL:1001 American Sign Language I (this course should be taken as early as possible); and
- before the sixth semester begins, students should have completed ASL:2002 American Sign Language IV.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

American Sign Language, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in American Sign Language (ASL) requires 16 s.h. of ASL coursework, including 12 s.h. of advanced courses numbered 2500 or above taken at the University of Iowa.		
Students must maintain a GPA of at least 2.00 in all courses for the minor.		
Coursework in the minor may not be taken pass/nonpass.		
	Hours	**0**
First Year		
Fall		
ASL:1001	American Sign Language I [a, b]	4
	Hours	**4**
Spring		
ASL:1002	American Sign Language II [a, b]	4
	Hours	**4**
Second Year		
Fall		
ASL:2001	American Sign Language III [a, b]	4
	Hours	**4**
Spring		
ASL:2002	American Sign Language IV [a, c]	4
	Hours	**4**
Third Year		
Fall		
Minor: ASL elective [d, e]		3 - 4
	Hours	**3-4**
Spring		
Minor: ASL elective [d, e]		3 - 4
	Hours	**3-4**
Fourth Year		
Fall		
Minor: ASL elective [d, e]		3 - 4
	Hours	**3-4**
Spring		
Minor: ASL elective [d, e]		3 - 4
	Hours	**3-4**
	Total Hours	**28-32**

a Language level placement will be determined by placement exam score and/or interview. Students who place into the 5th semester level of the language will begin coursework at that level and will not be required to take semesters 1-4 of the language.

b This course is a prerequisite for the required minor courses.

c Minor must include ASL:2002 or demonstrated equivalent proficiency.

d Choose from: ASL:3001, ASL:3100, ASL:3200, ASL:3300, ASL:3400, ASL:3500, ASL:3600, ASL:3700, ASL:4201/ HIST:4201, ASLE:2500, ASLE:3905/EDTL:3905.

e Only one American Sign Language course taught in English (ASLE) may be applied to the minor in ASL; if students

choose to apply an ASLE course toward the minor, it must be taken for 4 s.h.

Arabic Studies, Minor

Requirements

The undergraduate minor in Arabic studies requires a minimum of 16 s.h. earned in Arabic courses (prefix ARAB) considered intermediate (numbered 2000–2999) or advanced (numbered 3000 or above). A maximum of 3 s.h. may be taken in approved coursework taught in English. At least 12 s.h. must be taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Required Coursework

Course #	Title	Hours
All of these:		
ARAB:2001	Intermediate Modern Standard Arabic I	5
ARAB:2002	Intermediate Modern Standard Arabic II	5
At least one Arabic course (ARAB) numbered 2000 or above taught in Arabic		3

Courses Taught in English

Students may apply 3 s.h. of the following approved coursework taught in English toward the minor.

Course #	Title	Hours
ARAB:2006	Transnational Solidarities	3
ARAB:2010	The Modern Arabic Short Story	3
ARAB:2012	Modern Palestinian Literature and Culture	3
ARAB:2060	Arab-American Immigration: Society, Identity, and Culture	3
ARAB:3005	Culture and Resistance: The Modern Middle East	3
Related elective (program approval required)		3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Arabic Studies, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in Arabic studies requires a minimum of 16 s.h. earned in Arabic courses (prefix ARAB) considered intermediate (numbered 2000-2999) or advanced (numbered 3000 or above).		
At least 12 s.h. must be taken at the University of Iowa.		
Students must maintain a GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework in the minor may not be taken pass/non-pass.		
A maximum of 3 s.h. may be taken in approved coursework taught in English. [a]		
	Hours	**0**
First Year		
Fall		
ARAB:1001	Elementary Modern Standard Arabic I [b, c]	5
	Hours	**5**
Spring		
ARAB:1002	Elementary Modern Standard Arabic II [b, c]	5
	Hours	**5**
Second Year		
Fall		
ARAB:2001	Intermediate Modern Standard Arabic I [b]	5
	Hours	**5**
Spring		
ARAB:2002	Intermediate Modern Standard Arabic II [b]	5
	Hours	**5**
Third Year		
Fall		
Minor: Arabic course (ARAB) numbered 2000 or above taught in Arabic [d]		3
	Hours	**3**
Spring		
Minor: Arabic course (ARAB) numbered 2000 or above (may be taught in Arabic or English) [d]		3
	Hours	**3**
	Total Hours	**26**

a See General Catalog for approved courses.
b Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin coursework at that level and will not be required to take semesters 1-4 of the language.
c This course is a prerequisite for the required minor courses.
d Work with academic advisor to select appropriate course.

Asian Languages and Literature, Minor

Requirements

The undergraduate minor in Asian languages and literature is offered with two emphases: Chinese or Japanese. The minor requires 15–17 s.h. of credit, depending on the emphasis. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Students may earn the Asian languages and literature major and minor if the minor emphasis language (Chinese or Japanese) differs from the major language track.

The minor requirements for each emphasis are listed below.

- Chinese Emphasis [p. 733]
- Japanese Emphasis [p. 733]

Chinese Emphasis

The minor in Asian languages and literature with Chinese emphasis requires 15 s.h., including 12 s.h. earned in courses considered advanced for the minor taken at the University of Iowa. Some of the courses below have prerequisites; students must complete all of a course's prerequisites before they may register for that course.

Students with the Chinese emphasis must complete the following coursework.

Requirements	Hours
Prerequisite Chinese Language Courses	
Chinese Language Courses	6
Gateway Courses	3
Literature and Culture Courses	3
Linguistics and Advanced Language Studies Courses	3

Prerequisite Chinese Language Courses

Students must successfully complete the prerequisite courses that follow or the equivalent before they enroll in required courses. These courses do not count as credit earned toward the minor.

Course #	Title	Hours
All of these:		
CHIN:1111	First-Year Chinese: First Semester	5
CHIN:1112	First-Year Chinese: Second Semester	5
CHIN:2101	Second-Year Chinese: First Semester	5
CHIN:2102	Second-Year Chinese: Second Semester	5

Chinese Language Courses

Course #	Title	Hours
This sequence:		
CHIN:3101 & CHIN:3102	Third-Year Chinese: First Semester and Third Year Chinese: Second Semester	6

Gateway Courses

Course #	Title	Hours
One of these:		
CHIN:1504	China Beyond Walls	3
CHIN:1702	Chinese Popular Culture	3
CHIN:1800	Chinese Calligraphy and Culture	3

Literature and Culture Courses

Course #	Title	Hours
One of these:		
CHIN:3201/ TRNS:3202	Workshop in Chinese Literary Translation	3
CHIN:3341	Chinese Literature: Poetry	3
CHIN:4203	Modern Chinese Writers	3
CHIN:4206	Chinese Cinema	3

Linguistics and Advanced Language Studies Courses, Chinese

Course #	Title	Hours
One of these:		
CHIN:3302/ LING:3302/ SLA:3302	Introduction to Chinese Linguistics	3
CHIN:4101	Classical Chinese: First Semester	3
CHIN:4150	Advanced Reading and Writing in Chinese	3

Japanese Emphasis

The minor in Asian languages and literature with Japanese emphasis requires 17 s.h., including 12 s.h. earned in courses considered advanced for the minor taken at the University of Iowa. Furthering Language Incentive Program (FLIP) credit may not be counted toward the Japanese emphasis.

Students must successfully complete the prerequisite courses that follow or the equivalent before they enroll in required courses. These courses do not count as credit earned toward the minor.

Course #	Title	Hours
JPNS:1001	First-Year Japanese: First Semester	5
JPNS:1002	First-Year Japanese: Second Semester	5
JPNS:2001	Second-Year Japanese: First Semester	5
JPNS:2002	Second-Year Japanese: Second Semester	5

The minor with Japanese emphasis must include the following courses.

Course #	Title	Hours
JPNS:3001	Third-Year Japanese I	4
JPNS:3002	Third-Year Japanese II	4
One course in literature and translation		3
One course in linguistics and advanced language studies		3
One course in literature and translation, or in linguistics and advanced language studies, or in cultural studies		3
Total Hours		**17**

Students select courses in literature and translation, linguistics and advanced language studies, and cultural studies from the following course lists.

Literature and Translation Courses

Course #	Title	Hours
JPNS:3201/ TRNS:3201	Workshop in Japanese Literary Translation (only 3 s.h. of JPNS:3201 may be applied to minor requirements)	3
JPNS:3202	Traditional Japanese Literature in Translation	3
JPNS:3203	Modern Japanese Fiction in Translation	3
JPNS:3204	Topics in Japanese Literature in Translation	1-3
JPNS:3205	Major Authors in Modern Japanese Literature	3
JPNS:3206	Warriors' Dreams	3
JPNS:3207	Japan Illuminated: Japanese Literature and Visual Culture	3
JPNS:3208	Japanese Film	3
JPNS:3210	Japanese Theater	3
JPNS:3601	Contemporary Japanese Culture	3
JPNS:4201	Genji Lab	3

Linguistics and Advanced Language Studies Courses, Japanese

Course #	Title	Hours
JPNS:3107	Classical Japanese: First Semester	3
JPNS:3128	Introduction to Japanese Linguistics	3
JPNS:3401	Language in Japanese Society	3
JPNS:3402	Japan: Culture and Communication	3
JPNS:3500	Japanese for Professional Purposes	3

Cultural Studies Courses

Course #	Title	Hours
Asian and Slavic Languages and Literatures		
ASIA:1005	Scripts and Trips: A Journey Through East Asia (when topic is focus on Japan)	3
JPNS:1506	Ghostly Japan	3
Art History		
JPNS:2250/ ARTH:2250	Introduction to the Art of Japan	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Asian Languages and Literature, Minor

- Chinese Emphasis [p. 734]
- Japanese Emphasis [p. 735]

Chinese Emphasis

Course	Title	Hours
Academic Career		
Any Semester		
The minor in Asian languages with Chinese emphasis requires 15 s.h., including 12 s.h. earned in courses considered advanced for the minor taken at the University of Iowa.		
Some of the courses have prerequisites; students must complete all of a course's prerequisites before they may register for that course.		
	Hours	**0**
First Year		
Fall		
CHIN:1111	First-Year Chinese: First Semester [a, b]	5
	Hours	**5**
Spring		
CHIN:1112	First-Year Chinese: Second Semester [a, b]	5
CHIN:1702 or CHIN:1800 or CHIN:1504	Chinese Popular Culture or Chinese Calligraphy and Culture or China Beyond Walls	3
	Hours	**8**
Second Year		
Fall		
CHIN:2101	Second-Year Chinese: First Semester [a, b]	5
	Hours	**5**
Spring		
CHIN:2102	Second-Year Chinese: Second Semester [a, b]	5
Minor: linguistics and advanced studies course [c]		3
	Hours	**8**
Third Year		
Fall		
CHIN:3101	Third-Year Chinese: First Semester	3
Minor: literature and culture course [c]		3
	Hours	**6**

Spring		
CHIN:3102	Third Year Chinese: Second Semester	3
	Hours	**3**
	Total Hours	**35**

a Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin coursework at that level and will not be required to take semesters 1-4 of the language.
b This course is a prerequisite for the required minor courses.
c See General Catalog for list of approved courses.

Japanese Emphasis

Course	Title	Hours
Academic Career		
Any Semester		
The minor in Asian languages with Japanese emphasis requires 17 s.h., including 12 s.h. earned in courses considered advanced for the minor taken at the University of Iowa.		
Furthering Language Incentive Program (FLIP) credit may not be counted toward the Japanese emphasis.		
Some of the courses have prerequisites; students must complete all of a course's prerequisites before they may register for that course.		
	Hours	**0**
First Year		
Fall		
JPNS:1001	First-Year Japanese: First Semester [a, b]	5
	Hours	**5**
Spring		
JPNS:1002	First-Year Japanese: Second Semester [a, b]	5
	Hours	**5**
Second Year		
Fall		
JPNS:2001	Second-Year Japanese: First Semester [a, b]	5
	Hours	**5**
Spring		
JPNS:2002	Second-Year Japanese: Second Semester [a, b]	5
Minor: literature and translation, linguistics and advanced language studies, or cultural studies course [c]		3
	Hours	**8**
Third Year		
Fall		
JPNS:3001	Third-Year Japanese I	4
Minor: literature and translation course [c]		3
	Hours	**7**
Spring		
JPNS:3002	Third-Year Japanese II	4
	Hours	**4**
Fourth Year		
Fall		
Minor: linguistics and advanced language studies course [c]		3
	Hours	**3**
	Total Hours	**37**

a Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin coursework at that level and will not be required to take semesters 1-4 of the language.
b This course is a prerequisite for the required minor courses.
c See General Catalog for list of approved courses.

French, Minor

Requirements

The undergraduate minor in French requires a minimum of 15 s.h. earned in advanced French courses (prefix FREN) numbered 3000 or above, including at least 9 s.h. taken at the University of Iowa. All courses for the minor must be taught in French. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

The French Language and Culture Advanced Placement (AP) exam with a score of 4 or higher is considered to be the equivalent to FREN:3000 Third-Year French. Furthering Language Incentive Program (FLIP) credit may not be counted toward the minor.

Credit from the University Studies Abroad Consortium (USAC) programs in Pau and Lyon, France, and the Study in Montpellier program in France counts as University of Iowa credit for the minor; 6 s.h. earned in other study abroad programs may be counted toward the minor.

Those who plan to use their work toward a minor in French as an academic background for earning teacher licensure should contact the Office of Student Services in the College of Education about requirements.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

French, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in French requires a minimum of 15 s.h. in courses considered advanced for the minor (3000 level or above). 9 s.h. must be taken at the University of Iowa. All courses for the minor must be taught in French.		
Students must maintain a GPA of 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework in the minor may not be taken pass/non-pass.		
Furthering Language Incentive Program (FLIP) credit may not be counted toward the minor.		
The French Language and Culture Advanced Placement (AP) exam with a score of 4 or higher is considered to be the equivalent to FREN:3000 Third-Year French.		
Credit from the University Studies Abroad Consortium, CIEE Study Abroad, and the Study in Montpellier programs in France counts as University of Iowa credit for the minor; 6 s.h. earned in other study abroad programs may be counted toward the minor.		
	Hours	**0**
First Year		
Fall		
FREN:1001	Elementary French I [a, b]	4
	Hours	**4**
Spring		
FREN:1002	Elementary French II [a, b]	4
	Hours	**4**
Second Year		
Fall		
FREN:2001	Intermediate French I [a, b]	4
	Hours	**4**
Spring		
FREN:2002	Intermediate French II [a, b]	4
	Hours	**4**
Third Year		
Fall		
Minor: advanced French course (prefix FREN, numbered 3000 or above)		3
	Hours	**3**
Spring		
Minor: advanced French course (prefix FREN, numbered 3000 or above)		3
	Hours	**3**
Fourth Year		
Fall		
Minor: advanced French course (prefix FREN, numbered 3000 or above)		3
	Hours	**3**
Spring		
Minor: advanced French course (prefix FREN, numbered 3000 or above)		3
Minor: advanced French course (prefix FREN, numbered 3000 or above)		3
	Hours	**6**
	Total Hours	**31**

a This course is a prerequisite for the required minor courses.

b Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin coursework at that level and will not be required to take semesters 1-4 of the language.

German, Minor

Requirements

The undergraduate minor in German requires a minimum of 15 s.h. in college-level German courses, including at least 9 s.h. in courses taken at the University of Iowa. All German courses (prefix GRMN) numbered 3000 or above with the language of instruction in German count toward the minor. At least 9 s.h. of coursework toward the minor must consist of German courses numbered 3000–4999. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

The minor may include up to 6 s.h. from GRMN:2001 Intermediate German I or GRMN:2002 Intermediate German II or from equivalent transfer, Furthering Language Incentive Program (FLIP), or Advanced Placement (AP) credit.

Students may count no more than one German course (prefix GRMN) taught in English toward the minor. These include German courses in the World Language and Cultural Exploration category of the General Education curriculum (numbered 1500–1999) or German courses in other General Education categories (numbered 2500–2999).

With the approval of the director of undergraduate studies for German, students may count up to 6 s.h. earned in study abroad programs toward the minor. Students may also apply one course from the University of Iowa Honors Program to the requirements for the minor when that course concerns German culture or language, with approval from the director of undergraduate studies.

Study Abroad

The University of Iowa offers a number of opportunities for study in Germany, Switzerland, and Austria. Students frequently choose to participate in the summer USAC Lüneburg program, the Dortmund University Exchange, or the Academic Year in Freiburg program at the Albert Ludwig University of Freiburg. Students should consult Study Abroad and the German undergraduate advisor to select a program that fits their interests.

Students pursuing a minor in German often enroll in one of the summer sessions offered by the USAC Lüneburg program, but minors are eligible for all study abroad programs offered by the University. Up to 6 s.h. of study abroad credit can be applied to the requirements for the minor.

For more information about study abroad opportunities, contact International Programs Study Abroad.

Teacher Licensure

Students who plan to use their work toward a minor in German as an academic background for earning teacher licensure should contact the Office of Student Services in the College of Education about requirements.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

German, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in German requires a minimum of 15 s.h., including at least 9 s.h. in courses taken at the University of Iowa. [a]		
Students must maintain a GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework in the minor may not be taken pass/nonpass.		
With the approval of the director of undergraduate studies for German, students may count up to 6 s.h. earned in study abroad toward the minor.		
Students also may apply one course from the University of Iowa Honors Program to the requirements for the minor when that course concerns German culture or language with approval from the director of undergraduate studies.		
	Hours	**0**
First Year		
Fall		
GRMN:1001	Elementary German I [b]	4
	Hours	**4**
Spring		
GRMN:1002	Elementary German II [b]	4
	Hours	**4**
Second Year		
Fall		
GRMN:2001	Intermediate German I [b, c]	4
	Hours	**4**
Spring		
GRMN:2002	Intermediate German II [b, c]	4
	Hours	**4**
Third Year		
Fall		
Minor: German elective course (prefix GRMN, numbered 3000 or above) [a]		3
	Hours	**3**
Spring		
Minor: German elective course (prefix GRMN) [a]		3
	Hours	**3**
Fourth Year		
Fall		
Minor: German elective course (prefix GRMN, numbered 3000 or above) [a]		3
	Hours	**3**
Spring		
Minor: German elective course (prefix GRMN, numbered 3000 or above) [a]		3
	Hours	**3**
	Total Hours	**28**

a At least 9 s.h. of coursework towards the minor must consist of German courses numbered 3000-4999. Students may

count no more than one German course (prefix GRMN) taught in English toward the minor. These include German courses in the World Language and Cultural Exploration category of the GE curriculum (numbered 1500-1999) or German courses in other GE categories (numbered 2500-2999).

b Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin coursework at that level and will not be required to take semesters 1-4 of the language.

c The minor may include up to 6 s.h. from GRMN:2001 or GRMN:2002, or from equivalent transfer, Furthering Language Incentive Program (FLIP), or Advanced Placement (AP) credit.

International Studies, Minor

Requirements

The undergraduate minor in international studies requires a minimum of 16 s.h., including 13 s.h. in courses taken at the University of Iowa.

Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

A minor in international studies requires the following work.

Required Courses

Course #	Title	Hours
One of these:		
IS:2000	Introduction to International Studies	3
IS:2020	World Events Today!	3
Both of these:		
IS:2009	World Travel: Cross-Cultural Skills for International Business, Education, and Service	3
IS:2500	Working Internationally	1

Global Perspectives and World Cultures

Students must complete at least 6 s.h. in courses numbered 2000–4999 from the global perspectives or the world cultures and societies course tables; see Requirements [p. 702] in the BA in international studies section of the catalog.

Additional Requirement

Study Abroad, Experiential Learning, or Additional Course

Students complete 3 s.h. with a University of Iowa study abroad course, one of the courses in the following list, or an additional course numbered 2000–4999 from the global perspectives or the world cultures and societies course tables; see Requirements [p. 702] in the BA in international studies section of the catalog.

Course #	Title	Hours
One of these (minimum of 3 s.h.):		
IS:2000	Introduction to International Studies (if not taken as a foundation course)	3
IS:2400	Global Citizenship and the College Student	3
IS:2560	Global Food Migrations	3
IS:3012	Service Learning in International Studies	3
Approved coursework numbered 2000-4999 from Global Perspectives or World Cultures and Societies		3
Approved study abroad coursework		3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

International Studies, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in international studies requires a minimum of 16 s.h., including 13 s.h. in courses taken at the University of Iowa.		
Students must maintain a GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework in the minor may not be taken pass/nonpass.		
	Hours	**0**
First Year		
Fall		
IS:2000 or IS:2020	Introduction to International Studies or World Events Today!	3
	Hours	**3**
Spring		
IS:2009	World Travel: Cross-Cultural Skills for International Business, Education, and Service	3
	Hours	**3**
Second Year		
Fall		
IS:2500	Working Internationally	1
	Hours	**1**
Spring		
Minor: global perspectives or world cultures and societies course (numbered 2000-4999) [a]		3
	Hours	**3**
Third Year		
Fall		
Minor: global perspectives or world cultures and societies course (numbered 2000-4999) [a]		3
	Hours	**3**
Spring		
Minor: study abroad, experiential learning, or additional course (numbered 2000-4999) [b]		3
	Hours	**3**
	Total Hours	**16**

a See Requirements in the BA in international studies section of the General Catalog for lists of approved courses.
b See the General Catalog for list of approved courses.

Italian, Minor

Requirements

The undergraduate minor in Italian requires a minimum of 15 s.h., including 12 s.h. earned in advanced Italian courses (prefix ITAL) numbered 3000 or above taken at the University of Iowa. Images of Modern Italy (ITAL:2550) and Dante's Inferno (ITAL:4633), if taken for 4 s.h. (includes discussion section in Italian), will count toward the 12 s.h. of advanced courses required for the minor. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Credit for the Italian Language and Culture Advanced Placement (AP) exam with a score of 4 or higher or Furthering Language Incentive Program (FLIP) credit equivalent to ITAL:2204 Intermediate Italian II may be counted toward the 3 s.h. maximum of lower-level courses allowed for the minor.

Those who plan to use their work toward a minor in Italian as an academic background for earning teacher licensure should contact the Office of Student Services in the College of Education about the requirements.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Italian, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in Italian requires a minimum of 15 s.h., including 12 s.h. earned in advanced Italian courses (prefix ITAL, numbered 3000 or above) taken at the University of Iowa.		
Students must maintain a GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework in the minor may not be taken pass/non-pass.		
Credit for the Italian Language and Culture Advanced Placement (AP) exam with a score of 4 or higher or Furthering Language Incentive Program (FLIP) credit equivalent to ITAL:2204 Intermediate Italian II may be counted toward the 3 s.h. maximum of lower-level courses allowed for the minor.		
	Hours	**0**
First Year		
Fall		
ITAL:1101	Elementary Italian I [a, b]	5
	Hours	**5**
Spring		
ITAL:1102	Elementary Italian II [a, b]	5
	Hours	**5**
Second Year		
Fall		
ITAL:2203	Intermediate Italian I [a, b]	4
	Hours	**4**
Spring		
ITAL:2204	Intermediate Italian II [a, c]	4
	Hours	**4**
Third Year		
Fall		
Minor: advanced Italian course (prefix ITAL, numbered above 3000) [d]		3
	Hours	**3**
Spring		
Minor: advanced Italian course (prefix ITAL, numbered above 3000) [d]		3
	Hours	**3**
Fourth Year		
Fall		
Minor: advanced Italian course (prefix ITAL, numbered above 3000) [d]		3
	Hours	**3**
Spring		
Minor: advanced Italian course (prefix ITAL, numbered above 3000) [d]		3
	Hours	**3**
	Total Hours	**30**

a Language level placement will be determined by the online placement test score and consultation with the Director of Italian Studies. Students who place into the 5th semester level of the language will begin coursework at that level and will not be required to take semesters 1-4 of the language.

b This course is a prerequisite for the required minor courses.

c Students may also take an Italian elective course

d All courses for the minor must be taught in Italian; ITAL:2550 and ITAL:4633, if taken for 4 s.h. (includes discussion section in Italian), will count towards the 12 s.h. of advanced courses required for the minor.

Korean Studies, Minor

Requirements

The undergraduate minor in Korean studies requires a minimum of 15 s.h., with a minimum of 9 s.h. completed at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

A maximum of 6 s.h. of transfer coursework may be selected out of approved study abroad coursework. See "Study Abroad" below for details.

Required Courses

Course #	Title	Hours
One of these:		
KORE:1135	Cultural Fusion: Korean Pop Culture in a Globalized World	3
KORE:3100/ LING:3101	Introduction to Korean Linguistics	3
KORE:3200	Introduction to Korean-English Translation	3
Two of these:		
KORE:3101	Third-Year Korean: First Semester	3
KORE:3102	Third-Year Korean: Second Semester	3
KORE:4000	Fourth Year Korean: First Semester	3
KORE:4001	Fourth Year Korean: Second Semester	3

Electives

Students proficient through upper-level Korean language courses (more advanced than third-year Korean or with a Test of Proficiency in Korean [TOPIK] level of 3 or higher) and who have an approved waiver from the Korean program coordinator may substitute 6 s.h. of other coursework from the list below instead of completing the Korean language requirement.

Students proficient through upper-level Korean language courses who do not have a waiver must complete a minimum of 3 s.h. in a related area elective. They can select a course from the list below or consult with the Korean program coordinator for approval to take a different elective course.

All other students select 6 s.h. from the following (consult the Korean program coordinator for options involving study abroad or waivers). KORE:3070 Topics in Korean Studies is designated for Big Ten Academic Alliance (BTAA) Korean e-school courses, which are delivered via video conferencing from other Big Ten institutions.

Course #	Title	Hours
KORE:1135	Cultural Fusion: Korean Pop Culture in a Globalized World (if not already taken)	3
KORE:1670/ ASIA:1670/ RELS:1670	Korea in the World	3
KORE:3070	Topics in Korean Studies	3
KORE:3100/ LING:3101	Introduction to Korean Linguistics (if not already taken)	3
KORE:3200	Introduction to Korean-English Translation (if not already taken)	3
KORE:5102	Individual Korean for Advanced Students (with instructor approval)	arr.
HIST:1607/ ASIA:1607	Civilizations of Asia: Korea	3-4
HIST:2687/ ASIA:2887	Perspectives on Korea	3
HIST:3685/ ASIA:3685	Modern Korean History	3
Study abroad options (see "Study Abroad")		arr.

Study Abroad

Students may select a maximum of 6 s.h. (one or two courses per year) from courses offered by Ewha Womans University, Korea University, or other universities in South Korea eligible for credit transfer. Consult the Korean program coordinator before undertaking study abroad work.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Korean Studies, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in Korean studies requires a minimum of 15 s.h., with a minimum of 9 s.h. completed at the University of Iowa.		
Students must maintain a 2.00 GPA in all courses for the minor.		
Coursework in the minor may not be taken pass/nonpass.		
A maximum of 6 s.h. of transfer coursework may be selected out of approved study abroad coursework. Consult the Korean program coordinator before undertaking study abroad work.		
	Hours	**0**
First Year		
Fall		
KORE:1101	First-Year Korean: First Semester [a, b]	4
	Hours	**4**
Spring		
KORE:1102	First-Year Korean: Second Semester [a, b]	4
	Hours	**4**

Second Year		
Fall		
KORE:1135 or KORE:3200 or KORE:3100	Cultural Fusion: Korean Pop Culture in a Globalized World or Introduction to Korean-English Translation or Introduction to Korean Linguistics	3
KORE:2101	Second-Year Korean: First Semester [a, b]	4
	Hours	**7**
Spring		
KORE:2102	Second-Year Korean: Second Semester [a, b]	4
	Hours	**4**
Third Year		
Fall		
Minor: upper-level Korean language course [c]		3
	Hours	**3**
Spring		
Minor: upper-level Korean language course [c]		3
	Hours	**3**
Fourth Year		
Fall		
Minor: Korean minor elective [d]		3
	Hours	**3**
Spring		
Minor: Korean minor elective [d]		3
	Hours	**3**
	Total Hours	**31**

a This course is a prerequisite for the required minor courses.

b Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin coursework at that level and will not be required to take semesters 1-4 of the language.

c Choose from: KORE:3101, KORE:3102, KORE:4000, or KORE:4001.

d See General Catalog or talk with your advisor for a list of possible course options that can be used to fulfill this requirement.

Linguistics, Minor

Requirements

The undergraduate minor in linguistics requires a minimum of 15 s.h. in linguistics courses, including at least 12 s.h. in University of Iowa courses. The minor must include the courses in the following list. Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

The minor in linguistics requires the following coursework.

Required Courses

Course #	Title	Hours
LING:3001	Introduction to Linguistics	3
LING:3005	Articulatory and Acoustic Phonetics	3
LING:3010	Syntactic Analysis	3
LING:3020	Phonological Analysis	3
Additional approved course numbered 3000 or above		3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Linguistics, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in linguistics requires a minimum of 15 s.h. in linguistics courses, including at least 12 s.h. in University of Iowa courses.		
Students must maintain a cumulative GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework in the minor may not be taken pass/nonpass.		
	Hours	**0**
First Year		
Fall		
LING:3001	Introduction to Linguistics	3
	Hours	**3**
Second Year		
Fall		
LING:3005	Articulatory and Acoustic Phonetics	3
	Hours	**3**
Spring		
LING:3010	Syntactic Analysis	3
	Hours	**3**
Third Year		
Fall		
Minor: additional approved course numbered 3000 or above [a]		3
	Hours	**3**
Spring		
LING:3020	Phonological Analysis	3
	Hours	**3**
	Total Hours	**15**

a Please see academic advisor for approved courses to fulfill this requirement.

Russian, Minor

Requirements

The undergraduate minor in Russian requires a minimum of 15 s.h. in Russian coursework. All courses must be taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. Furthering Language Incentive Program (FLIP) credit cannot be applied toward the minor.

The minor in Russian requires the following coursework.

Requirements	Hours
Language Courses	8
Composition and Conversation Course	4
Advanced Culture Courses	3

Language Courses

Course #	Title	Hours
All of these:		
RUSS:2112	Second-Year Russian II	4
RUSS:3111	Third-Year Russian I	4

Composition and Conversation Course

Course #	Title	Hours
This course:		
RUSS:3113	Russian Composition and Conversation	4

Advanced Culture Courses

Course #	Title	Hours
One of these:		
RUSS:3122/ TRNS:3122/ WLLC:3122	Tolstoy and Dostoevsky	3
RUSS:3202/ HIST:3492/ TRNS:3203/ WLLC:3202	Russian Literature in Translation 1860-1917	3
RUSS:3205	Contemporary Russian Prose in Translation	3
RUSS:3224	Russian Culture Through Cinema	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Russian, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in Russian requires a minimum of 15 s.h. in Russian coursework. All courses must be taken at the University of Iowa.		
Students must maintain a GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework may not be taken pass/nonpass.		
Furthering Language Incentive Program (FLIP) credit cannot be applied toward the minor.		
	Hours	**0**
First Year		
Fall		
RUSS:1111	First-Year Russian I [a, b]	5
	Hours	**5**
Spring		
RUSS:1112	First-Year Russian II [a, b]	5
	Hours	**5**
Second Year		
Fall		
RUSS:2111	Second-Year Russian I [a, b]	4
	Hours	**4**
Spring		
RUSS:2112	Second-Year Russian II [b]	4
	Hours	**4**
Third Year		
Fall		
RUSS:3111	Third-Year Russian I	4
	Hours	**4**
Spring		
RUSS:3113	Russian Composition and Conversation	4
	Hours	**4**
Fourth Year		
Fall		
Minor: advanced culture course [c]		3
	Hours	**3**
	Total Hours	**29**

a This course is a prerequisite for the required minor courses.

b Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin coursework at that level and will not be required to take semesters 1-4 of the language.

c Take one course from RUSS:3122, RUSS:3202, RUSS:3205, RUSS:3224.

Translation for Global Literacy, Minor

Requirements

The undergraduate minor in translation for global literacy requires a minimum of 18 s.h., including a minimum of 12 s.h. in courses taken at the University of Iowa. At least 12 s.h. of coursework must be taken in courses numbered 2000 or above. Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Students are encouraged to declare the minor after satisfying the GE CLAS Core [p. 22] World Languages requirement or during more advanced language study. Most students who successfully complete the minor will need at least 6 s.h. of additional coursework beyond fourth level proficiency in language study.

Students may count a maximum of 6 s.h. of coursework taken for each major, minor, or certificate program toward the requirements for the minor. Students who earn a BA in translation may not earn a minor in translation for global literacy.

All students should tailor their plan of study to their experience and objectives. Students interested in the minor should meet with a faculty member associated with the minor program as soon as possible to develop an individualized plan of study.

Courses listed in two or more categories may only be used toward one requirement.

The minor in translation for global literacy requires the following coursework.

Requirements	Hours
Core Course	3
Translation Courses	6
Language, Linguistics, Literature, and Culture Courses	6
Capstone Course	3

Core Course

Course #	Title	Hours
This course:		
TRNS:2000	Translation and Global Society	3

Translation Courses

Course #	Title	Hours
This course:		
TRNS:3179/ CLSA:3979/ ENGL:3850	Undergraduate Translation Workshop	3
One of these:		
TRNS:4050	Independent Study	3
ARAB:3060	Introduction to Arabic-English Translation	3
CHIN:3201/ TRNS:3202	Workshop in Chinese Literary Translation	3
CLSL:3200/ CLSG:3200/ TRNS:3205	Literary Translation Workshop in Ancient Greek and Latin	3
ENGL:4724	Advanced Writers' Seminar: Literary Translation	3
FREN:3232/ TRNS:3232	French Literary Translation Workshop	3
IWP:5205/ TRNS:5210	International Translation Workshop	1,3
JPNS:3201/ TRNS:3201	Workshop in Japanese Literary Translation	3
KORE:3200	Introduction to Korean-English Translation	3
SPAN:3030	Translation Workshop: English to Spanish	3
SPAN:3050	Translation Workshop: Spanish to English	3
WLLC:3208/ ASIA:3208/ TRNS:3208	Classical Chinese Literature Through Translation	3

Language, Linguistics, Literature, and Culture Courses

Course #	Title	Hours
6 s.h. in this area (the following are sample courses):		
TRNS:2578	Translation in the Humanities: Modes and Approaches	3
TRNS:4131/ WLLC:4131	Critical Reading	3
TRNS:4470	Translating Style	3
ARTH:1020	Masterpieces: Art in Historical and Cultural Perspectives	3
ASIA:1510/ WLLC:1510	Ghost Stories and Tales of the Weird in Premodern Chinese Literature	3
FREN:1006	Global Sports and National Cultures	3
GRMN:2275	Scandinavian Crime Fiction	3
IS:2020	World Events Today!	3
JPNS:3208	Japanese Film	3
RUSS:1531	Slavic Folklore	3
SPAN:2050	Spanish in the United States	3
Other courses approved by advisor (students can select from a wide range of options)		

Capstone Course

Course #	Title	Hours
One of these:		
TRNS:4500/ ITAL:4500	Undergraduate Capstone Project (consult advisor; credit earned toward certificate should total 18 s.h.)	3
A departmental capstone course in which a project on translation is completed (must be approved by advisor)		3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Translation for Global Literacy, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in translation and global literacy requires a minimum of 18 s.h., including a minimum of 12 s.h. in courses taken at the University of Iowa.		
Students must maintain a cumulative GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework in the minor may not be taken pass/nonpass.		
At least 12 s.h. of coursework must be taken in courses numbered 2000 or above.		
Students may count a maximum of 6 s.h. of coursework taken for each major, minor, or certificate program toward the requirements for the minor.		
Students interested in the minor should meet a faculty advisor associated with the minor program as soon as possible to develop an individualized plan of study.		
	Hours	**0**
First Year		
Spring		
TRNS:2000	Translation and Global Society	3
	Hours	**3**
Second Year		
Fall		
TRNS:3179	Undergraduate Translation Workshop	3
	Hours	**3**
Spring		
Minor: translation course or language, linguistics, literature, and culture course [a, b]		3
	Hours	**3**
Third Year		
Fall		
Minor: translation course or language, linguistics, literature, and culture course [a, b]		3
	Hours	**3**
Spring		
Minor: translation course or language, linguistics, literature, and culture course [a, b]		3
	Hours	**3**
Fourth Year		
Spring		
TRNS:4500	Undergraduate Capstone Project [c]	3
	Hours	**3**
	Total Hours	**18**

a Students must complete at least 6 s.h. of language, linguistics, literature, and culture coursework. See the General Catalog for list of approved courses.
b Students must complete at least 3 s.h. of translation coursework in addition to TRNS:3179. See the General Catalog for list of approved courses.
c Consult advisor for approval of capstone option.

French and Francophone World Studies, MA

The Master of Arts in French and Francophone world studies is offered with an optional French education emphasis.

For more detailed information on graduate degrees in French and Francophone world studies, contact the Department of Languages, Linguistics, Literatures, and Cultures.

Learning Outcomes

- Mastery level of competence and proficiency in spoken and written French. Ability to change between languages and registers with ease as well as express sophisticated ideas in both English and French.
- Ability to perform a formal analysis of literary texts from a variety of genres, including narrative, poetry, theater, and those situated at the limits between traditional notions of genre as well as the visual arts.
- Knowledge of the various periods and subfields of French and Francophone literature from the Renaissance to the present, including major literary, cultural, and historical movements, and the relationship between France and its former colonies.
- Understanding of critical theory and its potential use for analyzing objects of study from a variety of media.
- Ability to think critically and make sustained and convincing arguments in relation to scholarship in the field, as well as express original opinions and thinking, as evidenced in a body of scholarship such as final papers.

Requirements

The Master of Arts program in French and Francophone world studies requires a minimum of 30 s.h. of graduate credit and is offered with or without thesis.

Thesis students may apply up to 6 s.h. of thesis credit toward the 30 s.h. required for the degree. They must take a written and oral examination on their areas of study and must defend their thesis at the time of the comprehensive examination. The thesis prospectus must be accepted one year before a student defends the thesis.

Nonthesis students must pass a written and oral examination. With permission of the director of graduate studies and the department chair, nonthesis students may earn up to 6 s.h. of the required 30 s.h. outside the department or transfer up to 6 s.h. of coursework completed at another institution.

All MA students must complete the following coursework.

Course #	Title	Hours
FREN:5001	Introduction to Graduate Study	2
FREN:5020	Comparative Stylistics	3
At least four graduate-level literature or culture courses numbered 5000 or above		

French Education Emphasis

The Master of Arts program with French education emphasis requires a minimum of 38 s.h. of graduate credit in French. The program is intended primarily for prospective secondary school and community college teachers. Candidates must pass a final written and oral examination.

All French education emphasis students must complete the following coursework.

Course #	Title	Hours
FREN:5001	Introduction to Graduate Study	2
FREN:5020	Comparative Stylistics	3
Courses in French literature numbered 5000 or above (minimum requirement)		9

Combined Programs

French and Francophone World Studies, MA/Literary Translation MFA

The Department of Languages, Linguistics, Literatures, and Cultures offers a combined Master of Arts in French and Francophone world studies and Master of Fine Arts in literary translation. Students interested in writing in its different forms—creative, academic, and translation—will find the University of Iowa to be the ideal place to develop their talents and an attractive option for more diversified career preparation.

A separate application and admission to each degree program is required. For more information, review the admissions requirements for French and Francophone world studies and literary translation.

Students in the combined program earn both degrees by completing a minimum of 60 s.h. of coursework, fewer semester hours than if each degree was completed separately. Qualified students may be eligible for up to three years of full funding for a teaching assistant (TA) position.

Students are held to the core translation courses (9 s.h.) and thesis workshop (3 s.h.) requirements in the MFA in literary translation. In addition to the four translation workshop courses (12 s.h.), students in the combined program complete two translation workshops (6 s.h.) for a total of 18 s.h. They are permitted to apply FREN:3232 French Literary Translation Workshop toward the translation workshop requirement. These two additional translation workshops apply toward elective requirements; the remaining 18 s.h. of electives is shared with French and Francophone world studies MA.

Students in the combined program are required to complete a thesis for the MFA in literary translation. For the MA in French and Francophone world studies, students are not required to complete a thesis. Should they choose to do so, a separate thesis is required.

Admission

Applicants must have completed the equivalent of the University of Iowa undergraduate major in French. They also must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants for the fall semester whose application materials are received in the department by Jan. 15 have the best chance to be admitted and receive financial aid. They must submit academic transcripts, letters of recommendation from three persons familiar with their past academic work, a statement of purpose in taking graduate work, and one or more samples of original writing, one of which should be in French, that show their ability to pursue graduate work in

French (an honors thesis, term paper, seminar paper, or other course papers).

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

French and Francophone World Studies, MA

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
FREN:5001	Introduction to Graduate Study	2
FREN:5020	Comparative Stylistics	3
Literature or culture course [c]		3
	Hours	**8**
Spring		
Literature or culture course [c]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**9**
Second Year		
Fall		
Literature or culture course [c]		3
Elective course [d]		3
Elective course [d]		2
	Hours	**8**
Spring		
Literature or culture course [c]		3
Elective course [d]		2
Final Exam [e]		
	Hours	**5**
	Total Hours	**30**

a Students may complete 38 s.h. of graduate level coursework for the French education emphasis. In addition to fulfilling the requirements for the MA non-thesis, an additional 9 s.h. of coursework in French literature numbered 5000 or above is required. Graduate elective coursework may be reduced by 1 s.h. if students choose to complete the French education emphasis.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Complete at least four graduate-level literature or culture courses numbered 5000 or above.

d May apply 6 s.h. towards the degree from coursework outside the department, including graduate transfer coursework.

e Written and oral exam on areas of study.

Linguistics, MA

The Master of Arts in linguistics emphasizes theory and research. They prepare students for academic and non-academic careers.

The Department of Languages, Linguistics, Literatures, and Cultures has particular strengths in phonology, syntax, and language acquisition.

The phonology curriculum emphasizes current theoretical perspectives, including optimality theory, and the collection, description, and interpretation of novel phonological and phonetic data. Courses feature extensive work in data analysis and problem-solving, focusing on the construction and evaluation of phonological theories, particularly in light of new empirical data.

The syntax curriculum includes the dual emphases of empirical and theoretical perspectives. It offers a variety of foundational courses that build analytic and argumentation skills, as well as specialized coursework on current issues in syntactic theory. The courses consist of intensive work in problem-solving. They combine the discovery and description of new linguistic data with the exploration of the implications of such facts in testing and constructing syntactic theories.

The curriculum in language acquisition includes courses that provide an overview and analysis of current second language acquisition research. Work focuses on experimental research investigating the influence of the first language, environmental and contextual factors, and related topics.

Learning Outcomes

The master's degree in linguistics is intended for students who want to pursue a PhD in linguistics or are interested in linguistics-related professional areas.

Students are expected to:

- be familiar with the basics of theoretical linguistic approaches to phonology and syntax, be able to analyze linguistic data using formal theoretical linguistics approaches, and be familiar with the basics of applied phonetics and approaches to multilingual language acquisition research;
- be familiar with the basics of empirical research in linguistics and be able to use appropriate software and methods to understand original research;
- be able to write a formal research paper in syntax and phonology demonstrating a critical evaluation of a particular problem or issue they have investigated;
- be familiar with the basics of multilingual language acquisition from a theoretical and empirical perspective;
- formulate a research project by the end of their third semester if they have articulated the goal of continuing to a PhD program in linguistics; and
- possibly explore course options in areas related to their professional development if they are not planning on continuing to a PhD program in linguistics.

Requirements

The Master of Arts in linguistics requires a minimum of 34–37 s.h. of graduate credit. Students must maintain a Graduate College major program grade-point average of at least 3.00. The degree is offered with two options: without a thesis (34 s.h.) and with a thesis (37 s.h.). A student's advisor must approve all courses that count toward the degree. All courses must be taken on an A–F graded basis.

Core Courses

Students complete the following set of required core courses in phonetics, phonology, syntax, and language acquisition for a total of 22 s.h.

Course #	Title	Hours
All of these:		
LING:3005	Articulatory and Acoustic Phonetics	3
LING:5000	Proseminar: Morphosyntax	1
LING:5010	Introduction to Syntax	3
LING:5020	Introduction to Phonology	3
LING:6010	Syntactic Theory	3
LING:6020	Phonological Theory	3
LING:6080	Topics in Second Language Acquisition	3
One of these:		
LING:6040	Linguistic Structures	3
LING:6050	Language Universals Linguistic Typology	3

Electives

Students are encouraged to use electives to focus on a specialized area, such as data analytics. With advisor permission, additional non-linguistics courses may be considered as elective options.

Students not completing a thesis take 12 s.h. of linguistics courses (prefix LING) numbered 4000 or above, excluding LING:4010, LING:4050, LING:4900, LING:6900, and LING:7900. These may include a maximum of 6 s.h. total from LING:4195 Linguistics Lab II, LING:5090 Special Projects, and LING:7100 Special Projects.

Students completing a thesis take 15 s.h. of linguistics courses numbered 4000 or above, excluding LING:4010, LING:4050, LING:4900, and LING:7900. This may include a maximum of 9 s.h. total from LING:4195 Linguistics Lab II, LING:5090 Special Projects, LING:6900 Master's Thesis, and LING:7100 Special Projects. Students must take at least 3 s.h. in LING:6900 Master's Thesis.

Admission

Applicants to the MA program in linguistics must submit an application to the Graduate College, including three letters of recommendation. Applications for admission should be submitted as early as possible for the following academic year.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Career opportunities in linguistics can be found in academia, government, industry, and the non-profit sectors.

A number of companies, such as Microsoft, Xerox, Apple, Hewlett-Packard, and other high-tech firms, regularly hire employees with linguistics degrees. Opportunities also exist

for government work, for example, as a special agent linguist for the FBI.

The Linguistic Society of America has a wealth of resources available to individuals interested in pursuing a career in linguistics.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Linguistics, MA

Course	Title	Hours
Academic Career		
Any Semester		
34 s.h. must be graduate level coursework; all coursework including up to a maximum of 6 s.h. of graduate transfer credits require approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
LING:3005	Articulatory and Acoustic Phonetics	3
LING:5000	Proseminar: Morphosyntax	1
LING:5010	Introduction to Syntax	3
Elective or focus course [b]		3
	Hours	**10**
Spring		
LING:5020	Introduction to Phonology	3
LING:6010	Syntactic Theory	3
Elective or focus course [b]		3
	Hours	**9**
Second Year		
Fall		
LING:6020	Phonological Theory	3
LING:6080	Topics in Second Language Acquisition	3
Elective or focus course [b]		3
	Hours	**9**
Spring		
LING:6050 or LING:6040	Language Universals Linguistic Typology or Linguistic Structures	3
Elective or focus course [b]		3
	Hours	**6**
	Total Hours	**34**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Complete 12 s.h. of Department of Linguistics coursework, which may include a 9-12 s.h. focus. Work with faculty advisor to determine appropriate coursework and sequence.

Literary Translation, MFA

Learning Outcomes

Students will be able to demonstrate:

- skills and knowledge of literary translation practice as a creative art;
- broad knowledge of the professional field of literary translation;
- familiarity with the cultural and literary context of the student's source language;
- understanding of literary translation as a critical and reflective practice and of the history and contemporary discourse on translation theories; and
- ability to independently complete a literary translation project of scope and sophistication.

Requirements

The Master of Fine Arts program in literary translation requires 48 s.h. of graduate credit, including a thesis. Students must maintain a UI cumulative grade-point average of at least 2.75. They typically complete the program and graduate in two to three years.

Translators in the program focus on creating works that can convey the distinctness of the original languages and the immediacy of contemporary languages, whether poetry, fiction, or drama. Students consider ideas of literariness, style, cultural politics, and authority, and how these come into play in the relationships between authors and their texts, authors and translators, translations and readers, and in the media landscapes in which these circulate.

At the core of the MFA program are the workshops, TRNS:6555 Translator-in-Residence Workshop and TRNS:7460 Translation Workshop, which every student must take for a minimum of 12 s.h. of credit. Depth in the literature and culture of the source language, creative writing (translation is considered a writing art), translation theory and history, and contemporary literary theory are basic curricular requirements, supplemented with elective courses in which students may develop an area of special interest in consultation with their advisors.

During the first year, each student has an advisory committee of two faculty members: one from the translation program, who is the student's primary advisor; and one from the departments of Languages, Linguistics, Literatures, and Cultures or Spanish and Portuguese or from one of the MFA writing programs. A third member joins the committee during the second year when a student submits the thesis proposal. At least one member of the committee should be competent in the student's source language.

The MFA in literary translation requires the following coursework.

Requirements	Hours
Core Courses	24
Electives	24
Thesis	

Core Courses

Students must take TRNS:6000, TRNS:6399, and TRNS:6459 on an A–F graded basis.

Course #	Title	Hours
All of these (9 s.h.):		
TRNS:6000	The Craft and Contexts of Translation	3
TRNS:6399	Writing About Translation	3
TRNS:6459	Issues in Translation	3
Translation Workshops		
12 s.h. from these:		
TRNS:6555	Translator-in-Residence Workshop (may be repeated)	3
TRNS:7460	Translation Workshop (may be repeated)	3
This course:		
TRNS:6444	Thesis Workshop	3

Electives

Students select 24 s.h. of electives in consultation with their advisors, with up to 6 s.h. of credit from the pedagogy courses in the following list. They are strongly encouraged to enroll in a minimum of 12 s.h. in translation courses (prefix TRNS). A maximum of 3 s.h. from TRNS:6400 Thesis may count as elective credit. With permission of a student's advisor, additional electives not listed here may be selected.

Pedagogy Courses

Course #	Title	Hours
A maximum of 6 s.h. from these:		
CNW:5375	Teaching in a Writing Center	3
CNW:6600	Teaching Nonfiction	3

Elective Courses

Elective options may include the following.

Course #	Title	Hours
Translation courses (prefix TRNS) numbered 3000 and above, excluding:		
TRNS:3179	Undergraduate Translation Workshop	3
TRNS:3491	Translation Internship	1-3
TRNS:6000	The Craft and Contexts of Translation	1,3
TRNS:6050	Independent Study	arr.
TRNS:6399	Writing About Translation	3
TRNS:6444	Thesis Workshop	3
TRNS:6459	Issues in Translation	3
Asian Languages and Literatures courses (prefix ASIA) numbered 3000 and above, excluding:		
ASIA:4301	Honors Tutorial	arr.
ASIA:4506	Senior Honors Thesis	arr.
ASIA:6501	MA Thesis	arr.
Arabic Studies courses (prefix ARAB) numbered 3000 and above, excluding:		
ARAB:3011	Advanced Modern Standard Arabic I	3
ARAB:3012	Advanced Modern Standard Arabic II	3
ARAB:3030	Media Arabic	3
ARAB:3050	Arab Culture Through Dialects	3

American Sign Language courses (prefix ASL) numbered 3000 and above, excluding:		
ASL:3001	American Sign Language V	3
ASL:3100	American Sign Language Conversation	3
Chinese courses (prefix CHIN) numbered 3000 and above, excluding:		
CHIN:3101	Third-Year Chinese: First Semester	3
CHIN:3102	Third Year Chinese: Second Semester	3
CHIN:3103	Business Chinese I	3
CHIN:3104	Business Chinese II	3
CHIN:4101	Classical Chinese: First Semester	3
CHIN:4102	Classical Chinese: Second Semester	3
CHIN:4103	Fourth-Year Chinese: First Semester	3
CHIN:4104	Fourth-Year Chinese: Second Semester	3
CHIN:4150	Advanced Reading and Writing in Chinese	3
CHIN:5106	Individual Chinese for Advanced Students	arr.
Creative Nonfiction Writing courses (prefix CNW), excluding:		
CNW:4690	Undergraduate Project in Nonfiction Writing	arr.
CNW:7900	Special Project in Nonfiction Writing	arr.
CNW:7950	Thesis in Nonfiction Writing	arr.
Creative Writing courses (prefix CW) numbered 3000 and above, excluding:		
CW:4870	Undergraduate Writers' Workshop: Fiction	arr.
CW:4875	Undergraduate Writers' Workshop: Poetry	arr.
CW:4885	Undergraduate Writers' Seminar	arr.
CW:4894	Undergraduate Project in Creative Writing	arr.
CW:7890	Graduate Project in Creative Writing	arr.
CW:7895	MFA Thesis	arr.
Comparative Literature courses (prefix CL) numbered 3000 and above		
English courses (prefix ENGL) numbered 300 and above, excluding:		
French courses (prefix FREN) numbered 3000 and above, excluding:		
FREN:3000	Third-Year French	3
FREN:3020	Oral Expression in French I	3
FREN:3060	Introduction to Reading and Writing in Literature	3
FREN:3240	Media French	3
FREN:3410	Business French	3
FREN:4020	Oral Expression in French II	3
FREN:4911	French for Reading/Research	2
FREN:4912	French for Reading/Research	2
FREN:4995	Honors Research and Thesis	3
German courses (prefix GRMN) numbered 3000 and above, excluding:		
GRMN:3103	Composition and Conversation I	3
GRMN:3104	Composition and Conversation II	3
GRMN:3195	German Linguistics Lab I	3
GRMN:3214	Business German	3
GRMN:3845	The Structure of German	3
GRMN:3855	The Sounds of German	3
GRMN:4195	German Linguistics Lab II	3
GRMN:4910	Peer Tutoring in German	arr.
GRMN:4990	Honors Research	3
GRMN:4995	German Graduation Portfolio	0
GRMN:5000	German Reading for Graduate Students	3
International Studies courses (IS) numbered 3000 and above, excluding:		
IS:3020	Writing Projects in International Studies	0-3
IS:3990	Independent Study in International Studies	arr.
IS:4990	International Studies Senior Project	3
IS:4991	Honors Thesis in International Studies	3
International Writing Program courses (prefix IWP) numbered 3000 and above		
Italian courses (prefix ITAL) numbered 3000 and above, excluding:		
ITAL:3305	Advanced Italian	3-4
ITAL:3306	Advanced Italian II	3-4
ITAL:4500	Undergraduate Capstone Project	1-3
ITAL:4998	Honors Research and Thesis	3
Japanese courses (prefix JPNS) numbered 3000 and above, excluding:		
JPNS:3001	Third-Year Japanese I	4
JPNS:3002	Third-Year Japanese II	4
JPNS:3107	Classical Japanese: First Semester	3
JPNS:3128	Introduction to Japanese Linguistics	3
JPNS:3500	Japanese for Professional Purposes	3
JPNS:4001	Fourth-Year Japanese I	3
JPNS:4002	Fourth-Year Japanese II	3
Korean Studies courses (KORE) numbered 3000 and above, excluding:		
KORE:3101	Third-Year Korean: First Semester	3
KORE:3102	Third-Year Korean: Second Semester	3
KORE:4000	Fourth Year Korean: First Semester	3
KORE:4001	Fourth Year Korean: Second Semester	3
Latin courses (prefix CLSL) numbered 3000 and above, excluding:		

CLSL:4080	Undergraduate Teaching Assistantship	2-3
CLSL:4090	Private Assignments	1-3
CLSL:4095	Honors Readings	3
CLSL:7080	Latin Thesis	arr.
CLSL:7090	Advanced Reading	arr.
Latin American Studies courses (prefix LAS) numbered 3000 and above, excluding:		
LAS:4990	Independent Project in Latin American Studies	arr.
Linguistics courses (prefix LING) numbered 3000 and above, excluding:		
LING:4010	Undergraduate Practicum in Teaching English as a Second Language	3
LING:4900	Honors: Research and Thesis	arr.
LING:6900	Master's Thesis	arr.
LING:7900	PhD Thesis	arr.
Portuguese courses (prefix PORT) numbered 3000 and above, excluding:		
PORT:3050	Intensive Portuguese for Spanish Speakers	4
PORT:3100	Writing and Speaking	3
PORT:4995	Portuguese Senior Project	3
Religious Studies courses (prefix RELS) numbered 3000 and above, excluding:		
RELS:4001	Biblical Hebrew I	3-4
RELS:4002	Biblical Hebrew II	3
RELS:4893	Classical Arabic: Vocabulary, Syntax, and Grammar	1-3
RELS:4950	Senior Majors Seminar	3
RELS:4960	Individual Study: Undergraduates	arr.
RELS:4970	Honors Tutorial	2-3
RELS:4975	Honors Essay	2-4
RELS:5001	Biblical Aramaic	3
RELS:5002	Targumic Aramaic	3
RELS:6125	Classical Arabic and Grammar	3-6
RELS:7950	Thesis	arr.
Russian courses (prefix RUSS) numbered 3000 and above, excluding:		
RUSS:3111	Third-Year Russian I	4
RUSS:3112	Third-Year Russian II	4
RUSS:3113	Russian Composition and Conversation	4
RUSS:4111	Fourth-Year Russian I	4
RUSS:4112	Fourth-Year Russian II	4
RUSS:4995	Honors	arr.
Spanish courses (prefix SPAN) numbered 3000 and above, excluding:		
SPAN:3010	Advanced Spanish Speaking and Writing	3
SPAN:3015	Fast Fixes: Improved Spanish in Six Weeks	1
SPAN:3020	Journalistic Writing in Spanish	3
SPAN:3080	Spanish for International Business	3
SPAN:3090	Spanish at Work	1
SPAN:3095	Spanish Composition and Grammar	3
SPAN:3100	Structures of Spanish: Words and Sentences	3
SPAN:3110	Spanish Sound Structure	3
SPAN:4195	Spanish Linguistics Lab II	3
SPAN:4998	Honors: Research and Thesis	2-3
SPAN:5002	Pedagogical Practicum	2
SPAN:6299	Thesis: Creative Writing	arr.
Swahili courses (prefix SWAH) numbered 3000 and above, excluding:		
SWAH:3006	Conversational Swahili	3
SWAH:3007	Advanced Swahili	3
World Languages, Literatures, and Cultures courses (prefix WLLC) numbered 3000 and above, excluding:		
WLLC:3000	Big Ten Academic Alliance CourseShare: Lower-Level Language	0-5
WLLC:3001	Big Ten Academic Alliance CourseShare: Elementary I	1-6
WLLC:3002	Big Ten Academic Alliance CourseShare: Elementary II	1-6
WLLC:3003	Big Ten Academic Alliance CourseShare: Intermediate I	1-6
WLLC:3004	Big Ten Academic Alliance CourseShare: Intermediate II	1-6
WLLC:3005	Big Ten Academic Alliance CourseShare: Upper-Level Language	1-6

Thesis

Students complete a thesis, which is a translated collection of poems, literary essays, short stories, a short novel, or a drama with an introduction that sets the work in appropriate context. A maximum of 3 s.h. of TRNS:6400 Thesis may count as elective credit.

The introduction should include a critical discussion of issues and problems related to the translation; it should present a rationale for the translator’s approach and strategies, based on interpretation, analysis of the leading features, structure, style, or authorial objectives of the source text. The source text should be a work that has not been translated previously or, at the discretion of the advisory committee, a work whose previous translation is judged to be outdated or inadequate in some respect. An oral defense of the thesis examines the student’s translation and the introductory essay in detail.

Combined Programs

French and Francophone World Studies, MA/Literary Translation MFA

The Department of Languages, Linguistics, Literatures, and Cultures offers a combined Master of Arts in French and Francophone world studies and Master of Fine Arts in literary translation. Students interested in writing in its different forms—creative, academic, and translation—will find the University of Iowa to be the ideal place to develop their talents and an attractive option for more diversified career preparation.

A separate application and admission to each degree program is required. For more information, review the admissions requirements for French and Francophone world studies and literary translation.

Students in the combined program earn both degrees by completing a minimum of 60 s.h. of coursework, fewer semester hours than if each degree was completed separately. Qualified students may be eligible for up to three years of full funding for a teaching assistant (TA) position.

Students are held to the core translation courses (9 s.h.) and thesis workshop (3 s.h.) requirements in the MFA in literary translation. In addition to the four translation workshop courses (12 s.h.), students in the combined program complete two translation workshops (6 s.h.) for a total of 18 s.h. They are permitted to apply FREN:3232 French Literary Translation Workshop toward the translation workshop requirement. These two additional translation workshops apply toward elective requirements; the remaining 18 s.h. of electives is shared with French and Francophone world studies MA.

Students in the combined program are required to complete a thesis for the MFA in literary translation. For the MA in French and Francophone world studies, students are not required to complete a thesis. Should they choose to do so, a separate thesis is required.

Admission

Applicants to the program are evaluated mainly on a writing portfolio. The portfolio should include translations, including source texts, and an original critical literary essay or literary writing in English; a statement of purpose; and three letters of recommendation. Applicants should provide evidence of advanced competence in their source language—normally at least three years of college-level work or the equivalent—and substantial preparation in English literature. The availability of faculty expertise in the applicant's source language and culture is considered in admission decisions.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Graduates have gone on to work in the world of professional publishing as editors and reviewers or as free-lance translators; to become university professors after earning a PhD; and to pursue other careers involving cross-cultural and artistic exchange. In recent years, publishers of works by translation alumni have included Greywolf Press, Seven Stories Press, Autumn Hill Books, Melville House, Words Without Borders, *The Iowa Review*, *91st Meridian*, Two Lines Press, *Circumference Poetry in Translation*, *The Literary Review*, Passport Publications and Media Corporation, *Absinthe*, and others.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Literary Translation, MFA

Course	Title	Hours
Academic Career		
Any Semester		
48 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
TRNS:6459	Issues in Translation [b]	3
TRNS:7460	Translation Workshop [c]	3
Elective course [d]		3
Elective course [d]		3
	Hours	**12**
Spring		
TRNS:6000	The Craft and Contexts of Translation [b]	3
TRNS:7460	Translation Workshop [c]	3
Elective course [d]		3
Elective course [d]		3
	Hours	**12**
Second Year		
Fall		
Thesis Proposal		
TRNS:6399	Writing About Translation [b]	3
TRNS:7460	Translation Workshop [c]	3
Elective course [d]		3
Elective course [d]		3
	Hours	**12**
Spring		
TRNS:6400	Thesis [d, e]	3
TRNS:6444	Thesis Workshop	3
TRNS:6555	Translator-in-Residence Workshop [c]	3
Elective course [d]		3
Exam: Master's Final Exam [f]		
	Hours	**12**
	Total Hours	**48**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Students must take TRNS:6000, TRNS:6399, and TRNS:6459 on an A-F graded based.

c Complete workshop courses by taking a mix of TRNS:6555 (usually taken once) and TRNS:7460 (usually taken three times) for a total of 12 s.h.

d Students select 24 s.h. of electives in consultation with their advisors and are strongly encouraged to enroll in a minimum of 12 s.h. in translation courses (prefix TRNS). See the General Catalog for list of approved courses.

e Students complete a thesis, which is a translated collection of poems, literary essays, short stories, a short novel, or a drama with an introduction that sets the work in appropriate context. A maximum of 3 s.h. of TRNS:6400 may count as elective credit.

f Oral thesis defense.

French and Francophone World Studies, PhD

Learning Outcomes

- Mastery level of competence and proficiency in spoken and written French. Ability to change between languages and registers with ease as well as express sophisticated ideas in both English and French.
- Ability to perform a formal analysis of literary texts from a variety of genres, including narrative, poetry, theater, and those situated at the limits between traditional notions of genre as well as the visual arts.
- Knowledge of the various periods and subfields of French and Francophone literature from the Renaissance to the present, including major literary, cultural, and historical movements, and the relationship between France and its former colonies.
- Understanding of critical theory and its potential use for analyzing objects of study from a variety of media.
- Ability to think critically and make sustained and convincing arguments in relation to scholarship in the field, as well as express original opinions and thinking, as evidenced in a body of scholarship such as final papers or a dissertation.

Requirements

The Doctor of Philosophy program in French and Francophone world studies requires a minimum of 72 s.h. of graduate credit, including credit earned for the MA degree.

The PhD takes at least three years of graduate study, including at least one year spent in residence at the University of Iowa. Students must pass a comprehensive examination and make a successful oral defense of their dissertation.

The PhD in French and Francophone world studies requires the following coursework.

Course #	Title	Hours
FREN:5001	Introduction to Graduate Study	2
FREN:7000	Thesis (6 s.h. minimum)	6
A course numbered 5000 or above in critical theory approved by the director of graduate studies		3

Students must possess fifth-semester or equivalent proficiency in an additional language other than French. They are required to spend at least one year teaching as graduate assistants in the department.

Admission

An MA in French is prerequisite to admission to the PhD program in French and Francophone world studies. However, successful completion of an MA in French does not necessarily qualify a student for doctoral study.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants for the fall semester whose application materials are received in the department by Jan. 15 have the best chance to be admitted and receive financial aid. They must submit academic transcripts, letters of recommendation from three persons familiar with their past academic work, a statement of purpose in taking graduate work, and one or more samples of original writing, one of which should be in French, that show their ability to pursue graduate work in French (a term paper, seminar paper, or other course papers).

Career Advancement

The PhD program is designed to prepare students for research, teaching, and professional service normally required of college and university faculty members.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

French and Francophone World Studies, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; typically 30 s.h. of graduate transfer credits taken for the master's from an accredited institution allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Doctoral students must possess fifth-semester or equivalent proficiency in a world language other than French and are required to spend at least one year teaching as a graduate assistant in the department.		
	Hours	**0**
First Year		
Fall		
FREN:5001	Introduction to Graduate Study	2
FREN:5000	Teaching and Learning Languages [c, d]	3
Elective course [c]		3
Elective course [c]		3
	Hours	**11**
Spring		
Critical Theory course [e]		3
Elective course [c]		3
Elective course [c]		3
	Hours	**9**
Second Year		
Fall		
Elective course [c]		2
Elective course [c]		3
Elective course [c]		3
	Hours	**8**
Spring		
Elective course [c]		3
Elective course [c]		3

Elective course [c]		2
	Hours	**8**
Third Year		
Any Semester		
Dissertation Prospectus [f]		
	Hours	**0**
Fall		
Comprehensive Exam [g]		
FREN:7000	Thesis [h]	2
	Hours	**2**
Spring		
FREN:7000	Thesis [h]	2
	Hours	**2**
Fourth Year		
Fall		
FREN:7000	Thesis [h]	1
	Hours	**1**
Spring		
FREN:7000	Thesis [h]	1
Final Exam [i]		
	Hours	**1**
	Total Hours	**42**

a Students entering with fewer that 30 s.h. of coursework from the master's degree must work with their faculty advisor to complete the needed appropriate graduate coursework.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c Work with faculty advisor to determine appropriate graduate level elective coursework and sequence.
d Teaching assistants are required to take FREN:5000.
e Must be a 5000-level or above course approved by the director of graduate studies.
f Defend prospectus by end of third year.
g Typically completed during third year fall semester; consists of three four-hour examinations followed by an oral examination.
h Complete a minimum total of 6 s.h.
i Dissertation defense.

Linguistics, PhD

The Department of Languages, Linguistics, Literatures, and Cultures has particular strengths in multilingual language acquisition, phonology, and syntax. Students are encouraged to take courses in a wide variety of departments and programs across the university.

The phonology curriculum emphasizes current theoretical perspectives, including optimality theory, and the collection, description, and interpretation of novel phonological and phonetic data. Students may also study phonological acquisition and development. Courses feature extensive work in data analysis and problem-solving, focusing on the construction and evaluation of phonological theories, particularly in light of new empirical data.

The syntax curriculum includes the dual emphases of empirical and theoretical perspectives. It offers a variety of foundational courses that build analytic and argumentation skills, as well as specialized coursework on current issues in syntactic theory. The courses consist of intensive work in problem-solving. They combine the discovery and description of new linguistic data with the exploration of the implications of such facts in testing and constructing syntactic theories.

The acquisition curriculum emphasizes multilingual language syntax and phonological development in simultaneous, sequential, and late learners across a variety of learning contexts. Students have research opportunities that provide an overview and analysis of current language acquisition research.

PhD students may enroll in the Certificate in Cognitive Science of Language [p. 1730] program of study offered through the Graduate College. This certificate provides students with multidisciplinary training in cognitive science—a field that complements linguistics in many diverse ways—and the opportunity to work closely with faculty and graduate students from other departments across campus.

Learning Outcomes

Students will:

- be familiar with the fundamental concepts of phonology, syntax, and an additional specialization area typically focused on an aspect of language acquisition in multilingual populations;
- conduct original research in the field of linguistics by writing two comprehensive exam papers, of publishable quality, to be presented to the department no later than their third year in the program;
- conduct original research that will culminate in a dissertation, defended by an oral exam;
- gain experience with experimental methods and analysis through participation in faculty-run labs and discussion groups across campus that focus on language acquisition and development;
- expand their understanding of how the fundamental concepts of linguistics relate to those of cognate areas determined with their advisor, such as psychology, education, anthropology, and computer science, providing them with a broad perspective on human language;
- take courses in statistical methods and have a clear understanding of how to carry out and interpret statistical analyses at an intermediate to advanced level;
- be encouraged to submit abstracts to conferences (national and international) to disseminate their research and to work towards publishing their comprehensive papers before graduation; and
- be encouraged to participate in cocurricular activities outside of their regular coursework.

Requirements

The Doctor of Philosophy in linguistics requires a minimum of 72 s.h. of graduate credit. Students must maintain a Graduate College major program grade-point average of at least 3.50. The highly selective program provides students with a strong foundation in theoretical linguistics and helps them develop the skills they will need to explore the close relationship between linguistics and related disciplines.

The PhD in linguistics requires the following coursework.

Requirements	Hours
Core Courses	22
Electives	12
Additional Coursework	38
Additional Requirements	

Core Courses

Students complete the following set of required core courses for a total of 22 s.h. Core courses must be taken on an A–F graded basis.

Course #	Title	Hours
All of these:		
LING:3005	Articulatory and Acoustic Phonetics	3
LING:5000	Proseminar: Morphosyntax	1
LING:5010	Introduction to Syntax	3
LING:5020	Introduction to Phonology	3
LING:6010	Syntactic Theory	3
LING:6020	Phonological Theory	3
LING:6080	Topics in Second Language Acquisition	3
One of these:		
LING:6040	Linguistic Structures	3
LING:6050	Language Universals Linguistic Typology	3

Linguistics Core Electives

Students take 12 s.h. of linguistics courses (prefix LING) numbered 4000 or above, excluding LING:4010, LING:4050, LING:4900, LING:6900, and LING:7900; these courses must be taken on an A–F graded basis. The core electives may include a maximum of 6 s.h. total from LING:4195 Linguistics Lab II, LING:5090 Special Projects, and LING:7100 Special Projects.

Additional Coursework

Students complete 38 s.h. in additional coursework. This may include additional linguistics courses (prefix LING) numbered 3000 or above. All additional coursework must be approved by a student's advisor.

Students are encouraged to explore courses from other disciplines that align with their individual research focus, including the graduate certificate in the cognitive science of language [p. 1730].

Additional Requirements

Comprehensive Exam

To pass the comprehensive examination for the PhD, a student must gain approval for two papers of publishable quality. One must be in phonology or syntax. The other should be in an area of the student's choosing and must be distinct from the area of the first paper.

Dissertation

An oral defense of the dissertation and three years in residence at the University of Iowa are required. Students enroll in LING:7900 PhD Thesis while working on the dissertation. In addition, all candidates are required to gain supervised experience in teaching and research.

Admission

Applicants to the graduate program in linguistics must submit an online application to the Graduate College. In addition to three letters of recommendation, the application requires a statement of purpose that outlines the student's goals and planned area of research and identifies the faculty member(s) with whom the student would like to work.

Applicants also must provide written evidence of the ability to do advanced work in linguistics. This may include one or more of the following:

- a short squib-style paper (short notes consisting of 5,000 words maximum) that makes a specific point by calling attention to a theoretically unexpected observation about language without the need for a developed analysis or solution;
- a final course paper; and
- a research project outlining the area of investigation the applicant wishes to pursue.

Applications must be received no later than Jan. 15 for admission the following fall.

All applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Career opportunities in linguistics can be found in academia, government, industry, and the non-profit sectors.

A number of companies, such as Amazon, Microsoft, Xerox, Apple, Hewlett-Packard, and other high-tech firms, regularly hire employees with linguistics degrees. Opportunities also exist for government work, for example, as a special agent linguist for the FBI.

The Linguistic Society of America has a wealth of resources available to individuals interested in pursuing a career in linguistics.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Linguistics, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
LING:6101	Cognitive Science of Language Proseminar I	3
Advanced syntax/phonology course [c]		3
Elective course [d]		3
	Hours	**9**
Spring		
LING:6102	Cognitive Science of Language Proseminar II	3
LING:7100	Special Projects [e, f]	3
Elective course [d]		3
	Hours	**9**
Second Year		
Fall		
Advanced syntax/phonology course [c]		3
Elective course [d]		3
Elective course [d]		3
Present first Comprehensive Exam paper		
	Hours	**9**
Spring		
LING:7100	Special Projects [e, g]	3
Elective course [d]		3
Elective course [d]		3
	Hours	**9**
Third Year		
Fall		
LING:7100	Special Projects [h, i]	3
Elective course [d]		3
Elective course [d]		3
Exam: Doctoral Comprehensive Exam [j, k]		
	Hours	**9**
Spring		
LING:7100	Special Projects [l]	3
Elective course [d]		3
Elective course [d]		3
Present and defend Dissertation Prospectus [m]		
	Hours	**9**
Fourth Year		
Fall		
Elective course [d]		3
Elective course [d]		3
	Hours	**6**
Spring		
Elective course [d]		3

Elective course [d]		3
	Hours	**6**
Fifth Year		
Fall		
LING:7900	PhD Thesis	3
	Hours	**3**
Spring		
LING:7900	PhD Thesis	3
Exam: Doctoral Final Exam [n]		
	Hours	**3**
	Total Hours	**72**

a Beyond the MA degree course requirements, the PhD program in linguistics has few set requirements. Upon acceptance to the program, students work closely with their faculty advisor to determine and select appropriate graduate level coursework that best suits their goals.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Work with faculty advisor to determine appropriate coursework and sequence.

d 18 s.h. must be in an approved specialty area; if relevant to research, students may complete coursework in an additional language. Work with faculty advisor to determine appropriate elective coursework and sequence.

e To pass the Comprehensive Exam for the PhD, a student must submit two papers of publishable quality and present each orally as part of the departmental colloquium. One must be in phonology or syntax. The other should be in an area of the student's choosing and must be distinct from the area of the first paper.

f Prepare first Comprehensive Exam paper.

g Prepare second Comprehensive Exam paper.

h In the semester following the Comprehensive Exam, but no later than the sixth semester of enrollment in the PhD program, the student presents a Dissertation Prospectus to the Dissertation Committee.

i Begin preparing Dissertation Prospectus in consultation with Dissertation Committee.

j Set-up Dissertation Committee in consultation with faculty advisor.

k Present second Comprehensive Exam paper.

l Prepare Dissertation Prospectus defense.

mMust be approved by Dissertation Committee.

n Oral dissertation defense.

Literary Translation, Graduate Certificate

Requirements

The graduate Certificate in Literary Translation requires at least 15 s.h. of credit, including coursework in translation practice, techniques, and theories. A minimum of 9 s.h. must be from translation coursework (prefix TRNS). Students must maintain a grade-point average of at least 3.00 in work for the certificate. Students may earn the certificate while working toward a graduate degree. Nondegree students also can complete the certificate.

Translation workshops and coursework in translation theory are central to the certificate program because they are essential to the training of literary translators.

Certificate students enroll in a combination of courses determined in consultation with the director of graduate studies in the MFA program in literary translation.

Admission

Applicants should submit a one-page statement of interest and a letter from their academic advisor indicating support for entrance to the program. Admission decisions are made when an application is received and contingent on enrollment capacity. Students must be in good standing in their degree programs.

Latham Science Engagement Initiative

Chair, Department of Biology

- Tina L. Tootle

Program Director, Latham Science Engagement Initiative

- Lori Adams (Biology)

Faculty: https://isa.uiowa.edu/people

Website: https://isa.uiowa.edu/programs/latham

The Latham Science Engagement Initiative provides the opportunity to engage highly talented undergraduate students across science disciplines in community outreach. The program enhances research opportunities for selected undergraduate students with the goal to position students with the scientific and creative abilities for graduate work.

The program prepares students to communicate science in the public sphere, work in interdisciplinary settings, and demonstrate the broader impact of scientific research. Students experience the strength of interdisciplinary interactions through exposure to research in other disciplines and work with students in other science majors on group projects. In addition, they develop fluency in communicating to a range of audiences in the community.

Students selected for the program complete two courses, design and implement an outreach project, and participate in an event that highlights their achievements.

The Latham Science Engagement Initiative is administered by the Iowa Sciences Academy in the Department of Biology. For additional information, contact the Latham Science Engagement Initiative Fellowship Program.

Admission

Students must apply for this program on the Latham Science Engagement Initiative website. Requirements include first-year, sophomore, or junior standing at the time of application; a grade-point average of at least 3.00; a minimum of one semester of undergraduate research experience preferred but not required; and an interest in speaking about science in a public forum.

Courses

Latham Science Engagement Initiative Courses

LATH:3000 Latham Fellows: Science Communication Skill Building **2 s.h.**
Provide Latham Fellows with various communication skills needed to explain scientific research to varied audiences.

LATH:3001 Latham Fellows: Science Outreach Project **2 s.h.**
Guidance to Latham Fellows as they implement one individual and one group project proposed the previous fall. Prerequisites: LATH:3000. Requirements: Latham Fellow standing.

LATH:4900 Science Communication and Engagement **0 s.h.**
Independent science outreach and engagement project through the Latham Science Engagement Initiative. Prerequisites: LATH:3000 and LATH:3001. Requirements: admission to the Latham Science Engagement Fellows Program.

LATH:4990 Science Communication and Engagement **1-3 s.h.**
Independent science outreach and engagement project through the Latham Science Engagement Initiative. Prerequisites: LATH:3000 and LATH:3001. Requirements: admission to the Latham Science Engagement Fellows Program.

Latina/o/x Studies

Interim Chair, American Studies

- Rene R. Rocha

Director, Latina/o/x Studies

- Rene R. Rocha

Undergraduate minor: Latina/o/x studies

Faculty: https://latinxstudies.uiowa.edu/people

Website: https://latinxstudies.uiowa.edu/

Latina/o/x studies offers an interdisciplinary perspective on the history, culture, politics, and experiences of the Latina/o/x population in the United States. This population is now the largest minority group in the United States, and by the year 2060, it is expected that approximately one-third of the U.S. population will be Latina/o/x. Courses in Latina/o/x studies introduce the peoples who have had a long-term presence in the United States and in the Midwest and who are increasingly neighbors, classmates, and coworkers.

The Latina/o/x studies minor helps to prepare undergraduates for careers in medicine, public health, social work, business, education, and the arts, and to respond to the changing demographics of the United States.

Latina/o/x studies is administered by the Department of American Studies [p. 51].

Cocurricular Activities

Latino Native American Cultural Center

Latina/o/x studies collaborates with the Latino Native American Cultural Center (LNACC). LNACC was founded in 1971 and is the home to important University of Iowa student organizations that sponsor conferences, pow-wows, study groups, and educational programs.

Community Engagement

In addition to their instructional activity, Latina/o/x studies faculty participate in a range of public programming activities each semester, such as film series, conferences, round table discussions, and lectures. Most recently, Latina/o/x studies faculty have contributed their time and expertise in support of campus and community organizations such as Iowa Public Radio, the League of United Latin American Citizens (LULAC), the Iowa City Foreign Relations Council, and the Obermann Center for Advanced Studies.

Programs

Undergraduate Program of Study

Minor

- Minor in Latina/o/x Studies [p. 765]

Courses

Latina/o/x Studies Courses

LATS:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, field trips). Requirements: first- or second-semester standing.

LATS:1600 War Stories **3 s.h.**
Exploration of the history of U.S. conflicts from Vietnam to the War on Terror through novels, film, and other cultural forms; specific focus on how U.S. social structures influence experiences of war. Same as AMST:1600, SJUS:1600.

LATS:1700 Latina/o/x Literature in the United States **3 s.h.**
Introduction to growing cultural production of varied Latina/o/x communities (e.g., Chicano, Puerto Rican American/Nuyorican, Cuban American) that have a strong presence in the United States; recent cultural production from borderland transcultural spaces with physical, cultural, economic, political, and mythical elements; visions of the United States from contemporary Latin American writers who recently have become U.S. residents. Taught in English. GE: Literary, Visual, and Performing Arts; Values and Society. Same as SPAN:1700.

LATS:1898 Introduction to Latina/o/x Communication and Culture **3 s.h.**
Introduction to fundamentals of communication by and about Latina/o/x in the U.S.; Latina/o/x as one of the fastest growing demographics; how Latina/o/x history, politics, and culture remain little understood despite a longstanding and growing presence in Iowa and across the nation; historical orientation; Latina/o/x social movement and protest (e.g., Chicana/o/x movements, Young Lords Organization), institutional discourses (e.g., congressional, presidential, legal discourses), and Latina/o/x in popular culture (film, television, music, sports). GE: Understanding Cultural Perspectives. Same as COMM:1898.

LATS:2280 Introduction to Latina/o/x Studies **3 s.h.**
Introduction to field of Latina/o/x studies through interdisciplinary readings from literature, history, sociology, political science, urban studies, and anthropology; commonalities and differences among long-standing Latina/o/x populations (i.e., Mexican Americans, Puerto Ricans, Cuban Americans); challenges faced by newer arrivals (i.e., Dominican Americans, Salvadoran Americans, Guatemalan Americans, Central and South American immigrants). Taught in English. GE: Understanding Cultural Perspectives. Same as HIST:2280.

LATS:3095 Central America and Its Diaspora **3 s.h.**
Explore the social structures, histories, and cultures of a number of Central American countries; specificities of the U.S. Central American experience including the challenges they face from other Latinx groups, changing immigration regimes, their relationship to their "home" countries, and the cultures and communities they build once they arrive. Same as AMST:3095.

LATS:3100 Latinx Community Engagement **3 s.h.**
Focus on Latinx engagement in local communities.

LATS:3104 Immigration Politics 3 s.h.
United States immigration policy and political consequences of Latina/o/x population growth; contrast of political experiences of Latina/o/x with groups and ideals of democratic political systems; analyses of past immigration policies; studies of public opinion, voter turnout, and campaign tactics. Same as LAS:3104, POLI:3104.

LATS:3217 Latina/o/x Immigration 3 s.h.
Immigration experiences of people arriving in the United States from other regions of the Americas (e.g., Mexico, Central America, the Caribbean, South America); what has fueled immigration—social, political, and economic developments in the United States and other nations; territorial conquest, colonialism, real and imagined borders, chain migration, formation of immigrant communities, acculturation, circular migration, social networks; how migration restructures gender relations; immigrant communities and pan-Latina/o/x identity in the United States. Same as HIST:3217, LAS:3217.

LATS:3410 Undocumented America: Citizenship, Race, and Immigration 3 s.h.
Examination of how literature and culture responds to and rearticulates culture, history, legal logic, and economic parameters that frame who is "legal" and "illegal" and how undocumented immigrants document and contest their lack of rights; how designations of immigrant's illegal or undocumented status depend on and maintain U.S. discourse about race and ethnicity. Same as AMST:3410.

LATS:3415 Latina/o/x Protest, Movement, Resistance 3 s.h.
Examination of history, form, and function of protest, social movement, and resistance by Latina/o/x peoples in the United States. Same as AMST:3415, SJUS:3415.

LATS:3420 Latinas/os/x and the Law 3 s.h.
Introduction and survey of Latina/o/x legal history; topics include segregation, educational rights, immigration, voting rights, citizenship, and the criminal justice system. Same as AMST:3420, POLI:3427, SJUS:3420.

LATS:3430 Queer Latina/o/x Studies 3 s.h.
Relationship of Latina/o/x culture with gender, sexuality, and queerness. Same as AMST:3450, SJUS:3430.

LATS:3435 Intersectional Identities: Writing About the Twenty-first-Century Self 3 s.h.
Analysis of intersections between systems of oppression, domination, and discrimination; focus on how writers of color represent those connections and critical articulation of students' lived experience of them. Same as WRIT:3435.

LATS:3467 Latina/o/x Literatures and Cultures 3 s.h.
Exploration of major themes and research topics in Latina/o/x literatures and cultures. Same as ENGL:3467.

LATS:3468 Writing About Migration and Memory 3 s.h.
Examines how writers face the challenge of writing across cultures through reading texts that center migration and through writing about migration across any genre. Writing workshop and community of readers discussing how transnational narratives of migration complicate the concept of home.

LATS:3520 Oral Histories of Health Care 3 s.h.
Oral histories capture individual lived experiences in relation to structures of law, language, society, and culture; students learn oral history methods and connect with members of the local community to conduct interviews that record their lived experiences of access to health care; these interviews may be archived in Special Collections and Archives at the University Libraries. Recommendations: some knowledge of Spanish is useful but not required. Same as GHS:3520.

LATS:3522 Indigenous Women and Rural Unrest in Latin America 3 s.h.
Trace the major and everyday forms of contestation between Indigenous peoples and the groups that have tried to assimilate, subjugate, or dominate them in Latin America, concentrating on Mesoamerica, the Amazonia, and the Andes; explore questions of power, identity, and resistance through the lens of gender. Same as HIST:3522.

LATS:3550 Topics in Latina/o/x Studies: History and Culture 1-3 s.h.
Historical and cultural approaches; topics vary. Same as GWSS:3431.

LATS:4171 Community Media 3 s.h.
Theory and history of community media as means of cultural expression, political participation, and social change; focus on case studies from Latin America and other global contexts. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899). Same as COMM:4171.

LATS:4800 Latina/o/x Popular Culture 3 s.h.
Role of Latina/o/x popular culture as a site of contemporary social practice and cultural politics in both local and global contexts; specific attention to notions of citizenship, identity, and culture. Taught in English. Same as AMST:4800.

LATS:4805 Chicano Cinema 3 s.h.
History of Chicano independent and industry film and television production since the Chicano political and cultural movement began in the 1960s. Taught in English. Requirements: one Spanish literature or culture course numbered SPAN:3200 or above, or one film studies course numbered above CINE:2100. Same as CINE:4705, SPAN:4805.

LATS:4990 Independent Project in Latina/o/x Studies arr.
Independent work under the supervision of Latina/o/x studies faculty.

Latina/o/x Studies, Minor

Requirements

The undergraduate minor in Latina/o/x studies (Latina/Latino/Latinx studies) requires a minimum of 15 s.h., including 12 s.h. taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. A maximum of 6 s.h. of work for another University of Iowa major, minor, or certificate may be counted toward the minor.

The minor in Latina/o/x studies requires the following coursework.

Requirements	Hours
Foundation Course	3
Historical and Cultural Approaches Courses	9
Comparative and Translational Topics Course	3

Foundation Course

Course #	Title	Hours
This course:		
LATS:2280/ HIST:2280	Introduction to Latina/o/x Studies	3

Historical and Cultural Approaches

Course #	Title	Hours
At least 9 s.h. from these:		
LATS:1000	First-Year Seminar	1
LATS:1700/ SPAN:1700	Latina/o/x Literature in the United States	3
LATS:3100	Latinx Community Engagement	3
LATS:3104/ LAS:3104/ POLI:3104	Immigration Politics	3
LATS:3410/ AMST:3410	Undocumented America: Citizenship, Race, and Immigration	3
LATS:3415/ AMST:3415/ SJUS:3415	Latina/o/x Protest, Movement, Resistance	3
LATS:3420/ AMST:3420/ POLI:3427/ SJUS:3420	Latinas/os/x and the Law	3
LATS:3430/ AMST:3450/ SJUS:3430	Queer Latina/o/x Studies	3
LATS:3435/ WRIT:3435	Intersectional Identities: Writing About the Twenty-first-Century Self	3
LATS:3550/ GWSS:3431	Topics in Latina/o/x Studies: History and Culture	1-3
LATS:4800/ AMST:4800	Latina/o/x Popular Culture	3
AMST:1600/ LATS:1600/ SJUS:1600	War Stories	3
COMM:1898/ LATS:1898	Introduction to Latina/o/x Communication and Culture	3
ENGL:3467/ LATS:3467	Latina/o/x Literatures and Cultures	3
HIST:3217/ LAS:3217/ LATS:3217	Latina/o/x Immigration	3
HIST:4216/ LAS:4216	Mexican American History	3
SPAN:4805/ CINE:4705/ LATS:4805	Chicano Cinema	3

Comparative and Transnational Topics

Course #	Title	Hours
One of these:		
AFAM:2770/ GHS:2770/ SOC:2770	Black and White Community Politics	3
AFAM:3100/ AMST:3100/ SOC:3100	Critical Race Theory: Culture, Power, and Society	3
AFAM:3110/ SOC:3110	Race, Organizations, and Workplace	3
AFAM:3630/ SOC:3630	The Racial Wealth Gap: Black Debt, White Debt	3
AMST:2025	Diversity in American Culture	3
AMST:3095/ LATS:3095	Central America and Its Diaspora	3
ANTH:2151/ GWSS:2151/IS:2151	Global Migration in the Contemporary World	3
COMM:2076/ AFAM:2076	Race, Ethnicity, and Media	3
ENGL:3525	Literature and Culture of the Americas	3
ENGL:3535/ LAS:3535	Topics in Literature and Culture of the Americas	3
GHS:3520/ LATS:3520	Oral Histories of Health Care	3
GWSS:2650/ GHS:2650	Global Reproduction	3
PHIL:3342	Multiculturalism and Toleration	3
POLI:1900	Introduction to the Politics of Race	3
SJUS:2250/ GWSS:2250/ HIST:2250	The History of Social Justice Movements	3
SOC:2830	Race and Ethnicity	3
SPAN:2050	Spanish in the United States	3
SPAN:3130	Introduction to Bilingualism	3
SPAN:3205/ GHS:3045	Spanish Health Narratives	3

Magid Center for Writing

Acting Coordinator

- Cornelia Lang

Undergraduate certificate: writing

Faculty: https://magidcenter.uiowa.edu/people

Website: https://magidcenter.uiowa.edu/

The Magid Center for Writing takes seriously its mission to offer all undergraduate and nondegree-seeking students at the University of Iowa (regardless of major or area of study) the unique opportunity to enhance their academic, creative, and professional communication skills by focusing on the written word. In addition to sponsoring the Certificate in Writing [p. 769], the center also publishes 10+ student literary magazines; supports the Iowa Writers Living Learning Community (in association with University Housing and Dining); and is home to the Iowa Writers' Room (a collection of credit-bearing courses that prepares undergraduate and graduate students to enter a career in writing for television).

The Magid Center for Writing was established in 2011 through a gift from Marilyn Y. Magid and family, in the name of the late Frank Magid, who believed that writing was a key component of a liberal arts and sciences education and a successful career.

The Certificate in Writing is administered by the College of Liberal Arts and Sciences [p. 20].

Learn more about the university's wealth of writing resources by visiting the Writing University website, and read about the university's central role in Iowa City's designation as a UNESCO City of Literature.

College Programs

Certificate in Writing

The Certificate in Writing [p. 769] (offered on campus and online) enables all undergraduate and nondegree-seeking students the opportunity to benefit from the university's wide-ranging writing programs and resources by pursuing a concentration in writing related to their academic success, career goals, or personal interests.

Iowa Writers' Room

The Iowa Writers' Room (IWR) is a professionally oriented program that prepares students to enter a career in writing for television. With the guidance of industry insiders, the IWR offers courses to help students hone their skills in this exciting medium. IWR courses include WRIT:3325 Iowa Writers' Room (when the topic is "Adaptation and Half-Hour Comedy"), WRIT:4325 Iowa Writers' Room: Advanced Pilot Writing, and WRIT:1325 Iowa Writers' Room: The Big Binge. For enrollment information, including application instructions, view course descriptions on MyUI.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Writing [p. 769]

Courses

Magid Center for Writing Courses

WRIT:1003 English Grammar **3 s.h.**
Recognizing nouns, verbs, adverbs, adjectives, and other parts of speech; sentence analysis; subjects, objects; types of sentences; passives, relative clauses; for students with little or no background in English grammar study. Does not count toward the linguistics major. Same as LING:1003.

WRIT:1325 Iowa Writers' Room: The Big Binge **1 s.h.**
Screening-based course in which students develop skills in television script writing, structural analysis, and story craft by conducting an in-depth review of a season of a television show; includes instruction and class visits by acclaimed industry insiders. Part of the Iowa Writers' Room series offered through the Magid Center for Writing.

WRIT:1500 Writing Commons: A Community of Writers **1-3 s.h.**
Varied topics focused on building community and enhancing writing skills through generative exercises, long-form essay and hybrid assignments, workshops, sharing work in public, reading and discussing works of published authors.

WRIT:1600 Fast Fixes: Improving Your Writing in Six Short Weeks **1 s.h.**
Varied topics focused on improving common writing problems or specific aspects of craft. Prerequisites: (RHET:1040 and RHET:1060) or RHET:1030.

WRIT:1650 Essentials of Writing: Nursing **1 s.h.**
Develop writing skills and conventions integral to both the academic and professional needs of the nursing field.

WRIT:1740 Writing Strategies: Word Origins and Word Choice **3 s.h.**
Study of words, their meanings, and their origins combined with writing; words and word histories; role of English language in the world. GE: Literary, Visual, and Performing Arts. Same as CLSA:1740.

WRIT:2100 Writing and Community Outreach **3 s.h.**
Service-learning course offered in coordination with local community organizations and nonprofits; students critically consider ways in which written content—creative, promotional, and logistical—can help ensure outreach initiatives prioritize inclusivity; assignments include readings and discussions on community outreach and social justice issues, written reflections on relationships between self and community to enhance interdisciplinary perspectives, and volunteering time and energy with a local organization or nonprofit group in meaningful ways. GE: Understanding Cultural Perspectives.

WRIT:2300 Writing Toward Empathy **3 s.h.**
Students practice personal narrative, research writing, and professional communication skills to actively understand relevant social justice issues in Iowa; diversity, equity, and inclusion-based writing course offered in coordination with the Iowa Youth Writing Project.

WRIT:2900 Book Design for Publishing **3 s.h.**
Introduction to the major aspects of book design, including typography, layout, standard industry software, discussion of trends in the field. Same as ARTS:2900, ENGL:2900, UICB:2900.

WRIT:2991 Publishing I: Introduction to Literary Publishing 3 s.h.
Laboratory-style class offering step-by-step breakdown of fundamental professional and creative skills needed for jobs in the literary publishing world. Become familiar with key roles and responsibilities, such as identifying and defining a corner of the market, soliciting commissions, and assuming editorial oversight through copyediting, design, budgeting, and deadline management, while simultaneously practicing each of these roles to bring individual bespoke publications to press by semester's end. Hands-on, experiential learning. Same as CNW:2991, ENGL:2741.

WRIT:2992 Publishing II: Advanced Literary Publication 3 s.h.
Supervised, extended practice of the skills core to landing possible literary publishing jobs. Working collectively, as if part of a professional publishing house, bring a single,themed book to publication. Handle all aspects of the publication process, assuming the roles of writers, editors, art directors, designers, and marketers, culminating in a book launch. Hands-on, real-life work experience combined with exploration of inner workings of the industry, such as how agenting works to preparing for the first internship. Prerequisites: CNW:2991. Same as CNW:2992, ENGL:2742.

WRIT:3000 Publishing Practicum: The Iowa Chapbook Prize 3 s.h.
Experiential learning in the field of publishing through the Iowa Chapbook Prize; students gain knowledge in all aspects of publishing world including assessing submissions, selecting manuscripts, editing and proofreading, layout and design, marketing and promotion, and book release.

WRIT:3005 Professional and Creative Business Communication 3 s.h.
Solid foundation for creative and professional communication in today's modern work world; exploration of techniques, strategies, and craft of writing résumés, letters of interest, email and its related etiquette, and organization of ideas into presentable form; semester-long creative project that builds a bridge between office and the world using modern technology and social media; readings and discussions of literature to better understand issues of ethics, leadership, conflict, moral judgment, decision-making, and human nature; how to navigate and succeed in business or any professional field. GE: Engineering Be Creative. Same as CW:3005, INTD:3005.

WRIT:3080 History of the English Language 3 s.h.
Development of phonological and grammatical structure of English, from Old to Modern English; selected issues in the history of England. Same as LING:3080.

WRIT:3325 Iowa Writers' Room 3 s.h.
Experiential learning in television writing field; first-hand experience as part of a traditional television writers' room —selecting material and show topics, pitching ideas, collaboratively breaking story, and writing and workshopping scripts for a limited series television show of student's choosing; includes instruction and class visits by acclaimed industry insiders. Same as THTR:3325.

WRIT:3435 Intersectional Identities: Writing About the Twenty-first-Century Self 3 s.h.
Analysis of intersections between systems of oppression, domination, and discrimination; focus on how writers of color represent those connections and critical articulation of students' lived experience of them. Same as LATS:3435.

WRIT:3526 The Business of Writing 3 s.h.
Students learn how to hone their writing skills and successfully transition into the workforce; objectives include developing the ability to pitch articles, establish personal brands, and navigate the world of freelance writing and editing; students network with professionals and explore writing-centric jobs.

WRIT:3632 Prose Style 3 s.h.
Sentences: how they work, what they do; how sentences can help writing, expand understanding of prose style, stretch options. GE: Engineering Be Creative. Same as CNW:3632, ENGL:3732.

WRIT:3742 Word Power: Building English Vocabulary 3 s.h.
Analysis of unfamiliar English words through knowledge of the history and meaning of word parts. Same as CLSA:3742.

WRIT:3900 Writing: Undergraduate Internship 1-3 s.h.
Professional and/or creative experience; students arrange faculty-approved internship. Requirements: undergraduate standing and minimum of 24 s.h. of coursework with at least 12 s.h. in University of Iowa courses.

WRIT:4000 Independent Capstone Project 1-3 s.h.
Capstone requirement for the Certificate in Writing through Program Option B. Requirements: junior or higher standing.

WRIT:4001 Guided Capstone Portfolio 1 s.h.
Capstone requirement for Certificate in Writing through Program Option A. Recommendations: junior or higher standing.

WRIT:4100 Iowa Youth Writing Project Mentorship Practicum 1-3 s.h.
Mentor new volunteers on a weekly basis at Iowa Youth Writing Project (IYWP) program sites; work one-on-one with volunteers, write and review lesson plans, provide resources and feedback for volunteers, lead workshops for children. Requirements: WRIT:2100 or completion of Iowa Youth Writing Project internship.

WRIT:4325 Iowa Writers' Room: Advanced Pilot Writing 3 s.h.
Advanced experiential learning in television writing field; builds on students' experience from WRIT:3325, Iowa Writers' Room—selecting material and show topics, pitching ideas, breaking story, and writing and workshopping scripts —to collaboratively produce a pilot for a limited series television show of students' choosing; includes instruction and class visits by acclaimed industry insiders. Prerequisites: WRIT:3325.

WRIT:4745 The Sentence: Strategies for Writing 3 s.h.
Writing dynamic, cogent, and grammatically correct sentences; effectively communicating ideas; writing with clarity and confidence; review of grammar and various types of sentences; building complexity by adding adverbial, subordinate, and connective clauses to simple sentences; how rhythm, syntax, and word order expand the meaning of a sentence; application and appreciation. GE: Engineering Be Creative. Same as CW:4745.

WRIT:4760 The Art of Revision: Rewriting Prose for Clarity and Impact 3 s.h.
Writing and rewriting of short stories and essays; specific choices to help writing reach its full potential; examination of first drafts and making strategic or radical decisions on what needs to happen in subsequent drafts in order for writing to better match original intentions; students gain insight from peers on where first drafts are succeeding or falling short, and write second and third drafts of short stories and personal narratives; structural and aesthetic choices. GE: Engineering Be Creative. Same as CW:4760.

Writing, Certificate

Learning Outcomes

Students who complete the Certificate in Writing develop:

- skills in the craft of writing, such as the ability to write clearly and concisely, control of mechanics and style, and the ability to communicate with particular audiences for specific purposes;
- skills in planning and using strategies to begin writing, overcome obstacles, obtain feedback, revise their work, and present their writing in public venues; and
- competence in discussing writing.

Requirements

The undergraduate Certificate in Writing requires a minimum of 19 s.h. Students must maintain a grade-point average of at least 2.00 in work for the certificate.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Certificate students explore and develop their own writing skills in a wide range of genres and for varied purposes, including creative writing (fiction, nonfiction, poetry); writing for the professions, such as the arts, business, journalism, or science; writing for organizations; and writing related to personal interests.

The Certificate in Writing is also available online for students unable to attend classes on campus, including professionals, distance education students, nondegree-seeking students, and international students. More information about the online Certificate in Writing is available at the Magid Center for Writing website. Some courses are available online; more online courses are added frequently.

Coursework for the certificate includes a minimum of 9 s.h. in core courses, a minimum of 9 s.h. in focused electives, and a minimum of 1 s.h. in a capstone course. Students may count a maximum of 6 s.h. earned for a major, a minor, or another certificate toward the certificate in writing. Up to 6 s.h. of transfer credit may be applied to the certificate. For questions regarding the double counting and transfer credit policies, contact the director.

Certificate students have the opportunity to participate in the Iowa City writing community through activities such as attending readings and lectures; presenting their own work in public; working with professional journals, newspapers, or other publications; and volunteering or interning with the Iowa Youth Writing Project literacy outreach program.

Certificate in Writing students may not earn the BAS degree with the creative writing emphasis.

See the section titled "Professional Track" for information and requirements regarding the literary publishing track for the Certificate in Writing.

The Certificate in Writing requires the following work.

Requirements	Hours
Core Courses	9
Focused Electives	9
Capstone Course	1

Core Courses

Course #	Title	Hours
This course:		
WRIT:1500	Writing Commons: A Community of Writers	3
6 s.h. from these:		
WRIT:1003/ LING:1003	English Grammar	3
WRIT:1600	Fast Fixes: Improving Your Writing in Six Short Weeks (to count as a core course, must be taken three times for 1 s.h. each with different topics)	3
WRIT:3080/ LING:3080	History of the English Language	3
WRIT:3632/ CNW:3632/ ENGL:3732	Prose Style	3
WRIT:4745/ CW:4745	The Sentence: Strategies for Writing	3
WRIT:4760/ CW:4760	The Art of Revision: Rewriting Prose for Clarity and Impact	3
The 6 s.h. may include one of these:		
WRIT:1740/ CLSA:1740	Writing Strategies: Word Origins and Word Choice	3
WRIT:3742/ CLSA:3742	Word Power: Building English Vocabulary	3

Focused Electives

Students earn a total of at least 9 s.h. in focused electives, which they select from courses in at least two of the following categories (maximum of 6 s.h. from any one category) unless completing the literary publishing track (see "Professional Track").

- Writing for the Professions [p. 769]
- Writing and the Literary Arts [p. 770]
- Writing and the Media [p. 771]
- Writing in Context [p. 771]
- Student-Designated Writing-Intensive Course [p. 771]

Each focused elective course may be used to fulfill only one certificate requirement, even if the course is listed in more than one category. Some of these courses have prerequisites and other requirements for registration; students must complete a course's prerequisites and meet its registration requirements before they may register for the course.

Writing for the Professions

Art

Course #	Title	Hours
ARTH:1080	How to Write About Art	3

Business

Course #	Title	Hours
WRIT:3005/ CW:3005/ INTD:3005	Professional and Creative Business Communication	3
WRIT:3526	The Business of Writing	3
BUS:3000	Business Communication and Professionalism	3
BUS:3800	Business Writing	3
CNW:3640	Writing for Business	3
COMM:1816	Business and Professional Communication	3
SRM:3300	Writing for Sport and Recreation Managers	3

Grant/Proposal Writing

Course #	Title	Hours
EALL:4130/ MUSM:4150	Introduction to Grant Writing	3

Journalism

Course #	Title	Hours
CINE:2600	Writing Film Reviews and Criticism	3
CNW:2780	The Art and Craft of Writing About Sports	3
JMC:2010	Reporting and Writing	3
JMC:3410	Magazine Reporting and Writing	3-4
JMC:3412	Strategic Communication Writing	4
JMC:3415	Writing Across Cultures	4
JMC:3470	Narrative Journalism	4
SPAN:3020/ JMC:3445/LAS:3020	Journalistic Writing in Spanish	3

Literature, Language, and Translation

Course #	Title	Hours
ASIA:3208/ TRNS:3208/ WLLC:3208	Classical Chinese Literature Through Translation	3
JPNS:3201/ TRNS:3201	Workshop in Japanese Literary Translation	3
SPAN:2000	Spanish Language Skills: Writing	4
SPAN:3000	Cultural Narratives for Heritage Speakers	3
SPAN:3010	Advanced Spanish Speaking and Writing	3
SPAN:3030	Translation Workshop: English to Spanish	3
SPAN:3050	Translation Workshop: Spanish to English	3
SPAN:3060	Introductory Workshop on Creative Writing in Spanish	3
SPAN:4950	Advanced Workshop on Creative Writing in Spanish	3
TRNS:3179/ CLSA:3979/ ENGL:3850	Undergraduate Translation Workshop	3
TRNS:4480	Literature and Translation	3

Political Science

Course #	Title	Hours
POLI:3107	Writing in Political Science: Writing for "Science" and for "Politics"	3
RHET:3560/ PBAF:3560/ POLI:3560/ SJUS:3560	Public Policy and Persuasion	3

Publishing

Course #	Title	Hours
WRIT:2900/ ARTS:2900/ ENGL:2900/ UICB:2900	Book Design for Publishing	3
WRIT:2991/ CNW:2991/ ENGL:2741	Publishing I: Introduction to Literary Publishing	3
WRIT:2992/ CNW:2992/ ENGL:2742	Publishing II: Advanced Literary Publication	3
WRIT:3000	Publishing Practicum: The Iowa Chapbook Prize	3
HONR:2900	Honors Publications: From Pitch to Print (taken two times, first time for 2 s.h. and second time for 1 s.h.)	3

Sciences

Course #	Title	Hours
CNW:2730	The Art and Craft of Science Writing	3
HHP:3900	Writing for Health and Human Physiology	3

Undergraduate Research

Course #	Title	Hours
BUS:1999	Introduction to Research in Business	1
BUS:4999	Honors Thesis in Business	arr.
An undergraduate thesis or writing-based capstone project related to any undergraduate discipline		1-3

Writing and the Literary Arts

Creative Writing

Course #	Title	Hours
CW:2100	Creative Writing	3
or CW:1800	Creative Writing Studio Workshop	
CW:3002	Writing and Reading Young Adult Fiction	3
CW:3003	Writing and Reading Science Fiction	3
CW:3004	Writing and Reading Fantasy Fiction	3
CW:4894	Undergraduate Project in Creative Writing	arr.
WLLC:1510/ ASIA:1510	Ghost Stories and Tales of the Weird in Premodern Chinese Literature	3

Fiction

Course #	Title	Hours
CW:2870	Fiction Writing	3
CW:3870	Advanced Fiction Writing	3
CW:4870	Undergraduate Writers' Workshop: Fiction	arr.
CW:4897	Novel Writing	3

Nonfiction

Course #	Title	Hours
CNW:1620	Introduction to Creative Nonfiction	3
CNW:2680/ ENGL:2730	The Art and Craft of Creative Nonfiction	3
CNW:2700	The Art and Craft of Personal Writing	3
CNW:2840	The Art and Craft of Travel Writing	3
CNW:3630/ ENGL:3730	Advanced Nonfiction Writing	3
CNW:3633/ ENGL:3733	Personal Writing	3
CNW:4631/ ENGL:4731	Advanced Essay Workshop	3
CNW:4635/ ENGL:4735	Advanced Creative Nonfiction Writing	3
CNW:4690	Undergraduate Project in Nonfiction Writing	arr.

Playwriting

Course #	Title	Hours
THTR:2301	Playwriting I	3
THTR:2320	Playwriting in a Global World	3
THTR:3301	Playwriting II	3
THTR:3310	Undergraduate Playwriting Workshop	3
THTR:3421/ GWSS:3421	Performing Autobiography	3

Poetry

Course #	Title	Hours
CW:2875	Poetry Writing	3
CW:3875	Advanced Poetry Writing	3
CW:4875	Undergraduate Writers' Workshop: Poetry	arr.

Writing and the Media

TV and Screenwriting

Course #	Title	Hours
CINE:1150	Introduction to Screenwriting for Nonmajors	3
CINE:1300	Foundations of Screenwriting	3
CINE:2600	Writing Film Reviews and Criticism	3
CINE:3361	Screenwriting: Short Form	3
CINE:3367	Screenwriting: Long Form	3
CINE:4377	Advanced Screenwriting I	4
CINE:4378	Advanced Screenwriting II	4
CNW:3661/ ENGL:3761	Film and Writing	3
COMM:2077	Writing and Producing Sitcoms	3
THTR:3320	Writing for Film	3
THTR:6310	Special Topics in Playwriting	3
WRIT:3325/ THTR:3325	Iowa Writers' Room	3
WRIT:4325	Iowa Writers' Room: Advanced Pilot Writing	3

Other Media

Course #	Title	Hours
CNW:2770	The Art and Craft of Writing for New Media	3
CNW:3660/ ENGL:3760	Multimedia Writing	3
CW:3218/ INTD:3200	Creative Writing for New Media	3
JMC:3600	Topics in Designing/ Producing	3-4
RHET:2070	Persuasive Stories	3

Writing in Context

Course #	Title	Hours
WRIT:2100	Writing and Community Outreach	3
WRIT:2300	Writing Toward Empathy	3
CNW:2710	The Art and Craft of Food Writing	3
CNW:2720	The Art and Craft of Writing About Culture	3
CNW:2740	The Art and Craft of Writing about the Environment	3
CNW:2760	The Art and Craft of Writing for Social Change	3
CW:3107/ INTD:3107	Creative Writing for the Health Professions	3
CW:3215/ INTD:3300	Creative Writing and Popular Culture	3
CW:4751	Creative Writing for the Musician	3
EDTL:4355/ CNW:4355	Approaches to Teaching Writing	3
GWSS:3138/ SJUS:3138	Writing to Change the World	3
IWP:3191/ ENGL:3595/ TRNS:3191/ WLLC:3191	International Literature Today	1,3
RHET:2350	Forensic Rhetoric	3
RHET:3220	Honors Writing Fellows: Writing Theory and Practice	3

Student-Designated Writing-Intensive Course

Students may petition to count a course not in the previous lists toward their elective requirements. Petitions must be submitted online and receive prior approval from the Certificate in Writing advisor. Students may also

complete WRIT:4000 Independent Capstone Project or WRIT:3900 Writing: Undergraduate Internship.

Students may also request permission to count a maximum of 3 s.h. earned in a non-writing intensive course numbered 3000 or above as credit toward the focused elective requirement. For this option, students must propose a writing-related project that extends the writing focus of their chosen course. They must have the approval of the faculty member teaching the course and the writing certificate advisor.

Capstone Course

Each student must earn 1 s.h. in a capstone course that serves as a culmination of their Certificate in Writing.

Guided Capstone Portfolio (WRIT:4001, 1 s.h.) is an asynchronous, online, portfolio-based course that allows students the chance to direct their own academic, professional, and creative learning experience by asking them to think critically about where they have come from and where they are headed. Students take the guided capstone portfolio course during the semester they plan to complete the writing certificate. In the course, students revise a piece of their writing, generate one new piece of writing, participate in workshops and critiques, and create a digital portfolio of their work (five pieces total). Their final project also includes an essay that reflects on the work created and the skills gained while pursuing the writing certificate.

Professional Track

Literary Publishing

Students considering a career in literary publishing can learn the ins and outs of the industry and gain a competitive edge by enrolling in the literary publishing track. This unique educational experience provides a substantial understanding of the editorial, design, and managerial work essential to this profession.

The literary publishing track, interdisciplinary in scope, is a collaboration between the Magid Center for Writing, the Nonfiction Writing Program in the Department of English, the School of Art, Art History, and Design [p. 85], and the University of Iowa Center for the Book [p. 1721]. For more information, contact the Magid Center for Writing.

Students may earn either the Certificate in Writing with the literary publishing track or the Bachelor of Arts in English (publishing track) or the Bachelor of Arts in English and creative writing (publishing track). Students may not earn the publishing track in both the major and in the writing certificate, and credit earned toward the English or English and creative writing publishing track cannot be counted toward the Certificate in Writing literary publishing track. Students may double count a maximum of 6 s.h. earned for another major, minor, or certificate toward the certificate in writing literary publishing track.

Students who enroll in the literary publishing track complete the certificate's core courses (9 s.h.; see "Core Courses") and capstone (1 s.h.; see "Capstone Course"). They fulfill the focused elective requirement with the following coursework.

Literary Publishing Track Focused Electives

Course #	Title	Hours
Both of these:		
WRIT:2991/ CNW:2991/ ENGL:2741	Publishing I: Introduction to Literary Publishing	3
WRIT:2992/ CNW:2992/ ENGL:2742	Publishing II: Advanced Literary Publication	3
One of these:		
WRIT:2900/ ARTS:2900/ ENGL:2900/ UICB:2900	Book Design for Publishing	3
WRIT:3000	Publishing Practicum: The Iowa Chapbook Prize	3

Career Advancement

Recent Certificate in Writing graduates have gone on to work in various fields that are wide-ranging in scope and background. Graduates have found work as teachers, copywriters, editors and publishers, government administrators, freelance journalists, magazine writers, and more. Additionally, graduates often go on to pursue professional programs of study and advanced degrees in law and writing, among other fields. Finally, many recent graduates have found internships during and after their time in the program with publishing companies and magazines across the country.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Writing, Certificate

Course	Title	Hours
Second Year		
Any Semester		
WRIT:1500	Writing Commons: A Community of Writers	3
Certificate: core course (prefix WRIT) [a]		3
Certificate: core course (prefix WRIT) [a]		3
	Hours	**9**
Third Year		
Any Semester		
Certificate: core course (prefix WRIT) [a]		3
Certificate: focused elective [b]		3
Certificate: focused elective [b]		3
Internship: consider applying for internship with the Iowa Youth Writing Project or another organization (not required to earn the certificate but encouraged)		
	Hours	**9**

Fourth Year

Any Semester

Certificate: focused elective [b]	3
Certificate: capstone project [c]	1 - 3
Hours	**4-6**
Total Hours	**22-24**

a Students must complete 9 s.h. of core courses from the list of approved options. See General Catalog for more information.

b Students earn a total of at least 9 s.h. in focused electives, which they select from courses in at least two of the following categories (maximum of 6 s.h. from any one category) unless completing the literary publishing track: Writing for the Professions, Writing and the Literary Arts, Writing and the Media, Writing in Context, and Student-Designated Writing-Intensive Course.

c Students choose from WRIT:4001, WRIT:4000, WRIT:3900, or petition to count an additional 3 s.h. writing course approved as a core or focused elective course as their capstone.

Mathematics

Chair

- Ryan D. Kinser

Undergraduate major: mathematics (BA, BS)

Undergraduate minor: mathematics

Graduate degrees: MS in mathematics; PhD in mathematics

Faculty: https://math.uiowa.edu/people/faculty

Website: https://math.uiowa.edu

Mathematics is a basic tool for understanding modern society as well as a crucial requirement for many careers in science, engineering, business, and the professions. Research in this living, dynamic subject is at the highest level in history.

An undergraduate degree in mathematics prepares students for a variety of careers in government and business, secondary teaching, graduate study, and with proper planning, a variety of professional programs. Graduate study is advisable for some business and governmental positions and college and university teaching and research. The department also offers a minor.

Programs

Undergraduate Programs of Study

Majors

- Major in Mathematics (Bachelor of Arts) [p. 781]
- Major in Mathematics (Bachelor of Science) [p. 791]

Minor

- Minor in Mathematics [p. 801]

Graduate Programs of Study

- Master of Science in Mathematics [p. 802]
- Doctor of Philosophy in Mathematics [p. 804]

Courses

The regular math sequence (MATH:1850 Calculus I, MATH:1860 Calculus II, MATH:2700 Introduction to Linear Algebra, MATH:2850 Calculus III, and MATH:3600 Introduction to Ordinary Differential Equations) and the engineering math sequence (MATH:1550 Engineering Calculus I, MATH:1560 Engineering Calculus II, MATH:2550 Engineering Matrix Algebra, MATH:2560 Engineering Differential Equations, and MATH:3550 Engineering Vector Calculus) are similar, but they cover material in different orders with different emphases. Students who have taken courses in one sequence must receive approval from their advisor before taking courses in the other sequence.

Students who consider taking MATH:1860 Calculus II after MATH:1350 Quantitative Reasoning for Business or MATH:1460 Calculus for the Biological Sciences must consult with their advisor; they also must take a math placement test.

Mathematics Courses

MATH:0100 Basic Algebra I **3 s.h.**
Percents, ratio and proportion, algebraic expressions and operations, simple products, linear and quadratic equations, simultaneous equations, exponents and radicals; emphasis on verbal problems. Credit earned does not count toward graduation.

MATH:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

MATH:1005 College Algebra **4 s.h.**
Algebraic techniques, equations and inequalities, functions and graphs, exponential and logarithmic functions, systems of equations and inequalities. Prerequisites: MATH:0100 with a minimum grade of C- or ALEKS score of 30 or higher. Recommendations: it is strongly recommended that students whose math placement score is older than one year retake the math placement test for accurate placement and success in the course.

MATH:1010 Trigonometry **3 s.h.**
Trigonometric functions, solutions of right and oblique triangles, complex numbers. Prerequisites: MATH:1340 with a minimum grade of C- or MPT Level 3 score of 9 or higher or MATH:1005 with a minimum grade of C- or ALEKS score of 55 or higher. Recommendations: it is strongly recommended that students whose math placement score is older than one year retake the math placement test for accurate placement and success in the course.

MATH:1020 Elementary Functions **4 s.h.**
Functions, relations, coordinate systems; properties and graphs of algebraic, trigonometric, logarithmic, exponential functions; inverse trigonometric functions; properties of lines, conic sections. Prerequisites: MATH:1010 with a minimum grade of C- or MATH:1005 with a minimum grade of C- or MPT Level 3 score of 9 or higher or ALEKS score of 60 or higher or MATH:1340 with a minimum grade of C-. Recommendations: it is strongly recommended that students whose math placement score is older than one year retake the math placement test for accurate placement and success in the course. GE: Quantitative or Formal Reasoning.

MATH:1120 Logic of Arithmetic **4 s.h.**
Mathematical and conceptual foundations of the natural numbers used in elementary school arithmetic teaching; multiple algorithmic approaches to arithmetic and its mathematical and contextual relationships, extensions to integers, rational and irrational numbers, multiple representations. Prerequisites: ALEKS score of 30 or higher or MATH:1460 with a minimum grade of C- or MATH:1010 with a minimum grade of C- or MATH:1550 with a minimum grade of C- or MATH:1340 with a minimum grade of C- or MATH:1860 with a minimum grade of C- or MATH:1005 with a minimum grade of C- or MATH:1020 with a minimum grade of C- or MPT Level 3 score of 9 or higher or MATH:1850 with a minimum grade of C- or MATH:1440 with a minimum grade of C- or MATH:0100 with a minimum grade of C-. Recommendations: it is strongly recommended that students whose math placement score is older than one year retake the math placement test for accurate placement and success in the course. GE: Quantitative or Formal Reasoning.

MATH:1140 Mathematical Basis of Elementary Geometry 3 s.h.
Points, lines, planes; measurement, two- and three-dimensional coordinate geometry, transformational geometry and vectors; applications of geometry to solve real-world problems. Prerequisites: MPT Level 3 score of 9 or higher or MATH:1850 with a minimum grade of C- or ALEKS score of 30 or higher or MATH:1010 with a minimum grade of C- or MATH:1005 with a minimum grade of C- or MATH:0100 with a minimum grade of C- or MATH:1440 with a minimum grade of C- or MATH:1460 with a minimum grade of C- or MATH:1340 with a minimum grade of C- or MATH:1860 with a minimum grade of C- or MATH:1020 with a minimum grade of C- or MATH:1550 with a minimum grade of C-. Requirements: elementary teacher certificate candidacy or certification. Recommendations: it is strongly recommended that students whose math placement score is older than one year retake the math placement test for accurate placement and success in the course.

MATH:1210 Diverse Perspectives in the Mathematical Sciences 3 s.h.
Exploration of the wide diversity of cultures and individuals who have contributed to mathematical sciences; experiences and cultural messages that have shaped our own mathematical attitudes; numerous mathematical contributions of women, people of color, and members of other underrepresented groups—their accomplishments, challenges they faced, and factors that led to their success; revisiting and revising our own attitudes toward mathematics in light of what is read to incorporate a larger vision of mathematics and of people who do mathematical work. GE: Understanding Cultural Perspectives.

MATH:1260 PokeMath: The Mathematics of Pokemon Go 3 s.h.
Use of mathematics to take Pokémon Go play to the next level; exposure to a range of topics central to applied mathematics including set theory, functions, probability and statistics, rates of change, and game theory; requires a mobile device with the game Pokémon Go. Pokémon Go is a registered trademark of the Pokémon Company. GE: Quantitative or Formal Reasoning.

MATH:1340 Mathematics for Business 4 s.h.
Algebraic techniques, functions and functional models, exponential and logarithmic functions and models, linear programming, informal introduction to calculus; examples and applications from management, economic sciences, related areas. Prerequisites: MATH:1005 with a minimum grade of C- or MPT Level 3 score of 9 or higher or ALEKS score of 45 or higher. Recommendations: it is strongly recommended that students whose math placement score is older than one year retake the math placement test for accurate placement and success in the course. GE: Quantitative or Formal Reasoning.

MATH:1350 Quantitative Reasoning for Business 4 s.h.
Algebraic techniques and modeling; quantitative methods for treating problems that arise in management and economic sciences; topics include algebra techniques, functions and functional models, exponential and logarithmic functions and models, and a thorough introduction to differential calculus; examples and applications from management, economic sciences, and related areas; for students planning to major in business. Prerequisites: MATH:1005 with a minimum grade of C- or MATH:1340 with a minimum grade of C- or ALEKS score of 55 or higher or MPT Level 3 score of 9 or higher. GE: Quantitative or Formal Reasoning.

MATH:1440 Mathematics for the Biological Sciences 4 s.h.
Relations, functions, coordinate systems, graphing, polynomials, trigonometric functions, logarithmic and exponential functions; discrete mathematics, probability; examples and applications from biological sciences. Prerequisites: MATH:1005 with a minimum grade of C- or MATH:1340 with a minimum grade of C- or ALEKS score of 55 or higher or MATH:1010 with a minimum grade of C- or MPT Level 3 score of 9 or higher. Recommendations: it is strongly recommended that students whose math placement score is older than one year retake the math placement test for accurate placement and success in the course. GE: Quantitative or Formal Reasoning.

MATH:1460 Calculus for the Biological Sciences 4 s.h.
One-semester survey of calculus for students in biological or life sciences; nontheoretical treatment of differential and integral calculus; brief introduction to differential equations and probability with calculus, with applications to the life sciences. Prerequisites: MATH:1440 with a minimum grade of C- or MATH:1020 with a minimum grade of C- or (MATH:1005 with a minimum grade of C- and MATH:1010 with a minimum grade of C-) or ALEKS score of 70 or higher or (ALEKS score of 55 or higher and MATH:1010 with a minimum grade of C-) or (MATH:1010 with a minimum grade of C- and MATH:1340 with a minimum grade of C-) or MPT Level 3 score of 9 or higher. Recommendations: it is strongly recommended that students whose math placement score is older than one year retake the math placement test for accurate placement and success in the course. GE: Quantitative or Formal Reasoning.

MATH:1550 Engineering Calculus I 4 s.h.
Review of functions, introduction to limits and continuity, introduction to derivatives and their applications, introduction to integrals/anti-derivatives, and introduction to the basics of vectors. Prerequisites: (MATH:1010 with a minimum grade of C- and MATH:1005 with a minimum grade of C-) or MPT Level 3 score of 9 or higher or ALEKS score of 75 or higher or MATH:1020 with a minimum grade of C- or MATH:1460 with a minimum grade of C- or (MATH:1010 with a minimum grade of C- and ALEKS score of 55 or higher) or (MATH:1350 with a minimum grade of C- and MATH:1010 with a minimum grade of C-). Recommendations: it is strongly recommended that students whose math placement score is older than one year retake the math placement test for accurate placement and success in the course. GE: Quantitative or Formal Reasoning.

MATH:1560 Engineering Calculus II 4 s.h.
Continuation of MATH:1550. Covers applications of integration, techniques of integration, sequences and series, parametric equations and polar coordinates, and an introduction to vector-valued functions and parametric motion. Prerequisites: MATH:1550 with a minimum grade of C- or MATH:1850 with a minimum grade of C- or MPT Level 3 score of 15 or higher. Requirements: score of 4 or higher on AP Calc (AB) exam, or score of 4 or higher on AP Calc (BC) exam.

MATH:1850 Calculus I 4 s.h.
Fundamental concepts, limits, methods, and techniques of differential calculus of a single variable; definite and indefinite integrals, substitution rule, fundamental theorem of calculus; applications including graphing, extreme values, areas, and volumes. Prerequisites: MATH:1460 with a minimum grade of C- or ALEKS score of 75 or higher or MPT Level 3 score of 9 or higher or (ALEKS score of 55 or higher and MATH:1010 with a minimum grade of C-) or MATH:1020 with a minimum grade of C- or (MATH:1340 with a minimum grade of C- and MATH:1010 with a minimum grade of C-) or (MATH:1005 with a minimum grade of C- and MATH:1010 with a minimum grade of C-). Recommendations: it is strongly recommended that students whose math placement score is older than one year retake the math placement test for accurate placement and success in the course. GE: Quantitative or Formal Reasoning.

MATH:1860 Calculus II 4 s.h.
Techniques of integration including by-parts, trigonometric Integrals, trigonometric substitutions, partial fractions, improper integrals; applications (i.e., arclength), area surfaces of revolutions, application to physics; introduction to differential equations; parametric equations and polar coordinates; infinite sequences and series, convergence tests, power series, Taylor polynomials and series. Prerequisites: MATH:1550 with a minimum grade of C- or MATH:1850 with a minimum grade of C- or MPT Level 3 score of 15 or higher. Recommendations: it is strongly recommended that students whose math placement score is older than one year retake the math placement test for accurate placement and success in the course.

MATH:2150 Foundations of Geometry 3 s.h.
Axiomatic development of common foundation for Euclidean, non-Euclidean geometry; constructions of non-Euclidean models, independence of parallel postulate. Prerequisites: MATH:1860 or MATH:1560.

MATH:2550 Engineering Matrix Algebra 2 s.h.
Applications, computers for matrix calculations; matrix, vector arithmetic; linear independence, basis, subspace (in R2, R3); systems of equations, matrix reduction; rank, dimension; determinants, applications; eigenvalues, eigenvectors; diagonalization, principal axis theorem. Prerequisites: MATH:1850 or MATH:1550 or MATH:1860 or MATH:1560 or MPT Level 3 score of 15 or higher.

MATH:2560 Engineering Differential Equations 3 s.h.
Ordinary differential equations and applications; first-order equations; higher order linear equations; systems of linear equations, Laplace transforms; introduction to nonlinear equations and systems, phase plane, stability. Prerequisites: (MATH:1560 or MATH:1860) and (MATH:2700 or MATH:2550).

MATH:2700 Introduction to Linear Algebra 4 s.h.
Vector algebra and geometry of three-dimensional Euclidean space and extensions to n-space and vector spaces; lines and planes, matrices, linear transformations, systems of linear equations, dimension, rank, determinants, eigenvalues and eigenvectors, and diagonalization. Additional topics may include singular value decomposition. Prerequisites: MATH:1850 or MATH:1550 or MATH:1860 or MATH:1560 or MPT Level 3 score of 15 or higher.

MATH:2850 Calculus III 4 s.h.
Multivariable calculus; vector functions, total differentials, gradient, implicit functions, coordinate systems, Taylor's expansion, extrema, multiple integrals, vector fields, line integrals, surface integrals, and Green's, Stokes', and divergence theorems. Prerequisites: MATH:1860 with a minimum grade of C- or MATH:1560 with a minimum grade of C-.

MATH:3550 Engineering Vector Calculus 3 s.h.
Partial derivatives, max-min problems, integrals along curves, surfaces and solids, vector fields and conservation of energy; curl, divergence, Stokes' theorem and the divergence theorem; the classical partial differential equations and qualitative behavior of their solutions. Prerequisites: MATH:1560 and (MATH:2550 or MATH:2700). Corequisites: MATH:2560.

MATH:3600 Introduction to Ordinary Differential Equations 2-3 s.h.
First-order ordinary differential equations; second-order linear differential equations; series solutions; higher-order linear and matrix differential equations; existence and uniqueness theorems; may include introduction to basic partial differential equations (PDE) or Laplace Transforms. Prerequisites: (MATH:1560 or MATH:1860) and (MATH:2550 or MATH:2700). Requirements: prior or concurrent enrollment in MATH:2850.

MATH:3700 Introduction to Matrix Theory 3 s.h.
Vector algebra and geometry of three-dimensional Euclidean space and extensions to n-space and vector spaces; lines and planes, matrices, linear transformations, systems of linear equations, reduction to row-echelon form, dimension, rank, determinants, eigenvalues and eigenvectors, diagonalization, Principal Axis Theorem. Requirements: graduate standing.

MATH:3720 Introduction to Abstract Algebra 4 s.h.
Introduction to group theory, covering topics such as integers, permutations, the definition of groups, subgroups, quotient groups, and group homomorphisms. Prerequisites: MATH:2700 or MATH:2550.

MATH:3770 Foundations of Analysis 4 s.h.
Elementary topological and analytic properties of real numbers, especially the completeness axiom, limit, convergence, and the basic theory underlying differential and integral calculus. Prerequisites: MATH:1560 or MATH:1860. Corequisites: MATH:2700. Requirements: second-semester calculus.

MATH:3800 Introduction to Numerical Methods 3 s.h.
Computer arithmetic, root finding, polynomial approximation, numerical integration, numerical linear algebra, numerical solution of differential equations; use of a higher-level computer language such as Matlab, Python, or Julia. Prerequisites: (MATH:2550 or MATH:2700) and (MATH:1560 or MATH:1860). Same as CS:3700.

MATH:3900 Introduction to Mathematics Research 3 s.h.
Research experience; students study an elementary topic of active research, then work in groups under faculty supervision. Prerequisites: (MATH:2700 or MATH:2550) and (MATH:1860 or MATH:1560).

MATH:3996 Individual Study and Honors in Mathematics arr.

MATH:3997 Readings in Mathematics arr.

MATH:4010 Basic Analysis 3 s.h.
Elementary topological and analytical properties of real numbers; emphasis on ability to handle definitions, theorems, proofs; same material as MATH:3770 for non-mathematics graduate students. Requirements: graduate standing, one year of calculus, and one semester of linear algebra.

MATH:4020 Basic Abstract Algebra 3 s.h.
Basic logic, proof methods, sets, functions, relations, mathematical induction; gradual transition from familiar number systems to abstract structures (division algorithm, unique factorization theorems); groups, subgroups, quotient groups, homomorphisms; same material as MATH:3720; for non-mathematics graduate students. Requirements: graduate standing, one year of calculus, and one semester of linear algebra.

MATH:4040 Matrix Theory 3 s.h.
Vector spaces, linear transformations, matrices, equivalence of matrices, eigenvalues and eigenvectors, canonical forms, similarity, orthogonal transformations, bilinear and quadratic forms. Prerequisites: MATH:2700 or MATH:3700.

MATH:4050 Introduction to Discrete Mathematics 3 s.h.
Fundamental methods and concepts of discrete mathematics. Topics include enumerative combinatorics, the inclusion-exclusion principle, recurrence relations, and generating functions. Explores applications to group theory, including the Polya-Burnside theorem. Prerequisites: (MATH:1860 or MATH:1560) and (MATH:2550 or MATH:2700).

MATH:4060 Discrete Mathematical Models 3 s.h.
Basic combinatorics and graph theory and their applications, which may include scheduling, matching, and optimization. Topics include Eulerian and Hamiltonian paths; spanning trees; discrete mathematical models from various fields using graphs, trees, networks, Markov chains, and games; understanding and writing proofs in graph theory. Prerequisites: MATH:2700 or MATH:2550.

MATH:4080 Number Theory and Cryptography 3 s.h.
Elementary number theory and its applications in public key cryptography, which forms the foundation of internet communication, cybersecurity, and digital finance. Prerequisites: MATH:1860 and MATH:2700.

MATH:4090 A Rigorous Introduction to Abstract Algebra 3 s.h.
Rigorous review of groups including homomorphisms and quotient groups; group actions; Sylow's theorems; rigorous review of rings; ideals, ring homomorphisms, quotient rings; polynomial rings; vector spaces and linear transformations; basic field theory; serves as a bridge between MATH:3720 and MATH:5000. Prerequisites: MATH:3720. Requirements: MATH:3720 or graduate standing.

MATH:4095 Rigorous Introduction to Module Theory and Galois Theory 4 s.h.
Rigorous review of vector spaces and linear transformations; introduction to module theory, including finitely generated modules over principal ideal domains; rigorous introduction to field theory, including existence of algebraic closure and splitting fields; introduction to Galois theory, including solvability by radicals. Prerequisites: MATH:4090 or MATH:5000.

MATH:4120 History of Mathematics 3 s.h.
May include numerical systems; Babylonian, Egyptian, and Greek mathematics; mathematics of other cultures; calculus; 19th- and 20th-century mathematics. Prerequisites: (MATH:2700 or MATH:2550) and (MATH:1560 or MATH:1860). Requirements: two semesters of calculus and one semester of linear algebra.

MATH:4200 Complex Variables 3 s.h.
Geometry of complex plane, analytic functions; Cauchy-Goursat theorem, applications; Laurent series, residues, elementary conformal mapping. Prerequisites: MATH:2850 or MATH:1560.

MATH:4220 Fourier Analysis and Applications 3 s.h.
Fourier series and Fourier transforms; pointwise, uniform, and mean square convergence of Fourier series; Parseval's identity and Bessel's inequity; convolutions. Prerequisites: (MATH:1560 or MATH:1860) and (MATH:2550 or MATH:2700).

MATH:4250 Introduction to Financial Mathematics 3 s.h.
Financial mathematics; option pricing and portfolio optimization, stochastic integration, methods due to Ito and Feynman-Kac, and Monte-Carlo simulation. Prerequisites: MATH:2850 or STAT:3120.

MATH:4700 Partial Differential Equations and Applications 3 s.h.
Introduction to elliptic, parabolic, and hyperbolic partial differential equations and their applications to problems from science and engineering. Prerequisites: (MATH:1560 or MATH:2850) and (MATH:2560 or MATH:3600).

MATH:4740 Large Data Analysis 3 s.h.
Current areas that deal with problem of big data; techniques from computer science, mathematics, statistics; high performance and parallel computing, matrix techniques, cluster analysis, visualization; variety of applications including Google PageRank, seismology, Netflix-type problems, weather forecasting; fusion of data with simulation; projects. Prerequisites: (CS:1210 with a minimum grade of C- or ENGR:2730 with a minimum grade of C-) and (MATH:3800 or CS:3700) and (STAT:3200 or IE:3760 or IGPI:3200). Same as CS:4740, IGPI:4740, STAT:4740.

MATH:4750 Introduction to Mathematical Biology 3 s.h.
Use and creation of mathematical models in biology, primarily those using continuous dynamical systems ordinary and partial differential equations; may include additional approaches (e.g., game theory, discrete models); modeling approaches—the model as representation—and canonical models in context of example systems drawn from a range of application areas including, but not limited to, neurobiology, electrophysiology, epidemiology, ecology, evolution, demography, and spatiotemporal pattern formation including morphogenesis. Prerequisites: MATH:3600 or MATH:2560.

MATH:4820 Optimization Techniques 3 s.h.
Basic theory of optimization, use of numerical algorithms in solution of optimization problems; linear and nonlinear programming, sensitivity analysis, convexity, optimal control theory, dynamic programming, calculus of variations. Prerequisites: (MATH:2700 or MATH:2550) and (ME:4111 or MATH:3800 or CS:3700) and (MATH:1560 or MATH:2850). Same as CS:4720.

MATH:4840 Mathematics of Machine Learning 3 s.h.
Mathematical aspects of machine learning; regression methods and related issues of overfitting, generalization error, cross-validation; matrix methods for dimension reduction; optimization for support vector machines and neural networks, including convex duality and "kernel trick" for support vector machines; training of neural networks using backpropagation and gradients; reliability of optimization methods for nonconvex optimization; approximation properties of neural networks; convolutions for handling sound and image data; game theory for adversarial networks. Prerequisites: (MATH:2550 or MATH:2700) and (MATH:1560 or MATH:2850 or MATH:3550).

MATH:4860 High Performance and Parallel Computing 3 s.h.
Exploration and implementation of parallel algorithms using diverse frameworks and libraries, across platforms such as multicore processors and GPUs. Emphasis on current advancements, scientific computing applications, and large-scale data analysis projects. Prerequisites: (CS:2210 with a minimum grade of C- or MATH:4050) and CS:2230 with a minimum grade of C-. Same as CS:4700.

MATH:5000 Abstract Algebra I 3 s.h.
Groups and homomorphisms, Sylow Theorems, rings, finitely generated modules over a PID, Galois theory, vector spaces, linear transformations and matrices, canonical forms. Prerequisites: MATH:3720.

MATH:5010 Abstract Algebra II 3 s.h.
Continuation of MATH:5000. Prerequisites: MATH:5000.

MATH:5200 Introduction to Analysis I 3 s.h.
Real numbers, fundamentals of limits and continuity in the context of metric spaces; Lebesque theory of functions of one real variable. Prerequisites: MATH:3770 or MATH:4220. Requirements: MATH:3770 or graduate standing.

MATH:5210 Introduction to Analysis II 3 s.h.
Local theory of analytic functions of one complex variable, power series, classical transcendental functions; spaces of functions. Prerequisites: MATH:5200.

MATH:5400 Fundamental Groups and Covering Spaces 3 s.h.
Homotopy, homotopy equivalence, homotopy extension property, fundamental group, Van Kampen's theorem, free products of groups, covering spaces, lifting properties, classification of covering spaces, deck transformations and group actions, cell complexes, applications to cell complexes, graphs and free groups; may include simplicial homology and point-set topology topics. Prerequisites: MATH:3770.

MATH:5410 Introduction to Smooth Manifolds 3 s.h.
Calculus on smooth manifolds; smooth functions, mean value theorem, chain rule, smooth manifolds, tangent vectors, tangent spaces, inverse and implicit functions theorems, submersions and immersions, vector fields, flows, multilinear algebra, differential forms, Stokes theorem. Prerequisites: MATH:2700 and MATH:2850 and MATH:5400.

MATH:5600 Nonlinear Dynamics With Numerical Methods 3 s.h.
Linear systems of differential equations (fundamental solutions, matrix exponentials, Floquet theory); nonlinear differential equations (theorem for existence and uniqueness, flows, attractors); local nonlinear theory (invariant manifolds, Hartman-Grobman theorem, Poincare maps); global nonlinear theory (Poincare-Bendixson criterion, Lyapunov functions, gradient systems, Hamiltonian systems); bifurcations (saddle-node, pitchfork, transcritical, Hopf); introduction to chaos theory (Lorenz equations); computational methods to solve numerically differential equations and to draw phase planes and trajectories. Prerequisites: MATH:3600 and (MATH:3770 or MATH:4220).

MATH:5700 Introduction to Partial Differential Equations 3 s.h.
Diffusion, Laplace, and wave equations; scalar conservation laws; weak solutions and energy methods. Prerequisites: MATH:2850 and MATH:3600 and (MATH:3770 or MATH:4220).

MATH:5750 Mathematical Biology I 3 s.h.
Topics in mathematical biology; canonical mathematical modeling and analysis of problems in the biological sciences; first of a two-semester sequence. Prerequisites: MATH:5600 and MATH:5700.

MATH:5760 Mathematical Biology II 3 s.h.
Topics in mathematical biology; canonical mathematical modeling and analysis of problems in the biological sciences; second of a two-semester sequence. Corequisites: MATH:5600 and MATH:5700, if not taken as prerequisites.

MATH:5800 Numerical Methods I 3 s.h.
Root finding for nonlinear equations; polynomial interpolation; polynomial approximation of functions; numerical integration. Prerequisites: MATH:2700 and (MATH:2850 or MATH:3550). Requirements: knowledge of computer programming. Same as CS:5710.

MATH:5810 Numerical Methods II 3 s.h.
Numerical methods for initial value problems for ordinary differential equations; direct and iterative methods for linear systems of equations; eigenvalue problems for matrices. Prerequisites: MATH:2700 and MATH:5800 and (MATH:2850 or MATH:3550) and (MATH:3600 or MATH:2560). Requirements: knowledge of computer programming. Same as CS:5720.

MATH:5900 First-Year Graduate Seminar 1 s.h.
Introduction to mathematics graduate program. Requirements: first-year graduate standing in mathematics.

MATH:5950 Qualifying Exam Preparation Seminars 0 s.h.
Exam preparation in pure and applied mathematics.

MATH:6000 Categories and Modules 3 s.h.
Introduction to categories and functors; emphasis on module categories, products and coproducts, hom functors and tensor product functors, exact sequences, projective/injective/flat modules, Noetherian and Artinian rings and modules, composition series and Jordan-Hölder theorem, Jacobson radical, Nakayama's lemma, semisimple rings and modules, and Artin-Wedderburn structure theorem. Prerequisites: MATH:5010.

MATH:6010 Commutative Algebra and Representation Theory 3 s.h.
Fundamental notions in commutative algebra and representation theory; specific topics may include Gröbner bases, associated primes, primary decomposition, valuation rings, affine and projective varieties, group representations, characters, orthogonality relations, and other branches of representation theory. Prerequisites: MATH:5010.

MATH:6200 Analysis I 3 s.h.
Lebesque measure and integral, fundamental theorem of calculus, abstract measures and integration, Fubini's theorem, Radon-Nikodym theorem, Riesz representation theorem, L-p spaces. Prerequisites: MATH:5210.

MATH:6210 Analysis II 3 s.h.
Hilbert space, Banach space techniques; Hahn-Banach theorem, open mapping theorem, principle of uniform boundedness; reflexivity, H-p spaces, Paley-Wiener theorem, space of functions analytic on the open unit disk. Prerequisites: MATH:6200.

MATH:6400 Algebraic Topology 3 s.h.
Singular homology, relative homology, homotopy invariance, exact sequences and excision, cellular homology, Mayer-Vietoris sequences, homology with coefficients, axioms for homology, Hurewicz theorem, cohomology groups, universal coefficient theorem, cup product, cohomology ring, fundamental class, Poincaré duality. Prerequisites: MATH:5400.

MATH:6410 Introduction to Differential Topology 3 s.h.
Manifolds, functions: tangent bundle, Morse-Sard theorem, transversality, submanifolds, tubular neighborhoods, normal bundles, vector fields, degree and intersection theory, fixed-point theory, Morse theory. Prerequisites: MATH:5410.

MATH:6500 Differential Geometry I 3 s.h.
Differentiable manifolds, forms, tensors, Riemannian metrics, isometries, connections, geodesics, curvature, related topics. Prerequisites: MATH:5410.

MATH:6510 Differential Geometry II 3 s.h.
Continuation of MATH:6500; varied topics, may include study of existence and uniqueness of solutions to differential equations and systems related to geometry, indefinite metrics, Lie groups, attributes of manifolds with particular curvature properties, global Riemannian geometry, Kahler geometry, applications of differential geometry to other disciplines. Prerequisites: MATH:6500.

MATH:6600 Ordinary Differential Equations I 3 s.h.
Existence, uniqueness, continuous dependence of solutions to initial value problems, variational calculus, Lagrangian and Hamiltonian systems, differential inequalities, perturbation theory, normal forms, invariant manifolds, KAM theory, bifurcation theory, boundary value problems. Prerequisites: MATH:5600.

MATH:6610 Ordinary Differential Equations II 3 s.h.
Continuation of MATH:6600. Prerequisites: MATH:6600.

MATH:6700 Partial Differential Equations I 3 s.h.
Elliptic equations; potential theory, maximum principle, a priori estimate, Dirichlet problem; initial value problem for parabolic equations; hyperbolic equations; Duhamel's principle, Cauchy problem; nonlinear equations, characteristics, canonical form, first-order systems. Prerequisites: MATH:5210.

MATH:6710 Partial Differential Equations II 3 s.h.
Continuation of MATH:6700. Prerequisites: MATH:6700.

MATH:6850 Advanced Numerical Methods I 3 s.h.
Theoretical foundations of numerical analysis, within framework of functional analysis; application areas including approximation theory, numerical methods for partial differential equations, integral equations; introduction to functional analysis. Prerequisites: MATH:5200 and MATH:5210 and MATH:5800 and MATH:5810.

MATH:6860 Advanced Numerical Methods II 3 s.h.
Continuation of MATH:6850. Prerequisites: MATH:6850.

MATH:7000 Homological Algebra 2-3 s.h.
Fundamental notions in homological algebra, including derived functors (Ext and Tor); specific topics may include group cohomology, spectral sequences, and derived categories. Prerequisites: MATH:6000.

MATH:7020 Algebraic Number Theory 3 s.h.
Topics include integral elements, integrally closed rings, algebraic extensions, norms and traces, the discriminant; number fields and some analogues in positive characteristic, global fields; class groups, unit groups; valuations and local fields; adele ring and idele group attached to global fields; L-functions (including the Riemann zeta function) and class number formulas. Prerequisites: MATH:5000 and MATH:5010.

MATH:7030 Topics in Algebra 2-3 s.h.
May include algebraic number theory, groups, representation theory, algebras, ideal theory, lattice theory. Prerequisites: MATH:6010.

MATH:7070 Seminar: Algebra arr.

MATH:7090 Seminar: Representation Theory arr.

MATH:7200 Functional Analysis I 2-3 s.h.
Locally convex topological vector spaces, duality, tensor products and nuclear spaces; Krein-Millman theorem, Choquet's theory; geometry of Banach spaces, nonlinear functional analysis; operators on Hilbert spaces, spectral theorem, algebras of operators. Prerequisites: MATH:6210.

MATH:7210 Functional Analysis II 2-3 s.h.
Continuation of MATH:7200. Prerequisites: MATH:7200.

MATH:7250 Topics in Analysis 2-3 s.h.
Measure theory, integration, general topology.

MATH:7290 Seminar: Operator Theory arr.

MATH:7400 Current Geometry and Topology I 3 s.h.
Introduction to current topics in geometry and topology: Gromov-Witten theory, moduli spaces, Floer theory, mirror symmetry, geometric analysis, conformal geometry, knots and braids, topological data analysis, contact and symplectic topology, mapping class groups, categorification, Heegaard splittings of 3-manifolds, trisections of 4-manifolds, quantum topology, and Skein theory. Prerequisites: MATH:5400 and MATH:5410.

MATH:7450 Current Geometry and Topology II 2-3 s.h.
Introduction to current topics in geometry and topology: Gromov-Witten theory, moduli spaces, Floer theory, mirror symmetry, geometric analysis, conformal geometry, knots and braids, topological data analysis, contact and symplectic topology, mapping class groups, categorification, Heegaard splittings of 3-manifolds, trisections of 4-manifolds, quantum topology, and Skein theory. Prerequisites: MATH:5400 and MATH:5410.

MATH:7470 Seminar: Topology arr.

MATH:7570 Seminar: Differential Geometry arr.

MATH:7580 Seminar: Mathematical Physics arr.

MATH:7630 Topics in Mathematical Biology 2-3 s.h.
Application of mathematics to biology.

MATH:7660 Seminar: Nonlinear Dynamics and Differential Equations arr.

MATH:7670 Seminar: Mathematical Biology arr.

MATH:7730 Topics in Partial Differential Equations 2-3 s.h.
Regularity theory, nonlinear analysis in partial differential equations, fluid dynamics, harmonic analysis, conservation laws, other topics.

MATH:7770 Seminar: Partial Differential Equations arr.

MATH:7830 Topics in Applied Mathematics 3 s.h.
Application of mathematics to other disciplines.

MATH:7870 Seminar: Numerical Analysis arr.

MATH:7990 Reading Research arr.

Mathematics, BA

Bachelor of Arts students majoring in mathematics enroll in one of these programs: Program A is for students who plan to work in business or government or pursue graduate study in mathematics; Program B is for students who seek secondary school teaching licensure; and the program with a related specialization may be especially appropriate for students who plan to seek a math-related job after earning the bachelor's degree rather than going on to graduate study. Defined areas of specialization include business (economics, finance, or risk management and insurance), data sciences (biostatistics, computer science, data science, or statistics and actuarial science), and physical sciences (biochemistry, biomathematics, chemistry, or physics). Program C is also available for students who wish to design their own area of specialization, like engineering.

Learning Outcomes

Math majors will be able to:

- give correct, logical mathematical proofs using mathematical terminology and hypotheses;
- reason logically and quantitatively using algebraic, analytic, and numerical methods;
- incorporate mathematical ideas and reasoning into well-written English; and
- model and analyze problems in pure mathematics and in other disciplines.

Transfer From Engineering to Mathematics

Certain engineering students who have completed MATH:1550 Engineering Calculus I, MATH:1560 Engineering Calculus II, MATH:2550 Engineering Matrix Algebra, MATH:2560 Engineering Differential Equations, or MATH:3550 Engineering Vector Calculus may count these courses toward the major in mathematics. See the Department of Mathematics website.

Requirements

The Bachelor of Arts with a major in mathematics requires a minimum of 120 s.h., including at least 38–47 s.h. of work for the major. Total credit for the major depends on a student's choice of Program A, B, C, or a related specialization (business, data sciences, or physical sciences). Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

All students complete the post-calculus mathematics requirement, the upper-level mathematics requirement, and the requirements for Program A, B, or C, or a related specialization. Students must complete a two-semester sequence of MATH:1850 Calculus I and MATH:1860 Calculus II. Students in certain subtracks or Program C may be able to substitute another two-course calculus sequence; see information for specific specializations below. Advanced placement credit, CLEP credit, and credit granted through the Mathematics Incentive Program are accepted for all or part of the calculus requirement.

Students may count up to 56 s.h. of Department of Mathematics coursework (prefix MATH) toward credit required for the Bachelor of Arts degree. For policies concerning transfer credit, correspondence credit, credit by examination, cumulative grade-point average, general rules relating to regression and duplication, and so forth, see For Undergraduate Students on the College of Liberal Arts and Sciences website.

For information about duplication, regression, and use of the second-grade-only option for mathematics courses, contact the Department of Mathematics or visit the Department of Mathematics website. The website also provides details about schedule planning and career options for mathematics students. For more information on admission, financial support, employment opportunities, the faculty, facilities, and other topics, visit the Department of Mathematics or the University of Iowa website.

The BA with a major in mathematics requires the following coursework.

Requirements	Hours
Post-Calculus Mathematics Courses	
Upper-Level Mathematics Course	
Program Requirements	38-47

Post-Calculus Mathematics Courses

15 s.h. of post-calculus mathematics courses (prefix MATH) applied toward the major must be completed at the University of Iowa; students may not count transfer courses or credit by exam toward this requirement.

Post-calculus courses in the Department of Mathematics are numbered 2000 or above, excluding MATH:3700, MATH:3996, MATH:3997, MATH:4010, and MATH:4020.

Upper-Level Mathematics Course

Students must take at least one upper-level mathematics course for the BA degree. Upper-level mathematics courses include MATH:3900 and courses numbered 4000 or above, excluding MATH:4010, MATH:4020, and MATH:4120.

No courses from other departments can be counted as upper-level mathematics courses unless they are cross-referenced with an upper-level mathematics course (prefix MATH).

Program A

Program A is primarily for students who plan to work in business or government or to pursue graduate study in mathematics.

Program A: Core Courses

Students complete the following core courses.

Course #	Title	Hours
MATH:1850 & MATH:1860	Calculus I and Calculus II	8
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
MATH:3600	Introduction to Ordinary Differential Equations	3
MATH:3720	Introduction to Abstract Algebra	4
MATH:3770	Foundations of Analysis	4

More advanced courses may be substituted for the core courses with Department of Mathematics approval.

Program A: Electives

Students complete four electives (12–16 s.h.), including at least two courses with a MATH prefix. Of these two courses, at least one course must be an upper-level mathematics course.

Mathematics

Students may choose from mathematics courses numbered MATH:2150, MATH:3800, or courses above MATH:3800, excluding MATH:4010 and MATH:4020.

Computer Science

Students may choose computer science courses numbered CS:1210 through CS:4740, excluding CS:3210, CS:3910, CS:3980, and CS:3990.

Statistics and Actuarial Science

Students may choose statistics courses numbered STAT:2020, STAT:3100 through STAT:4740, STAT:5100 through STAT:5120, excluding STAT:3510, STAT:4143, and STAT:4200.

Among the courses previously listed, only one of the following three courses can be counted toward the elective requirement: STAT:2020, STAT:3100, or STAT:3120. None of these courses can be counted as credit earned toward graduation if taken after STAT:4100 owing to regression policies.

Students may choose actuarial science courses numbered ACTS:3080 and ACTS:4130 through ACTS:4380.

Program B

Program B is intended for students seeking secondary school teaching licensure. Students who wish to earn teaching licensure in addition to earning a Bachelor of Arts with a major in mathematics must also complete the Teacher Education Program (TEP); see the section titled "Teacher Licensure."

Program B: Core Courses

Students complete the following core courses.

Course #	Title	Hours
MATH:1850 & MATH:1860	Calculus I and Calculus II	8
MATH:2150	Foundations of Geometry	3
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
MATH:3720	Introduction to Abstract Algebra	4
MATH:3770	Foundations of Analysis	4
MATH:4050	Introduction to Discrete Mathematics	3
or MATH:4060	Discrete Mathematical Models	
CS:1210	Computer Science I: Fundamentals	4
STAT:3120	Probability and Statistics	4

More advanced courses may be substituted for the core courses with Department of Mathematics approval.

Program B: Electives

Students in Program B must take at least one additional Department of Mathematics post-calculus course (3–4 s.h.).

Post-calculus courses must avoid duplication and regression with core mathematics courses, particularly when engineering mathematics courses are considered. With the department's approval, capable students are encouraged to substitute more advanced courses in the same subject area for any of the electives. The Department of Mathematics website offers advice on course selection.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Students who wish to earn teacher licensure should choose Program B.

Program in Math With a Related Specialization

The Department of Mathematics encourages students of other majors to take more mathematics courses and attempt a BA or BS secondary major, or a secondary degree if their first major is outside CLAS, in mathematics. The program in math with a related specialization offers a curricular path to achieve this goal. Students complete core courses, mathematics electives, and subtrack requirements.

The program in math with a related specialization enables students to declare a concentration in a mathematics-related area. Options include specialization in business (subtracks in economics, finance, and risk management and insurance), data sciences (subtracks in biostatistics, data science, computer science, and statistics and actuarial science), and physical sciences (subtracks in biochemistry, biomathematics, chemistry, and physics). Students may declare one of these three defined areas of specialization and must complete all requirements for one subtrack. They may also propose other plans of study, which would be categorized under Program C. An individualized plan of study must be approved by the Department of Mathematics prior to the start of the student's final year.

Business, Data Sciences, and Physical Sciences: Core Courses

Students complete the following core mathematics courses. Students pursuing the biostatistics subtrack of the data sciences specialization should refer to the following section titled "Biostatistics Subtrack" for additional information about an alternative set of core courses. Students in the biomathematics subtrack of the physical sciences specialization should refer to the section titled "Biomathematics Subtrack" rather than the following list.

Course #	Title	Hours
One of these sequences:		
MATH:1850 & MATH:1860	Calculus I and Calculus II	8
MATH:1550 & MATH:1560	Engineering Calculus I and Engineering Calculus II	8
All of these:		

MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
MATH:3720	Introduction to Abstract Algebra (students in the biostatistics subtrack must take MATH:3770)	4
or MATH:3770	Foundations of Analysis	

If students complete both MATH:3720 and MATH:3770, one may count toward core courses and the other toward the elective requirement.

More advanced courses may be substituted for the core courses with Department of Mathematics approval.

Business, Data Sciences, and Physical Sciences: Mathematics Electives

Students must take three mathematics elective courses (9–12 s.h.), including at least one upper-level math course. Mathematics elective options include mathematics courses (prefix MATH) numbered MATH:3600–MATH:5810, excluding MATH:3700, MATH:3996, MATH:3997, MATH:4010, MATH:4020, and MATH:4120.

When a subtrack requires post-calculus mathematics courses, those courses may also count as mathematics electives, with the exception of the physics subtrack of the physical sciences specialization. See the following section titled "Physics Subtrack" for more information.

Business Specialization

Economics Subtrack

The business specialization with an economics subtrack requires the following four courses.

Course #	Title	Hours
All of these:		
CS:1210	Computer Science I: Fundamentals	4
ECON:3100	Intermediate Microeconomics	3
ECON:3150	Intermediate Macroeconomics	3
STAT:3120	Probability and Statistics	4

Finance Subtrack

The business specialization with a finance subtrack requires the following four courses.

Course #	Title	Hours
This course:		
FIN:3000	Introductory Financial Management	3
One of these:		
FIN:3200	Investment Management	3
FIN:3300	Corporate Finance	3
Two of these:		
ACCT:3020	Financial Accounting and Reporting	3
FIN:3200	Investment Management (if not taken for the previous requirement)	3
FIN:3300	Corporate Finance (if not taken for the previous requirement)	3
FIN:3400	Principles of Risk Management and Insurance	3
A 3-4 s.h. finance course (prefix FIN) that counts toward the BBA in finance		3-4

Risk Management and Insurance Subtrack

The business specialization with a risk management and insurance subtrack requires the following four courses.

Course #	Title	Hours
Both of these:		
FIN:3000	Introductory Financial Management	3
FIN:3400	Principles of Risk Management and Insurance	3
Two of these:		
FIN:4420	Property and Liability Insurance	3
FIN:4430	Life and Health Insurance	3
FIN:4440	Employee Benefit Plans	3
FIN:4450	Risk Modeling	3

Data Sciences Specialization

Biostatistics Subtrack

Biostatistics: Alternative Core Courses

Students may complete five core courses as previously listed, or they may complete the six courses listed below.

Course #	Title	Hours
All of these:		
MATH:1550	Engineering Calculus I	4
MATH:1560	Engineering Calculus II	4
MATH:2550	Engineering Matrix Algebra	2
MATH:2560	Engineering Differential Equations	3
MATH:3550	Engineering Vector Calculus	3
MATH:3770	Foundations of Analysis	4

Biostatistics: Additional Required Courses

The data sciences specialization with a biostatistics subtrack requires the following six courses.

Course #	Title	Hours
This course:		
CPH:1400	Fundamentals of Public Health	3
Three of these, with at least one course numbered 4000 or above:		
MATH:3600	Introduction to Ordinary Differential Equations (if student has not taken MATH:2560 as a core course)	3
MATH:3800	Introduction to Numerical Methods	3
MATH:4220	Fourier Analysis and Applications	3
MATH:4700	Partial Differential Equations and Applications	3

MATH:4820	Optimization Techniques	3
One of these:		
STAT:2010	Statistical Methods and Computing	3
STAT:3200	Applied Linear Regression	3
STAT:3210	Experimental Design and Analysis	3
STAT:4100	Statistical Inference I	3
STAT:4101	Statistical Inference II	3
One of these:		
BIOS:4120	Introduction to Biostatistics	3
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
BIOS:5310	Research Data Management	3
BIOS:5710	Biostatistical Methods I	4
BIOS:5720	Biostatistical Methods II	4
BIOS:5730	Biostatistical Methods in Categorical Data	3

Computer Science Subtrack

The data sciences specialization with a computer science subtrack requires three electives in computer science (prefix CS) numbered CS:1210–CS:4740, excluding CS:2110, CS:3010, CS:3210, CS:3910, CS:3980, CS:3990, and CS:3999.

Data Science Subtrack

The data sciences specialization with a data science subtrack requires the following three courses.

Course #	Title	Hours
Three of these, with at least one course in computer science (prefix CS) and one course in statistics (prefix STAT):		
CS:3330	Algorithms	3
CS:4400	Database Systems	3
CS:4470	Health Data Analytics	3
CS:5430	Machine Learning	3
CS:5630	Cloud Computing Technology	3
STAT:3100	Introduction to Mathematical Statistics I	4
STAT:3101	Introduction to Mathematical Statistics II	3
STAT:3200	Applied Linear Regression	3
STAT:3210	Experimental Design and Analysis	3
STAT:4520	Bayesian Statistics	3
STAT:4540	Statistical Learning	3
STAT:4560	Statistics for Risk Modeling I	3
STAT:4580	Data Visualization and Data Technologies	3
STAT:5810	Research Data Management	3
At most one of these in each course subject:		
CS:1210	Computer Science I: Fundamentals	4
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
STAT:2010	Statistical Methods and Computing	3

Statistics and Actuarial Science Subtrack

The data sciences specialization with a statistics and actuarial science subtrack requires the following three courses.

Course #	Title	Hours
Three of these:		
ACTS:3080	Mathematics of Finance I	3
ACTS:4130	Quantitative Methods for Actuaries	3
ACTS:4150	Fundamentals of Short-Term Actuarial Mathematics	3
ACTS:4180	Life Contingencies I	3
ACTS:4280	Life Contingencies II	3
STAT:2010	Statistical Methods and Computing	3
STAT:3101	Introduction to Mathematical Statistics II	3
STAT:3200	Applied Linear Regression	3
STAT:3210	Experimental Design and Analysis	3
STAT:3620	Quality Control	3
STAT:4100	Statistical Inference I	3
STAT:4101	Statistical Inference II	3
STAT:4520	Bayesian Statistics	3
STAT:4740	Large Data Analysis	3
STAT:5100	Statistical Inference I	3
STAT:5101	Statistical Inference II	3
STAT:5120	Mathematical Methods for Statistics	3
May count one of these if taken before STAT:4100:		
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:3100	Introduction to Mathematical Statistics I	4
STAT:3120	Probability and Statistics	4

Physical Sciences Specialization

Biochemistry Subtrack

The physical sciences specialization with a biochemistry subtrack requires the following five courses.

Course #	Title	Hours
Both of these:		
MATH:3600	Introduction to Ordinary Differential Equations	3
BMB:4240	Biophysics and Advanced Biochemistry	3
Three electives from these:		
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3
BMB:4310	Computational Biochemistry	3
May include one of these:		
CHEM:4430	Principles of Physical Chemistry	3
CHEM:4431	Chemical Thermodynamics	3
CHEM:4432	Quantum Mechanics and Chemical Kinetics	3

Up to 3 s.h. from this course:		
BMB:4999	Advanced Undergraduate Biochemistry Research (requires departmental approval in advance)	arr.

Biomathematics Subtrack

Biomathematics: Core Courses

Students in the biomathematics subtrack should complete one of the two sets of core courses below for a total of at least 23 s.h.

Course #	Title	Hours
Option 1		
One of these sequences:		
MATH:1850 & MATH:1860	Calculus I and Calculus II	8
MATH:1550 & MATH:1560	Engineering Calculus I and Engineering Calculus II	8
All of these:		
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
MATH:3600	Introduction to Ordinary Differential Equations	3
MATH:3770	Foundations of Analysis	4

Course #	Title	Hours
Option 2		
All of these:		
MATH:1550	Engineering Calculus I	4
MATH:1560	Engineering Calculus II	4
MATH:2550	Engineering Matrix Algebra	2
MATH:2560	Engineering Differential Equations	3
MATH:3550	Engineering Vector Calculus	3
MATH:3770	Foundations of Analysis	4
An additional post-calculus mathematics course (prefix MATH) as previously defined in this section of the catalog, excluding MATH:2550, MATH:2560, MATH:2700, MATH:2850, MATH:3550, MATH:3600, MATH:3770, MATH:3800, MATH:4060, and MATH:4750		3-4

Biomathematics: Additional Required Courses

The physical sciences specialization with a biomathematics subtrack requires the following five courses.

Course #	Title	Hours
All of these:		
MATH:3800	Introduction to Numerical Methods	3
MATH:4750	Introduction to Mathematical Biology	3
STAT:3120	Probability and Statistics	4
Two electives from these, with at least one course numbered 3000 or above:		
BIOL:2512	Fundamental Genetics	4
BIOL:2673	Ecology	3
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3253	Neurobiology I	4
BIOL:3254	Neurobiology II	4
BIOL:3314	Genomics	3
BIOL:3343	Animal Physiology	3
BIOL:3713	Molecular Genetics	4
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3
BMB:4240	Biophysics and Advanced Biochemistry	3
BME:2500	Biomaterials and Biomechanics	4
CHEM:2210	Organic Chemistry I	3
At most one of these:		
BIOL:3172	Evolution	4
BIOL:3373	Human Population Genetics and Variation	3
At most one of these:		
BIOL:2753	Introduction to Neurobiology	3
PSY:2701	Introduction to Behavioral Neuroscience	4
At most one of these:		
BIOL:4213	Bioinformatics	4
BIOL:4386	Introduction to Scientific Computing for Biologists	3
BMB:3310	Practical Data Science and Bioinformatics	3
BMB:4310	Computational Biochemistry	3

Chemistry Subtrack

The physical sciences specialization with a chemistry subtrack requires the following five courses.

Course #	Title	Hours
Both of these:		
MATH:3600	Introduction to Ordinary Differential Equations	3
CHEM:3250	Inorganic Chemistry	3
Three electives from these:		
CHEM:3110	Equilibria and Electrochemistry	3
CHEM:3120	Spectroscopy and Separations	3
CHEM:4430	Principles of Physical Chemistry	3
CHEM:4431	Chemical Thermodynamics	3
CHEM:4432	Quantum Mechanics and Chemical Kinetics	3
CHEM:4480	Introduction to Molecular Modeling	3
CHEM:5114	Chemical Systems Modeling	3
May include one of these:		
CHEM:3430	Analytical Measurements	3
CHEM:3440	Physical Measurements	3
CHEM:4450	Synthesis and Measurement	3

Physics Subtrack

The physical sciences specialization with a physics subtrack requires the following four courses. If students complete both MATH:3720 and MATH:3770, one may count toward core courses and the other toward this subtrack.

Course #	Title	Hours
Three of these, with at least two courses in physics (prefix PHYS):		
MATH:3600	Introduction to Ordinary Differential Equations	3
MATH:3800	Introduction to Numerical Methods	3
MATH:4200	Complex Variables	3
PHYS:3710	Intermediate Mechanics	3
PHYS:3730	Statistical Physics	3
PHYS:3811	Electricity and Magnetism I	3
PHYS:3812	Electricity and Magnetism II	3
PHYS:3741	Introduction to Quantum Mechanics I	3
PHYS:3742	Introduction to Quantum Mechanics II	3
One of these, which will not count toward the mathematics electives:		
MATH:3720	Introduction to Abstract Algebra	4
or MATH:3770	Foundations of Analysis	
MATH:3900	Introduction to Mathematics Research	3
Mathematics course (prefix MATH) numbered MATH:4000-MATH:5899, excluding MATH:4010, MATH:4020, and MATH:4120		3-4
Physics course (prefix PHYS) taken for at least 3 s.h. and numbered PHYS:3000-PHYS:4998, excluding PHYS:3756, PHYS:3850, PHYS:4750, and PHYS:4990		

Program C: Core Courses

Students complete the following core mathematics courses.

Course #	Title	Hours
One of these sequences:		
MATH:1850 & MATH:1860	Calculus I and Calculus II	8
MATH:1550 & MATH:1560	Engineering Calculus I and Engineering Calculus II	8
One of these groups:		
MATH:2700 & MATH:2850	Introduction to Linear Algebra and Calculus III	8
MATH:2550 & MATH:2560 & MATH:3550	Engineering Matrix Algebra and Engineering Differential Equations and Engineering Vector Calculus	8
One of these:		
MATH:3720	Introduction to Abstract Algebra	4
MATH:3770	Foundations of Analysis	4

If students complete both MATH:3720 and MATH:3770, one may count toward core courses and the other toward the elective requirement described below.

More advanced courses may be substituted for the core courses with Department of Mathematics approval.

Program C: Electives

Students choose six electives beyond the core courses, including three mathematics elective courses (9-12 s.h.), at least one of which must be an upper-level math course numbered MATH:3900 or numbered 4000 or above. Mathematics elective options include mathematics courses (prefix MATH) numbered MATH:3600–MATH:5810, excluding MATH:3700, MATH:3996, MATH:3997, MATH:4010, MATH:4020, and MATH:4120. Only one of MATH:2560 or MATH:3600 may be counted toward the major requirements.

All electives must be offered for 3–4 s.h. The individualized area of specialization should be in a subject that is math-related and should demonstrate a progression of learning in that discipline. At least some of the proposed electives must be upper-level for that course subject. Students must propose their plan of study before they begin their final year. Individualized plans of study must be approved by the Department of Mathematics.

Combined Programs

BA/MAT (Mathematics Education Subprogram)

The College of Liberal Arts and Sciences and the College of Education offer students the opportunity to earn their Bachelor of Arts/Master of Arts in Teaching degree with a mathematics education subprogram in as little as five years. Students can begin work toward the MAT while completing their bachelor's degree. The combined program allows students to count a limited amount of credit toward both the BA and MAT degree requirements.

Separate application to each program is required. For more information, see Mathematics Education [p. 1495] in the Master of Arts in Teaching, MAT (College of Education) section in the catalog.

Honors

Honors in the Major

Students majoring in mathematics have the opportunity to graduate with honors in the major. Students must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33, as required by the College of Liberal Arts and Sciences; additionally, students must complete all requirements for the major and must maintain a cumulative GPA of at least 3.40 in the major, a GPA set by the Department of Mathematics.

To graduate with honors in the major, students also must complete one of the following options.

Option 1

Students complete five upper-level mathematics courses as defined in "Upper-Level Mathematics Courses" under "Requirements." Mathematics courses (prefix MATH) numbered 6000 or above must be approved by the mathematics honors advisor in advance.

An honors research project may produce a research report but not a formal thesis. A research report will be counted as one upper-level math course towards option 1 by enrolling in MATH:3996 Individual Study and Honors in Mathematics for 3 s.h. A research report must be approved by the honors research project supervisor.

Option 2

Students complete three upper-level mathematics courses and write an honors thesis. A student who chooses this option must contact the Department of Mathematics honors advisor and find a faculty member who is willing to supervise their honors thesis project. The Department of Mathematics honors advisor will then appoint a thesis committee of at least two faculty members. The student will need to obtain preapproval at the beginning of their thesis project, midterm approval from the thesis committee, and pass a defense.

The Department of Mathematics encourages students to use their sole-authored or coauthored research papers as honors theses if the papers have been published, accepted, or submitted to a research journal. Satisfactory peer reviews or referee's reports may be accepted in lieu of preapproval and midterm approval.

It is recommended that students who earn honors in mathematics pursue the BS degree.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program. Honors in mathematics is awarded by the Department of Mathematics and is separate from the University of Iowa Honors Program.

Membership in the UI Honors Program is not required to earn honors in the mathematics major. However, honors in mathematics can be applied toward UI Honors Program requirements.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Many mathematics courses must be taken in sequence, so students must begin major requirements as early as possible, and individual plans of study must be constructed carefully. The major typically requires 11 or 12 courses. Students must choose Program A, B, or C by the end of the third semester and must remain in their chosen program until they graduate in order to stay on track for the four-year graduation plan.

Before the third semester begins: coursework in the major through second-semester calculus.

Before the fifth semester begins: two or three more courses in the major.

Before the seventh semester begins: three or four more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two or three more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Mathematics, BA

- Program A [p. 787]
- Program B [p. 788]

Program A

Course	Title	Hours
Academic Career		
Any Semester		
Program A is primarily for students who plan to work in business or government or to pursue graduate study in mathematics.		
Students must earn at least 15 s.h. in post-calculus mathematics courses offered by the Department of Mathematics or cross-referenced with a mathematics course at the University of Iowa. Post-calculus courses are numbered 2000 or above, excluding: MATH:3700 Introduction to Matrix Theory, MATH:3996 Individual Study & Honors in Mathematics, MATH:3997 Readings in Mathematics, MATH:4010 Basic Analysis, and MATH:4020 Basic Abstract Algebra. [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
MATH:1850	Calculus I [c]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Values and Society [d]		3
Elective course [e]		2
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
MATH:1860	Calculus II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
Elective course [e]		2
	Hours	**15-16**
Second Year		
Fall		
MATH:2700	Introduction to Linear Algebra	4

MATH:2850	Calculus III	4
GE CLAS Core: Social Sciences [d]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
	Hours	**15-16**
Spring		
MATH:3600	Introduction to Ordinary Differential Equations	3
MATH:3720	Introduction to Abstract Algebra	4
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
Elective course [e]		3
	Hours	**17-18**
Third Year		
Fall		
MATH:3770	Foundations of Analysis	4
Major: required post-calculus math elective course [g]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]		4 - 5
	Hours	**15-16**
Spring		
Major: required post-calculus math elective course [g]		3
GE CLAS Core: Natural Sciences without Lab [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]		4 - 5
Elective course [e, h]		3
Elective course [e, h]		3
	Hours	**16-17**
Fourth Year		
Fall		
Major: required upper-level math elective course [i]		3
GE CLAS Core: International and Global Issues [d]		3
Elective course [e, h]		3
Elective course [e, h]		3
Elective course [e, h]		3
	Hours	**15**
Spring		
Major: required post-calculus math elective course [g]		3
Elective course [e, h]		3
Elective course [e, h]		3
Elective course [e, h]		3
Elective course [e, h]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**121-127**

a See General Catalog or consult an advisor for more information.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Enrollment in math courses requires completion of a placement exam.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g At least two of the four major electives must have a prefix of MATH, including at least one upper-level math course. See General Catalog or consult an advisor for more information about appropriate elective courses.

h Electives may also be used to complete additional hours in the major up to a total of 56 s.h.

i Mathematical electives must include at least one upper-level math course. These include: MATH:3900 and math courses (MATH prefix) numbered 4000 and higher, but not MATH:4010, MATH:4020 and MATH:4120. Each upper-level math course is offered at most once per year; choose when to complete the upper-level requirement according to spring or fall offerings for desired courses.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Program B

Course	Title	Hours
Academic Career		
Any Semester		
Program B is intended for students seeking secondary school teaching licensure.		
Completion of mathematics (program B) BA, Teacher Education Program, and all general education requirements exceeds the minimum 120 s.h. required for graduation. Students should expect to take higher than average number of semester hours per term, take summer classes, and/or extend graduation time frame beyond four years.		
Admission to the Teacher Education Program, College of Education, is by competitive application. For information about application requirements, process, and deadlines, please consult an advisor for the College of Education.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
MATH:1850	Calculus I [b, c]	4

RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**12-14**
Spring		
MATH:1860	Calculus II [b]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
Course(s) required for second degree - consult sample plan for BA in mathematics education		3
10-hour pre-admission school field experience [b, e]		
	Hours	**14-16**
Summer		
GE CLAS Core: International and Global Issues [f]		3
GE CLAS Core: Natural Sciences without Lab [f]		3
Prepare materials for Teacher Education Program application (e.g. essays, letters of recommendation) [g]		
	Hours	**6**
Second Year		
Fall		
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
Course(s) required for second degree - consult sample plan for BA in mathematics education		3
Admission Application: apply to the Teacher Education Program [g]		
	Hours	**15-16**
Spring		
MATH:2150	Foundations of Geometry [h]	3
GE CLAS Core: Social Sciences [f]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Course(s) required for second degree - consult sample plan for BA in mathematics education		6
	Hours	**16-17**
Summer		
GE CLAS Core: Natural Sciences with Lab [f]		4
	Hours	**4**
Third Year		
Fall		
MATH:3720	Introduction to Abstract Algebra	4
MATH:4050	Introduction to Discrete Mathematics [i]	3
GE CLAS Core: Historical Perspectives [f]		3
Course(s) required for second degree, including a course that satisfies the GE CLAS Core Understanding Cultural Perspectives area - consult sample plan for BA in mathematics education		6
	Hours	**16**
Spring		
MATH:3770	Foundations of Analysis	4
STAT:3120	Probability and Statistics	4
Course(s) required for second degree, including a course that satisfies the GE CLAS Core Values and Society area - consult sample plan for BA in mathematics education		6
Apply for student teaching (see the College of Education website for application instructions and deadlines)		
	Hours	**14**
Fourth Year		
Fall		
CS:1210	Computer Science I: Fundamentals	4
Major: required post-calculus math elective course [j]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [f]		3
Course(s) required for second degree - consult sample plan for BA in mathematics education		7
	Hours	**17-18**
Spring		
Course(s) required for second degree - consult sample plan for BA in mathematics education		15
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**129-136**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Required for admission into the Teacher Education Program.

c Enrollment in math courses requires completion of a placement exam.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Complete the College of Education 10-hour pre-admission school field experience verification form available on the Teacher Education Program web page.

f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

g Please see the College of Education website for detailed application instructions and deadlines. Admission is selective and a priority deadline exists.

h Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

i Students must complete MATH:4050, a fall-only course, or MATH:4060, a spring-only course.

j Post-calculus courses are numbered 2000 or above, excluding: MATH:3700, MATH:3996, MATH:3997, MATH:4010, MATH:4020, and MATH:4120.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Mathematics, BS

Bachelor of Science students majoring in mathematics enroll in one of these programs: Program A is for students who plan to work in business or government or pursue graduate study in mathematics; Program B is for students who seek secondary school teaching licensure; and the program in math with a related specialization may be especially appropriate for students who plan to seek a math-related job after earning the bachelor's degree rather than going on to graduate study. Defined areas of specialization include business (economics, finance, or risk management and insurance), data sciences (biostatistics, computer science, data science, or statistics and actuarial science), and physical sciences (biochemistry, biomathematics, chemistry, or physics). Program C is also available for students who wish to design their own area of specialization, like engineering.

Learning Outcomes

Math majors will be able to:

- give correct, logical mathematical proofs using mathematical terminology and hypotheses;
- reason logically and quantitatively using algebraic, analytic, and numerical methods;
- incorporate mathematical ideas and reasoning into well-written English; and
- model and analyze problems in pure mathematics and in other disciplines.

Transfer From Engineering to Mathematics

Certain engineering students who have completed MATH:1550 Engineering Calculus I, MATH:1560 Engineering Calculus II, MATH:2550 Engineering Matrix Algebra, MATH:2560 Engineering Differential Equations, or MATH:3550 Engineering Vector Calculus may count these courses toward the major in mathematics. See the Department of Mathematics website.

Requirements

The Bachelor of Science with a major in mathematics requires a minimum of 120 s.h., including at least 41–56 s.h. of work for the major. Total credit for the major depends on a student's choice of Program A, B, C, or a related specialization (business, data sciences, or physical sciences). Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

All students complete the post-calculus mathematics requirement, the upper-level mathematics requirement, and the requirements for Program A, B, or C, or a related specialization. Students must complete a two-semester sequence of MATH:1850 Calculus I and MATH:1860 Calculus II. Students in certain subtracks or Program C may be able to substitute another two-course calculus sequence; see information for specific specializations below. Advanced placement credit, CLEP credit, and credit granted through the Mathematics Incentive Program are accepted for all or part of the calculus requirement.

Students may count up to 56 s.h. of Department of Mathematics coursework (prefix MATH) toward credit required for the Bachelor of Science degree. For policies concerning transfer credit, correspondence credit, credit by examination, cumulative grade-point average, general rules relating to regression and duplication, and so forth, see For Undergraduate Students on the College of Liberal Arts and Sciences website.

For information about duplication, regression, and use of the second-grade-only option for mathematics courses, contact the Department of Mathematics or visit the Department of Mathematics website. The website also provides details about schedule planning and career options for mathematics students. For more information on admission, financial support, employment opportunities, the faculty, facilities, and other topics, visit the Department of Mathematics or the University of Iowa website.

The BS with a major in mathematics requires the following coursework.

Requirements	Hours
Post-Calculus Mathematics Courses	
Upper-Level Mathematics Courses	
Program Requirements	41-56

Post-Calculus Mathematics Courses

At least 15 s.h. of post-calculus mathematics courses (prefix MATH) applied toward the major must be completed at the University of Iowa; students may not count transfer courses or credit by exam toward this requirement.

Post-calculus courses in the Department of Mathematics are numbered 2000 or above, excluding MATH:3700, MATH:3996, MATH:3997, MATH:4010, and MATH:4020.

Upper-Level Mathematics Courses

Students must take at least two upper-level mathematics courses (three in Program A) for the BS degree. Upper-level mathematics courses include MATH:3900 Introduction to Mathematics Research and courses numbered 4000 or above, excluding MATH:4010, MATH:4020, and MATH:4120.

No courses from other departments can be counted as upper-level mathematics courses unless they are cross-referenced with an upper-level mathematics course (prefix MATH).

Program A

Program A is primarily for students who plan to work in business or government or to pursue graduate study in mathematics.

Program A: Core Courses

Students complete the following core courses.

Course #	Title	Hours
MATH:1850 & MATH:1860	Calculus I and Calculus II	8
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
MATH:3600	Introduction to Ordinary Differential Equations	3

MATH:3720	Introduction to Abstract Algebra	4
MATH:3770	Foundations of Analysis	4

More advanced courses may be substituted for the core courses with Department of Mathematics approval.

Program A: Electives

Students complete six electives (18–24 s.h.), including at least four courses in the Department of Mathematics (prefix MATH). Of these four courses, at least three must be upper-level mathematics courses.

Mathematics

Students may choose from mathematics courses numbered MATH:2150, MATH:3800, or courses above MATH:3800, excluding MATH:4010 and MATH:4020.

Computer Science

Students may choose computer science courses numbered CS:1210 through CS:4740, excluding CS:3210, CS:3910, CS:3980, and CS:3990.

Statistics and Actuarial Science

Students may choose statistics courses numbered STAT:2020, STAT:3100 through STAT:4740, or STAT:5100 through STAT:5120, excluding STAT:3510, STAT:4143, and STAT:4200.

Among the courses previously listed, only one of the following three courses can be counted toward the elective requirement: STAT:2020, STAT:3100, or STAT:3120. None of these courses can be counted as credit earned toward graduation if taken after STAT:4100 owing to regression policies.

Students may choose actuarial science courses numbered ACTS:3080 and ACTS:4130 through ACTS:4380.

Program B

Program B is intended for students seeking secondary school teaching licensure. Students who wish to earn teaching licensure in addition to earning a Bachelor of Science with a major in mathematics must also complete the Teacher Education Program (TEP); see the section titled "Teacher Licensure."

Program B: Core Courses

Students complete the following core courses.

Course #	Title	Hours
MATH:1850 & MATH:1860	Calculus I and Calculus II	8
MATH:2150	Foundations of Geometry	3
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
MATH:3720	Introduction to Abstract Algebra	4
MATH:3770	Foundations of Analysis	4
MATH:4050	Introduction to Discrete Mathematics	3
or MATH:4060	Discrete Mathematical Models	
CS:1210	Computer Science I: Fundamentals	4
STAT:3120	Probability and Statistics	4

More advanced courses may be substituted for the core courses with Department of Mathematics approval.

Program B: Electives

Students in Program B must take at least three additional Department of Mathematics post-calculus courses (9–12 s.h.), including two chosen from MATH:3900 and courses numbered 4000 or above, excluding MATH:4010 and MATH:4020. Post-calculus courses must avoid duplication and regression with the core math courses, particularly when engineering mathematics courses are considered. With the department's approval, capable students are encouraged to substitute more advanced courses in the same subject area for any of the electives. The Department of Mathematics website offers advice on course selection.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Students who wish to earn teacher licensure should choose Program B.

Program in Math With a Related Specialization

The Department of Mathematics encourages students of other majors to take more mathematics courses and attempt a BA or BS secondary major, or a secondary degree if their first major is outside CLAS, in mathematics. The program in math with a related specialization offers a curricular path to achieve this goal. Students complete core courses, mathematics electives, and subtrack requirements.

The program in math with a related specialization enables students to declare a concentration in a mathematics-related area. Options include specializations in business (subtracks in economics, finance, and risk management and insurance), data sciences (subtracks in biostatistics, computer science, data science, and statistics and actuarial science), and physical sciences (subtracks in biochemistry, biomathematics, chemistry, and physics). Students may declare one of these three defined areas of specialization and must complete requirements for one subtrack. They may also propose other plans of study, which would be categorized under Program C. An individualized plan of study must be approved by the Department of Mathematics prior to the start of the student's final year.

Business, Data Sciences, and Physical Sciences: Core Courses

Students complete the following core mathematics courses. Students pursuing the biostatistics subtrack of the data sciences specialization should refer to the following section titled "Biostatistics Subtrack" for additional information about an alternative set of core courses. Students

in the biomathematics subtrack of the physical sciences specialization should refer to the following section titled "Biomathematics Subtrack" rather than the list below.

Course #	Title	Hours
One of these sequences:		
MATH:1850 & MATH:1860	Calculus I and Calculus II	8
MATH:1550 & MATH:1560	Engineering Calculus I and Engineering Calculus II	8
Both of these:		
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
One of these:		
MATH:3720	Introduction to Abstract Algebra	4
MATH:3770	Foundations of Analysis (students in the biostatistics subtrack must take MATH:3770)	4

If students complete both MATH:3720 and MATH:3770, one may count toward core courses and the other toward the elective requirement described below.

More advanced courses may be substituted for the core courses with Department of Mathematics approval.

Business, Data Sciences, and Physical Sciences: Mathematics Electives

Students must also take four elective courses (3–4 s.h. each), including at least two upper-level math courses. Mathematics elective options include mathematics courses (prefix MATH) numbered MATH:3600–MATH:5810, excluding MATH:3700, MATH:3996, MATH:3997, MATH:4010, MATH:4020, and MATH:4120.

When a subtrack requires post-calculus mathematics courses, those courses may also count as mathematics electives, with the exception of the physics subtrack of the physical sciences specialization. See the following section titled "Physics Subtrack" for more information.

Business Specialization

Economics Subtrack

The business specialization with an economics subtrack requires the following four courses.

Course #	Title	Hours
All of these:		
CS:1210	Computer Science I: Fundamentals	4
ECON:3100	Intermediate Microeconomics	3
ECON:3150	Intermediate Macroeconomics	3
STAT:3120	Probability and Statistics	4

Finance Subtrack

The business specialization with a finance subtrack requires the following four courses.

Course #	Title	Hours
This course:		
FIN:3000	Introductory Financial Management	3
One of these:		
FIN:3200	Investment Management	3
FIN:3300	Corporate Finance	3
Two of these:		
ACCT:3020	Financial Accounting and Reporting	3
FIN:3200	Investment Management (if not taken for the previous requirement)	3
FIN:3300	Corporate Finance (if not taken for the previous requirement)	3
FIN:3400	Principles of Risk Management and Insurance	3
A 3-4 s.h. finance course (prefix FIN) that counts toward the BBA in finance		3,4

Risk Management and Insurance Subtrack

The business specialization with a risk management and insurance subtrack requires the following four courses.

Course #	Title	Hours
Both of these:		
FIN:3000	Introductory Financial Management	3
FIN:3400	Principles of Risk Management and Insurance	3
Two of these:		
FIN:4420	Property and Liability Insurance	3
FIN:4430	Life and Health Insurance	3
FIN:4440	Employee Benefit Plans	3
FIN:4450	Risk Modeling	3

Data Sciences Specialization

Biostatistics Subtrack

Biostatistics: Alternative Core Courses

Students may complete five core courses as previously listed, or they may complete the six core courses listed below.

Course #	Title	Hours
All of these:		
MATH:1550	Engineering Calculus I	4
MATH:1560	Engineering Calculus II	4
MATH:2550	Engineering Matrix Algebra	2
MATH:2560	Engineering Differential Equations	3
MATH:3550	Engineering Vector Calculus	3
MATH:3770	Foundations of Analysis	4

Biostatistics: Additional Required Courses

The data sciences specialization with a biostatistics subtrack requires the following eight courses.

Course #	Title	Hours
This course:		
CPH:1400	Fundamentals of Public Health	3

Four of these, with at least two courses numbered 4000 or above:		
MATH:3600	Introduction to Ordinary Differential Equations (if student has not taken MATH:2560 as a core course)	3
MATH:3800	Introduction to Numerical Methods	3
MATH:4220	Fourier Analysis and Applications	3
MATH:4700	Partial Differential Equations and Applications	3
MATH:4820	Optimization Techniques	3
Three of these, with at least one course in biostatistics (prefix BIOS) and at least one course in statistics (prefix STAT):		
BIOS:4120	Introduction to Biostatistics	3
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
BIOS:5310	Research Data Management	3
BIOS:5710	Biostatistical Methods I	4
BIOS:5720	Biostatistical Methods II	4
BIOS:5730	Biostatistical Methods in Categorical Data	3
STAT:2010	Statistical Methods and Computing	3
STAT:3200	Applied Linear Regression	3
STAT:3210	Experimental Design and Analysis	3
STAT:4100	Statistical Inference I	3
STAT:4101	Statistical Inference II	3

Computer Science Subtrack

The data sciences specialization with a computer science subtrack requires four electives in computer science (prefix CS) numbered CS:1210–CS:4740, excluding CS:2110, CS:3010, CS:3210, CS:3910, CS:3980, CS:3990, and CS:3999.

Data Science Subtrack

The data sciences specialization with a data science subtrack requires the following four courses.

Course #	Title	Hours
Computer Science Electives		
Two of these:		
CS:3330	Algorithms	3
CS:4400	Database Systems	3
CS:4470	Health Data Analytics	3
CS:5430	Machine Learning	3
CS:5630	Cloud Computing Technology	3
May include one of these:		
CS:1210	Computer Science I: Fundamentals	4
CS:2110	Programming for Informatics	4
CS:2230	Computer Science II: Data Structures	4
Statistics Electives		
Two of these:		
STAT:2010	Statistical Methods and Computing	3
STAT:3100	Introduction to Mathematical Statistics I	4
STAT:3200	Applied Linear Regression	3
STAT:3210	Experimental Design and Analysis	3
STAT:4520	Bayesian Statistics	3
STAT:4540	Statistical Learning	3
STAT:4560	Statistics for Risk Modeling I	3
STAT:4580	Data Visualization and Data Technologies	3
STAT:5810	Research Data Management	3

Statistics and Actuarial Science Subtrack

The data sciences specialization with a statistics and actuarial science subtrack requires the following four courses.

Course #	Title	Hours
Four of these:		
ACTS:3080	Mathematics of Finance I	3
ACTS:4130	Quantitative Methods for Actuaries	3
ACTS:4150	Fundamentals of Short-Term Actuarial Mathematics	3
ACTS:4180	Life Contingencies I	3
ACTS:4280	Life Contingencies II	3
STAT:2010	Statistical Methods and Computing	3
STAT:3101	Introduction to Mathematical Statistics II	3
STAT:3200	Applied Linear Regression	3
STAT:3210	Experimental Design and Analysis	3
STAT:3620	Quality Control	3
STAT:4100	Statistical Inference I	3
STAT:4101	Statistical Inference II	3
STAT:4520	Bayesian Statistics	3
STAT:4740	Large Data Analysis	3
STAT:5100	Statistical Inference I	3
STAT:5101	Statistical Inference II	3
STAT:5120	Mathematical Methods for Statistics	3
May count one of these if taken before STAT:4100		
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:3100	Introduction to Mathematical Statistics I	4
STAT:3120	Probability and Statistics	4

Physical Sciences Specialization

Biochemistry Subtrack

The physical sciences specialization with a biochemistry subtrack requires the following five courses.

Course #	Title	Hours
Both of these:		
MATH:3600	Introduction to Ordinary Differential Equations	3

BMB:4240	Biophysics and Advanced Biochemistry	3
Three electives from these:		
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3
BMB:4310	Computational Biochemistry	3
May include one of these:		
CHEM:4430	Principles of Physical Chemistry	3
CHEM:4431	Chemical Thermodynamics	3
CHEM:4432	Quantum Mechanics and Chemical Kinetics	3
Up to 3 s.h. from this course:		
BMB:4999	Advanced Undergraduate Biochemistry Research (requires departmental approval in advance)	arr.

Biomathematics Subtrack

Biomathematics: Core Courses

Students in the biomathematics subtrack should complete one of the two sets of core courses below for a total of at least 23 s.h.

Course #	Title	Hours
Option 1		
One of these sequences:		
MATH:1850 & MATH:1860	Calculus I and Calculus II	8
MATH:1550 & MATH:1560	Engineering Calculus I and Engineering Calculus II	8
All of these:		
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
MATH:3600	Introduction to Ordinary Differential Equations	3
MATH:3770	Foundations of Analysis	4

Course #	Title	Hours
Option 2		
All of these:		
MATH:1550	Engineering Calculus I	4
MATH:1560	Engineering Calculus II	4
MATH:2550	Engineering Matrix Algebra	2
MATH:2560	Engineering Differential Equations	3
MATH:3550	Engineering Vector Calculus	3
MATH:3770	Foundations of Analysis	4
An additional post-calculus mathematics course (prefix MATH) as previously defined in this section of the catalog, excluding MATH:2550, MATH:2560, MATH:2700, MATH:2850, MATH:3550, MATH:3600, MATH:3770, MATH:3800, MATH:4060, and MATH:4750		3-4

Biomathematics: Additional Required Courses

The physical sciences specialization with a biomathematics subtrack requires the following eight courses.

Course #	Title	Hours
Required Courses		
All of these:		
MATH:3800	Introduction to Numerical Methods	3
MATH:4060	Discrete Mathematical Models	3
MATH:4750	Introduction to Mathematical Biology	3
STAT:3120	Probability and Statistics	4
Elective Courses		
Two electives from these, with at least one course numbered 3000 or above:		
BIOL:2512	Fundamental Genetics	4
BIOL:2673	Ecology	3
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3253	Neurobiology I	4
BIOL:3254	Neurobiology II	4
BIOL:3314	Genomics	3
BIOL:3343	Animal Physiology	3
BIOL:3713	Molecular Genetics	4
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3
BMB:4240	Biophysics and Advanced Biochemistry	3
BME:2500	Biomaterials and Biomechanics	4
CHEM:2210	Organic Chemistry I	3
At most one of these (if selected, courses in this area may not count as an additional elective):		
BIOL:3172	Evolution	4
BIOL:3373	Human Population Genetics and Variation	3
At most one of these (if selected, courses in this area may not count as an additional elective):		
BIOL:2753	Introduction to Neurobiology	3
PSY:2701	Introduction to Behavioral Neuroscience	4
At most one of these (if selected, courses in this area may not count as an additional elective):		
BIOL:4213	Bioinformatics	4
BIOL:4386	Introduction to Scientific Computing for Biologists	3
BMB:3310	Practical Data Science and Bioinformatics	3
BMB:4310	Computational Biochemistry	3
Additional Elective		
One of these:		
A previously listed elective option numbered 3000 or above, if not used to satisfy the preceding requirement.		3-4
Computer science course (prefix CS) taken for at least 3 s.h. and numbered 2000 or above		3-4

Mathematics course (prefix MATH) numbered MATH:3000-MATH:5899, excluding MATH:3550, MATH:3600, MATH:3700, MATH:3770, MATH:3800, MATH:3996, MATH:3997, MATH:4010, MATH:4020, MATH:4060, and MATH:4750	3-4

Chemistry Subtrack

The physical sciences specialization with a chemistry subtrack requires the following five courses.

Course #	Title	Hours
Both of these:		
MATH:3600	Introduction to Ordinary Differential Equations	3
CHEM:3250	Inorganic Chemistry	3
Three of these:		
CHEM:3110	Equilibria and Electrochemistry	3
CHEM:3120	Spectroscopy and Separations	3
CHEM:4430	Principles of Physical Chemistry	3
CHEM:4431	Chemical Thermodynamics	3
CHEM:4432	Quantum Mechanics and Chemical Kinetics	3
CHEM:4480	Introduction to Molecular Modeling	3
CHEM:5114	Chemical Systems Modeling	3
At most one of these:		
CHEM:3430	Analytical Measurements	3
CHEM:3440	Physical Measurements	3
CHEM:4450	Synthesis and Measurement	3

Physics Subtrack

The physical sciences specialization with a physics subtrack requires the following four courses. If students complete both MATH:3720 and MATH:3770, one may count toward core courses and the other toward this subtrack.

Course #	Title	Hours
Two of these:		
PHYS:3710	Intermediate Mechanics	3
PHYS:3730	Statistical Physics	3
PHYS:3741	Introduction to Quantum Mechanics I	3
PHYS:3742	Introduction to Quantum Mechanics II	3
PHYS:3811	Electricity and Magnetism I	3
PHYS:3812	Electricity and Magnetism II	3
One of these:		
MATH:3600	Introduction to Ordinary Differential Equations	3
MATH:3800	Introduction to Numerical Methods	3
MATH:4200	Complex Variables	3
One of these, which will not count toward the mathematics electives:		
MATH:3720	Introduction to Abstract Algebra	4
or MATH:3770	Foundations of Analysis	
MATH:3900	Introduction to Mathematics Research	3
Mathematics course (prefix MATH) numbered MATH:4000-MATH:5899, excluding MATH:4010, MATH:4020, and MATH:4120		3-4
Physics course (prefix PHYS) taken for at least 3 s.h. and numbered PHYS:3000-PHYS:4998, excluding PHYS:3756, PHYS:3850, PHYS:4750, and PHYS:4990		

Program C: Core Courses

Students complete the following core mathematics courses.

Course #	Title	Hours
One of these sequences:		
MATH:1850 & MATH:1860	Calculus I and Calculus II	8
MATH:1550 & MATH:1560	Engineering Calculus I and Engineering Calculus II	8
One of these groups:		
MATH:2700 & MATH:2850	Introduction to Linear Algebra and Calculus III	8
MATH:2550 & MATH:2560 & MATH:3550	Engineering Matrix Algebra and Engineering Differential Equations and Engineering Vector Calculus	8
One of these:		
MATH:3720	Introduction to Abstract Algebra	4
MATH:3770	Foundations of Analysis	4

If students complete both MATH:3720 and MATH:3770, one may count toward core courses and the other toward the elective requirement described below.

More advanced courses may be substituted for the core courses with Department of Mathematics approval.

Program C: Electives

Students choose at least eight electives beyond the core courses, including four mathematics elective courses (12-16 s.h.), at least two of which must be upper-level math courses numbered MATH:3900 or numbered 4000 or above. Mathematics elective options include mathematics courses (prefix MATH) numbered MATH:3600–MATH:5810, excluding MATH:3700, MATH:3996, MATH:3997, MATH:4010, MATH:4020, and MATH:4120. Only one of MATH:2560 or MATH:3600 may be counted toward the major requirements.

All electives must be offered for 3–4 s.h. The individualized area of specialization should be in a subject that is math-related and should demonstrate a progression of learning in that discipline. At least some of the proposed electives must be upper-level for that course subject. Students must propose their plan of study before they begin their final year. Individualized plans of study must be approved by the Department of Mathematics.

Honors

Honors in the Major

Students majoring in mathematics have the opportunity to graduate with honors in the major. Students must maintain a cumulative University of Iowa grade-point average (GPA)

of at least 3.33, as required by the College of Liberal Arts and Sciences; additionally, students must maintain a cumulative GPA of at least 3.40 in the major, a GPA set by the Department of Mathematics.

To graduate with honors in the major, students also must complete one of the following options.

Option 1

Students complete five upper-level mathematics courses as defined in "Upper-Level Mathematics Courses" under "Requirements." Mathematics courses (prefix MATH) numbered 6000 or above must be approved by the mathematics honor advisor in advance.

Sometimes an honors research project may only produce a research report but not a formal thesis. A research report will be counted as one upper-level math course towards option 1 by enrolling in MATH:3996 Individual Study and Honors in Mathematics for 3 s.h. A research report must be approved by the honors research project supervisor.

Option 2

Students complete three upper-level mathematics courses and write an honors thesis. A student who chooses this option must contact the Department of Mathematics honors advisor and find a faculty member who is willing to supervise their honors thesis project. The Department of Mathematics honors advisor will then appoint a thesis committee of at least two faculty members. The student will need to obtain preapproval at the beginning of their thesis project, midterm approval from the thesis committee, and pass a defense.

The Department of Mathematics encourages students to use their sole-authored or coauthored research papers as honors theses if the papers have been published, accepted, or submitted to a research journal. Satisfactory peer reviews or referee's reports may be accepted in lieu of preapproval and midterm approval.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program. Honors in mathematics is awarded by the Department of Mathematics and is separate from the University of Iowa Honors Program.

Membership in the UI Honors Program is not required to earn honors in the mathematics major. However, honors in mathematics can be applied toward UI Honors Program requirements.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the University's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Many mathematics courses must be taken in sequence, so students must begin major requirements as early as possible, and individual plans of study must be constructed carefully. The major typically requires 13 or 14 courses. Students must choose Program A, B, or C by the end of the third semester and must remain in their chosen program until they graduate in order to stay on track for the four-year graduation plan.

Before the third semester begins: coursework in the major through second-semester calculus.

Before the fifth semester begins: three or four more courses in the major.

Before the seventh semester begins: three or four more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two or three more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Mathematics, BS

- Program A [p. 797]
- Program B [p. 798]

Program A

Course	Title	Hours
Academic Career		
Any Semester		
Program A is primarily for students who plan to work in business or government or to pursue graduate study in mathematics.		
Students must earn at least 15 s.h. in post-calculus mathematics courses offered by the Department of Mathematics or cross-referenced with a mathematics course at the University of Iowa. Post-calculus courses are numbered 2000 or above, excluding: MATH:3700 Introduction to Matrix Theory, MATH:3996 Individual Study & Honors in Mathematics, MATH:3997 Readings in Mathematics, MATH:4010 Basic Analysis, and MATH:4020 Basic Abstract Algebra. [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
MATH:1850	Calculus I [c]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Values and Society [d]		3
CSI:1600	Success at Iowa	1

Elective course [e]		2
	Hours	**13-14**
Spring		
MATH:1860	Calculus II	4
MATH:2700	Introduction to Linear Algebra	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
Elective course [e]		1
	Hours	**15-16**
Second Year		
Fall		
MATH:2850	Calculus III	4
MATH:3600	Introduction to Ordinary Differential Equations	3
GE CLAS Core: Social Sciences [d]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
Elective course [e]		2
	Hours	**16-17**
Spring		
MATH:3720	Introduction to Abstract Algebra	4
Major: required post-calculus math elective course [g]		3
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
Elective course [e]		2
	Hours	**16-17**
Third Year		
Fall		
MATH:3770	Foundations of Analysis	4
Major: required post-calculus math elective course [g]		3 - 4
GE CLAS Core: Natural Sciences with Lab [d]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]		4 - 5
	Hours	**15-17**
Spring		
Major: required post-calculus math elective course [g]		3 - 4
Major: required upper-level math elective course [h]		3
GE CLAS Core: Natural Sciences without Lab [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]		4 - 5
Elective course [e]		3
	Hours	**16-18**
Fourth Year		
Fall		
Major: required upper-level math elective course [h]		3
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**
Spring		
Major: required upper-level math elective course [h]		3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15**
	Total Hours	**121-129**

a See General Catalog or consult an advisor for more information.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Enrollment in math courses requires completion of a placement exam.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g At least four of the six major electives must have a prefix of MATH, including at least three upper-level math courses. See General Catalog or consult an advisor for more information about appropriate elective courses.

h Mathematical electives must include at least three upper-level math courses. These include: MATH:3900 and math courses (MATH prefix) numbered 4000 and higher, but not MATH:4010, MATH:4020 and MATH:4120. Each upper-level math course is offered at most once per year; choose when to complete the upper-level requirement according to spring or fall offerings for desired courses.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Program B

Course	Title	Hours
Academic Career		
Any Semester		
Program B is intended for students seeking secondary school teaching licensure.		

Completion of mathematics (program B) BS, Teacher Education Program, and all general education requirements exceeds the minimum 120 s.h. required for graduation. Students should expect to take higher than average number of semester hours per term, take summer classes, and/or extend graduation time frame beyond four years.

Admission to the Teacher Education Program, College of Education, is by competitive application. For information about application requirements, process, and deadlines, please consult an advisor for the College of Education.

GE CLAS Core: Sustainability [a]

	Hours	**0**
First Year		
Fall		
MATH:1850	Calculus I [b, c]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**12-14**
Spring		
MATH:1860	Calculus II [b]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
Course(s) required for second degree - consult sample plan for BA in mathematics education		3
10-hour pre-admission school field experience [b, e]		
	Hours	**14-16**
Summer		
GE CLAS Core: International and Global Issues [f]		3
GE CLAS Core: Natural Sciences without Lab [f]		3
Prepare materials for Teacher Education Program application (e.g. essays, letters of recommendation) [g]		
	Hours	**6**
Second Year		
Fall		
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
Course(s) required for second degree - consult sample plan for BA in mathematics education		3
Admission Application: apply to the Teacher Education Program [g]		
	Hours	**15-16**
Spring		
MATH:2150	Foundations of Geometry [h]	3
GE CLAS Core: Social Sciences [f]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Course(s) required for second degree - consult sample plan for BA in mathematics education		6
	Hours	**16-17**
Summer		
GE CLAS Core: Natural Sciences with Lab [f]		4
	Hours	**4**
Third Year		
Fall		
MATH:3720	Introduction to Abstract Algebra	4
MATH:4050	Introduction to Discrete Mathematics [i]	3
GE CLAS Core: Historical Perspectives [f]		3
Course(s) required for second degree, including a course that satisfies the GE CLAS Core Understanding Cultural Perspectives area - consult sample plan for BA in mathematics education		6
	Hours	**16**
Spring		
MATH:3770	Foundations of Analysis	4
STAT:3120	Probability and Statistics	4
Major: required post-calculus math elective course [j]		3 - 4
Course(s) required for second degree, including a course that satisfies the GE CLAS Core Values and Society area - consult sample plan for BA in mathematics education		6
Apply for student teaching (see the College of Education website for application instructions and deadlines)		
	Hours	**17-18**
Fourth Year		
Fall		
CS:1210	Computer Science I: Fundamentals	4
Major: required upper-level math elective course [k]		3 - 4
Major: required upper-level math elective course [k]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [f]		3
Course(s) required for second degree - consult sample plan for BA in mathematics education		7
	Hours	**20-22**
Spring		
Course(s) required for second degree - consult sample plan for BA in mathematics education		15
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**15**
	Total Hours	**135-144**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Required for admission into the Teacher Education Program.

c Enrollment in math courses requires completion of a placement exam.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an

approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Complete the College of Education 10-hour pre-admission school field experience verification form available on the Teacher Education Program web page.

f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

g Please see the College of Education website for detailed application instructions and deadlines. Admission is selective and a priority deadline exists.

h Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

i Students must complete MATH:4050, a fall-only course, or MATH:4060, a spring-only course.

j Post-calculus courses are numbered 2000 or above, excluding: MATH:3700, MATH:3996, MATH:3997, MATH:4010, MATH:4020, and MATH:4120.

k Upper-level electives include MATH:3900 or any MATH prefix courses numbered 4000 or above, excluding MATH:4010, MATH:4020, and MATH:4120.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Mathematics, Minor

Requirements

A minor in mathematics requires a minimum of 15 s.h. of mathematics coursework. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the minor and in all UI courses for the minor.

Coursework for the minor must be taken on an A–F graded basis.

All courses must be at or above the level of calculus with differentiation and integration, numbered MATH:1460 Calculus for the Biological Sciences or above at the University of Iowa, or equivalent courses transferred from another institution. Courses for the minor must be mathematics courses (prefix MATH) or cross-referenced with a mathematics course.

Post-Calculus Courses

At least 12 s.h. must be post-calculus courses offered by the Department of Mathematics or equivalent courses transferred from another institution. At least 9 of these 12 s.h. in post-calculus math courses must be taken at the University of Iowa. No more than 3 s.h. of transferred courses can be counted toward this post-calculus requirement.

Mathematics courses (prefix MATH) numbered 2000 or above are considered post-calculus, excluding MATH:3700, MATH:3996, MATH:3997, MATH:4010, and MATH:4020.

Post-calculus courses must be chosen to avoid duplication and regression with the core mathematics courses, particularly when the engineering mathematics courses are considered.

Special Rules for Engineering

Students who have taken the engineering math courses —MATH:1560 Engineering Calculus II, MATH:2550 Engineering Matrix Algebra, MATH:2560 Engineering Differential Equations, and MATH:3550 Engineering Vector Calculus—may satisfy the post-calculus requirement by taking an additional 3 s.h. course from the following list.

Substituting a 3 s.h. post-calculus math course (prefix MATH) for any of these—MATH:1560, MATH:2550, MATH:2560, or MATH:3550—is allowed as long as there is no regression or duplication.

At least four of these courses must be taken at the University of Iowa: MATH:1560, MATH:2550, MATH:2560, MATH:3550, or the additional 3 s.h. post-calculus math course; no more than one transfer course will count.

Students may choose the additional 3 s.h. course from MATH:2150 Foundations of Geometry or courses numbered MATH:3720 or above, excluding the courses listed below.

Course #	Title	Hours
MATH:3996	Individual Study and Honors in Mathematics	arr.
MATH:3997	Readings in Mathematics	arr.
MATH:4010	Basic Analysis	3
MATH:4020	Basic Abstract Algebra	3

Mathematics, MS

Learning Outcomes

Students:

- have a broad foundational knowledge of mathematics, preparing them to teach a wide variety of mathematics courses at any four-year college or university in the United States, work in a wide variety of business, industry, and government positions, and hold leadership positions in these organizations;
- can identify and develop new lines of investigation that push forward frontiers of research;
- can bring together problem-solving tools to make new discoveries, including locating and understanding the most current research literature, and working with interdisciplinary collaborators; and
- can communicate mathematics via professional writings and presentations at a level appropriate to the audience, from the general public to technical experts.

Requirements

The Master of Science program in mathematics requires a minimum of 30 s.h. of graduate credit. Students choose from two subprograms, program I and program II. Students must earn a Graduate College major program grade-point average of 2.75.

3 s.h. of MATH:7990 Reading Research and mathematics courses (prefix MATH) numbered 7000 and above may be counted toward the degree.

The Master of Science in mathematics requires the following coursework.

Program I Requirements

Program I is intended for master's students who have been admitted by the Department of Mathematics. It also provides a path for PhD students in mathematics or applied mathematical and computational sciences to earn a master's degree during their course of study. Students complete 30 s.h. in mathematics courses (prefix MATH), including at least 18 s.h. in courses numbered 5000 and 12 s.h. in courses numbered 3000 and above. They must also pass two qualifying examinations. The qualifying examinations may be chosen from algebra, analysis, differential equations, topology, and numerical analysis.

5000-Level Courses

Students must complete at least 18 s.h. from the following courses.

Course #	Title	Hours
One of these sequences:		
MATH:5000 & MATH:5010	Abstract Algebra I and Abstract Algebra II	6
MATH:5200 & MATH:5210	Introduction to Analysis I and Introduction to Analysis II	6
Four courses from these:		
MATH:5000 & MATH:5010	Abstract Algebra I and Abstract Algebra II (if not taken as a required sequence)	6
MATH:5200 & MATH:5210	Introduction to Analysis I and Introduction to Analysis II (if not taken as a required sequence)	6
MATH:5400	Fundamental Groups and Covering Spaces	3
MATH:5410	Introduction to Smooth Manifolds	3
MATH:5600	Nonlinear Dynamics With Numerical Methods	3
MATH:5700	Introduction to Partial Differential Equations	3
MATH:5750	Mathematical Biology I	3
MATH:5760	Mathematical Biology II	3
MATH:5800	Numerical Methods I	3
MATH:5810	Numerical Methods II	3
Mathematics courses (prefix MATH) numbered 6000 and above with departmental approval		

Program II Requirements

Program II is intended for students pursuing graduate degrees in other departments and students on the undergraduate-to-graduate (U2G) pathway. Students are advised to meet with the director of graduate studies (DGS) at the beginning of the master's program to understand the expectations for fulfilling the program requirements.

Students complete 30 s.h. in mathematics courses (prefix MATH), including at least 18 s.h. in courses numbered 5000 and above and 12 s.h. in courses numbered 3000 and above.

5000-Level Courses

Course #	Title	Hours
18 s.h. from these:		
MATH:5000 & MATH:5010	Abstract Algebra I and Abstract Algebra II	6
MATH:5200 & MATH:5210	Introduction to Analysis I and Introduction to Analysis II	6
MATH:5400	Fundamental Groups and Covering Spaces	3
MATH:5410	Introduction to Smooth Manifolds	3
MATH:5600	Nonlinear Dynamics With Numerical Methods	3
MATH:5700	Introduction to Partial Differential Equations	3
MATH:5750	Mathematical Biology I	3
MATH:5760	Mathematical Biology II	3
MATH:5800	Numerical Methods I	3
MATH:5810	Numerical Methods II	3

Depth Requirement

The depth requirement may be fulfilled one of three ways:

- achieve a master's pass or above in two of the five mathematics qualifying exams (algebra, analysis, differential equations, topology, and numerical analysis);
- fulfill a qualifying exam or similar requirement from a different graduate program at the University of Iowa, subject to approval of the Department of Mathematics; or
- complete a final project supervised or co-supervised by a faculty member in the Department of Mathematics,

subject to departmental approval. The acting director of graduate studies and at least two members of the qualifying committee representing two different subject areas must agree that the final project constitutes master's level work. Students are required to submit a Project Plan Form by the first week of their final semester.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Applicants to the PhD program have preference for admission and funding.

Admission is competitive and based on a combination of undergraduate coursework and grades, letters of recommendation, and test scores. Numerical standards change every year or so; exceptions may be made to the following guidelines.

Applicants must have completed work in an undergraduate program equivalent to the major in mathematics offered by the University of Iowa Department of Mathematics with an undergraduate grade-point average of at least 3.20. Relevance and difficulty of courses are considered when evaluating grades; grades of C or lower in mathematics courses must be balanced by grades of A. Individuals whose preparation does not meet this requirement may be admitted conditionally and are asked to take specific courses that cover deficiencies.

All applicants must submit three letters of recommendation.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Mathematics, PhD

Learning Outcomes

Students:

- have a broad foundational knowledge of mathematics, preparing them to teach a wide variety of mathematics courses at any four-year college or university in the United States, work in a wide variety of business, industry, and government positions, and hold leadership positions in these organizations;
- can identify and develop new lines of investigation that push forward frontiers of research;
- can bring together problem-solving tools to make new discoveries, including locating and understanding the most current research literature, working with interdisciplinary collaborators; and
- can communicate mathematics via professional writings and presentations at a level appropriate to the audience, from the general public to technical experts.

Requirements

The Doctor of Philosophy program in mathematics requires a minimum of 72 s.h. of graduate credit. Students must maintain a program grade-point average of at least 3.00. The program places a strong emphasis on preparation for research and teaching. The department maintains no division between pure and applied mathematics. It cooperates in interdisciplinary doctoral programs with the College of Education (see Teaching and Learning [p. 1431] in the catalog) and the program in Applied Mathematical and Computational Sciences [p. 1695] (Graduate College).

PhD students in mathematics must satisfy the following requirements for coursework (credits and breadth), examinations, world language, and the PhD thesis.

Students must spend at least three years in residence at a graduate college, including at least one year at the University of Iowa. They also should enroll in specific courses designated as preparatory for the PhD examinations; consult the Department of Mathematics graduate studies director.

To further encourage mathematical breadth, students must earn at least 27 s.h. of graduate credit in regular courses equivalent to or more advanced than PhD comprehensive examination preparatory courses. For a list of accepted Department of Mathematics courses and rules to ensure proper distribution, contact the department. Graduate students in mathematics must have departmental approval to earn credit for any of the courses numbered between 3000 and 4999. Analysis and computation graduate students in mathematics may not earn credit for MATH:4010 Basic Analysis and MATH:4020 Basic Abstract Algebra.

The PhD examinations consist of a qualifying exam and a comprehensive exam. Students choose three areas from the department's list of qualifying examination areas: algebra, analysis, differential equations, numerical analysis, and topology. For each qualifying area, there is a two-semester course sequence numbered 5000 or above that is designated as preparatory, although exams may differ from course content. Parts of the qualifying exam are taken over a two-week period. An exam committee gives one grade (pass, fail, conditional pass) on each part of the qualifying examination.

The PhD comprehensive exam tests students on research-related topics. Candidates also take an oral final examination on their dissertation material.

PhD students are required to demonstrate reading proficiency in French, German, or Russian by passing a reading test administered by the Department of Mathematics. Consult the department for details.

The most distinctive aspect of a PhD is the thesis. The department expects the thesis to be an original mathematical work comparable in content and writing quality to that found in standard published research journals. The thesis is written under the supervision of a mathematics department faculty member and must be approved by the PhD defense committee.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Applicants to the PhD program have preference for admission and funding.

Admission to the PhD program is competitive and based on a combination of undergraduate or graduate coursework and grades, letters of recommendation, and test scores. Applicants to the PhD program must have an undergraduate or graduate grade-point average of at least 3.40.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Medieval Studies

Chair

- Colin Gordon (History)

Coordinators, Medieval Studies

- Shane Bobrycki (History), William Rhodes (English)

Undergraduate certificate: medieval studies

Website: https://classics.uiowa.edu/undergraduate/certificate-medieval-studies

Medieval studies is an interdisciplinary program designed to offer students an introduction to the history and culture of the Middle Ages and to provide them with the tools necessary to pursue more advanced study in a number of disciplines, including languages and literatures, philosophy, history, and art history. The study of medieval society provides a window to those centuries that span the end of the ancient world and the beginning of the modern era. The Middle Ages saw fascinating global developments in such areas as law, religion, philosophy, language, art, music, and literature.

The Medieval Studies Program offers an undergraduate certificate and a selection of courses open to students in all majors. The Medieval Studies Program is administered by the Department of History.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Medieval Studies [p. 806]

Courses

Medieval Studies Courses

MDVL:3226 Literature and Culture of the Middle Ages **3 s.h.**
Study of literature and culture of the Middle Ages. Same as ENGL:3226.

MDVL:3409 Medieval Civilization I **3 s.h.**
Europe from the decline of Roman empire to the eleventh century; cultural, political, economic, artistic and architectural foundations of Western civilization. Same as HIST:3409.

MDVL:3410 Medieval Civilization II **3 s.h.**
Europe from the eleventh century to the Italian Renaissance; cultural, political, economic, artistic, and architectural foundations of Western civilization. Same as HIST:3410.

MDVL:3425 Peasants in the Middle Ages **3 s.h.**
Examination of the social, economic, and cultural history of peasants in medieval Europe. Same as HIST:3425.

MDVL:4412 History of the Medieval Church **3 s.h.**
Development of Christianity to end of great schism; rise of Roman primacy, development of monasticism, orthodox and heterodox groups. Same as HIST:4412.

Medieval Studies, Certificate

Requirements

The undergraduate Certificate in Medieval Studies requires at least 18 s.h. in medieval studies coursework. Students must maintain a grade-point average of at least 2.00 in work for the certificate.

The Certificate in Medieval Studies enables students to combine study in three or more disciplines into an organized investigation of the Middle Ages, a rich historical period that continues to influence today's culture.

Students may earn the Certificate in Medieval Studies as a distinct interest or combine it with focused study in areas such as art history; classics; gender, women's, and sexuality studies; languages (e.g., French, German, Italian, Portuguese, Spanish); music; philosophy; religion; theater; and literature.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Courses used to fulfill GE CLAS Core [p. 22] requirements or the requirements of a major or minor may be counted toward the certificate in most cases. Up to 6 s.h. of transfer credit may be counted toward certificate requirements with the Certificate in Medieval Studies coordinating committee's approval; contact the certificate program's coordinator.

The Certificate in Medieval Studies requires the following coursework.

Courses

Courses may be chosen from the "Associated Courses" list or from medieval studies courses (prefix MDVL) under Courses [p. 805] in this section of the catalog. Students must include courses from at least three different departments; they may count a maximum of 10 s.h. from a single department or program. Students should consult regularly with a medieval studies advisor while planning and completing their program of study.

Associated Courses

The following courses are approved for the medieval studies certificate. Other courses may be approved for the satisfaction of certificate requirements; students who wish to have a course approved should make a request to the Certificate in Medieval Studies coordinating committee. The coordinating committee revises the list of approved courses as necessary.

Arabic Language and Literature

Course #	Title	Hours
ARAB:2001	Intermediate Modern Standard Arabic I	5
ARAB:2002	Intermediate Modern Standard Arabic II	5

Art, Art History, and Design

Course #	Title	Hours
ARTH:2420	Medieval Art From Constantine to Columbus	3
ARTH:3310	Celtic and Viking Art	3
ARTH:3390	Early Medieval Art	3
ARTH:3400	Romanesque and Gothic Art	3
ARTH:3420	Gothic Architecture	3
ARTH:3990	Topics in Art History (when topic is medieval)	3

Center for the Book

Course #	Title	Hours
UICB:4290	Historical Book Structures	3
UICB:4420	Introduction to Medieval Calligraphy	3
UICB:4910/ HIST:4422/ SLIS:4910	The Book in the Middle Ages	3
UICB:4920/ HIST:4429/ SLIS:4920	The Book in Early Modern Europe	3

Classics

Course #	Title	Hours
CLSA:2127/ ASIA:2127/ JPNS:2127	Books of the Silk Roads	3
CLSL:2001	World of Cicero	3
CLSL:2002	Golden Age of Roman Poetry	3

English

Course #	Title	Hours
ENGL:2216	Selected Works of the Middle Ages	3
ENGL:2236	Selected Early Authors (when topic is medieval)	3
ENGL:3216	Topics in Medieval and Renaissance Literature	3
ENGL:3226/ MDVL:3226	Literature and Culture of the Middle Ages	3
ENGL:3256	Old English Language and Literature	3
ENGL:3257	Old English Beowulf	3
ENGL:3266	Medieval Celtic Literature	3
ENGL:3267	Medieval Norse Literature	3
ENGL:3276/ THTR:3276	Medieval Drama	3
ENGL:3286	Chaucer	3
ENGL:4009	Honors Literature Seminar: Medieval and Early Modern Literature, Early Literature/17th Century	3

History

Course #	Title	Hours
HIST:1402	The West and the World: Medieval	3
HIST:2151	Introduction to the History Major (when topic is medieval)	3
HIST:3409/ MDVL:3409	Medieval Civilization I	3
HIST:3410/ MDVL:3410	Medieval Civilization II	3

HIST:4412/ MDVL:4412	History of the Medieval Church	3

Italian

Course #	Title	Hours
ITAL:4633	Dante's Inferno	3

Japanese

Course #	Title	Hours
JPNS:3202	Traditional Japanese Literature in Translation	3
JPNS:3206	Warriors' Dreams	3
JPNS:4201	Genji Lab	3

Music

Course #	Title	Hours
MUS:2301	History of Western Music I	3
MUS:4200	Counterpoint Before 1600	3

Religious Studies

Course #	Title	Hours
RELS:1225/ HIST:1025	Medieval Religion and Culture	3
RELS:3243/ CLSA:3443	Pagans and Christians: The Church From Jesus to Muhammad	3
RELS:4001/ CLSA:4901	Biblical Hebrew I	3-4
RELS:4002/ CLSA:4902	Biblical Hebrew II	3

Russian

Course #	Title	Hours
RUSS:1532	Traces of Ancient Russian Culture (IX-XVII Centuries): Vikings, Mongols, and Tsars	3

Spanish and Portuguese

Course #	Title	Hours
SPAN:4690	Topics in Spanish Literature (when topic is medieval)	3

Language Courses

The Medieval Studies Program strongly encourages students to complete coursework in a language relevant to the medieval period. Latin is recommended for anyone intending to pursue graduate study in the field. Many language courses have prerequisites, and some are offered irregularly, so students should complete their language coursework as early as possible. The following language courses are approved for the medieval studies certificate.

Course #	Title	Hours
ARAB:2001 & ARAB:2002	Intermediate Modern Standard Arabic I and Intermediate Modern Standard Arabic II	10
CLSL:2001 & CLSL:2002	World of Cicero and Golden Age of Roman Poetry	6
CLSA:4901 & CLSA:4902	Biblical Hebrew I and Biblical Hebrew II (same as RELS:4001-RELS:4002)	6-7
ENGL:3256	Old English Language and Literature	3

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Medieval Studies, Certificate

For students with an interest in graduate-level work.

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate Certificate in Medieval Studies requires at least 18 s.h. in medieval studies coursework.		
This sample plan is a suggestion for students planning graduate work in medieval studies.		
MDVL:3226	Literature and Culture of the Middle Ages [a]	3
MDVL:3410	Medieval Civilization II [a]	3
ARTH:2420	Medieval Art From Constantine to Columbus [a]	3
CLSL:2001	World of Cicero [a]	3
CLSL:2002	Golden Age of Roman Poetry [a]	3
ENGL:3286	Chaucer [a]	3
	Hours	**18**
	Total Hours	**18**

a Students may substitute this course for another approved medieval studies course (refer to the General Catalog for a list of approved courses). Students must include courses from at least three different departments in their work for the certificate; they may count a maximum of 10 s.h. from a single department or program.

Museum Studies

Director, Division of Interdisciplinary Programs

- Cornelia C. Lang (Physics and Astronomy)

Museum Studies Coordinator

- Debra Trusty (Classics)

Undergraduate certificate: museum studies

Faculty: https://museumstudies.sites.uiowa.edu/contacts

Website: https://museumstudies.sites.uiowa.edu/

Museum studies has a long history at the University of Iowa, with courses offered continuously since 1910.

Museums embrace every aspect of human experience. Iowa's Museum Studies Program reflects this multiplicity and includes students from many fields, including American studies, anthropology and archaeology, art, biology, business, communication studies, earth, environment, and sustainability sciences, elementary and secondary education, English, world languages, history, and library and information science.

Instructors for museum studies courses reflect the program's interdisciplinary nature. They include faculty members from anthropology; art, art history, and design; business; classics; history; journalism and mass communication; library and information science; and other related fields.

The Museum Studies Program holds academic memberships with the American Association for State and Local History and the Iowa Museum Association. These connections offer museum studies students opportunities for internships, professional networking, and career development. In addition to offering a wide range of on-campus courses, the certificate can also be earned online with a growing number of online courses.

The Museum Studies Program is administered by the Division of Interdisciplinary Programs [p. 363].

Programs

Undergraduate Program of Study

Certificate

- Certificate in Museum Studies [p. 811]

Facilities

Museum studies students have access to a wide variety of museums and related resources, including the following University of Iowa museums: the Museum of Natural History, the Stanley Museum of Art, the Old Capitol Museum, the Medical Museum, and the Karro Athletic Hall of Fame.

The Museum Studies Program also maintains close connections with a number of local, community-based museums and organizations.

Courses

Museum Studies Courses

MUSM:2675 The Politics of Memory: Holocaust, Genocide, and 9/11 3-4 s.h.
How contested legacies of genocide, global violent conflict, and 9/11 continue to pose an urgent and generationally mediated challenge for critical politics of memory; various approaches to effective or failed coming-to-terms with injurious and difficult past (e.g., Holocaust, Armenian genocide); analysis of museums, sites of memory, and artwork. Taught in English. GE: Understanding Cultural Perspectives. Same as GRMN:2675.

MUSM:2850 Museums and Social Justice 3 s.h.
Exploration of museums as institutions that frame social justice, promote equity of access through social bridging, and at times, address and challenge social ills directly through exhibits and programs; case studies and dialogue.

MUSM:3001 Introduction to Museum Studies 3 s.h.
Overview of museum history, function, philosophy, collection, and curatorial practices; governance and funding issues; exhibition evaluation and audience studies; examples from Stanley Museum of Art, Museum of Natural History, Old Capitol Museum, and Medical Museum. GE: Social Sciences. Same as ANTH:3001, EDTL:3001, SIED:3001.

MUSM:3003 Natural History Research Collections 3 s.h.
Techniques, methods, and issues specific to natural history research collections; practice in preparing and cleaning specimens; role of natural history specimens in modern scientific research. Recommendations: basic understanding of the diversity of plants and animals and natural history museum collections, MUSM:3001 or MUSM:3200, and BIOL:1411 or BIOL:1412; or other experience. Same as SEES:3003.

MUSM:3004 Exhibition Planning 3 s.h.
Preliminary work for and process of developing museum exhibitions; history of exhibit design, evaluation, budgets, teams and team member roles, working with community and special interest groups, methods of production and display; students research a topic, choose artifacts and images, and create a narrative and exhibit script. Prerequisites: MUSM:3001.

MUSM:3010 Fakes, Frauds, and Forgeries: The Dark Side of Art History 3 s.h.
How fraudulent artworks have been accepted as genuine and incorporated into the art historical canon, from the famous gold and ivory Minoan snake goddess to paintings purportedly by Rembrandt; the danger frauds pose to our understanding of cultural heritage and historical past, how fakes have impacted the art market, and value of forgeries as indices of contemporary taste and preconceptions about art. Same as ARTH:3010.

MUSM:3078 Archiving Women's History 3 s.h.
Exploration of girls' and women's history in Iowa through collections at the Iowa Women's Archives; introduction to archival research, digital humanities, and Omeka (a digital collection and exhibit platform) with focus on sport-related collections; guided individualized research and exhibit development. Same as AMST:3078, GWSS:3078, SPST:3078.

MUSM:3091 Topics in Museum Studies 1 s.h.
Systematic and analytic methods used for research in physical collections; tutorials in collection building, curation, and preservation designed by UI Collections Coalition. Prerequisites: MUSM:3001.

MUSM:3100 Historic House Management and Preservation 3 s.h.
Historic house museums make up more than half of all museums in the United States; focus on management, preservation, and interpretation of historic houses as sites of historic memory and public engagement. Same as ANTH:3122.

MUSM:3105 Engaging Museum Audiences 3 s.h.
Effective audience engagement requires museums to meet visitors halfway; employing learning theories, knowledge of audience, and innovative examples from the field; students investigate a variety of approaches that are visitor-centered, interdisciplinary, and locally focused. Prerequisites: MUSM:3001.

MUSM:3115 Museum Education and Interpretation 3 s.h.
Examination of the educational role of museums; educational theory, audience development, teaching strategies, accessibility, and evaluation within museum context; community-engaged project and collaboration with museum to develop curriculum and educational resources. Same as EDTL:3115.

MUSM:3120 Museum Origins 3 s.h.
History of museums; origin, character, and evolution into content specific institutions; anecdotes and personalities; how museums influenced society and their continuing relevance to a technological world.

MUSM:3125 Museums in a Digital World 3 s.h.
Digital technologies streamline internal museum processes while exponentially increasing the capacity of individuals to engage with museum collections; explores the digitized strategies and systems that democratize access and enhance museum visitor experiences.

MUSM:3130 Topics in Museum Administration and Management 3 s.h.
Topics and scope vary but are centered around an examination of the complex leadership skills needed to manage and administer museums; operating daily business tasks, managing visitor needs, communicating between collection handling and restoration and museum educators, fundraising, grant writing, and budget management; leadership and management theory; discussions on museum governance, human resources, and project management while working with all museum stakeholders, including volunteers, employees, directors, and board members. Prerequisites: MUSM:3001.

MUSM:3131 Museum Evaluation and Visitor Studies 3 s.h.
Students explore evaluation theory, methodologies, and practical application through case studies and hands-on activities from all types of museum experiences (e.g., programs, exhibitions, wayfinding, interpretive technology) from both staff and visitor perspective. Prerequisites: MUSM:3001.

MUSM:3145 Excavation to Exhibit: Making Artifacts Public 3 s.h.
In-depth exploration of methodological, theoretical, and historical issues in the creation of archaeological museum exhibitions including hands-on learning involving the development of an exhibit for the Stanley Museum of Art. Same as ANTH:3145, NAIS:3145.

MUSM:3200 Collection Care and Management 3 s.h.
How a museum's management policy relates to its administrative, legal, and ethical obligations to its collections; acquisitions, deaccessions, collection use, data standards, storage environment, health, safety, documentation. Same as SEES:3200.

MUSM:3237 Politics of the Archaeological Past 3 s.h.
How control over management of material remains of the ancient past, and representations of that past, intersect with the identity of diverse groups, including archaeologists, Indigenous peoples, national governments, collectors, ethnic minorities and majorities, museum curators; struggles for control of the archaeological past at different scales (artifacts, skeletal remains, sites, imagery, narratives) and in different regions of the world. Same as ANTH:3237, HIST:3137.

MUSM:3250 American Stuff: Discovering History in Things 3 s.h.
Introduction to the historical study of material artifacts; how people have used objects to construct their memories, identities (e.g., class, race, sexuality, gender, nation), relationships, and status/power; how objects have inadvertently shaped us; finding artifacts in local collections; analyzing artifacts as historical sources; researching how objects were produced and sold and how they were used or misused; curating one's own exhibition; objects range from utilitarian (e.g., guns, farming tools, office gadgets, automobiles) to decorations, toys, souvenirs, and more. Same as HIST:3250.

MUSM:3291 Museum Registration and Records Management 3 s.h.
Processes and standards relating to the intellectual control of museum collections. Topics include the creation and maintenance of museum collections documentation; collections management systems (CMS); digital asset management; terminology control and linked data standards; and legal and ethical obligations for museum registration. Corequisites: MUSM:3001. Same as ANTH:3291.

MUSM:3500 Nonprofit Organizational Effectiveness I 3 s.h.
Operational and financial aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as ENTR:3595, MGMT:3500, NURS:3595, RELS:3700, SSW:3500.

MUSM:3710 Fundraising Fundamentals 3 s.h.
Nonprofit organization reliance on raised funds to survive and thrive; basic concepts of fundraising for successful nonprofit organization; work with a nonprofit organization to explore basic fundraising techniques that nonprofits typically use including donor research, annual fund campaigns (phone, mail, email), capital campaigns, events, cause-related marketing, grants, planned giving, and donor stewardship; when and how to use different fundraising strategies to meet an organization's goals. Same as JMC:3710.

MUSM:3720 Nonprofit Communications 3 s.h.
Practical experience planning and writing fundraising materials; how yearly fundraising helps approximately 1.5 million nonprofit organizations receive more than $3 billion from individuals, foundations, and corporations to help people in need, advocate for causes, support research/arts/culture, and enhance opportunities for public and/or their members. Same as JMC:3720.

MUSM:4045 Art, Law, and Ethics 3 s.h.
How law and ethics apply to individuals and institutions concerned with visual arts. Same as LAW:8164.

MUSM:4081 The Art Museum: Theory and Practice 3 s.h.
Introduction to different aspects of art museums; emphasis on roles of art historians, especially curatorial practice; current and historical theories and practices of art exhibitions; varying debates of the politics of display; art museum professions; the many facets of art exhibition preparation; the University of Iowa Stanley Museum of Art collections. Prerequisites: (MUSM:3001 or ARTH:1040) and (RHET:1030 or RHET:1040 or RHET:1060). Same as ARTH:4081.

MUSM:4130 Museum Literacy and Historical Memory 3 s.h.
Concepts and methods for understanding the role of museums in shaping knowledge and collective memory of history; institutionally based exhibits and collections, historical markers and public monuments, public holidays and events, media and artistic works that interpret the past; how events, people, and civic ambitions are memorialized and how memories of them are shaped; appearance of museums and related practices in the non-Western world after 1850. Same as HIST:4130.

MUSM:4150 Introduction to Grant Writing 3 s.h.
Comprehensive training in grant proposal writing; basics of project development and management; core principles for writing small and large proposals to public and private funding sources; finer points of grant writing to increase competitiveness of future proposals and applications; for students with limited grant writing experience. Same as EALL:4130.

MUSM:4200 Museum Object Preservation 3 s.h.
Detailed study of specific types of museum objects, their materials, and care; topics include care, storage, and preservation of paper, books, photographs, works of art, electronic media, textiles, furniture, archaeological artifacts, and natural history specimens; students complete a curatorial project and gain hands-on practice in basic object cleaning and making enclosures and supports; for students planning museum careers or taking care of collections as part of their professional responsibilities. Same as SEES:4200.

MUSM:4310 Slavery Museums, Memorials, and Statues in the United States, Europe, and the Global South 3-4 s.h.
Comparative study of museums, memorials, statues, performances, and artistic works that encapsulate the entangled history and memory of transoceanic slave trades and slavery in the United States, the Caribbean, the Indian Ocean, Sub-Saharan Africa, and Europe (France and the United Kingdom); critical tools to analyze public debates over politically charged monuments; exploration of transnational and political predicaments of the contemporary world; approaches include trauma theories, memory studies, history, postcolonial ecocriticism, cultural anthropology, heritage studies and museology, and Francophone cultural critique. Taught in English. Requirements: for 4 s.h. option —prior enrollment in FREN:3060 and FREN:3300. Same as FREN:4210, WLLC:4210.

MUSM:4600 Nonprofit Ethics and Governance 3 s.h.
Tools to help identify, understand, and resolve ethical issues in nonprofit sectors; how individual beliefs and societal standards shape ethical decision-making; application of ethical frameworks to classic and contemporary ethical dilemmas; how various forms of governance shape ethical behavior in organizations; case studies, readings, lectures, and guest speakers. Same as MGMT:4600.

Museum Studies, Certificate

Requirements

The undergraduate Certificate in Museum Studies requires 18 s.h. Students must maintain a grade-point average of at least 2.00 in work for the certificate.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Work for the certificate consists of one introductory course, a minimum of four courses on specific museum studies topics, and 3 s.h. from the internship and professionalism category. Students must request permission from the coordinator of the museum studies certificate to use courses that are not included in the program, and the proposed course content and requirements must fit into one of the program's defined areas. A maximum of 6 s.h. of coursework used to satisfy requirements for another major, minor, or certificate may be applied toward this certificate. Transfer credit requests are evaluated individually by the museum studies coordinator.

The Certificate in Museum Studies requires the following coursework.

Requirements	Hours
Introductory Course	3
Museum Studies Topic Areas	12
Museum Studies Internship and Professionalism	3

Introductory Course

Students should begin the certificate with MUSM:3001/ANTH:3001/EDTL:3001/SIED:3001 Introduction to Museum Studies (3 s.h.), which is a prerequisite or corequisite for some of the program's more advanced courses. This course provides a historical overview of museum development and function while introducing students to issues such as museum governance and financing, ethics and law, collection management, exhibition and educational programming, interpretation, and audience research.

Museum Studies Topic Areas

Students complete a minimum of four courses in museum studies topic areas, choosing from the following lists. The areas are collection care and management; exhibition development and public education; history, theory, and culture; and museum administration and management.

Students must select one course each from three of the four topic areas (9 s.h. total). They must also complete a fourth course (3 s.h.) from any of the four topic areas.

Collection Care and Management

Course #	Title	Hours
MUSM:3003/ SEES:3003	Natural History Research Collections	3
MUSM:3200/ SEES:3200	Collection Care and Management	3
MUSM:3291/ ANTH:3291	Museum Registration and Records Management	3
MUSM:4200/ SEES:4200	Museum Object Preservation	3

Exhibition Development and Public Education

Course #	Title	Hours
MUSM:3004	Exhibition Planning	3
MUSM:3078/ AMST:3078/ GWSS:3078/ SPST:3078	Archiving Women's History	3
MUSM:3105	Engaging Museum Audiences	3
MUSM:3115/ EDTL:3115	Museum Education and Interpretation	3
MUSM:3125	Museums in a Digital World	3
MUSM:3145/ ANTH:3145/ NAIS:3145	Excavation to Exhibit: Making Artifacts Public	3

History, Theory, and Culture

Course #	Title	Hours
MUSM:2675/ GRMN:2675	The Politics of Memory: Holocaust, Genocide, and 9/11	3-4
MUSM:2850	Museums and Social Justice	3
MUSM:3010/ ARTH:3010	Fakes, Frauds, and Forgeries: The Dark Side of Art History	3
MUSM:3120	Museum Origins	3
MUSM:3237/ ANTH:3237/ HIST:3137	Politics of the Archaeological Past	3
MUSM:3250/ HIST:3250	American Stuff: Discovering History in Things	3
MUSM:4081/ ARTH:4081	The Art Museum: Theory and Practice	3
MUSM:4310/ FREN:4210/ WLLC:4210	Slavery Museums, Memorials, and Statues in the United States, Europe, and the Global South	3-4

Museum Administration and Management

Course #	Title	Hours
MUSM:3100/ ANTH:3122	Historic House Management and Preservation	3
MUSM:3130	Topics in Museum Administration and Management	3
MUSM:3131	Museum Evaluation and Visitor Studies	3
MUSM:3500/ ENTR:3595/ MGMT:3500/ NURS:3595/ RELS:3700/ SSW:3500	Nonprofit Organizational Effectiveness I	3
MUSM:3710/ JMC:3710	Fundraising Fundamentals	3
MUSM:3720/ JMC:3720	Nonprofit Communications	3

MUSM:4045/ LAW:8164	Art, Law, and Ethics	3
MUSM:4150/ EALL:4130	Introduction to Grant Writing	3
MUSM:4600/ MGMT:4600	Nonprofit Ethics and Governance	3

Museum Studies Internship and Professionalism

Students must complete either 2 s.h. in CCP:1201 Academic Internship plus 1 s.h. in MUSM:3091 Topics in Museum Studies or 3 s.h. in CCP:1201. Additionally, students should not take 3 s.h. of CCP:1201 in a single semester. Instead, students who opt to take 3 s.h. of the internship course should divide the s.h. over two or three semesters (e.g., 1 s.h. for three semesters or 2 s.h. one semester and 1 s.h. another semester).

It is highly recommended that students wait to begin their internship work until after they have completed the introductory course and at least 12 s.h. of coursework for the program.

The Certificate in Museum Studies coordinator and Pomerantz Career Center staff work closely with students and affiliated faculty members to ensure that the internship provides students with the instruction and experience they need.

Online Option

Those with an interest in furthering their education in museum studies and who live outside of the Iowa City area may be interested in pursuing the certificate online. Please see the program website for details.

Career Advancement

Museum studies students have become directors, curators, educators, and exhibit specialists in museums throughout the country.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Music

Director, School of Music

- Tammie Walker

Associate Directors

- Benjamin Coelho, John Manning

Undergraduate major: music (BA, BM)

Undergraduate minor: music

Graduate degrees: MA in music; PhD in music; DMA

Graduate minor: theory pedagogy

Faculty: https://music.uiowa.edu/people

Website: https://music.uiowa.edu/

The University of Iowa School of Music is prominent in a fine arts community of international repute. It has long been recognized as one of the excellent university-based music schools in the United States.

The school's on-campus enrollment of approximately 450 music majors is large enough to sustain strong programs in all areas of specialization, yet small enough to ensure the individual attention essential to each student's development.

The faculty consists of highly trained artist-teachers in each specialization area and scholars of international distinction. Private lessons with faculty members are offered in all band and orchestra instruments, and in jazz studies, organ, piano, and voice.

The school's undergraduate programs offer all qualified students, whether music majors or nonmajors, the opportunity for further study of music. In addition to its comprehensive course offerings for majors, the school provides a substantial selection of courses especially recommended for nonmajors and several approved for the GE CLAS Core [p. 22] (see the following section, "Courses for Nonmajors").

Graduate programs in music are designed primarily to prepare students for teaching in secondary schools, colleges, and universities and for careers in performance and music therapy.

The School of Music is a charter member of the National Association of Schools of Music. The requirements for entrance and for graduation are in accordance with the association's published standards.

The School of Music participates in offering the Certificate in Digital Arts [p. 356], and the Certificate in Social Justice and the Performing Arts.

Courses for Nonmajors

The School of Music offers a wide range of courses that are appropriate for non-music majors. Courses about jazz, music and culture, music history, music software, and other topics are available as well as individual instruction on a number of instruments and voice; see School of Music Courses [p. 814] in this section of the catalog.

Several School of Music courses are approved for the GE CLAS Core; look for courses with the prefix MUS under Historical Perspectives; Literary, Visual, and Performing Arts; and Values and Society in the GE CLAS Core [p. 22] section of the catalog.

For course descriptions, see School of Music Courses in this section of the catalog.

Participation in School of Music ensembles is open to all University of Iowa students with the ensemble director's approval.

Course #	Title	Hours
MUS:1160	University Band	1
MUS:1165	Hawkeye Marching Band	1
MUS:1166	Large Pep Band	1
MUS:1176	Voxman Chorale	1
MUS:1180	Campus Symphony Orchestra	1
MUS:3160	Symphony Band/Concert Band	1
MUS:3162	All University Steel Band	1-3
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1
MUS:3174	University Choir	1
MUS:3180	Orchestra	1

Other courses recommended for music nonmajors include the following.

Course #	Title	Hours
MUS:1000	First-Year Seminar	1
MUS:1001	Group Piano I: Non-Music Majors	1
MUS:1002	Group Piano II: Non-Music Majors	1
MUS:1007	Garage Band: The Basics	2
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1010	Recital Attendance for Nonmajors	1
MUS:1012	Creativity in Music	3
MUS:1020	Performance Instruction for Nonmajors (interested students should consult with the instructor of their instrument)	1
MUS:1066	Introduction to Film Music	3
MUS:1100	Fundamentals of Music for Non-Music Majors	3
MUS:1201	Musicianship and Theory I	4
MUS:1301	Concepts and Contexts of Western Music	3
MUS:1302	Great Musicians	3
MUS:1303	Roots, Rock, and Rap: A History of Popular Music	3
MUS:1310	World Music	3
MUS:1610	Group Singing Experience	1
MUS:1720	History of Jazz	3
MUS:1740/ AFAM:1240	The Art of Listening to Jazz	3
MUS:1741/ AFAM:1241	The Soundtrack of Black America	3
MUS:1800	World of the Beatles	3
MUS:2005	Issues in Popular Music: Women Who Rock	3
MUS:2160	Drumline Techniques	1
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3

MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
MUS:3851/ DANC:3851	Introduction to the Alexander Technique	3

Programs

Undergraduate Programs of Study

Majors

- Major in Music (Bachelor of Arts) [p. 827]
- Major in Music (Bachelor of Music) [p. 837]

Minor

- Minor in Music [p. 850]

Graduate Programs of Study

- Master of Arts in Music [p. 852]
- Doctor of Philosophy in Music [p. 862]
- Doctor of Musical Arts [p. 866]
- Minor in Theory Pedagogy [p. 867]

Facilities

The School of Music is housed in the Voxman Music Building, a state-of-the-art facility in the heart of the downtown campus that opened in the fall of 2016. The 190,000 square-foot building includes a 700-seat concert hall; 200-seat recital hall; organ performance hall; opera and chamber music rehearsal spaces; faculty studios; classrooms; practice rooms; specialized facilities for music therapy, electronic music, and percussion; and light-filled public and social spaces. The building features the latest instructional and recording technology, and superior acoustic ambience and isolation.

Center for New Music

The Center for New Music is a vital component of the School of Music's composition program. Since its founding in 1966, the center has been both a laboratory and showcase for late 20th- and 21st-century music. It presents at least four concerts of contemporary works each academic season. It also provides a forum for visiting composers and other creative artists, bringing new music to a variety of outreach venues. Audition, rehearsal, and programming information is available on the Center for New Music website.

Rita Benton Music Library

The Rita Benton Music Library is located on the first floor of the Voxman Music Building. The music library holds more than 90,000 scores, including chamber music sets; 54,000 books; 125 active periodical subscriptions; and 46,000 media items in all formats. The Arthur and Miriam Canter Rare Book Room holds around 3,000 rare books and scores and has particular strengths in 18th- and 19th-century music theory treatises and instrumental methods, and an outstanding collection of keyboard and chamber music of Ignaz Pleyel. Additional music collections of note are housed in Special Collections and Archives, including the Goldman Band Records; the University of Iowa's Center for New Music papers; and papers of composers Philip Greeley Clapp, William Hibbard, and Donald Martin Jenni. The music library holds the School of Music Recordings Archive, including faculty recital and ensemble concert programs, audio recordings, and video recordings.

The music library's online subscriptions include research tools such as Grove Music Online, RILM, RIPM, RIPM Jazz, Music Index, and Music Periodicals Database. Streaming media resources include Naxos Music Library, Met Opera on Demand: Student Access, and Music Online. Online scores resources include the A-R Online Music Anthology, BabelScores, and nKoda.

Materials circulate to University of Iowa faculty and students and to institutions that have reciprocal agreements for interlibrary loan services with the university.

Courses

Several School of Music courses are especially appropriate for non-music majors. Some are approved for the GE CLAS Core; look for them (prefix MUS) under Historical Perspectives; Literary, Visual, and Performing Arts; and Values and Society in the GE CLAS Core [p. 22] section of the catalog.

Applied music instruction consists of individual and/or class lessons, at the instructor's option, for a minimum of one hour per week (students register for 2 s.h.), or one half-hour per week (students register for 1 s.h.). Music majors are required to attend weekly performance and pedagogy seminars in applied music. Courses are offered on a fee-per-course basis, in addition to tuition, and may be repeated.

Music Courses

MUS:1000 First-Year Seminar **1 s.h.**
An aspect of performance, creativity, musical literature, or scholarship; seminar format with classroom participation, papers, projects, other assignments; may require attendance at lectures, rehearsals, or performances. Requirements: first- or second-semester standing.

MUS:1001 Group Piano I: Non-Music Majors **1 s.h.**
Reading, technical study, chording, playing by ear, improvisation; for beginners. Requirements: non-music major. GE: Literary, Visual, and Performing Arts.

MUS:1002 Group Piano II: Non-Music Majors **1 s.h.**
Continuation of MUS:1001. Requirements: non-music major.

MUS:1007 Garage Band: The Basics **2 s.h.**
Application of GarageBand software (Mac platform) using midi keyboards; composition and music theory for projects using drag-and-drop looping, multitrack recording, sound effects, mixing, importing music for composition. GE: Engineering Be Creative.

MUS:1009 Jazz Cultures in America and Abroad **3 s.h.**
How to listen to jazz and recognize a variety of processes that are taking place in performances and recordings; historical, social, and political issues, including race and gender; the unique blend of jazz of a particular region; attendance at live performances, meet and interview musicians, critics, and educators. GE: Literary, Visual, and Performing Arts; Values and Society.

MUS:1010 Recital Attendance for Nonmajors **1 s.h.**
Musical experience through student, faculty recitals.

MUS:1012 Creativity in Music 3 s.h.
Where does music come from? When, why, and how did people first start making music? How do music creators turn raw inspiration into finished pieces? How do improvisers create music on the spot? Can anyone create music or is that something only for composers? Development of music creation from long ago to present day; presentations by guest composers and performers who will demonstrate how they compose or improvise their music. GE: Engineering Be Creative; Literary, Visual, and Performing Arts.

MUS:1020 Performance Instruction for Nonmajors 1 s.h.
One thirty-minute weekly lesson in one of the following areas: bassoon, cello, clarinet, composition, euphonium, flute, harp, horn, jazz studies instruments, oboe, organ, percussion, piano, saxophone, string bass, trombone, trumpet, tuba, viola, violin, or voice. Requirements: non-music major. GE: Literary, Visual, and Performing Arts.

MUS:1066 Introduction to Film Music 3 s.h.
Major styles and composers of film music from early 20th century to the present; focus on case studies to understand different roles music can play in cinema; opportunities to employ critical thinking and listening skills to analyze particular films or key scenes. GE: Literary, Visual, and Performing Arts.

MUS:1100 Fundamentals of Music for Non-Music Majors 3 s.h.
Notation of pitch and rhythm, intervals, scales, key signatures, triads, and seventh chords. Requirements: non-music major.

MUS:1120 Secondary Performance - Voice 1 s.h.
Requirements: music major.

MUS:1121 Secondary Performance - Piano 1 s.h.
Requirements: music major.

MUS:1122 Secondary Performance - Organ 1 s.h.
Seminar and lessons arranged. Requirements: music major.

MUS:1123 Secondary Performance - Violin 1 s.h.

MUS:1124 Secondary Performance - Viola 1 s.h.

MUS:1125 Secondary Performance - Cello 1 s.h.

MUS:1126 Secondary Performance - String Bass 1 s.h.

MUS:1127 Secondary Performance - Flute 1 s.h.

MUS:1128 Secondary Performance - Oboe 1 s.h.

MUS:1129 Secondary Performance - Clarinet 1 s.h.

MUS:1130 Secondary Performance - Bassoon 1 s.h.

MUS:1131 Secondary Performance - Saxophone 1 s.h.

MUS:1132 Secondary Performance - Horn 1 s.h.

MUS:1133 Secondary Performance - Trumpet 1 s.h.

MUS:1134 Secondary Performance - Trombone 1 s.h.

MUS:1135 Secondary Performance - Euphonium 1 s.h.

MUS:1136 Secondary Performance - Tuba 1 s.h.

MUS:1137 Secondary Performance - Percussion 1 s.h.

MUS:1138 Secondary Performance - Jazz 1 s.h.
Seminar and lessons arranged. Requirements: music major.

MUS:1139 Secondary Performance - Composition 1 s.h.
Individual lessons for non-composition majors that help to prepare a portfolio for entrance into the composition area. Corequisites: MUS:1201 and MUS:1202 and MUS:2203 and MUS:2204.

MUS:1160 University Band 1 s.h.
Participation in University Band.

MUS:1165 Hawkeye Marching Band 1 s.h.
Offered fall semesters.

MUS:1166 Large Pep Band 1 s.h.
Performing ensemble for basketball games and wrestling meets. Requirements: membership by audition.

MUS:1176 Voxman Chorale 1 s.h.
Auditioned choral ensemble; for students who sing in soprano or alto range.

MUS:1180 Campus Symphony Orchestra 0-1 s.h.
Repertoire, rehearsal pacing, and performance expectation geared to general students. Open to all UI students with no audition.

MUS:1200 Fundamentals of Music for Majors 3 s.h.
Rudiments of music—notation of pitch and rhythm, meter, scales, keys, intervals, triads.

MUS:1201 Musicianship and Theory I 4 s.h.
Principles of harmony; emphasis on aural skills, theoretical concepts, notation. Offered fall semesters. Requirements: successful completion of placement exam A or an AP score of 3.

MUS:1202 Musicianship and Theory II 4 s.h.
Continuation of MUS:1201. Offered spring semesters. Prerequisites: MUS:1201. Requirements: MUS:1212 or successful completion of piano proficiency exam.

MUS:1210 Recital Attendance 1 s.h.
Requirements: music major.

MUS:1211 Group Instruction in Piano I 1 s.h.
Beginning instruction for music majors whose principal performing medium is voice or an orchestral or band instrument; skill development in sight reading, technique, harmonization, transposition, improvisation, simple literature. Corequisites: MUS:1201. Requirements: music major.

MUS:1212 Group Instruction in Piano II 1 s.h.
Elementary to early intermediate instruction for music majors whose principal performing medium is voice or an orchestral or band instrument; continued skill development begun in MUS:1211; introduction of easy solo and ensemble literature. Corequisites: MUS:1202. Requirements: MUS:1211 or successful completion of proficiency examination.

MUS:1301 Concepts and Contexts of Western Music 3 s.h.
Ideas, social and historical contexts, emergence of genres and styles, diverse performing traditions in music making of Europe and North America. Recommendations: non-music major. GE: Literary, Visual, and Performing Arts.

MUS:1302 Great Musicians 3 s.h.
Lives and works of important composers, performers. Recommendations: non-music major. GE: Literary, Visual, and Performing Arts.

MUS:1303 Roots, Rock, and Rap: A History of Popular Music 3 s.h.
Historical narrative of popular music; focus on understanding and analyzing music of past and present in relation to major issues central to popular culture and society; production, dissemination, and reception of popular music; interpretation of ways in which music forms individual and collective identities and how contemporary musical experiences are shaped by historical processes. GE: Historical Perspectives.

MUS:1310 World Music 3 s.h.
Varied perspectives on the relationship of music and culture, drawing from musical cultures around the world. GE: Literary, Visual, and Performing Arts.

MUS:1510 Diction for Singers I 2 s.h.
Italian and German pronunciation for singing; basics of international phonetic alphabet; no previous background required.

MUS:1610 Group Singing Experience 1 s.h.
Choral singing in a supported and structured environment. Develop knowledge of singing and music-making in an inclusive group setting, musicianship, community, leadership, teamwork, professionalism, interpersonal communication, self-advocacy, and self-determination. Requirements: public concert performance attendance.

MUS:1687 Orientation to Music Therapy 2 s.h.
Theory, practice; typical clients and places of employment in music therapy.

MUS:1711 Jazz Rhythms and Interpretation I 1 s.h.
Methods for sight-reading and interpreting jazz notation. Requirements: music major or audition.

MUS:1712 Jazz Rhythms and Interpretation II 1 s.h.
Connection of rhythm-body principle—where movement and motion connects directly with rhythmic motifs and patterns; advanced rhythmic concepts (e.g., odd meters, borrowed note-groupings, unconventional notation); Latin, West African, and non-Western concepts of rhythm; for BM jazz majors and music majors wanting more in-depth, advanced interaction with jazz rhythms and phrasing; second in a two-course sequence. Requirements: music major.

MUS:1720 History of Jazz 3 s.h.
Major 20th-century styles, artists, seminal works, and recordings; developments between 1917 and 1972. GE: Literary, Visual, and Performing Arts; Values and Society.

MUS:1740 The Art of Listening to Jazz 3 s.h.
What is jazz and its importance; guided introduction to jazz music, anatomy of jazz music, cultural context; development of skills to become an informed listener; process of performing jazz music, its connection with Black culture; focused listening/analysis of prominent jazz artists' work from past and present, including intersection between jazz and hip hop; formal music experience or training not required. GE: Literary, Visual, and Performing Arts. Same as AFAM:1240.

MUS:1741 The Soundtrack of Black America 3 s.h.
Linkage of African American culture and music; Black musical innovations that shaped mainstream American musical tastes over the last century; exploration of relationship between Black music and culture; examples of blues, jazz, gospel, hip hop; artists including Bessie Smith (blues), Mahalia Jackson (gospel), Miles Davis (jazz), Nas and Talib Kweli (hip hop). GE: Understanding Cultural Perspectives. Same as AFAM:1241.

MUS:1800 World of the Beatles 3 s.h.
How the Beatles' music was influenced by American pop music, the drug culture, and the avant-garde, nonwestern instruments and philosophy, anti-war sentiments, world politics, and so forth; Beatlemania's impact on British and American cultures and its role in opening Eastern Europe to the West. GE: Literary, Visual, and Performing Arts.

MUS:2005 Issues in Popular Music: Women Who Rock 3 s.h.
History of popular female musicians and the influence of their lyrics, music, and performances on American and British cultures; how women's musical careers have been influenced by civil rights, the British invasion (Beatles, Rolling Stones), second-wave feminism, postfeminism, Vietnam, counterculture, social injustice, music education, rock festivals, charity concerts. GE: Literary, Visual, and Performing Arts.

MUS:2020 Lower Level Voice 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2021 Lower Level Piano 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance. Requirements: piano major or approval of the area following a successful audition.

MUS:2022 Lower Level Organ 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2023 Lower Level Violin 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2024 Lower Level Viola 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2025 Lower Level Cello 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2026 Lower Level String Bass 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2027 Lower Level Flute 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2028 Lower Level Oboe 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2029 Lower Level Clarinet 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2030 Lower Level Bassoon 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2031 Lower Level Saxophone 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2032 Lower Level Horn 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2033 Lower Level Trumpet 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2034 Lower Level Trombone 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2035 Lower Level Euphonium 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2036 Lower Level Tuba 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2037 Lower Level Percussion 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:2038 Lower Level Jazz 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance. Requirements: jazz studies major or audition.

MUS:2160 Drumline Techniques 1 s.h.
Training and experience in contemporary marching percussion and rudimental drumming techniques.

MUS:2203 Musicianship and Theory III 4 s.h.
Continuation of MUS:1201 and MUS:1202; focus on common-practice repertory. Offered fall semesters. Prerequisites: MUS:1202.

MUS:2204 Musicianship and Theory IV 4 s.h.
Continuation of MUS:1201, MUS:1202, and MUS:2203; focus on late 19th- and early 20th-century repertories. Offered spring semesters. Prerequisites: MUS:2203.

MUS:2206 Form and Analysis 3 s.h.
Analysis of musical forms and procedures, including 18th- and 19th-century tonal repertoires. Prerequisites: MUS:2204. Requirements: undergraduate standing.

MUS:2207 Introduction to Popular Music 3 s.h.
Analysis of major styles of popular music including rock, country, hip-hop, dance, and rhythm and blues (R&B); conventional notational methods and rudimentary use of digital audio workstations (e.g., Ableton, Logic); students read and compose in a variety of endemic to American popular music from the last century. Prerequisites: MUS:2204.

MUS:2213 Group Instruction in Piano III 1 s.h.
Varies by semester: skills for the music therapy profession, sight-reading, harmonization, transposition, reading from a fake book, and improvisation (fall); skills for the music education profession, sight-reading, harmonization, transposition, score, and hymn reading (spring). Requirements: music therapy, music education, or piano major.

MUS:2219 Introduction to Composition 3 s.h.
Explore composing acoustic music; develop the understanding of music composition through weekly listening assignments and discussions; build composition skills through scaffolded assignments, beginning with composing melodies, and progressing to more complex harmonic and polyphonic pieces; deepen knowledge of melody, harmony, rhythm, form, texture, and timbre, and learn about notation practices, instrumental and vocal techniques, and preparing scores and parts; when possible, students will read and perform each other's works, giving them experience rehearsing and giving feedback on their music. Prerequisites: MUS:1201.

MUS:2220 Composition 1-2 s.h.
Individual lessons with a composition faculty member. Corequisites: MUS:3230. Requirements: admission to BM composition concentration.

MUS:2301 History of Western Music I 3 s.h.
Recommendations: MUS:1201 and MUS:1202 for music majors. GE: Historical Perspectives; Literary, Visual, and Performing Arts.

MUS:2302 History of Western Music II 3 s.h.
Recommendations: MUS:1201 and MUS:1202 for music majors. GE: Historical Perspectives; Literary, Visual, and Performing Arts.

MUS:2311 Music of Latin America and the Caribbean 3 s.h.
Folk and popular musical traditions and their social contexts in Latin America, the Caribbean; listening skills; video/film screenings. GE: Literary, Visual, and Performing Arts; Values and Society. Same as LAS:2311.

MUS:2450 India Beat: The Aesthetics and Politics of India Today 3 s.h.
Ways in which music forms a crucial part of Indian public sphere, reflecting and shaping culture, society, and economy; wide range of genres commonly performed and heard across India and South Asia today (i.e., film music, several folk forms, classical, semi-classical, Indipop, rock) and locating each of them in their respective historical, cultural, and socioeconomic contexts; exploration of themes and questions (i.e., emergence and impact of technologies of mass production, distribution of music in colonial and post-independence India). GE: Values and Society. Same as ASIA:2450.

MUS:2510 Diction for Singers II 2 s.h.
French and English pronunciation for singing. Prerequisites: MUS:1510.

MUS:2630 Introduction to the Psychology of Music 3 s.h.
Processes by which people perceive, respond to, create, and use music in their daily lives; basic physics of musical stimuli, psychoacoustics of musical perception, principles of musical cognition, neurological and physiological responses to music, theories of musical learning and development, and social psychology of musical activity; previous musical performing experience helpful but not required. GE: Social Sciences. Same as EDTL:2630.

MUS:2671 Music Foundations in Therapy I 2 s.h.
Skill development on social instruments such as guitar, autoharp, piano; percussion, song-leading skills, and repertoire development for use in clinical music therapy sessions. Prerequisites: MUS:1687. Requirements: music therapy major.

MUS:2672 Music Foundations in Therapy II 2 s.h.
Advanced skill development on guitar for use in clinical music therapy sessions; percussion techniques, and related skills used in therapeutic settings. Prerequisites: MUS:2671. Requirements: music therapy major.

MUS:2800 Digital Arts: An Introduction 3 s.h.
Introduction to potential of integrating art with technology to provide a foundation of skills and concepts through hands-on experimentation; lectures and demonstrations introduce key concepts and ideas as well as the history of digital arts; students develop skills that form a foundation for future investigation through labs; work may include using an Arduino, programming, and developing an interface to control a software project; final project is shared with the public in some way; critical discourse in the form of writing assignments allows for reflection and evaluation. GE: Engineering Be Creative. Same as ARTS:2800, CINE:2800, CS:2800, DANC:2800, DIGA:2800, THTR:2800.

MUS:2820 Electronic Music Production 3 s.h.
Improvement of listening skills through critical study of recorded music in a variety of styles; hands-on, weekly creative challenges in electronic music studio to gain skills working with Musical Instrument Digital Interface (MIDI) instruments, samples, and student's own recorded audio; transformation of sounds creatively using editing, effects, and more; generation of musical ideas using a variety of approaches; introduction to elements of mixing (balance, frequency range, space); demonstration of techniques using Reaper, Ableton, or Logic; for students with some experience using computers to make music. Requirements: presentation of one production, any style, with a minimum duration of one minute.

MUS:3001 Introduction to Jazz Improvisation 3 s.h.
Introduction to the practice of improvisation through performance of repertoire and the development of practicing strategies; exercises in melody, harmony, rhythm and transcription that together form an integrated approach to developing improvisations. Corequisites: MUS:1201. Requirements: audition.

MUS:3020 Upper Level Voice 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3021 Upper Level Piano 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance. Requirements: piano major or approval following a successful audition.

MUS:3022 Upper Level Organ 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3023 Upper Level Violin 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3024 Upper Level Viola 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3025 Upper Level Cello 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3026 Upper Level String Bass 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3027 Upper Level Flute 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3028 Upper Level Oboe 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3029 Upper Level Clarinet 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3030 Upper Level Bassoon 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3031 Upper Level Saxophone 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3032 Upper Level Horn 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3033 Upper Level Trumpet 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3034 Upper Level Trombone 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3035 Upper Level Euphonium 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3036 Upper Level Tuba 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3037 Upper Level Percussion 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:3038 Upper Level Jazz 2 s.h.
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance. Requirements: jazz studies major or approval following a successful audition.

MUS:3055 Interdisciplinary Science of Sound and Hearing 3 s.h.
Introduction to physics of sound, biology/psychology of hearing, and audio technology; theories and experimental methods; music, speech, and environmental sounds. Same as CSD:3119, PSY:3055.

MUS:3140 Audition Repertoire 1 s.h.
Practicum on passages frequently requested at professional auditions.

MUS:3150 Percussion Ensemble 1 s.h.
Range of styles and idioms, primarily written during the 20th and 21st centuries; historical or cultural aspects such as ancient rudimental drumming styles, ragtime, jazz, popular music, and music from Africa, the Caribbean, Brazil, Cuba, China.

MUS:3151 Percussion Chamber Ensemble 1 s.h.
Advanced percussion ensemble experience to complement work in larger format percussion ensemble; preparation and performance of most important repertoire for percussion ensemble; new works brought to light in a small chamber group setting. Requirements: upper-level undergraduate or graduate percussion major.

MUS:3160 Symphony Band/Concert Band 1 s.h.
Participation in Symphony Band or Concert Band. Requirements: (for concert band) membership by audition.

MUS:3162 All University Steel Band 1-3 s.h.
Musical and cultural introduction to steel band music of Trinidad and other Caribbean musical styles, including calypso, soca, ska, and reggae.

MUS:3163 Iowa Steel Band 1 s.h.
Small group steel band experience for more advanced players with experience playing steel pans.

MUS:3170 Kantorei 1 s.h.

MUS:3172 Camerata Singers 1 s.h.

MUS:3174 University Choir 1 s.h.

MUS:3180 Orchestra 1 s.h.

MUS:3182 Chamber Orchestra 1 s.h.
Requirements: upper-level undergraduate standing.

MUS:3190 Center for New Music Ensemble 1 s.h.
Participation in the Center for New Music; focus on contemporary composition and performance, 20th- and 21st-century repertoire and styles.

MUS:3230 Composition Seminar 1 s.h.
Corequisites: MUS:2220 and MUS:5220.

MUS:3280 Spectral Nature of Sound: Acoustics, Analysis, and Resynthesis 3 s.h.
Fourier, fast Fourier transform (FFT), and inverse FFT, including spectral analysis and processing in Max; for composers, performers, and music theorists interested in the nature of sounds and their manipulation.

MUS:3285 New Musical Instruments: From Design to Performance 3 s.h.
Acoustic principles of selected traditional instruments (e.g., winds, strings, percussion) as well as principles of electroacoustic sound production (e.g., analog synthesizers, microphones, transducers); students work in teams to build, test, and improve their own musical instrument and experiment with its playing modes; projects may include inharmonic variations upon classical instruments, musical bots, guitar or voice-processing pedals, transducer-driven DIY Gamelans, and more; for composers, performers, engineers, and sound enthusiasts who want to design, build, and/or perform with new musical instruments. GE: Engineering Be Creative. Same as DIGA:3285.

MUS:3400 Methods of Teaching Piano 2 s.h.
Methods, materials, and teaching techniques for preschool students, precollege students, and adult learners. Requirements: keyboard major.

MUS:3410 Fundamentals of Piano Technology 1 s.h.
Offered spring semesters. Requirements: music major.

MUS:3480 Piano Accompaniment 1 s.h.
Collaborative arts techniques, methods, and history.

MUS:3481 Piano Chamber Music 1-2 s.h.
Requirements: music major.

MUS:3482 String Chamber Music 1-2 s.h.

MUS:3483 Baroque Seminar for Strings 1 s.h.
Introduction to Baroque performance practices and techniques on period string instruments; ensembles. Requirements: enrollment in upper-level or graduate-level applied studies.

MUS:3485 Wind Chamber Music 1-2 s.h.
Preparation, performance of representative literature; sections for woodwinds, brass, flute, clarinet, horn, saxophone, double reed, trumpet, trombone, brass choir, tuba/euphonium ensemble.

MUS:3489 Chamber Music Residency Program 1-2 s.h.
Focused exploration of chamber music literature through small ensemble experiences; students are assigned a group to work with and groups rehearse independently a minimum of two hours per week; weekly one-hour coaching with a faculty member; attendance at weekly seminars; opportunity to explore the national chamber music scene and learn about various aspects of pursuing a chamber music career through interactions with faculty, guest lecturers, and master classes provided by visiting performers of the UI String Quartet Residency Program.

MUS:3500 Opera Workshop 2 s.h.
Opera performing techniques, including acting, aria interpretation, scene work. Requirements: vocal major or audition.

MUS:3501 Opera Theater Chorus 1 s.h.
Requirements: audition.

MUS:3502 Opera Production 2-4 s.h.
Preparation and rehearsals leading up to performance of full production; may include one-act opera, chamber opera, musical theater production, or full-length opera. Corequisites: MUS:3503. Requirements: audition.

MUS:3503 Vocal/Operatic Coaching 1 s.h.
Professional-level vocal coaching in preparation for opera productions, opera workshop, degree recitals. Corequisites: MUS:3502.

MUS:3510 Discovering Art Song 1 s.h.
Schubert, Schumann, Brahms, Wolf, Strauss, Mahler; appropriate diction, style. Prerequisites: MUS:1510 and MUS:2510.

MUS:3511 Discovering Opera 1 s.h.
Art songs in English, French, Italian, Spanish; appropriate diction, style. Prerequisites: MUS:1510 and MUS:2510.

MUS:3530 Musical Theatre Workshop 2 s.h.
Development of musical theatre performance skills through participation; students learn how to project intentions, attitudes, and personality traits of characters they portray; fundamentals of stagecraft, acting, movement, relaxation, and concentration; accurate musical coaching, including clear diction and solidly built dramatic musical interpretation. Same as THTR:3530.

MUS:3600 Undergraduate Music Education Workshop 1 s.h.
Topics vary; for inservice music teachers.

MUS:3601 Undergraduate Music Education Workshop II 1 s.h.
Topics vary; for inservice music teachers.

MUS:3605 Instrumental Techniques 2 s.h.
Same as EDTL:3605.

MUS:3625 Techniques of Conducting 2 s.h.
Basic elements, score analysis. Prerequisites: MUS:1201 and MUS:1202.

MUS:3635 Instrumental Conducting 3 s.h.
Advanced skills for instrumental conducting, score analysis, rehearsal techniques, literature selection. Prerequisites: MUS:3625. Same as EDTL:3635.

MUS:3640 Choral Methods 3 s.h.
Organization, implementation of effective choral music programs for all ages. Prerequisites: EDTL:3610. Same as EDTL:3640.

MUS:3645 Choral Conducting and Literature 3 s.h.
Advanced skills appropriate to choral conducting, analysis, literature selection studied and implemented to develop a secure approach to choral art; students preparing to teach in the elementary or secondary schools must register under EDTL:3645. Prerequisites: MUS:3625. Same as EDTL:3645.

MUS:3650 Instrumental Methods and Materials 3 s.h.
Elementary and secondary instrumental music methods course required for K-12 music teacher certification. Prerequisites: EDTL:3610. Same as EDTL:3650.

MUS:3659 Class Strings 1 s.h.
String playing and basic principles of string pedagogy; for band and string students. Offered fall semesters for band; offered fall and spring semesters for string. Requirements: teacher education student in music.

MUS:3664 Introduction to Wind and Percussion Instruments 2 s.h.
Survey of wind and percussion instruments; for music education string majors.

MUS:3665 Arranging for Band 2-3 s.h.
Scoring and arranging techniques for concert, marching bands.

MUS:3666 Marching Band Techniques 1 s.h.
Administration, show design. Offered fall semesters.

MUS:3675 Music Therapy Practicum 1-2 s.h.
Supervised clinical training with adult clients and children in variety of health care and educational settings. Prerequisites: MUS:1687. Requirements: music therapy major.

MUS:3676 Percussion Experience for Teachers and Therapists 1 s.h.
Hands-on learning experiences in percussion techniques used by music teachers, special education teachers, music therapists, or social workers; basics of hand drumming centering on West African djembe and Trinidadian steel band; skills necessary for interacting with students and clients in educational and clinical settings.

MUS:3680 Music in Special Education 3 s.h.
Music methods and materials appropriate for students with disabilities in special educational settings; overview of individualized educational planning for students with disabilities. Requirements: music therapy or music education major.

MUS:3690 Music Therapy With Adults 3 s.h.
Techniques, procedures for work with adult clients with disabilities. Prerequisites: MUS:1687. Requirements: music therapy major.

MUS:3710 Intermediate Jazz Improvisation 2 s.h.
Improvisation in the jazz repertoire of standards, bebop, and major composers such as Thelonious Monk, Wayne Shorter; memorization and use of melodies, knowledge of chords to the thirteenth, chromatic harmony, development of rhythmic motifs/alteration, strategies for multiple chorus improvisations; separate section for drummers. Prerequisites: MUS:3001. Requirements: audition.

MUS:3730 Jazz Band 1 s.h.
Jazz performance ensembles, rehearsals, and concerts on and off campus.

MUS:3740 Small Jazz Ensembles 1 s.h.
Development of repertoire from standard jazz literature, arrangements and compositions by ensemble members; rehearsals (three hours per week) and performances on and off campus. Requirements: audition.

MUS:3760 Jazz Band Techniques 1 s.h.
Development of skills for sight-reading and interpreting notated jazz. Prerequisites: MUS:1711.

MUS:3780 Audio Recording I 3 s.h.
Introduction to audio fundamentals, including basic acoustics and audio systems; survey of important equipment and practices, use of microphones and mixers; introduction to AVID's Pro Tools digital audio workstation; students with no background in audio production brought up to an operational proficiency level with basic recording systems; related technical topics develop an understanding of common equipment and conventional application in modern recording studio setting; recording techniques used in MUS:3781.

MUS:3781 Audio Recording II 3 s.h.
Survey of Pro Tools; fundamental digital audio concepts applied to hands-on music recording and postproduction projects on digital audio workstations; Pro Tools 101 content with supplementary readings and recording sessions; operational knowledge of Pro Tools software and hardware configurations; basic processes of software-based digital audio recording through recording sessions and sample projects; development of functional understanding of postproduction concepts. Prerequisites: MUS:3780.

MUS:3800 Reed Class 1 s.h.
Development of reed-making skills; focus on steps to complete reeds from tube cane to a finished reed; different ways of reed making; practical, pedagogical, and historical approaches; producing various reed styles. Requirements: music major.

MUS:3830 Wind Instrument Maintenance and Repair 1 s.h.
Principles of maintenance, repair, and adjustment of wind instruments; hands-on experience including mechanical instruction on all brass and woodwind instruments; how to perform minor and emergency repairs on wind instruments, demonstration of tools and supplies needed to perform repairs and musical instrument maintenance.

MUS:3851 Introduction to the Alexander Technique 3 s.h.
The Alexander Technique and "self-use"—how movement choices affect results achieved; improvement of physical skills and presence; principles in support of performing arts (e.g., speaking, singing, playing an instrument, dancing, acting); application to skills in daily life, addressing underpinnings of movement; physical participation (e.g., lying down, rolling, sitting, standing, locomotion). Same as DANC:3851.

MUS:3990 Undergraduate Special Studies 0-4 s.h.

MUS:4200 Counterpoint Before 1600 3 s.h.
Two- and three-part counterpoint; Renaissance polyphony. Requirements: MUS:2203 for undergraduates; MUS:5200 for graduate students or exemption by Graduate Advisory Exam.

MUS:4201 Counterpoint After 1600 3 s.h.
Survey of contrapuntal and textural techniques from 1600 to the present. Requirements: MUS:2204 for undergraduates; MUS:5200 or exemption on Graduate Advisory Exam for graduate students.

MUS:4210 Keyboard Harmony 1-2 s.h.
Melody harmonization and figured-bass realization at the keyboard. Requirements: MUS:2204 for undergraduates; MUS:5200 or exemption by Graduate Advisory Exam for graduate students; and keyboard proficiency for all students.

MUS:4220 Orchestration 3 s.h.
Instrumental capabilities and combinations in solo, chamber, and large ensemble literature; application in composition.

MUS:4290 Music Theory Colloquium 1 s.h.

MUS:4320 Music and Gender 3 s.h.
Roles that gender has played in shaping the history of musical performance and composition.

MUS:4325 Medieval and Renaissance Music 3 s.h.

MUS:4330 Baroque Music 3 s.h.

MUS:4335 Eighteenth-Century Music 3 s.h.

MUS:4340 Nineteenth-Century Music 3 s.h.

MUS:4345 Twentieth-Century Music 3 s.h.

MUS:4350 Advanced Jazz History 3 s.h.
Survey and examination of the history of jazz from early 20th century to present; placement of musical conventions, influential performers, and aesthetic shifts that have shaped the history of jazz music in social, cultural, and technological context; prior musical background not required.

MUS:4355 American Music 3 s.h.
Who defines American music? In what ways do musicians, audiences, conductors, critics, and historians in the United States work to shape (and reshape) the country's musical identity? Students examine a variety of performers, works, and events in the history of American music that help ask and answer these questions in different ways; special attention given to analytical skills required to think critically about the different voices empowered to shape public understanding(s) of our musical past.

MUS:4360 Jazz Matters 3 s.h.
Students cover a variety of historic jazz scenes (e.g., New Orleans, New York, Chicago) and investigate the reciprocal relationship between music and place as it pertains to the history of jazz; through listening, analysis, and primary source research, students work to understand select case studies as influential musical environments, charting the ways American cities have historically supported jazz and jazz musicians; examination of a broad range of musical media (e.g., film soundtracks, musicals, cartoon depictions) to uncover the ways prominent "jazz cities" have been imagined, shaped, and reshaped by adjacent ideas about race, gender, and nationhood.

MUS:4390 Musicology Colloquium 1 s.h.

MUS:4450 Organ Literature Survey 2 s.h.
Fifteenth century to present. Requirements: advanced undergraduate or graduate standing.

MUS:4452 Liturgics 2 s.h.
History of liturgies and survey of liturgical music from Judaism to present.

MUS:4454 Service Playing and Improvisation 2 s.h.
Hymn playing, accompanying, basic improvisation techniques. Requirements: organ major.

MUS:4610 Studies in Film and Music 3 s.h.
Critical approaches to historical and contemporary interrelationships between film and music; soundtracks and film scores; popular song and cinema. Prerequisites: CINE:1601 with a minimum grade of C or CINE:1602 with a minimum grade of C. Same as CINE:4610.

MUS:4630 Psychology of Music 2-3 s.h.
Cognition of music, affective response, aesthetic response, musical ability. Same as EDTL:4630.

MUS:4670 Internship in Music Therapy arr.
Clinical training under direction of board certified music therapist. Requirements: core music therapy requirements.

MUS:4675 Senior Project in Music Therapy 1 s.h.

MUS:4685 Music Therapy With Children 3 s.h.
Techniques, procedures for use in clinical, educational settings. Prerequisites: MUS:1687. Requirements: music therapy major.

MUS:4730 Jazz Theory 3 s.h.
Development of skills needed for interpreting jazz melodies, chord symbols, comprehension of jazz song forms, and analysis of jazz-specific harmony in mainstream jazz music; practical application of jazz scales and reharmonization techniques; contains a practical application component on student's instrument of specialty. Requirements: MUS:1201.

MUS:4750 Transcription 2 s.h.
Individual projects to transcribe improvisations, small ensemble arrangements, large ensemble arrangements, or nonwestern techniques; use of computer notation programs and midi-realizations. Prerequisites: MUS:3710 and MUS:4730.

MUS:4760 Jazz Composition and Arranging 2 s.h.
Experience writing and arranging original jazz material for small and large ensembles, and presenting scores in computer notation; individual lessons. Prerequisites: MUS:4730.

MUS:4761 Advanced Jazz Composition and Arranging 2 s.h.
Continuation of MUS:4760; opportunity for further study and work in the practical application of composition and arranging skills; one-on-one lessons focus on areas of composition that best suit student's desired type, style, and/or instrumentation of creative output; areas may include writing for big band, strings, styles beyond typical jazz, or composing original repertoire. Prerequisites: MUS:4760.

MUS:4800 Special Topics in Music 1-3 s.h.
Topics vary.

MUS:4850 Music Industry Foundation I 2 s.h.
Students will learn about the business of music by exploring career paths, inspiring music entrepreneurship, and establishing professional decorum and documents.

MUS:4851 Music Industry Foundation II 2 s.h.
Students will learn about the business of music by advancing successful interview/audition practices, developing audience engagement, and fostering 21st-century career success.

MUS:4900 Senior Recital 1 s.h.

MUS:4910 Bachelor's Thesis 0-1 s.h.

MUS:4995 Honors in Music 1-4 s.h.
Requirements: honors standing.

MUS:5101 Advanced Woodwind Pedagogy and Literature I 2 s.h.
Saxophone and clarinet solo and study literature; integration of pedagogical topics.

MUS:5102 Advanced Woodwind Pedagogy and Literature II 3 s.h.
Oboe, bassoon, and flute solo and study literature; integration of pedagogical topics.

MUS:5111 Advanced Brass Pedagogy and Literature I 2 s.h.
Tuba, euphonium, and trombone literature; pedagogical topics.

MUS:5112 Advanced Brass Pedagogy and Literature II 2 s.h.
Trumpet and horn literature; pedagogical topics.

MUS:5115 Advanced Brass Ensemble Literature 2 s.h.
Brass chamber music literature, including mixed and like-instrument ensembles.

MUS:5121 Advanced String Methods and Literature I 2 s.h.
Violin, viola, cello, and double bass solo and chamber music repertoire, pedagogical methods.

MUS:5122 Advanced String Methods and Literature II 2 s.h.
Violin, viola, cello, and double bass solo and chamber music repertoire, pedagogical methods.

MUS:5130 Advanced Percussion Pedagogy and Literature 2 s.h.
Percussion literature, styles, notation, performance techniques, composition; survey.

MUS:5200 Review of Undergraduate Theory 3 s.h.
Theories and strategies of analysis applied to tonal and post-tonal music.

MUS:5220 Advanced Composition 1-2 s.h.
Corequisites: MUS:3230.

MUS:5235 Tonal Analysis 3 s.h.
Requirements: MUS:5200 or exemption on Graduate Advisory Exam.

MUS:5236 Non-Tonal Analysis 3 s.h.
Requirements: MUS:5200 or exemption on Graduate Advisory Examination.

MUS:5237 Analysis of Popular Music 3 s.h.
Survey; analysis of popular music. Prerequisites: MUS:5200.

MUS:5240 Special Topics in Theory and Analysis 3 s.h.
Requirements: MUS:5200 or exemption on Graduate Advisory Exam for graduate students.

MUS:5300 Introduction to Graduate Study in Music 3 s.h.
Music library; reference materials; bibliography; research problems, methods; writing research papers.

MUS:5400 Piano Pedagogy I 2 s.h.
In-depth study of techniques and materials needed to teach intermediate and advanced piano students; judging competitions; conducting master classes; writing curriculum vitaes and cover letters in preparation for academic job searches.

MUS:5401 Piano Pedagogy II 2 s.h.
History of the piano and its technique and pedagogy; national schools of piano playing; relationship of technological changes in piano construction to piano technique, pedagogy, and composition; major methods and treatises, historical recordings and video clips; research leading to understanding of students' individual piano lineage.

MUS:5410 Piano Literature I 2 s.h.
Baroque era to Mozart or Chopin through 1900.

MUS:5411 Piano Literature II 2 s.h.
Beethoven through Schumann or 20th century.

MUS:5420 Collaborative Piano Literature I: Strings 2-3 s.h.
Study of repertoire written for strings (violin, viola, cello, double bass) and piano. Standard literature includes duos, sonatas, showpieces, and orchestral reductions. Familiarizes students with standard repertoire written for strings and piano, ranging from duo/sonatas to concerti/pieces with orchestral reductions. Provides students with a well-rounded comprehension of collaborative piano repertoire. Students sharpen listening and analytical skills that can be applied to learning pieces outside of the traditional canon.

MUS:5421 Collaborative Piano Literature II: Woodwinds and Brass 2-3 s.h.
Study of repertoire written for woodwinds (flute, oboe, clarinet, bassoon, saxophone) and piano, as well as brass (trumpet, horn, trombone, euphonium/tuba) and piano. Standard literature includes duos, sonatas, short pieces, and orchestral reductions. Provides students with a well-rounded comprehension of collaborative piano repertoire. Students sharpen listening and analytical skills that can be applied to learning pieces outside of the traditional canon.

MUS:5450 History of Organ Building and Design 2-3 s.h.
Development of organ design from Middle Ages to present; basic concepts of construction, maintenance.

MUS:5452 Organ Pedagogy 2 s.h.
History, theory, practice from Renaissance to present; methods, literature appropriate for various levels.

MUS:5475 Organ Literature Special Topics 2 s.h.
Specialized study in selected areas of organ literature.

MUS:5480 Introduction to Chamber Music Entrepreneurship 2 s.h.
Exploration of ways to create, coordinate, sustain, and cultivate chamber music; discussions, readings, guest presentations, individual reflections, and maintenance of regular creative practice; students are encouraged to register as a chamber ensemble; performance and collaboration skills; communication and promotion strategies; teaching artistry; community and social engagement; grant writing; nonprofit funding; programming; commissioning; best practices for partnering with external organization; examination of a range of models; individual or group project.

MUS:5510 Graduate Diction 2 s.h.
Advanced pronunciation of singing languages. Requirements: grade of B or higher in undergraduate diction in French, German, and Italian.

MUS:5525 Principles of Voice Production 3 s.h.
Basic physical, physiological, and pedagogical principles required to understand professional, nonprofessional, and impaired voice production. Topics include vocal anatomy, vocal health, voice changes across the lifespan, voice classification, control of loudness, pitch, register, quality, respiration, phonation, resolution, and articulation, as well as efficient and inefficient use of both the singing and speaking voice. Same as CSD:5525.

MUS:5555 Voice Habilitation 2 s.h.
Application of methods of intervention in development, training, rehabilitation of vocal behavior; motor learning, efficacy of treatment strategies, factors affecting compliance with recommended therapy. Offered fall semesters. Prerequisites: CSD:3112 and CSD:5114. Same as CSD:5213.

MUS:5600 Graduate Music Education Workshop 1 s.h.
For inservice music teachers; topics vary. Same as EDTL:5600.

MUS:5601 Graduate Music Education Workshop II 1 s.h.
Varied topics; for inservice music teachers. Same as EDTL:5601.

MUS:5800 Interactive Music 3 s.h.
Integration of art and music with technology, providing a foundation of skills and concepts through hands-on experimentation and creation; lectures and demonstrations; introduction to key concepts and ideas about the history of digital arts; programming audio and visual interactive art; students work on a creative final project and public presentation.

MUS:5820 Electronic Music Production 3 s.h.
Improvement of listening skills through regular critical study of recorded music in a variety of styles; weekly creative challenges to gain new skills working with MIDI instruments, samples, and student's own recorded audio; introduction to elements of mixing (e.g., balance, frequency range, space); creation and public presentation of a final personal project; hands-on course; for students with some experience using computers to make music. Requirements: previously created production with minimum duration of one minute, in any style.

MUS:5990 Graduate Special Studies 0-4 s.h.
Graduate study with a specific School of Music faculty member on a topic that is not currently offered or to expand knowledge beyond what is in an offered course.

MUS:6020 Major Voice 2 s.h.

MUS:6021 Major Piano 2 s.h.

MUS:6022 Major Organ 2 s.h.

MUS:6023 Major Violin 2 s.h.

MUS:6024 Major Viola **2 s.h.**

MUS:6025 Major Cello **2 s.h.**

MUS:6026 Major String Bass **2 s.h.**

MUS:6027 Major Flute **2 s.h.**

MUS:6028 Major Oboe **2 s.h.**

MUS:6029 Major Clarinet **2 s.h.**

MUS:6030 Major Bassoon **2 s.h.**

MUS:6031 Major Saxophone **2 s.h.**

MUS:6032 Major Horn **2 s.h.**

MUS:6033 Major Trumpet **2 s.h.**

MUS:6034 Major Trombone **2 s.h.**

MUS:6035 Major Euphonium **2 s.h.**

MUS:6036 Major Tuba **2 s.h.**

MUS:6037 Major Percussion **2 s.h.**

MUS:6038 Major Jazz **2 s.h.**
Applied lessons and guided instruction in performance, technique, musicality, pedagogy (teaching); weekly lessons; weekly performance/pedagogy seminar conducted in a master class format; student participation as performers, critics, and practice teachers with instructor guidance.

MUS:6120 Graduate Secondary Performance - Voice **1 s.h.**

MUS:6121 Graduate Secondary Performance - Piano **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6122 Graduate Secondary Performance - Organ **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6123 Graduate Secondary Performance - Violin **1 s.h.**

MUS:6124 Graduate Secondary Performance - Viola **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6125 Graduate Secondary Performance - Cello **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6126 Graduate Secondary Performance - String Bass **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6127 Graduate Secondary Performance - Flute **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6128 Graduate Secondary Performance - Oboe **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6129 Graduate Secondary Performance - Clarinet **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6130 Graduate Secondary Performance - Bassoon **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6131 Graduate Secondary Performance - Saxophone **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6132 Graduate Secondary Performance - Horn **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6133 Graduate Secondary Performance - Trumpet **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6134 Graduate Secondary Performance - Trombone **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6135 Graduate Secondary Performance - Euphonium **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6136 Graduate Secondary Performance - Tuba **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6137 Graduate Secondary Performance - Percussion **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6138 Graduate Secondary Performance - Jazz **1 s.h.**
Required seminar and lessons to be arranged. Requirements: music major.

MUS:6139 Graduate Secondary Performance - Composition **1 s.h.**
Individual lessons; for non-composition music majors. Requirements: music major.

MUS:6211 Theoretical Approaches to Music **3 s.h.**
Survey of theoretical approaches to music; development of an exomusicological conception of music (i.e., music throughout intergalactic space); students contextualize and critique current theoretical approaches in terms of this framework, and engage with these approaches through independent scholarship or creative work to deepen connection with certain forms of music or musicians and become more confident, capable, and savvy in musical explorations. Requirements: MUS:5200 or exemption by Graduate Advisory Exam.

MUS:6215 Music Theory Pedagogy **3 s.h.**
Methods and techniques of teaching college-level music theory, including harmony, sight singing, ear training. Requirements: MUS:5200 or exemption by Graduate Advisory Exam.

MUS:6305 Teaching Music History and Culture **3 s.h.**
Preparation for teaching music history and culture including course design, syllabi preparation, classroom strategies, and current pedagogical issues.

MUS:6310 Topics in Musicology **3 s.h.**
One or more selected areas of music history.

MUS:6312 Historical Approaches to Music 3 s.h.
Research techniques, methodologies, and contemporary issues of historical musicology.

MUS:6314 Topics in Ethnomusicology 3 s.h.
Perspectives on analysis and representation of selected musical cultures from around the world.

MUS:6315 Foundations of Ethnomusicology 3 s.h.
Ethnomusicology in relation to domains of musical, humanistic, social science scholarship on expressive culture and artistic processes. Requirements: senior standing.

MUS:6326 Renaissance Music Notations 3 s.h.
Renaissance white notation, keyboard tablatures, musical paleography; transcription of early vocal, instrumental notations; editorial problems. Requirements: exemption by Graduate Advisory Exam.

MUS:6375 Music Editing 3 s.h.
Principles and methods of music editing; use of primary source materials, establishment of music text, preparation of critical apparatus; project to prepare a critical edition of music for publication.

MUS:6520 Voice Pedagogy 3 s.h.
History of voice pedagogy, various pedagogical techniques of voice training, vocal anatomy, voice classification, critical listening, postural alignment, managing breath, tonal production, connecting registers, articulation, interpretation, vocal health, pharmacological effects on the voice, vocal gadgets, requirements for a professional career, teaching in the 21st century, and teaching practicum; diagnosis and correction of vocal faults. Same as CSD:6202.

MUS:6530 Topics in Vocal Performance 2 s.h.
Selected areas of vocal performance.

MUS:6535 Opera Theater Directing Seminar 3 s.h.
Exploration, discussion, and experience using techniques unique to directing opera. Score and libretto analysis, fundamentals of stagecraft, casting and management skills.

MUS:6540 Survey of Operatic Literature 3 s.h.
Important operatic scores examined from standpoint of performers, directors; production problems.

MUS:6541 Survey of Song Literature I 3 s.h.
German language lieder from 18th century to present; French mélodie from Meyerbeer to present. Offered fall semesters of odd years.

MUS:6542 Survey of Song Literature II 3 s.h.
British, American, Italian, Spanish, Latin American, Scandinavian, and Russian art song from 18th century to present. Offered fall semesters of even years.

MUS:6561 Seminar: Choral Literature and Analysis I 1-3 s.h.
Choral music of the Renaissance. Corequisites: MUS:6581.

MUS:6562 Seminar: Choral Literature and Analysis II 1-3 s.h.
Choral music of the Baroque era. Corequisites: MUS:6582.

MUS:6563 Seminar: Choral Literature and Analysis III 1-3 s.h.
Choral music of the Classical and Romantic eras. Corequisites: MUS:6583.

MUS:6564 Seminar: Choral Literature and Analysis IV 1-3 s.h.
Choral music of the 20th and 21st centuries. Corequisites: MUS:6584.

MUS:6579 Orchestral Conducting Lab 2 s.h.
Introduce, improve, and refine gestural skills, emphasizing score analysis; class discussions and laboratory orchestra experiences.

MUS:6580 Advanced Orchestral Conducting 2 s.h.

MUS:6581 Advanced Choral Conducting I 1-3 s.h.
Music of the Renaissance. Corequisites: MUS:6561.

MUS:6582 Advanced Choral Conducting II 1-3 s.h.
Music of the Baroque era. Corequisites: MUS:6562.

MUS:6583 Advanced Choral Conducting III 1-3 s.h.
Music of the Classical and Romantic eras. Corequisites: MUS:6563.

MUS:6584 Advanced Choral Conducting IV 1-3 s.h.
Music of the 20th and 21st centuries. Corequisites: MUS:6564.

MUS:6585 Score Reading 1 s.h.

MUS:6586 Advanced Orchestral Literature and Professional Development 2 s.h.

MUS:6589 Advanced Wind Conducting 1-2 s.h.
Advanced conducting technique, score study, and literature as related to symphonic band and chamber wind ensembles.

MUS:6590 Seminar in Advanced Band Literature and Band History 2 s.h.
Band literature; history.

MUS:6670 Graduate Music Therapy Practicum 1-3 s.h.
Seminar, clinical fieldwork. Requirements: undergraduate music therapy practicum.

MUS:6675 Research in Music Therapy - Graduate 1 s.h.
Research methodology; foundation for subsequent semesters of research on capstone project in music therapy.

MUS:6680 College Teaching and Clinic Supervision in Music Therapy 1-2 s.h.
Principles of college teaching, curriculum development, clinical supervision in music therapy.

MUS:6685 Theory and Research in Music Therapy 1 s.h.
Historical background, current principles and practices associated with theories of music therapy, common uses with specific populations; research methodologies associated with testing; theories and clinical practices, assigned research publications; information covered over several semesters with each semester covering three to four common theories; seminar includes strengths and limitations of each theory and its place within clinical practice. Requirements: undergraduate core courses in music therapy.

MUS:6690 Special Studies in Music Therapy 1-3 s.h.
Seminar. Requirements: music therapy or music education graduate standing.

MUS:6900 MA Recital 1-2 s.h.

MUS:6920 MA Performance Project 1-2 s.h.

MUS:6950 MA Thesis 1-3 s.h.

MUS:7140 Seminar in Music Research 2 s.h.
Builds on skills learned in MUS:5300; exploration of research methodologies necessary to initiate selection of a thesis research topic and preparation of a proposal for the DMA thesis; class time devoted to student preparation for the profession including application and interviewing for academic positions, development of a research plan, and other topics related to career development. Prerequisites: MUS:5300. Requirements: third semester graduate standing and pass qualifying recital.

MUS:7380 Readings in Music History 1-3 s.h.

MUS:7401 Special Studies in Piano Accompaniment and Chamber Music **1-2 s.h.**
Advanced collaborative arts practicum.

MUS:7899 DMA Qualifying Recital **0 s.h.**
Preparation and work towards a qualifying recital presented to a full doctoral recital committee of five members by the end of the second semester of registration (excluding summer session); in the event a qualifying recital is unacceptable, one additional recital with different repertoire may be given at the discretion of the examining committee.

MUS:7900 DMA Recital **1-2 s.h.**

MUS:7950 PhD Thesis **1-4 s.h.**

MUS:7960 Composition PhD Thesis **1-4 s.h.**

MUS:7970 DMA Essay and Thesis **1-4 s.h.**

Music, BA

The Bachelor of Arts with a major in music is intended for undergraduates who have a strong background in music, and who wish to major in music as part of a broad liberal arts education irrespective of specific career aspirations. The curriculum includes musicianship, performance, and electives.

The program is designed for students who have solid abilities and interest in music but are not necessarily planning on careers as musicians, or for those who wish to pursue a double major or earn more than one bachelor's degree. Students must audition and be accepted into a performance area. They develop musicianship and performance skills, and they select from a wide variety of music electives.

Students in many areas, from engineering and physics to history, art, and English, find that a BA in music is a good addition to their studies. Other students pursue the degree to complement coursework in business (especially the minor in business administration), a STEM field, a world language or literature program, or an interdisciplinary field. Some students combine their BA with undergraduate preparation to study law or medicine.

Learning Outcomes

Graduates of the BA program in music will be able to:

- demonstrate the ability to hear, identify, and work conceptually with the rhythmic, melodic, harmonic, and structural elements of music;
- identify compositional processes, aesthetic properties of style, and artistic and cultural forces in music;
- demonstrate a broad acquaintance with music literature, musical genres, and cultural sources;
- demonstrate the ability to read and write critically about music; and
- demonstrate the ability to sight read, prepare for performance, interpret, and perform both solo and ensemble music in a variety of musical styles.

Requirements

The Bachelor of Arts with a major in music requires a minimum of 120 s.h., including at least 42–54 s.h. of work for the major. Students must maintain a minimum grade-point average of 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Students must satisfy all graduation requirements. Contact the School of Music and the Academic Advising Center to learn more.

BA students majoring in music may count a maximum of 56 s.h. earned in music courses (prefix MUS) toward their degree. They must earn at least 64 s.h. in coursework outside of the School of Music in order to graduate. Specific circumstances may require a student to complete 57 s.h. of music coursework depending on their choice of track and placement in theory and piano. Only 56 of those semester hours would count toward the graduation requirement of 120 s.h.

All undergraduate enrollments require School of Music approval. Entering first-year and transfer students who plan to major in music must be admitted into a performance area through an audition. All entering students must complete the online theory diagnostic examination for MUS:1201 Musicianship and Theory I and a piano proficiency exam to determine appropriate placement in related courses.

Transfer students admitted to the School of Music must complete a minimum of one year of applied music (lower or upper level) and one year of major ensemble at the University of Iowa in order to earn a degree in music. Transfer students who have not completed the equivalent of the four-semester sequence of Musicianship and Theory I–IV (MUS:1201, MUS:1202, MUS:2203, and MUS:2204) must complete an advisory theory diagnostic exam to determine recommendations for appropriate placement in the musicianship and theory sequence. Transfer students who have not completed the equivalent of two semesters of class piano or a piano proficiency exam must meet piano proficiency requirements at the University of Iowa.

All music majors with School of Music scholarships must participate in a major ensemble and studio lessons each semester.

Students who take a music course in one area may not use it to satisfy a music requirement in another area.

Students may choose to complete the BA with no track or choose from the following tracks: chamber music–piano, chamber music–strings/winds, jazz, music theory, musicology, and piano pedagogy.

- Major in Music Without Track [p. 827]
- Chamber Music [p. 828]– [p. 828]Piano Track [p. 828]
- Chamber Music [p. 829]– [p. 829]Strings/Winds Track [p. 829]
- Jazz Track [p. 830]
- Music Theory Track [p. 831]
- Musicology Track [p. 832]
- Piano Pedagogy Track [p. 833]

Major in Music Without Track

The Bachelor of Arts with a major in music without a track requires a minimum of 120 s.h., including at least 42 s.h. of work for the major.

The BA with a major in music without a track requires the following coursework:

Requirements	Hours
Musicianship Courses	16-18
Musicianship Electives	6
Performance (Applied Music/Ensembles)	14
Electives	6

Musicianship Courses

Students take a piano placement exam and may be exempt from one or both of these courses: MUS:1211 or MUS:1212.

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:1210	Recital Attendance (taken two semesters for 1 s.h. each)	2
MUS:1211	Group Instruction in Piano I	1
MUS:1212	Group Instruction in Piano II	1
Two of these:		

MUS:2301	History of Western Music I (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:2302	History of Western Music II (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:4350	Advanced Jazz History	3

To register for MUS:1201 Musicianship and Theory I, students must also register for MUS:1211 Group Instruction in Piano I, have already completed that course, or be exempt based on the results of their proficiency exam. To register for MUS:1202 Musicianship and Theory II, students must also register for MUS:1212 Group Instruction in Piano II, have already completed that course, or be exempt based on the results of their proficiency exam. Transfer students should complete the group piano requirement during their first year in residence unless they are exempt based on the results of their proficiency exam.

Musicianship Electives

Course #	Title	Hours
6 s.h. from these:		
MUS:1310	World Music	3
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
MUS:3625	Techniques of Conducting	2
MUS:3665	Arranging for Band	2-3
MUS:4200	Counterpoint Before 1600	3
MUS:4350	Advanced Jazz History	3
MUS:4730	Jazz Theory	3
MUS:4750	Transcription	2
MUS:4760	Jazz Composition and Arranging	2

Performance (Applied Music/ Ensembles)

Major ensembles include MUS:1176 Voxman Chorale, MUS:3160 Symphony Band/Concert Band, MUS:3170 Kantorei, MUS:3172 Camerata Singers, MUS:3174 University Choir, and MUS:3180 Orchestra. With approval, students may use MUS:3730 Jazz Band to satisfy the major ensemble requirement. Any student who wishes to request adjustment of the major ensemble requirement must submit a request in writing to a review committee consisting of the ensemble director(s) involved, the studio instructor, and the director for undergraduate studies.

Course #	Title	Hours
All of these:		
Lower-level applied music lessons		4
Major ensemble (minimum of four semesters)		4
Performance electives (lower- or upper-level applied music, ensembles, improvisation; a maximum of six semesters/12 s.h. in lower-level applied instruction is allowed)		6

Electives

Course #	Title	Hours
6 s.h. in music electives chosen from any music courses (prefix MUS) or from these recommended courses, except for music courses closed to music majors:		
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3200	Entrepreneurial Marketing	3
THTR:3510/ INTD:3510	Introduction to Arts Management	3

Tracks

Chamber Music–Piano Track

The Bachelor of Arts with a major in music with the chamber music–piano track requires a minimum of 120 s.h., including at least 54 s.h. of work for the major.

All entering students must complete the online theory diagnostic examination for MUS:1201 Musicianship and Theory I and a piano proficiency exam to determine appropriate placement in related courses. Entering students who do not have Advanced Placement (AP) or transfer credit should enroll in MUS:1201 and take Placement Exam A, administered online in the summer before the fall semester to determine readiness for the sequence. For further information, see Musicianship and Theory Placement on the School of Music website.

The BA with a major in music with the chamber music–piano track requires the following coursework.

Requirements	Hours
Musicianship Courses	16
Musicianship Electives	6
Performance (Applied Music/Ensembles)	18
Collaborative Piano Requirements	8
Electives	6

Chamber Music–Piano Track Musicianship Courses

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:1210	Recital Attendance (taken two semesters for 1 s.h. each)	2
Two of these:		
MUS:2301	History of Western Music I (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:2302	History of Western Music II (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:4350	Advanced Jazz History	3

Chamber Music–Piano Track Musicianship Electives

Course #	Title	Hours
6 s.h. from these:		
MUS:1310	World Music	3
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
MUS:3625	Techniques of Conducting	2
MUS:3665	Arranging for Band	2-3
MUS:4200	Counterpoint Before 1600	3
MUS:4350	Advanced Jazz History	3
MUS:4730	Jazz Theory	3
MUS:4750	Transcription	2
MUS:4760	Jazz Composition and Arranging	2

Chamber Music–Piano Track Performance (Applied Music/Ensembles)

Major ensembles include MUS:1176 Voxman Chorale, MUS:3160 Symphony Band/Concert Band, MUS:3170 Kantorei, MUS:3172 Camerata Singers, MUS:3174 University Choir, and MUS:3180 Orchestra. With approval, students may use MUS:3730 Jazz Band to satisfy the major ensemble requirement. Any student who wishes to request adjustment of the major ensemble requirement must submit a request in writing to a review committee consisting of the ensemble director(s) involved, the studio instructor, and the director for undergraduate studies.

Course #	Title	Hours
All of these:		
Lower-level applied music lessons		4
Major ensemble (minimum of four semesters)		4
Performance electives (lower- or upper-level applied music, ensembles, improvisation; a maximum of six semesters of 12 s.h. in lower-level applied instruction is allowed)		6
4 s.h. from these (courses may be repeated):		
MUS:3481	Piano Chamber Music	1-2
MUS:3489	Chamber Music Residency Program	1-2

Collaborative Piano Requirements

Course #	Title	Hours
All of these:		
MUS:1510	Diction for Singers I	2
MUS:2510	Diction for Singers II	2
MUS:3480	Piano Accompaniment	1
MUS:3510	Discovering Art Song	1
MUS:3511	Discovering Opera	1
MUS:4900	Senior Recital (chamber music capstone project)	1

Chamber Music–Piano Track Electives

Course #	Title	Hours
6 s.h. in music electives chosen from any music courses (prefix MUS) or from these recommended courses, except for music courses closed to music majors:		
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3200	Entrepreneurial Marketing	3
THTR:3510/ INTD:3510	Introduction to Arts Management	3

Chamber Music–Strings/Winds Track

The Bachelor of Arts with a major in music with the chamber music–strings/winds track requires a minimum of 120 s.h., including at least 49 s.h. of work for the major.

The BA with a major in music with the chamber music–strings/winds track requires the following coursework.

Requirements	Hours
Musicianship Courses	16-18
Musicianship Electives	6
Performance (Applied Music/Ensembles)	14
Chamber Music Requirements	7
Electives	6

Chamber Music–Strings/Winds Track Musicianship Courses

Students take a piano placement exam which may exempt them from one or both of these courses: MUS:1211 or MUS:1212.

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:1210	Recital Attendance (taken two semesters for 1 s.h. each)	2
MUS:1211	Group Instruction in Piano I	1
MUS:1212	Group Instruction in Piano II	1
Two of these:		
MUS:2301	History of Western Music I (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:2302	History of Western Music II (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:4350	Advanced Jazz History	3

To register for MUS:1201 Musicianship and Theory I, students must also register for MUS:1211 Group Instruction in Piano I, have already completed that course, or be exempt based on the results of their proficiency exam. To register for MUS:1202 Musicianship and Theory II, students must also register for MUS:1212 Group Instruction in Piano II, have already completed that course, or be exempt based on the results of their proficiency exam. Transfer students should complete the group piano requirement during their first year in residence unless they are exempt based on the results of their proficiency exam.

Chamber Music–Strings/Winds Track Musicianship Electives

Course #	Title	Hours
6 s.h. from these:		
MUS:1310	World Music	3
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
MUS:3625	Techniques of Conducting	2
MUS:3665	Arranging for Band	2-3
MUS:4200	Counterpoint Before 1600	3
MUS:4350	Advanced Jazz History	3
MUS:4730	Jazz Theory	3
MUS:4750	Transcription	2
MUS:4760	Jazz Composition and Arranging	2

Chamber Music–Strings/Winds Track Performance (Applied Music/Ensembles)

Major ensembles include MUS:1176 Voxman Chorale, MUS:3160 Symphony Band/Concert Band, MUS:3170 Kantorei, MUS:3172 Camerata Singers, MUS:3174 University Choir, and MUS:3180 Orchestra. With approval, students may use MUS:3730 Jazz Band to satisfy the major ensemble requirement. Any student who wishes to request adjustment of the major ensemble requirement must submit a request in writing to a review committee consisting of the ensemble director(s) involved, the studio instructor, and the director for undergraduate studies.

Course #	Title	Hours
All of these:		
Lower-level applied music lessons		4
Major ensemble (minimum of four semesters)		4
Performance electives (lower- or upper-level applied music, ensembles, improvisation; a maximum of six semesters of 12 s.h. in lower-level applied instruction is allowed)		6

Chamber Music Requirements

Course #	Title	Hours
6 s.h. from these:		
MUS:3482	String Chamber Music (for string majors; repeatable)	1-2
MUS:3485	Wind Chamber Music (for wind majors; repeatable)	1-2
MUS:3489	Chamber Music Residency Program (repeatable)	1-2
And this course:		
MUS:4900	Senior Recital (for string and wind majors; chamber music capstone project)	1

Chamber Music–Strings/Winds Track Electives

Course #	Title	Hours
6 s.h. in music electives chosen from any music courses (prefix MUS) or from these recommended courses, except for music courses closed to music majors:		
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3200	Entrepreneurial Marketing	3
THTR:3510/ INTD:3510	Introduction to Arts Management	3

Jazz Track

The Bachelor of Arts with a major in music with the jazz track requires a minimum of 120 s.h., including at least 44 s.h. of work for the major.

The BA with a major in music with the jazz track requires the following coursework.

Requirements	Hours
Musicianship Courses	16-18
Performance (Applied Music/Ensembles)	14-15
Jazz Requirements	8
Electives	6

Jazz Track Musicianship Courses

Students take a piano placement exam which may exempt them from one or both of these courses: MUS:1211 or MUS:1212.

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:1210	Recital Attendance (taken two semesters for 1 s.h. each)	2
MUS:1211	Group Instruction in Piano I	1
MUS:1212	Group Instruction in Piano II	1
Two of these:		
MUS:2301	History of Western Music I (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:2302	History of Western Music II (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:4350	Advanced Jazz History	3

To register for MUS:1201 Musicianship and Theory I, students must also register for MUS:1211 Group Instruction in Piano I, have already completed that course, or be exempt based on the results of their proficiency exam. To register for MUS:1202 Musicianship and Theory II, students must also register for MUS:1212 Group Instruction in Piano II, have already completed that course, or be exempt based on the results of their proficiency exam. Transfer students should complete the group piano requirement during their first year in residence unless they are exempt based on the results of their proficiency exam.

Jazz Track Performance (Applied Music/ Ensembles)

Course #	Title	Hours
All of these:		
MUS:2038	Lower Level Jazz (taken two times for 2 s.h. each)	4
MUS:3730	Jazz Band (taken four times for 1 s.h. each)	4
MUS:3740	Small Jazz Ensembles (taken two times for 1 s.h. each)	2
One of these sequences:		
MUS:3001 & MUS:3710	Introduction to Jazz Improvisation and Intermediate Jazz Improvisation	5
MUS:3710 & MUS:3038	Intermediate Jazz Improvisation and Upper Level Jazz	4

Jazz Requirements

Course #	Title	Hours
All of these:		
MUS:4730	Jazz Theory	3
MUS:4750	Transcription	2
MUS:4760	Jazz Composition and Arranging	2
MUS:4900	Senior Recital (jazz capstone project)	1

Jazz Track Electives

Course #	Title	Hours
6 s.h. in music electives chosen from any music courses (prefix MUS) or from these recommended courses, except for music courses closed to music majors:		
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
MUS:3730	Jazz Band (Latin jazz ensemble)	1
AFAM:1241/ MUS:1741	The Soundtrack of Black America	3
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3200	Entrepreneurial Marketing	3
THTR:3510/ INTD:3510	Introduction to Arts Management	3

Music Theory Track

The Bachelor of Arts with a major in music with the music theory track requires a minimum of 120 s.h., including at least 50 s.h. of work for the major.

The BA with a major in music with the music theory track requires the following coursework.

Requirements	Hours
Musicianship Courses	16-18
Performance (Applied Music/Ensembles)	8
Music Theory Requirements	11
Music Theory Electives	9
Electives	6

Music Theory Track Musicianship Courses

Students take a piano placement exam which may exempt them from one or both of these courses: MUS:1211 or MUS:1212.

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:1210	Recital Attendance (taken two semesters for 1 s.h. each)	2
MUS:1211	Group Instruction in Piano I	1
MUS:1212	Group Instruction in Piano II	1
Two of these:		
MUS:2301	History of Western Music I (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:2302	History of Western Music II (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:4350	Advanced Jazz History	3

To register for MUS:1201 Musicianship and Theory I, students must also register for MUS:1211 Group Instruction in Piano I, have already completed that course, or be exempt based on the results of their proficiency exam. To register for MUS:1202 Musicianship and Theory II, students must also register for MUS:1212 Group Instruction in Piano II, have already completed that course, or be exempt based on the results of their proficiency exam. Transfer students should complete the group piano requirement during their first year in residence unless they are exempt based on the results of their proficiency exam.

Music Theory Track Performance (Applied Music/Ensembles)

Major ensembles include MUS:1176 Voxman Chorale, MUS:3160 Symphony Band/Concert Band, MUS:3170 Kantorei, MUS:3172 Camerata Singers, MUS:3174 University Choir, and MUS:3180 Orchestra. With approval, students may use MUS:3730 Jazz Band to satisfy the major ensemble requirement. Any student who wishes to request adjustment of the major ensemble requirement must submit a request in writing to a review committee consisting of the ensemble director(s) involved, the studio instructor, and the director for undergraduate studies.

Course #	Title	Hours
All of these:		
Lower-level applied music lessons		4
Major ensemble (minimum of four semesters)		4

Music Theory Requirements

Course #	Title	Hours
All of these:		
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4

MUS:4290	Music Theory Colloquium (taken two semesters for 1 s.h. each)	2
MUS:4900	Senior Recital (music theory capstone project)	1

Music Theory Electives

Course #	Title	Hours
9 s.h. from these:		
MUS:2206	Form and Analysis	3
MUS:2220	Composition	1-2
MUS:3280	Spectral Nature of Sound: Acoustics, Analysis, and Resynthesis	3
MUS:4200	Counterpoint Before 1600	3
MUS:4201	Counterpoint After 1600	3
MUS:4730	Jazz Theory	3
MUS:4760	Jazz Composition and Arranging	2
MUS:5236	Non-Tonal Analysis	3
MUS:5240	Special Topics in Theory and Analysis	3

Additional Electives

Course #	Title	Hours
6 s.h. in music electives chosen from any music courses (prefix MUS) or from these recommended courses, except for music courses closed to music majors:		
MUS:1066	Introduction to Film Music	3
MUS:1303	Roots, Rock, and Rap: A History of Popular Music	3
MUS:1310	World Music	3
MUS:1800	World of the Beatles	3
MUS:2005	Issues in Popular Music: Women Who Rock	3
MUS:2206	Form and Analysis	3
MUS:2220	Composition	1-2
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
MUS:3001	Introduction to Jazz Improvisation	3
MUS:3280	Spectral Nature of Sound: Acoustics, Analysis, and Resynthesis	3
MUS:4200	Counterpoint Before 1600	3
MUS:4201	Counterpoint After 1600	3
MUS:4320	Music and Gender	3
MUS:4325	Medieval and Renaissance Music	3
MUS:4330	Baroque Music	3
MUS:4335	Eighteenth-Century Music	3
MUS:4340	Nineteenth-Century Music	3
MUS:4345	Twentieth-Century Music	3
MUS:4350	Advanced Jazz History	3
MUS:4355	American Music	3
MUS:4360	Jazz Matters	3
MUS:4610/ CINE:4610	Studies in Film and Music	3
MUS:4730	Jazz Theory	3
MUS:4750	Transcription	2
MUS:4760	Jazz Composition and Arranging	2
MUS:5236	Non-Tonal Analysis	3
MUS:5240	Special Topics in Theory and Analysis	3

Musicology Track

The Bachelor of Arts with a major in music with the musicology track requires a minimum of 120 s.h., including at least 43 s.h. of work for the major.

The BA with a major in music with the musicology track requires the following coursework.

Requirements	Hours
Musicianship Courses	16-18
Performance (Applied Music/Ensembles)	8
Musicology Requirements	3
Musicology Electives	6
Electives	10

Musicology Track Musicianship Courses

Students take a piano placement exam which may exempt them from one or both of these courses: MUS:1211 or MUS:1212.

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:1210	Recital Attendance (taken two semesters for 1 s.h. each)	2
MUS:1211	Group Instruction in Piano I	1
MUS:1212	Group Instruction in Piano II	1
Two of these:		
MUS:2301	History of Western Music I (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:2302	History of Western Music II (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:4350	Advanced Jazz History	3

To register for MUS:1201 Musicianship and Theory I, students must also register for MUS:1211 Group Instruction in Piano I, have already completed that course, or be exempt based on the results of their proficiency exam. To register for MUS:1202 Musicianship and Theory II, students must also register for MUS:1212 Group Instruction in Piano II, have already completed that course, or be exempt based on the results of their proficiency exam. Transfer students should complete the group piano requirement during their first year in residence unless they are exempt based on the results of their proficiency exam.

Musicology Track Performance (Applied Music/Ensembles)

Major ensembles include MUS:1176 Voxman Chorale, MUS:3160 Symphony Band/Concert Band, MUS:3170 Kantorei, MUS:3172 Camerata Singers, MUS:3174 University Choir, and MUS:3180 Orchestra. With approval, students may use MUS:3730 Jazz Band to satisfy the major ensemble requirement. Any student who wishes to request adjustment of the major ensemble requirement must submit a request in writing to a review committee consisting of the ensemble director(s) involved, the studio instructor, and the director for undergraduate studies.

Course #	Title	Hours
All of these:		
Lower-level applied music lessons		4
Major ensemble (minimum of four semesters)		4

Musicology Requirements

Course #	Title	Hours
Both of these:		
MUS:4390	Musicology Colloquium (taken two semesters for 1 s.h. each)	2
MUS:4900	Senior Recital (musicology capstone project)	1

Musicology Electives

Course #	Title	Hours
Two of these:		
MUS:4320	Music and Gender	3
MUS:4325	Medieval and Renaissance Music	3
MUS:4330	Baroque Music	3
MUS:4335	Eighteenth-Century Music	3
MUS:4340	Nineteenth-Century Music	3
MUS:4345	Twentieth-Century Music	3
MUS:4350	Advanced Jazz History	3
MUS:4355	American Music	3
MUS:4360	Jazz Matters	3
MUS:4610/ CINE:4610	Studies in Film and Music	3

Musicology Track Additional Electives

Course #	Title	Hours
10 s.h. in music electives chosen from any music courses (prefix MUS) or from these recommended courses, except for music courses closed to music majors:		
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1066	Introduction to Film Music	3
MUS:1303	Roots, Rock, and Rap: A History of Popular Music	3
MUS:1310	World Music	3
MUS:1800	World of the Beatles	3
MUS:2005	Issues in Popular Music: Women Who Rock	3
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
MUS:2220	Composition	1-2
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
MUS:3625	Techniques of Conducting	2
MUS:3665	Arranging for Band	2-3
MUS:4200	Counterpoint Before 1600	3
MUS:4320	Music and Gender	3
MUS:4325	Medieval and Renaissance Music	3
MUS:4330	Baroque Music	3
MUS:4335	Eighteenth-Century Music	3
MUS:4340	Nineteenth-Century Music	3
MUS:4345	Twentieth-Century Music	3
MUS:4350	Advanced Jazz History	3
MUS:4355	American Music	3
MUS:4360	Jazz Matters	3
MUS:4610/ CINE:4610	Studies in Film and Music	3
MUS:4730	Jazz Theory	3
MUS:4750	Transcription	2
MUS:4760	Jazz Composition and Arranging	2

Piano Pedagogy Track

The Bachelor of Arts with a major in music with the piano pedagogy track requires a minimum of 120 s.h., including at least 49 s.h. of work for the major.

All entering students must complete the online theory diagnostic examination for MUS:1201 Musicianship and Theory I and a piano proficiency exam to determine appropriate placement in related courses. Entering students who do not have Advanced Placement (AP) or transfer credit should enroll in MUS:1201 and take Placement Exam A, administered online in the summer before the start of the fall semester, to determine readiness for the sequence. For further information, see Musicianship and Theory Placement on the School of Music website.

The BA with a major in music with the piano pedagogy track requires the following coursework:

Requirements	Hours
Musicianship Courses	16
Musicianship Electives	6
Performance (Applied Music/Ensembles)	14
Piano Pedagogy Requirements	7
Electives	6

Piano Pedagogy Track Musicianship Courses

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:1210	Recital Attendance (taken two semesters for 1 s.h. each)	2
Two of these:		

MUS:2301	History of Western Music I (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:2302	History of Western Music II (also can be used to satisfy a GE CLAS Core requirement)	3
MUS:4350	Advanced Jazz History	3

Piano Pedagogy Track Musicianship Electives

Course #	Title	Hours
6 s.h. from these:		
MUS:1310	World Music	3
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
MUS:3625	Techniques of Conducting	2
MUS:3665	Arranging for Band	2-3
MUS:4200	Counterpoint Before 1600	3
MUS:4350	Advanced Jazz History	3
MUS:4730	Jazz Theory	3
MUS:4750	Transcription	2
MUS:4760	Jazz Composition and Arranging	2

Piano Pedagogy Track Performance (Applied Music/Ensembles)

Major ensembles include MUS:1176 Voxman Chorale, MUS:3160 Symphony Band/Concert Band, MUS:3170 Kantorei, MUS:3172 Camerata Singers, MUS:3174 University Choir, and MUS:3180 Orchestra. With approval, students may use MUS:3730 Jazz Band to satisfy the major ensemble requirement. Any student who wishes to request adjustment of the major ensemble requirement must submit a request in writing to a review committee consisting of the ensemble director(s) involved, the studio instructor, and the director for undergraduate studies.

Course #	Title	Hours
All of these:		
Lower-level applied music lessons		4
Major ensemble (minimum of four semesters)		4
Performance electives (lower- or upper-level applied music, ensembles, improvisation; a maximum of six semesters of 12 s.h. in lower-level applied instruction is allowed)		6

Piano Pedagogy Requirements

Course #	Title	Hours
All of these:		
MUS:3400	Methods of Teaching Piano	2
MUS:4900	Senior Recital (piano pedagogy capstone project)	1
MUS:5400	Piano Pedagogy I	2
MUS:5401	Piano Pedagogy II	2

Piano Pedagogy Track Electives

Course #	Title	Hours
6 s.h. in music electives chosen from any music courses (prefix MUS) or from these recommended courses, except for music courses closed to music majors:		
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
MUS:2206	Form and Analysis	3
MUS:3001	Introduction to Jazz Improvisation	3
MUS:4730	Jazz Theory	3
MUS:5410	Piano Literature I	2
MUS:5411	Piano Literature II	2
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3200	Entrepreneurial Marketing	3
THTR:3510/ INTD:3510	Introduction to Arts Management	3

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. A minimum grade-point average (GPA) of 3.80 in music coursework and a minimum cumulative University of Iowa GPA of 3.33 are required.

To graduate with honors, students must complete a minimum of 6 s.h. of honors work in music, generally in their junior and senior years. They must complete a minimum of 3 s.h. of the required honors work in MUS:4995 Honors in Music by completing one or more honors projects, such as solo or ensemble recitals; compositions, transcriptions, orchestrations, or arrangements; and essays, research papers, editions, or translations. Honors projects must be in addition to the projects required for graduation with a major in music.

Students may also earn honors credit in other honors courses (upper-level undergraduate courses) or in approved graduate courses (music history and music theory are particularly recommended).

For complete details about graduation requirements with honors in the music major, visit Honors in Music on the School of Music website and consult the school's honors advisor.

National Honor Society

The School of Music sponsors a chapter of Pi Kappa Lambda, the national music honor society. Students of exceptional ability are recommended for membership by faculty members. For more information, consult the School of Music honors advisor.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the music major.

Financial Support

A number of music performance-based merit scholarships are available to qualified undergraduate music majors. The audition for admission to the School of Music is also the audition for music scholarships. All music majors with School of Music scholarships must enroll as full-time students, enroll in their instrumental major ensemble and studio lessons each semester, and meet specific grade-point averages. For information, contact the School of Music.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

In addition to the requirements listed under the checkpoints, all students must complete 2 s.h. in applied music and 1 s.h. in a major ensemble each semester.

The Bachelor of Arts in music requires a minimum of 44 s.h. in School of Music courses.

Before the third semester begins: 15–18 s.h. of coursework in the major, including MUS:1201 Musicianship and Theory I, MUS:1202 Musicianship and Theory II, and if required, MUS:1211 Group Instruction in Piano I, and MUS:1212 Group Instruction in Piano II.

Before the fifth semester begins: at least 23–32 s.h. of coursework in the major.

Before the seventh semester begins: at least 33–41 s.h. of coursework in the major and 90 s.h. earned toward the degree.

Before the eighth semester begins: at least 40–46 s.h. of coursework in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Music, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
Audition: Entering students who plan to major in music must be accepted into a performance area through audition before they register.		
MUS:1200	Fundamentals of Music for Majors [b]	3
MUS:1201	Musicianship and Theory I	4
MUS:1210	Recital Attendance [c]	1
MUS:1211	Group Instruction in Piano I	1
Major: lower-level applied lessons [d]		2
Major: major ensemble [e]		1
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
CSI:1600	Success at Iowa	1
	Hours	**16-17**
Spring		
MUS:1202	Musicianship and Theory II	4
MUS:1210	Recital Attendance [c]	1
MUS:1212	Group Instruction in Piano II	1
Major: lower-level applied lessons [d]		2
Major: major ensemble [e]		1
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [f]		3
Elective course [g]		1
	Hours	**16-17**
Second Year		
Fall		
Major: music history course [h, i]		3
Major: lower-level applied lessons [d]		2
Major: major ensemble [e]		1
GE CLAS Core: World Languages First Level Proficiency or elective course [j]		4 - 5
Elective course [g]		3
Elective course [g]		3
	Hours	**16-17**
Spring		
Major: music history course [h, i]		3
Major: lower-level applied lessons [d]		2
Major: major ensemble [e]		1
GE CLAS Core: Values and Society [f, k]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [j]		4 - 5
Elective course [g]		3
	Hours	**16-17**
Third Year		
Fall		
Major: musicianship elective course		2 - 4
Major: major ensemble [e]		1
Major: performance elective [l]		1 - 2
GE CLAS Core: Quantitative or Formal Reasoning [f]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [j]		4 - 5
Elective course [g]		3
Elective course [g]		1
	Hours	**15-19**
Spring		
Major: musicianship elective course		2 - 4
Major: major ensemble [e]		1
Major: performance elective [l]		1 - 2

GE CLAS Core: Natural Sciences without Lab [f]	3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [j]	4 - 5
Elective course [g]	3
Elective course [g]	1
Hours	**15-19**

Fourth Year

Fall

Major: music elective course	3
Major: major ensemble [e]	1
Major: performance elective [l]	1 - 2
GE CLAS Core: International and Global Issues [f]	3
GE CLAS Core: Natural Sciences with Lab [f]	4
Elective course [g]	3
Hours	**15-16**

Spring

Major: performance elective [l]	1 - 2
Major: music elective course	3
Major: major ensemble [e]	1
GE CLAS Core: Social Sciences [f]	3
Elective course [g]	3
Elective course [g]	3
Elective course [g]	1
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]	
Hours	**15-16**
Total Hours	**124-138**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b This course is required for students enrolled in MUS:1201 who do not pass Placement Examination A.

c Students must complete two semesters of MUS:1210.

d Students must complete at least 4 s.h. in lower-level applied lessons.

e Students must complete a minimum of four semesters of major ensemble.

f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

g Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

h Choose two courses from MUS:2301, MUS:2302, MUS:4350. Note: two GE CLAS Core requirements may be fulfilled by MUS:2301 and MUS:2302. Students who take MUS:4350 must complete an additional GE CLAS Core course that satisfies either the Historical Perspectives or the Literary, Visual, and Performing Arts requirement.

i Fulfills a major requirement and may fulfill a GE requirement.

j Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

k If not completed with a MUS course. MUS:1009, MUS:1720, MUS:2311 fulfill the GE CLAS Core Values and Society requirement.

l Students must complete at least 6 s.h. in performance electives.

m Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Music, BM

The Bachelor of Music degree allows students to specialize further than in the Bachelor of Arts degree in music, choosing from the following areas: composition studies, jazz studies, music therapy, or performance (brass, organ, percussion, piano, strings, voice, or woodwinds).

Learning Outcomes

Bachelor of Music Graduates

The Bachelor of Music degree is the primary professional degree in music, and it emphasizes the development of the skills, concepts, and sensitivities essential to the professional life of the musician. Bachelor of Music students in performance programs develop comprehensive capabilities in the major-performing medium and the ability to integrate musical knowledge and performance skills in preparation for entering the profession or advanced study in graduate school.

All graduates of the Bachelor of Music program in music will be able to demonstrate the following.

- Performance: Students will acquire the ability to sight read, reach technical proficiency, apply historically and stylistically informed performance practices, gain a broad knowledge of the repertoire of their performance area, perform a cross-section of that repertoire, and gain collaborative skills through ensemble experiences.
- Keyboard Competency: Students will acquire the functional ability to play piano, including the ability to perform major and minor scales, arpeggios, and chord progressions in all keys; and to harmonize melodies, transpose, and improvise.
- Conducting, Leadership, and Collaboration: Students will acquire the ability to work as leaders and in collaboration on matters of musical preparation, rehearsal techniques, and interpretation. Students will demonstrate competent conducting technique.
- Musical Repertoire and Style: Students will acquire a basic knowledge of music history and repertoire through the present; an acquaintance with repertories beyond the area of specialization; the ability to place music in historical, cultural, and stylistic contexts; and the ability to write and speak about music history and style in a coherent manner.
- Music Theory, Analysis, and Compositional Processes: Students will acquire aural skills sufficient to hear melodic, rhythmic, harmonic, and formal elements of music; analytical skills sufficient to understand the melodic, rhythmic, harmonic, and formal elements of music; knowledge of basic compositional techniques; and the ability to write and speak about musical processes in a coherent manner.

Teacher Education Program Graduates

All graduates of the Teacher Education Program will be able to:

- demonstrate competent conducting and musical leadership of performing groups and in general classroom situations;
- apply knowledge of analytical and historical knowledge to curriculum development, lesson planning, and daily classroom and performance activities;
- demonstrate the ability to arrange and adapt music from a variety of sources to meet the needs and ability levels of individuals and groups;
- demonstrate functional performance abilities in keyboard, voice, and instruments appropriate to the teaching specialization;
- demonstrate pedagogical skills appropriate to the area of specialization sufficient to teach students individually and in groups; and
- demonstrate knowledge and skills in student learning, diverse learning, planning instruction, instructional strategies, the learning environment, communication, assessment and evaluation, collaboration, ethics, and relationships.

Bachelor of Music in Composition Graduates

In addition to the learning outcomes previously listed, all graduates of the Bachelor of Music in composition will:

- demonstrate the ability to compose solo, chamber, vocal, and electronic music;
- acquire a basic knowledge of acoustics; and
- demonstrate the ability to use technologies applicable to musical composition, such as sound synthesis, recording and processing, and computer notation.

Bachelor of Music in Music Therapy Graduates

The undergraduate music therapy program provides the required academic and clinical coursework necessary to become professionally certified as a music therapist. The program, which is approved by the American Music Therapy Association, prepares students to pass the Certification Board for Music Therapists national exam, which is required for entry-level music therapy positions.

In addition to the learning outcomes previously listed, all graduates of the Bachelor of Music in music therapy will display the following.

- Functional musical and arranging skills in voice, keyboard, guitar, and percussion to accompany self and group singing, with a basic repertory of traditional, folk, and popular songs in several keys, with and without written music.
- Knowledge of basic principles of human development, exceptionality, psychopathology, principles of therapy, and the therapeutic relationship.
- Knowledge of basic principles of music therapy including history and philosophy; the psychological, physiological, and sociological bases for the use of music as therapy; music therapy techniques and materials and their application with various client populations.
- Knowledge of various client populations, the therapeutic process (client assessment, treatment planning, therapeutic implementation, evaluation, and documentation of progress); knowledge of research methods, and ability to interpret research findings.
- Knowledge of professional issues (standards, ethics, interdisciplinary collaboration, supervision, and administration).
- Clinical skills with a variety of client populations to enable students to function as entry-level music therapists. Students will acquire knowledge of the technological developments applicable to the field of music therapy.

Requirements

The Bachelor of Music (BM) requires a minimum of 120 s.h. of credit. Students must maintain a minimum grade-point average of 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

All undergraduate enrollments require School of Music approval. Entering first-year and transfer students who plan to major in music must be admitted into a performance area through an audition. All entering students must complete the online theory diagnostic examination for MUS:1201 Musicianship and Theory I and a piano proficiency exam to determine appropriate placement in related courses.

Transfer students admitted to the School of Music must complete a minimum of one year of applied music (lower or upper level) and one year of major ensemble at the University of Iowa in order to earn a degree in music. Transfer students who have not completed the equivalent of the four-semester sequence of Musicianship and Theory I–IV (MUS:1201, MUS:1202, MUS:2203, and MUS:2204) must complete a theory diagnostic exam to determine appropriate placement in the musicianship and theory sequence. Transfer students who have not completed the equivalent of two semesters of class piano or a piano proficiency exam must meet piano proficiency requirements at the University of Iowa.

The program offers concentrations in composition, music therapy, and performance. Students seeking licensure/certification in music education or music therapy should enroll in the BM program.

Each concentration in the Bachelor of Music requires various minimum credit hours.

Requirements	Hours
Composition	83-85
Music Therapy	91-100
Performance, Brass/Woodwind	79-81
Performance, Jazz	85-87
Performance, Organ	79
Performance, Percussion	79-81
Performance, Piano	79-81
Performance, String	79-81
Performance, Voice	79-81

Many students earn more than 120 s.h. in fulfilling the requirements for their majors, for instance, those who choose the music therapy concentration or seek teacher certification. The College of Liberal Arts and Sciences maximum hours rule does not apply to the Bachelor of Music, so BM students may count more than 56 s.h. of coursework in music toward the degree.

To register for MUS:1201 Musicianship and Theory I, students must also register for MUS:1211 Group Instruction in Piano I, have already completed that course, or be exempt based on the results of their proficiency exam. To register for MUS:1202 Musicianship and Theory II, students must also register for MUS:1212 Group Instruction in Piano II, have already completed that course, or be exempt based on the results of their proficiency exam. Transfer students should complete the group piano requirement during their first year in residence unless they are exempt based on the results of their proficiency exam.

Six semesters of MUS:1210 Recital Attendance are required for all BM students, except music therapy students, who are required to take four semesters. Transfer students should plan to enroll in this course each of their remaining semesters, or until the requirement is met.

To complete the senior recital, students must have achieved upper-level applied status or be enrolled in upper-level applied music courses (see "Applied Music"). Music therapy students may complete a senior recital or a senior research project. Composition students substitute MUS:4910 Bachelor's Thesis for the senior recital. The senior recital, research project, or thesis must be completed at the University of Iowa.

Applied Music

Students must complete four years of applied music. Instruction is provided on two levels, lower and upper. Students must achieve upper-level status before they may present their senior recital. Readiness for upper-level applied music is determined by a jury examination in the area. The eighth semester of applied music may be waived for students who have successfully completed a senior recital, are enrolled in the Teacher Education Program (TEP), and are student teaching. Students are allowed a maximum of six semesters (not including summer) in lower-level applied instruction. Those who want to continue lessons beyond the maximum allowable lower-level registration must do so under the nonmajor category.

Composition students are required to take 6 s.h. of lower-level applied music and 2 s.h. of secondary piano.

Music therapy students who complete a senior research project rather than a senior recital are required to take three years of lower-level applied music.

Ensemble Participation

Students must complete eight semesters of major ensemble participation. They enroll in a major ensemble during consecutive semesters, beginning early in their degree work, to ensure timely completion of the requirement. Ensemble assignments are made at the discretion of the major teacher and ensemble director. Keyboard students may substitute piano accompaniment, piano chamber music, or the chamber music residency program for major ensemble participation for two semesters during their junior and/or senior years, with their major applied music teacher's consent. Composition students may, with their advisor's consent, substitute two semesters of other ensembles during their junior and/or senior year.

Music therapy students who complete a senior research project rather than a senior recital are required to complete 6 s.h. of major ensemble participation.

Students who want to request adjustment of the major ensemble requirement must submit a request in writing to a review committee consisting of the ensemble director(s) involved, the studio instructor, and the associate director for undergraduate studies.

Major ensembles are as follows.

Course #	Title	Hours
MUS:1176	Voxman Chorale	1
MUS:3160	Symphony Band/Concert Band	1
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1

MUS:3174	University Choir	1
MUS:3180	Orchestra	1

Electives

Students may take advanced electives in performance (including chamber music and piano accompaniment), theory, composition, music education, music therapy, music history, diverse music cultures, music literature, conducting, and orchestration.

Concentration Areas

- Composition Concentration [p. 839]
- Music Therapy Concentration [p. 839]
- Performance, Brass/Woodwind Concentration [p. 841]
- Performance, Jazz Concentration [p. 842]
- Performance, Organ Concentration [p. 843]
- Performance, Percussion Concentration [p. 843]
- Performance, Piano Concentration [p. 844]
- Performance, String Concentration [p. 845]
- Performance, Voice Concentration [p. 846]

Composition Concentration

Applicants to the composition concentration must submit a portfolio of creative work to the composition faculty for evaluation and acceptance into the program. Students who wish to prepare a portfolio may register for MUS:1139 Secondary Performance - Composition.

The composition concentration requires the following coursework:

Musicianship, Composition Concentration

The composition concentration is open to students who have been admitted to a performance area in the School of Music.

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
Then these:		
MUS:1210	Recital Attendance (taken six times for 1 s.h. each)	6
MUS:1211	Group Instruction in Piano I (or piano placement exam)	1
MUS:1212	Group Instruction in Piano II (or piano placement exam)	1
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:3625	Techniques of Conducting	2

Diverse Musical Cultures, Composition Concentration

Course #	Title	Hours
One of these:		
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1310	World Music	3
MUS:1720	History of Jazz	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3

Performance (Applied Music/ Ensembles), Composition Concentration

Course #	Title	Hours
All of these:		
MUS:1121	Secondary Performance - Piano (taken two times for 1 s.h. each)	2
Lower-level applied lessons (prefix MUS) numbered 2000-2999 (may take a maximum of six times for no more than 12 s.h. total)		6
Major ensemble music courses (prefix MUS)		6

Composition Requirements

Course #	Title	Hours
All of these:		
MUS:2219	Introduction to Composition	3
MUS:2220	Composition (taken at least six times for 2 s.h. each)	12
MUS:2820	Electronic Music Production	3
MUS:3230	Composition Seminar (taken twice for 1 s.h. each as corequisite with MUS:2220)	2
MUS:4910	Bachelor's Thesis	1

The course MUS:4910 Bachelor's Thesis consists of one or more compositions, approved by a committee of three faculty members, and performed in regularly scheduled School of Music recitals.

Required Supportive Courses, Composition Concentration

Course #	Title	Hours
All of these:		
MUS:4200	Counterpoint Before 1600	3
or MUS:4201	Counterpoint After 1600	
MUS:4220	Orchestration	3
MUS:5236	Non-Tonal Analysis	3

Electives, Composition Concentration

Students complete 6 s.h. of music coursework (prefix MUS) except for those courses that are closed to music majors. If students took either MUS:4200 Counterpoint Before 1600 or MUS:4201 Counterpoint After 1600 as a required supportive course, they cannot use it as an elective.

The course MUS:3190 Center for New Music Ensemble is recommended for composition concentration students.

Music Therapy Concentration

Admission to the music therapy concentration is based on successful completion (grade of C-plus or higher) in MUS:1687 Orientation to Music Therapy. Students must earn a B-minus or higher in all remaining music therapy core courses. In addition to the core courses in music therapy in the following list, specific courses are required in anatomy, biology, music, and psychology.

A six-month, full-time internship in an American Music Therapy Association (AMTA) approved off-campus clinical facility is required for completion of the degree. There are a limited number of approved music therapy internships in the Iowa City area, and many internship placements require relocation to a different city. Students are eligible to begin applying for their internship one year prior to the start of the internship. Securing an internship typically involves completing application materials, interviewing on-site or via an electronic platform, and demonstrating musical competencies. Students are not automatically placed in internships but must work with the clinical advisor to select and apply for appropriate programs. Following successful completion of the internship, students are eligible to take the board certification examination in music therapy. This exam is offered through the Certification Board for Music Therapists and leads to national board certification as a music therapist, with the credential music therapist-board certified (MT-BC).

Because music therapists work with vulnerable populations, the School of Music is required to run a criminal background check on all students when they begin their clinical experiences. Criminal convictions could negatively impact a student's ability to continue in the music therapy program and/or gain placement at an internship site. For more information, contact the director of the music therapy program.

The music therapy concentration requires the following coursework.

Musicianship, Music Therapy Concentration

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
Then these:		
MUS:1210	Recital Attendance (taken four times for 1 s.h. each)	4
MUS:1211	Group Instruction in Piano I (or piano placement exam)	1
MUS:1212	Group Instruction in Piano II (or piano placement exam)	1
MUS:2213	Group Instruction in Piano III	1
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3

Performance (Applied Music/ Ensembles), Music Therapy Concentration

Course #	Title	Hours
Clinical Option		
All of these are required for clinical option students:		
MUS:1120	Secondary Performance - Voice	1
MUS:4675	Senior Project in Music Therapy	1
Lower-level applied lessons (prefix MUS) numbered 2000-2999		12
Major ensemble music courses (prefix MUS) taken six times for 1 s.h. each		6
Additional music performance electives such as steel band, secondary percussion lessons, secondary piano, additional secondary voice		4
Performance Option		
All of these are required for performance option students:		
MUS:1120	Secondary Performance - Voice (taken twice for 1 s.h. each; not required for performance—voice students)	2
MUS:1510	Diction for Singers I (required for performance—voice students)	2
MUS:2510	Diction for Singers II (required for performance—voice students)	2
MUS:4900	Senior Recital	1
Lower-level applied music lessons (prefix MUS) numbered 2000-2999		8
Upper-level applied music lessons (prefix MUS) numbered 3000-3999		8
Major ensemble music courses (prefix MUS) taken eight times for 1 s.h. each		8

Music Therapy Requirements

Course #	Title	Hours
All of these:		
MUS:1687	Orientation to Music Therapy	2
MUS:2671	Music Foundations in Therapy I	2
MUS:2672	Music Foundations in Therapy II	2
MUS:3675	Music Therapy Practicum (section 1 taken once for 1 s.h.; section 2 taken twice for 2 s.h. each)	5
MUS:3676	Percussion Experience for Teachers and Therapists	1
MUS:3680	Music in Special Education	3
MUS:3690	Music Therapy With Adults	3
MUS:4670	Internship in Music Therapy (minimum of 2 s.h.)	arr.
MUS:4685	Music Therapy With Children	3
EDTL:4630/ MUS:4630	Psychology of Music	2
EDTL:4640	Introduction to Music Research	2

Required Supportive Courses, Music Therapy Concentration

Course #	Title	Hours
One of these:		
PSY:2930	Abnormal Psychology: Health Professions	3
PSY:3320	Psychopathology	3
One of these:		
MUS:1121	Secondary Performance - Piano	1

MUS:3001	Introduction to Jazz Improvisation	3
One of these:		
MUS:1007	Garage Band: The Basics	2
MUS:3665	Arranging for Band	2
One of these:		
PSQF:4106	Child Development	3
PSY:2401	Introduction to Developmental Science	3
One of these:		
CSD:1015	Introduction to Speech and Hearing Processes and Disorders	2
CSD:4140	Manual Communication	1
CSED:4178	Microcounseling	3
CSED:4199	Counseling for Related Professions	3
PSQF:1075	Educational Psychology and Measurement	3
PSY:2601	Introduction to Cognitive Psychology	3
PSY:2701	Introduction to Behavioral Neuroscience	4
SSW:1800/ ASP:1800/ CSD:1800/ NURS:1800/ TR:1800	Aging Matters: Introduction to Gerontology	3
Clinical option students take 4 s.h. from these:		
MUS:1120	Secondary Performance - Voice	1
MUS:1121	Secondary Performance - Piano	1
MUS:1137	Secondary Performance - Percussion	1
MUS:3163	Iowa Steel Band	1
Other courses approved by advisor		

Music therapy students who elect the senior recital/performance option must take four years of applied music and attain upper-level status; they must also take 8 s.h. of major ensemble participation. Vocal majors choosing this option must also take MUS:1510 Diction for Singers I and MUS:2510 Diction for Singers II.

Music therapy students who elect the senior project/clinical option must take three years of applied music and 6 s.h. of major ensemble. They must also take an additional 4 s.h. of music performance courses in areas such as MUS:1120 Secondary Performance - Voice, MUS:1121 Secondary Performance - Piano, MUS:1137 Secondary Performance - Percussion, MUS:3163 Iowa Steel Band, or other courses approved by the advisor.

In order to satisfy national certification requirements, all music therapy students must fulfill certain GE CLAS Core requirements with specific courses. Students should consult their music therapy advisor before selecting GE CLAS Core courses.

Performance, Brass/Woodwind Concentration

The performance, brass/woodwind concentration requires the following coursework.

Musicianship, Brass/Woodwind Concentration

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
Then these:		
MUS:1210	Recital Attendance (taken six times for 1 s.h. each)	6
MUS:1211	Group Instruction in Piano I (or piano placement exam)	1
MUS:1212	Group Instruction in Piano II (or piano placement exam)	1
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:3625	Techniques of Conducting	2

Diverse Musical Cultures, Brass/Woodwind Concentration

Course #	Title	Hours
One of these:		
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1310	World Music	3
MUS:1720	History of Jazz	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3

Performance (Applied Music/Ensembles), Brass/Woodwind Concentration

Course #	Title	Hours
8 s.h. from these (both courses are repeatable):		
MUS:3160	Symphony Band/Concert Band	1
MUS:3180	Orchestra	1
All of these:		
MUS:4900	Senior Recital	1
Lower-level applied lessons (prefix MUS) numbered 2000-2999 (may take a maximum of six times for no more than 12 s.h. total)		8
Upper-level applied lessons (prefix MUS) numbered 3000-3999		8

Theory-Based Courses, Brass/Woodwind Concentration

Course #	Title	Hours
3 s.h. from these:		
MUS:2206	Form and Analysis	3

MUS:3001	Introduction to Jazz Improvisation	3
MUS:3665	Arranging for Band	2-3
MUS:3710	Intermediate Jazz Improvisation	2
MUS:4200	Counterpoint Before 1600	3
MUS:4201	Counterpoint After 1600	3
MUS:4210	Keyboard Harmony	1-2
MUS:4730	Jazz Theory (when topic is at the piano)	3
MUS:4750	Transcription	2

Brass/Woodwind Area Requirement

Course #	Title	Hours
This course:		
MUS:3485	Wind Chamber Music	1

Electives, Brass/Woodwind Concentration

Students complete 17 s.h. of music coursework (prefix MUS) except for those courses that are closed to music majors.

These courses are recommended for wind majors.

Course #	Title	Hours
MUS:3140	Audition Repertoire	1
MUS:3180	Orchestra	1
MUS:3485	Wind Chamber Music	1-2
MUS:3830	Wind Instrument Maintenance and Repair	1
EDTL:3650	Instrumental Methods and Materials	3

These music education courses may be taken as music electives by brass/woodwind concentration students pursuing teacher licensure.

Course #	Title	Hours
MUS:3635/ EDTL:3635	Instrumental Conducting	3
EDTL:3605/ MUS:3605	Instrumental Techniques	2
EDTL:3620	Methods and Materials: General Music	3

Performance, Jazz Concentration

The performance, jazz concentration requires the following coursework.

Musicianship, Jazz Concentration

Course #	Title	Hours
Both of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
Then these:		
MUS:1210	Recital Attendance (taken six times for 1 s.h. each)	6
MUS:1211	Group Instruction in Piano I (or piano placement exam)	1
MUS:1212	Group Instruction in Piano II (or piano placement exam)	1
MUS:1711	Jazz Rhythms and Interpretation I	1
MUS:1712	Jazz Rhythms and Interpretation II	1
MUS:3001	Introduction to Jazz Improvisation	3
MUS:3710	Intermediate Jazz Improvisation	2
MUS:3760	Jazz Band Techniques	1
MUS:4350	Advanced Jazz History	3
MUS:4360	Jazz Matters	3
MUS:4730	Jazz Theory	3

Diverse Musical Cultures, Jazz Concentration

Course #	Title	Hours
One of these:		
MUS:1310	World Music	3
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3

Performance (Applied Music/ Ensembles), Jazz Concentration

Course #	Title	Hours
All of these:		
MUS:2038	Lower Level Jazz (may take for maximum of six times for no more than 12 s.h. total)	8
MUS:3038	Upper Level Jazz (taken four times for 2 s.h. each)	8
MUS:3730	Jazz Band (taken six times for 1 s.h. each)	6
MUS:3740	Small Jazz Ensembles (taken six times for 1 s.h. each)	6
MUS:4750	Transcription	2
MUS:4900	Senior Recital	1

Jazz Area Requirements

Course #	Title	Hours
All of these:		
MUS:3140	Audition Repertoire	1
MUS:3780	Audio Recording I	3
MUS:4760	Jazz Composition and Arranging	2
MUS:4761	Advanced Jazz Composition and Arranging	2
AFAM:1020/ AMST:1030	Introduction to African American Culture	3
ENTR:2000	Entrepreneurship and Innovation	3

Electives, Jazz Concentration

Students complete 8 s.h. of music coursework (prefix MUS) except for those courses that are closed to music majors.

These courses are recommended for jazz majors.

Course #	Title	Hours
MUS:1007	Garage Band: The Basics	2
MUS:3140	Audition Repertoire	1
MUS:3730	Jazz Band (when section is Black popular music ensemble)	1
MUS:3990	Undergraduate Special Studies	1-4

Performance, Organ Concentration

The performance, organ concentration requires the following coursework.

Musicianship, Organ Concentration

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
Then these:		
MUS:1210	Recital Attendance (taken six times for 1 s.h. each)	6
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:3625	Techniques of Conducting	2

Diverse Musical Cultures, Organ Concentration

Course #	Title	Hours
One of these:		
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1310	World Music	3
MUS:1720	History of Jazz	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3

Performance (Applied Music/ Ensembles), Organ Concentration

Course #	Title	Hours
All of these:		
MUS:2022	Lower Level Organ (may take a maximum of six times for no more than 12 s.h. total)	8
MUS:3022	Upper Level Organ (taken four times for 2 s.h. each)	8
MUS:4900	Senior Recital	1
Major ensemble music courses (prefix MUS; taken eight times for 1 s.h. each)		8

Theory-Based Courses, Organ Concentration

Course #	Title	Hours
3 s.h. from these:		
MUS:2206	Form and Analysis	3
MUS:3001	Introduction to Jazz Improvisation	3
MUS:3665	Arranging for Band	2-3
MUS:3710	Intermediate Jazz Improvisation	2
MUS:4200	Counterpoint Before 1600	3
MUS:4201	Counterpoint After 1600	3
MUS:4210	Keyboard Harmony	1-2
MUS:4730	Jazz Theory (when topic is at the piano)	3
MUS:4750	Transcription	2

Organ Area Requirements

Course #	Title	Hours
All of these:		
MUS:4450	Organ Literature Survey (taken two times for 2 s.h. each)	4
MUS:4452	Liturgics	2
MUS:4454	Service Playing and Improvisation	2

Electives, Organ Concentration

Students complete 10 s.h. of music coursework (prefix MUS) except for those courses that are closed to music majors.

These courses are recommended for organ majors.

Course #	Title	Hours
MUS:5450	History of Organ Building and Design	2-3
MUS:5452	Organ Pedagogy	2
MUS:5475	Organ Literature Special Topics	2

Performance, Percussion Concentration

The performance, percussion concentration requires the following coursework.

Musicianship, Percussion Concentration

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
Then these:		
MUS:1210	Recital Attendance (taken six times for 1 s.h. each)	6
MUS:1211	Group Instruction in Piano I (or piano placement exam)	1
MUS:1212	Group Instruction in Piano II (or piano placement exam)	1
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:3625	Techniques of Conducting	2

Diverse Musical Cultures, Percussion Concentration

Course #	Title	Hours
One of these:		
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1310	World Music	3
MUS:1720	History of Jazz	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3

Performance (Applied Music/ Ensembles), Percussion Concentration

Course #	Title	Hours
8 s.h. from these (both courses are repeatable):		
MUS:3160	Symphony Band/Concert Band	1
MUS:3180	Orchestra	1
All of these:		
MUS:2037	Lower Level Percussion (may take a maximum of six times)	8
MUS:3037	Upper Level Percussion (taken four times for 2 s.h. each)	8
MUS:4900	Senior Recital	1

Theory-Based Courses, Percussion Concentration

Course #	Title	Hours
3 s.h. from these:		
MUS:2206	Form and Analysis	3
MUS:3001	Introduction to Jazz Improvisation	3
MUS:3665	Arranging for Band	2-3
MUS:3710	Intermediate Jazz Improvisation	2
MUS:4200	Counterpoint Before 1600	3
MUS:4201	Counterpoint After 1600	3
MUS:4210	Keyboard Harmony	1-2
MUS:4730	Jazz Theory (when topic is at the piano)	3
MUS:4750	Transcription	2

Percussion Area Requirements

Course #	Title	Hours
Both of these:		
MUS:3150	Percussion Ensemble (taken six times for 1 s.h. each)	6
MUS:3163	Iowa Steel Band (taken two times for 1 s.h. each)	2

Electives, Percussion Concentration

Students complete 10 s.h. of music coursework (prefix MUS) except for those courses that are closed to music majors.

These courses are recommended for percussion majors.

Course #	Title	Hours
MUS:3140	Audition Repertoire	1
MUS:3180	Orchestra	1
MUS:3182	Chamber Orchestra	1
MUS:3730	Jazz Band	1
MUS:3740	Small Jazz Ensembles	1
MUS:5130	Advanced Percussion Pedagogy and Literature	2

These music education courses may be taken as music electives by percussion concentration students pursuing teacher licensure.

Course #	Title	Hours
EDTL:3605/ MUS:3605	Instrumental Techniques	2
EDTL:3620	Methods and Materials: General Music	3
EDTL:3635/ MUS:3635	Instrumental Conducting	3

Performance, Piano Concentration

The performance, piano concentration requires the following coursework.

Musicianship, Piano Concentration

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
Then these:		
MUS:1210	Recital Attendance (taken six times for 1 s.h. each)	6
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:3625	Techniques of Conducting	2

Diverse Musical Cultures, Piano Concentration

Course #	Title	Hours
One of these:		
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1310	World Music	3
MUS:1720	History of Jazz	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3

Performance (Applied Music/ Ensembles), Piano Concentration

Course #	Title	Hours
All of these:		
MUS:2021	Lower Level Piano (may take a maximum of six times for no more than 12 s.h. total)	8
MUS:3021	Upper Level Piano (taken four times for 2 s.h. each)	8

MUS:4900	Senior Recital	1
Major ensemble music courses (prefix MUS) taken eight times for 1 s.h. each; keyboard majors may substitute piano accompaniment for major ensemble participation for a maximum of two semesters during their junior and/or senior years with advisor consent		8

Theory-Based Courses, Piano Concentration

Course #	Title	Hours
3 s.h. from these:		
MUS:2206	Form and Analysis	3
MUS:3001	Introduction to Jazz Improvisation	3
MUS:3665	Arranging for Band	2-3
MUS:3710	Intermediate Jazz Improvisation	2
MUS:4200	Counterpoint Before 1600	3
MUS:4201	Counterpoint After 1600	3
MUS:4730	Jazz Theory (when topic is at the piano)	3
MUS:4750	Transcription	2

Piano Area Requirements, Piano Concentration

Course #	Title	Hours
This course:		
MUS:3400	Methods of Teaching Piano	2
A total of 2 s.h. from the following:		
MUS:3481	Piano Chamber Music	1-2
MUS:3485	Wind Chamber Music	1-2
MUS:3489	Chamber Music Residency Program	1-2
One of these:		
MUS:2213	Group Instruction in Piano III	1
MUS:4730	Jazz Theory (when topic is at the piano)	3

Electives, Piano Concentration

Students complete 13 s.h. of music coursework (prefix MUS) except for those courses that are closed to music majors.

These courses are recommended for piano majors.

Course #	Title	Hours
MUS:5400	Piano Pedagogy I	2
MUS:5401	Piano Pedagogy II	2
MUS:5410	Piano Literature I	2
MUS:5411	Piano Literature II	2

These music education courses may be taken as music electives by piano concentration students pursuing teacher licensure.

Course #	Title	Hours
MUS:3605/ EDTL:3605	Instrumental Techniques	2
MUS:3635/ EDTL:3635	Instrumental Conducting	3
EDTL:3620	Methods and Materials: General Music	3
EDTL:3640/ MUS:3640	Choral Methods	3
EDTL:3645/ MUS:3645	Choral Conducting and Literature	3

Performance, String Concentration

The performance, string concentration requires the following coursework.

Musicianship, String Concentration

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
Then these:		
MUS:1210	Recital Attendance (taken six times for 1 s.h. each)	6
MUS:1211	Group Instruction in Piano I (or piano placement exam)	1
MUS:1212	Group Instruction in Piano II (or piano placement exam)	1
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:3625	Techniques of Conducting	2

Diverse Musical Cultures, String Concentration

Course #	Title	Hours
One of these:		
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1310	World Music	3
MUS:1720	History of Jazz	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3

Performance (Applied Music/ Ensembles), String Concentration

Course #	Title	Hours
All of these:		
MUS:3180	Orchestra (taken eight times for 1 s.h. each)	8
MUS:4900	Senior Recital	1
Lower-level applied lessons (prefix MUS) numbered 2000-2999 (may take maximum of six times for no more than 12 s.h. total)		8
Upper-level applied lessons (prefix MUS) numbered 3000-3999		8

Theory-Based Courses, String Concentration

Course #	Title	Hours
3 s.h. from these:		
MUS:2206	Form and Analysis	3
MUS:3001	Introduction to Jazz Improvisation	3

MUS:3665	Arranging for Band	2-3
MUS:3710	Intermediate Jazz Improvisation	2
MUS:4200	Counterpoint Before 1600	3
MUS:4201	Counterpoint After 1600	3
MUS:4210	Keyboard Harmony	1-2
MUS:4730	Jazz Theory	3
MUS:4750	Transcription	2

String Area Requirements

Course #	Title	Hours
4 s.h. from these:		
MUS:3482	String Chamber Music	1-2
MUS:3489	Chamber Music Residency Program	1-2

Electives, String Concentration

Students complete 14 s.h. of music coursework (prefix MUS) except for those courses that are closed to music majors. MUS:3140 Audition Repertoire is recommended for string majors.

These music education courses may be taken as music electives by string concentration students pursuing teacher licensure.

Course #	Title	Hours
EDTL:3605/ MUS:3605	Instrumental Techniques	2
EDTL:3620	Methods and Materials: General Music	3
EDTL:3635/ MUS:3635	Instrumental Conducting	3

Performance, Voice Concentration

The performance, voice concentration requires the following coursework.

Musicianship, Voice Concentration

Course #	Title	Hours
All of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4
Then these:		
MUS:1210	Recital Attendance (taken six times for 1 s.h. each)	6
MUS:1211	Group Instruction in Piano I (or piano placement exam)	1
MUS:1212	Group Instruction in Piano II (or piano placement exam)	1
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:3625	Techniques of Conducting	2

Diverse Musical Cultures, Voice Concentration

Course #	Title	Hours
One of these:		
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1310	World Music	3
MUS:1720	History of Jazz	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3

Performance (Applied Music/ Ensembles), Voice Concentration

Course #	Title	Hours
All of these:		
MUS:2020	Lower Level Voice (may take a maximum of six times for no more than 12 s.h. total)	8
MUS:3020	Upper Level Voice (taken four times for 2 s.h. each)	8
MUS:4900	Senior Recital	1
Major ensemble (choir) music (prefix MUS; taken eight times for 1 s.h. each)		8

Theory-Based Courses, Voice Concentration

Course #	Title	Hours
3 s.h. from these:		
MUS:2206	Form and Analysis	3
MUS:3001	Introduction to Jazz Improvisation	3
MUS:3665	Arranging for Band	2-3
MUS:3710	Intermediate Jazz Improvisation	2
MUS:4200	Counterpoint Before 1600	3
MUS:4201	Counterpoint After 1600	3
MUS:4210	Keyboard Harmony	1-2
MUS:4730	Jazz Theory (when topic is at the piano)	3
MUS:4750	Transcription	2

Voice Area Requirements

Course #	Title	Hours
All of these:		
MUS:1510	Diction for Singers I	2
MUS:2510	Diction for Singers II	2
MUS:3500	Opera Workshop	2
MUS:3510	Discovering Art Song	1
MUS:3511	Discovering Opera	1

Electives, Voice Concentration

Students complete 10 s.h. of music coursework (prefix MUS) except for those courses that are closed to music majors.

These courses are recommended for voice majors.

Course #	Title	Hours
MUS:3140	Audition Repertoire	1
MUS:3500	Opera Workshop	2

MUS:3501	Opera Theater Chorus	1
MUS:3502	Opera Production	2-4
MUS:3851/ DANC:3851	Introduction to the Alexander Technique	3
MUS:6520/ CSD:6202	Voice Pedagogy	3

These music education courses may be taken as music electives by voice concentration students pursuing teacher licensure.

Course #	Title	Hours
MUS:3640/ EDTL:3640	Choral Methods	3
MUS:3645/ EDTL:3645	Choral Conducting and Literature	3
EDTL:3620	Methods and Materials: General Music	3

Teacher Licensure

To qualify for licensure to teach in elementary and/or secondary schools (K–12) students must be admitted into the School of Music seeking a Bachelor of Music degree in one of the following performance subprograms: brass/woodwind, jazz, organ, percussion, piano, string, or voice. Students must then apply to the Teacher Education Program to concurrently earn a Bachelor of Arts degree in music education. First-year students with a minimum high school GPA of 3.00 are eligible to apply to the direct admission program in their first semester. All other students may apply after they have completed 30 s.h. at the University of Iowa. For more information, see Music Education on the College of Education website.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. They must have a minimum grade-point average (GPA) of 3.80 in music coursework and a minimum cumulative University of Iowa GPA of 3.33..

Students must complete at least 6 s.h. of honors work in music, generally during their junior and senior years. They must earn at least 3 s.h. of the required honors work in MUS:4995 Honors in Music by completing one or more honors projects, such as solo or ensemble recitals; compositions, transcriptions, orchestrations, or arrangements; and essays, research papers, editions, or translations. Honors projects must be in addition to the projects required for graduation with a major in music.

Students may also earn honors credit in other honors courses (undergraduate courses numbered 3000 or above) or in approved graduate courses (music history and music theory are particularly recommended).

For complete details about the requirements for graduation with honors in the music major, visit Honors in Music on the School of Music website and consult the school's honors advisor.

National Honor Society

The School of Music sponsors a chapter of Pi Kappa Lambda, the national music honor society. Students of exceptional ability are recommended for membership by faculty members. For more information, consult the School of Music honors advisor.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the music major.

Financial Support

A number of music performance-based merit scholarships are available to qualified undergraduate music majors. The audition for admission to the School of Music is also the audition for music scholarships. All music majors with School of Music scholarships must enroll as full-time students, enroll in their instrumental major ensemble and studio lessons each semester, and meet specific grade-point averages. For information, contact the School of Music.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

In addition to the requirements listed under the checkpoints, all students must complete 2 s.h. in applied music and 1 s.h. in a major ensemble each semester.

The Four-Year Graduation Plan is not available for music therapy and music education students.

Students may apply more than 56 s.h. earned in School of Music courses toward the minimum 120 s.h. required for the BM degree.

Before the third semester begins: 18 s.h. of coursework in the major, including MUS:1201 Musicianship and Theory I, MUS:1202 Musicianship and Theory II, MUS:1211 Group Instruction in Piano I, and MUS:1212 Group Instruction in Piano II.

Before the fifth semester begins: at least 34 s.h. of coursework in the major, including MUS:2203 Musicianship and Theory III, and MUS:2204 Musicianship and Theory IV.

Before the seventh semester begins: at least 50 s.h. of coursework in the major and 90 s.h. earned toward the degree.

Before the eighth semester begins: at least 56 s.h. of coursework in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Music, BM

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
Audition: Entering students who plan to major in music must be accepted into a performance area through audition before they register.		
MUS:1200	Fundamentals of Music for Majors [b]	3
MUS:1201	Musicianship and Theory I	4
MUS:1210	Recital Attendance [c]	1
MUS:1211	Group Instruction in Piano I [d]	1
Major: lower-level applied lessons [e]		2
Major: major ensemble		1 - 2
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
CSI:1600	Success at Iowa	1
	Hours	**16-18**
Spring		
MUS:1202	Musicianship and Theory II	4
MUS:1210	Recital Attendance [c]	1
MUS:1212	Group Instruction in Piano II [d]	1
Major: lower-level applied lessons [e]		2
Major: major ensemble		1 - 2
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [f]		3
	Hours	**15-17**
Second Year		
Fall		
MUS:1210	Recital Attendance [c]	1
MUS:2203	Musicianship and Theory III	4
MUS:3625	Techniques of Conducting	2
Major: Music specialization area or Music elective course		1
Major: lower-level applied lessons [e]		2
Major: major ensemble		1 - 2
GE CLAS Core: Quantitative or Formal Reasoning [f]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [g]		4 - 5
	Hours	**18-20**
Spring		
MUS:1210	Recital Attendance [c]	1
MUS:2204	Musicianship and Theory IV	4
Major: diverse musical culture course [h]		3
Major: Music specialization area or Music elective course		1 - 3
Major: lower-level applied lessons [e]		2
Major: major ensemble		1 - 2
GE CLAS Core: World Languages Second Level Proficiency or elective course [g]		4 - 5
	Hours	**16-20**
Third Year		
Fall		
MUS:2301	History of Western Music I [i]	3
Major: Music specialization area or Music elective course		1 - 3
Major: major ensemble		1 - 2
Major: theory-based course		3
Major: upper-level applied lessons [j]		2
GE CLAS Core: World Languages Third Level Proficiency or elective course [g]		4 - 5
	Hours	**14-18**
Spring		
MUS:2302	History of Western Music II [i]	3
Major: major ensemble		1 - 2
Major: music elective course		3
Major: upper-level applied lessons		2
GE CLAS Core: Values and Society [f, k]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [g]		4 - 5
	Hours	**16-18**
Fourth Year		
Fall		
Major: major ensemble		1 - 2
Major: music elective course		2 - 4
Major: upper-level applied lessons		2
Major: music elective course or elective course if music electives have been met		3
GE CLAS Core: International and Global Issues [f]		3
GE CLAS Core: Natural Sciences with Lab [f]		4
	Hours	**15-18**
Spring		
MUS:4900	Senior Recital [l]	1
Major: upper-level applied lessons		2
Major: major ensemble		1 - 2
Major: music elective courses		3 - 4
Major: music elective course or elective course if music electives have been met		3
GE CLAS Core: Natural Sciences without Lab [f]		3
GE CLAS Core: Social Sciences [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**16-18**
	Total Hours	**126-147**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b This course is required for students enrolled in MUS:1201 who do not pass Placement Examination A.
c Students must take MUS:1210 for four semesters.
d Unless excused by exam.
e A maximum of six semesters (12 s.h.) in lower-level applied instruction is allowed.
f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
g Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.
h MUS:1009, MUS:2311, and MUS:1720 fulfill GE CLAS Core requirements for Literary, Visual, & Performing Arts and Values and Society. MUS:1310 fulfills the GE CLAS Core Literary, Visual, & Performing Arts requirement.
i Fulfills a major requirement and may fulfill a GE requirement.
j Readiness for upper-level applied music is determined by a jury examination in the area.
k If not completed with a MUS course. MUS:1009, MUS:1720, MUS:2311 fulfill the GE CLAS Core Values and Society requirement.
l Students must achieve upper-level status before they may present their senior recital.
mPlease see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Music, Minor

Requirements

The undergraduate minor in music requires 15 s.h. of coursework completed in the School of Music (prefix MUS), including at least 8 s.h. at the University of Iowa. Students must maintain a minimum grade-point average of 2.00 in all courses for the minor and all UI courses for the minor. Courses used to satisfy minor requirements may not be taken pass/nonpass. Up to 7 s.h. of transfer credit in music history, music theory, and elective courses may be accepted toward the minor, with approval of the School of Music. Music performance courses must be completed at the University of Iowa.

Work for the minor includes courses in three areas: music history, music performance, and music theory. The remaining 5 s.h. in elective coursework must be chosen from School of Music courses.

Some School of Music courses have prerequisites; students must complete a course's prerequisites before they may register for a course. Courses approved for the minor are in the following lists. Students who take a music course for one area may not use it to satisfy a music requirement in another area.

The minor in music requires the following coursework.

Music History

Course #	Title	Hours
One of these:		
MUS:1310	World Music	3
MUS:1720	History of Jazz	3
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3

Music Performance

Course #	Title	Hours
3 s.h. from these:		
Applied Music Instruction (Lessons)		
MUS:1020	Performance Instruction for Nonmajors	1
Lower-level lessons for music majors numbered MUS:2020-MUS:2038, with consent of faculty		2
Upper-level lessons for music majors numbered MUS:3020-MUS:3038, with consent of faculty		2
Jazz Improvisation		
MUS:3001	Introduction to Jazz Improvisation	3
MUS:3710	Intermediate Jazz Improvisation	2
MUS:4750	Transcription	2
Ensemble Participation		
Instructor permission or audition is required for these courses:		
MUS:1160	University Band	1
MUS:1165	Hawkeye Marching Band	1
MUS:1176	Voxman Chorale	1
MUS:1180	Campus Symphony Orchestra	1
MUS:3150	Percussion Ensemble	1
MUS:3160	Symphony Band/Concert Band	1
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1
MUS:3174	University Choir	1
MUS:3180	Orchestra	1
MUS:3480	Piano Accompaniment	1
MUS:3482	String Chamber Music	1-2
MUS:3485	Wind Chamber Music	1-2
MUS:3730	Jazz Band	1
MUS:3740	Small Jazz Ensembles	1
Other 1 s.h. music performance courses, with consent of the director for undergraduate studies		

Music Theory

Admission to theory courses is determined by the results of the theory placement exam.

Course #	Title	Hours
One of these:		
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:2203	Musicianship and Theory III	4
MUS:2204	Musicianship and Theory IV	4

Electives

Students must complete 5 s.h. in elective coursework. The following are suggested electives.

Course #	Title	Hours
MUS:1001	Group Piano I: Non-Music Majors	1
MUS:1002	Group Piano II: Non-Music Majors	1
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1010	Recital Attendance for Nonmajors	1
MUS:1012	Creativity in Music	3
MUS:1020	Performance Instruction for Nonmajors	1
MUS:1066	Introduction to Film Music	3
MUS:1160	University Band	1
MUS:1165	Hawkeye Marching Band	1
MUS:1176	Voxman Chorale	1
MUS:1200	Fundamentals of Music for Majors	3
MUS:1201	Musicianship and Theory I	4
MUS:1202	Musicianship and Theory II	4
MUS:1301	Concepts and Contexts of Western Music	3
MUS:1302	Great Musicians	3
MUS:1303	Roots, Rock, and Rap: A History of Popular Music	3
MUS:1310	World Music	3
MUS:1720	History of Jazz	3
MUS:2203	Musicianship and Theory III	4

MUS:2204	Musicianship and Theory IV	4
MUS:2301	History of Western Music I	3
MUS:2302	History of Western Music II	3
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
Lower-level applied instruction courses for majors numbered MUS:2020-MUS:2038		

For additional information, contact the School of Music.

Music, MA

The MA concentrations in performance, conducting, jazz studies, composition, music theory, musicology, music therapy, and music education require a recital, capstone project, or thesis. Performance majors present a public recital in place of a written thesis. Music therapy majors complete a capstone research project. Jazz studies majors present a public recital and a separate performance project. The Master of Arts in music education is offered with thesis and nonthesis options.

Learning Outcomes

- Acquisition of knowledge and skills that will prepare students for careers in performance or academia.
- Knowledge and skills in one or more fields of music outside the student's area of study, such as theory, musicology, performance, composition, etc.
- Preparation for doctoral study in music.

Requirements

The Master of Arts in music requires a minimum of 32–40 s.h. of graduate credit. Students must maintain a graduate college program grade-point average of at least 2.75 to earn the degree. The degree offers subprograms in brass [p. 852], choral conducting [p. 853], composition [p. 853], jazz studies [p. 854], music education [p. 854], music theory [p. 855], music therapy [p. 855], musicology [p. 857], orchestral conducting [p. 858], organ [p. 858], percussion [p. 859], piano [p. 859], string [p. 859], voice [p. 860], wind conducting [p. 860], and woodwind [p. 860].

Entering MA students must take two School of Music advisory examinations prior to registering for music history and music theory classes. These examinations are given on the Friday and Saturday preceding the opening of classes in the fall semester. MA students in music therapy are not required to take the advisory examinations.

Graduate students in the performance subprograms (brass, choral conducting, jazz studies, orchestral conducting, organ, percussion, piano, string, voice, wind conducting, and woodwind) are required to complete four semesters of major ensemble participation. Students enroll in major ensemble participation during consecutive semesters beginning early in their degree work to ensure completion of the major ensemble requirements in a timely manner. Ensemble assignments are made at the discretion of the ensemble director and/or major professor. Specific information about the ensemble requirement for these subprograms follows. The subprograms in composition, music education, music theory, music therapy, and musicology do not have the same ensemble requirement.

Common Requirements

Introductory Course

Students in all subprograms except music therapy and music education must complete MUS:5300 Introduction to Graduate Study in Music (3 s.h.) on an A–F graded basis.

Music Theory Requirement

All subprograms except music education and music theory require 6 s.h. from the following course list taken on an A–F graded basis. Music education students complete 3 s.h. from the following course list taken on an A–F graded basis. Music theory students should instead refer to their subprogram's requirements.

Course #	Title	Hours
MUS:4200	Counterpoint Before 1600	3
MUS:4201	Counterpoint After 1600	3
MUS:4730	Jazz Theory	3
MUS:5235	Tonal Analysis	3
MUS:5236	Non-Tonal Analysis	3
MUS:5237	Analysis of Popular Music	3
MUS:5240	Special Topics in Theory and Analysis (may be repeated)	3
MUS:6211	Theoretical Approaches to Music	3
MUS:6215	Music Theory Pedagogy	3

Music History Requirement

Students in all subprograms except music education and musicology earn 6 s.h. from the following course list taken on an A–F graded basis; at least one course numbered 6000 or above must be taken. Students in music education take 3 s.h. from the course list taken on an A–F graded basis. Musicology students should instead refer to their subprogram's requirements.

Course #	Title	Hours
MUS:4320	Music and Gender	3
MUS:4325	Medieval and Renaissance Music	3
MUS:4330	Baroque Music	3
MUS:4335	Eighteenth-Century Music	3
MUS:4340	Nineteenth-Century Music	3
MUS:4345	Twentieth-Century Music (may be repeated)	3
MUS:4350	Advanced Jazz History	3
MUS:4355	American Music	3
MUS:4360	Jazz Matters	3
MUS:4610	Studies in Film and Music (may be repeated)	3
MUS:6305	Teaching Music History and Culture	3
MUS:6310	Topics in Musicology (may be repeated)	3
MUS:6312	Historical Approaches to Music	3
MUS:6314	Topics in Ethnomusicology (may be repeated)	3
MUS:6315	Foundations of Ethnomusicology	3
MUS:6326	Renaissance Music Notations	3
MUS:6375	Music Editing	3

Subprograms

Brass

The MA in music with a brass subprogram requires 36 s.h. of graduate credit. Students do not complete a thesis for this subprogram.

In addition to the common requirements, the brass subprogram requires the following coursework.

Brass Required Courses

Course #	Title	Hours
All of these:		
MUS:5111	Advanced Brass Pedagogy and Literature I	2
MUS:5112	Advanced Brass Pedagogy and Literature II	2
MUS:5115	Advanced Brass Ensemble Literature	2
MUS:6900	MA Recital	1

Brass Ensemble

Course #	Title	Hours
4 s.h. from these:		
MUS:3160	Symphony Band/Concert Band (may be repeated)	1
MUS:3180	Orchestra (may be repeated)	1

Brass Applied Lessons

Students must choose one instrument for all 8 s.h. in applied lessons.

Course #	Title	Hours
One of these:		
MUS:6032	Major Horn (taken four times for 2 s.h. each)	8
MUS:6033	Major Trumpet (taken four times for 2 s.h. each)	8
MUS:6034	Major Trombone (taken four times for 2 s.h. each)	8
MUS:6035	Major Euphonium (taken four times for 2 s.h. each)	8
MUS:6036	Major Tuba (taken four times for 2 s.h. each)	8

Brass-Wind Chamber Music

Course #	Title	Hours
2 s.h. from these:		
MUS:3485	Wind Chamber Music (may be repeated)	1
MUS:3489	Chamber Music Residency Program (may be repeated)	1

Choral Conducting

The MA in music with a choral conducting subprogram requires 38 s.h. of graduate credit and satisfaction of a world language proficiency requirement. Students do not complete a thesis for this subprogram.

In addition to the common requirements, the choral conducting subprogram requires the following coursework.

Choral Conducting Required Courses

Course #	Title	Hours
All of these (19 s.h.):		
MUS:6120	Graduate Secondary Performance - Voice	1
MUS:6561	Seminar: Choral Literature and Analysis I	2
MUS:6562	Seminar: Choral Literature and Analysis II	2
MUS:6563	Seminar: Choral Literature and Analysis III	2
MUS:6564	Seminar: Choral Literature and Analysis IV	2
MUS:6581	Advanced Choral Conducting I	2
MUS:6582	Advanced Choral Conducting II	2
MUS:6583	Advanced Choral Conducting III	2
MUS:6584	Advanced Choral Conducting IV	2
MUS:6585	Score Reading	1
MUS:6900	MA Recital	1

Choral Conducting Ensemble

Course #	Title	Hours
4 s.h. from these:		
MUS:3170	Kantorei (may be repeated)	1
MUS:3172	Camerata Singers (may be repeated)	1
MUS:3174	University Choir (may be repeated)	1

Choral Conducting World Language Proficiency

Proficiency in French, German, or Italian is required. Other languages may replace these if approved by the choral conducting faculty. The requirement must be met by the end of the fourth semester of residency. Students may satisfy the proficiency requirement in one of these ways.

1. Testing out of the second semester of the language at the University of Iowa by individual testing through the individual world language area. See the director of choral activities regarding this option.
2. Passing one of the following courses with a grade of C or above.
   a. German: GRMN:1002 Elementary German II (4 s.h.) or GRMN:5000 German Reading for Graduate Students (3 s.h.).
   b. French: Elementary French II (FREN:1002, 4 s.h.) or FREN:4911 French for Reading/Research (2 s.h.).
   c. Italian: ITAL:1102 Elementary Italian II (5 s.h.).
3. Passing a course of similar scope with a grade of C or above from another institution. Check with the director of choral activities before enrolling in a course.

Composition

The MA in music with a composition subprogram requires 40 s.h. of graduate credit and satisfaction of a keyboard proficiency requirement. Students are required to complete a thesis for this subprogram.

In addition to the common requirements, the composition subprogram requires the following coursework.

Composition Required Courses

Course #	Title	Hours
All of these (16 s.h.):		
MUS:3230	Composition Seminar (taken four times for 1 s.h. each)	4

MUS:5220	Advanced Composition (taken four times for 2 s.h. each)	8
MUS:5820	Electronic Music Production	3
MUS:6950	MA Thesis	1

Composition Electives

Course #	Title	Hours
9 s.h. from these:		
MUS:3280	Spectral Nature of Sound: Acoustics, Analysis, and Resynthesis	3
MUS:3285	New Musical Instruments: From Design to Performance	3
MUS:4201	Counterpoint After 1600	3
MUS:4220	Orchestration	3
MUS:5800	Interactive Music	3

Composition Keyboard Examination

Students are required to demonstrate basic keyboard ability by either passing MUS:4210 Keyboard Harmony (1-2 s.h.) with a grade of B or higher or passing the final examination for MUS:4210 by arrangement with the organ faculty.

Jazz Studies

The MA in music with a jazz studies subprogram requires at least 36 s.h. of graduate credit. Students do not complete a thesis for this subprogram.

In addition to the common requirements, the jazz studies subprogram requires the following coursework.

Jazz Studies Required Courses

Course #	Title	Hours
All of these (20 s.h.):		
MUS:3730	Jazz Band (taken four times for 1 s.h. each)	4
MUS:3740	Small Jazz Ensembles (taken twice for 1 s.h. each)	2
MUS:4750	Transcription	2
MUS:4760	Jazz Composition and Arranging	2
MUS:6038	Major Jazz (taken four times for 2 s.h. each)	8
MUS:6900	MA Recital	1
MUS:6920	MA Performance Project	1

Jazz Studies Electives

Course #	Title	Hours
One of these:		
MUS:3140	Audition Repertoire	1
MUS:4761	Advanced Jazz Composition and Arranging	2
MUS:5990	Graduate Special Studies	2

Music Education

The MA in music with a music education subprogram requires 33 s.h. of graduate credit and satisfaction of a world language proficiency requirement. Students have the option to complete a thesis but are not required to do so.

In addition to 6 s.h. of common requirements, the music education subprogram requires the following courses.

Music Education Required Courses

Course #	Title	Hours
All of these (11 s.h.):		
EDTL:4630	Psychology of Music	2
EDTL:4640	Introduction to Music Research	3
EDTL:5610	Foundations of Music Education Curricula	3
EDTL:7600	Seminar: Current Topics in Music Education	3

Music Education Performance/Pedagogy and Literature

Course #	Title	Hours
3 s.h. from these (all courses may be repeated unless otherwise noted):		
MUS:3160	Symphony Band/Concert Band	1
MUS:3163	Iowa Steel Band	1
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1
MUS:3174	University Choir	1
MUS:3180	Orchestra	1
MUS:3730	Jazz Band	1
MUS:5220	Advanced Composition	1-2
MUS:5990	Graduate Special Studies	0-4
MUS:6120	Graduate Secondary Performance - Voice	1
MUS:6121	Graduate Secondary Performance - Piano	1
MUS:6122	Graduate Secondary Performance - Organ	1
MUS:6123	Graduate Secondary Performance - Violin	1
MUS:6124	Graduate Secondary Performance - Viola	1
MUS:6125	Graduate Secondary Performance - Cello	1
MUS:6126	Graduate Secondary Performance - String Bass	1
MUS:6127	Graduate Secondary Performance - Flute	1
MUS:6128	Graduate Secondary Performance - Oboe	1
MUS:6129	Graduate Secondary Performance - Clarinet	1
MUS:6130	Graduate Secondary Performance - Bassoon	1
MUS:6131	Graduate Secondary Performance - Saxophone	1
MUS:6132	Graduate Secondary Performance - Horn	1
MUS:6133	Graduate Secondary Performance - Trumpet	1
MUS:6134	Graduate Secondary Performance - Trombone	1
MUS:6135	Graduate Secondary Performance - Euphonium	1
MUS:6136	Graduate Secondary Performance - Tuba	1

MUS:6137	Graduate Secondary Performance - Percussion	1
MUS:6138	Graduate Secondary Performance - Jazz	1
MUS:6580	Advanced Orchestral Conducting (may not be repeated)	2
MUS:6581	Advanced Choral Conducting I	1-3
MUS:6582	Advanced Choral Conducting II	1-3
MUS:6583	Advanced Choral Conducting III	1-3
MUS:6584	Advanced Choral Conducting IV	1-3
MUS:6589	Advanced Wind Conducting	1-2
MUS:6590	Seminar in Advanced Band Literature and Band History (may not be repeated)	2
EDTL:7380	Practicum in College Teaching	1-3

Music Education Capstone

Student completing a thesis take MUS:6950 MA Thesis for a total of 3 s.h. Students not completing a thesis take EDTL:6600 Individual Projects in Music Education for 1 s.h.

Music Education Electives

Students completing a thesis take 10 s.h. of electives. Students not completing a thesis take 12 s.h. of electives. Courses are chosen in consultation with an advisor and may include music courses (prefix MUS), psychological and quantitative foundations courses (prefix PSQF), and educational policy and leadership studies courses (prefix EPLS) numbered 3000 or above, and teaching and learning courses (prefix EDTL) numbered 4000 and above.

Music Theory

The MA in music with a music theory subprogram requires 33 s.h. of graduate credit and satisfaction of a world language proficiency requirement. Students are required to complete a thesis for this subprogram.

In addition to 9 s.h. of common requirements, the music theory subprogram requires the following coursework.

Music Theory Required Courses

Course #	Title	Hours
All of these (9 s.h.)		
MUS:4290	Music Theory Colloquium (taken four times for 1 s.h. each)	4
MUS:6215	Music Theory Pedagogy	3
MUS:6950	MA Thesis	2
Two of these:		
MUS:5235	Tonal Analysis	3
MUS:5236	Non-Tonal Analysis	3
MUS:5237	Analysis of Popular Music	3

Music Theory Additional Courses

Course #	Title	Hours
Two of these (6 s.h.):		
MUS:4200	Counterpoint Before 1600	3
MUS:4201	Counterpoint After 1600	3
MUS:4730	Jazz Theory	3
MUS:5235	Tonal Analysis (if not taken as subprogram required course)	3
MUS:5236	Non-Tonal Analysis (if not taken as subprogram required course)	3
MUS:5237	Analysis of Popular Music (if not taken as subprogram required course)	3
MUS:5240	Special Topics in Theory and Analysis (may be repeated)	3
MUS:6211	Theoretical Approaches to Music	3

Music Elective

Students must take 3 s.h. of music coursework (prefix MUS) numbered 3000 or above not related to music theory. Courses listed under "Music Theory Required Courses" or "Music Theory Additional Courses" may not be counted.

Music Theory World Language Proficiency

Students must demonstrate the ability to read pertinent scholarly literature in a language determined in consultation with the theory faculty.

This requirement may be met in one of the following ways.

1. Completing two semesters of a graduate-level reading course approved by the theory faculty with a passing grade of C or higher on the final examination.
2. Two years of coursework while enrolled as a graduate student.
3. Written examination administered by the theory faculty. The exam consists of reading a short article in the designated language, answering a series of questions about said article, and translating a short excerpt.

Music Therapy

The MA in music with a music therapy subprogram requires 30 s.h. of graduate credit. Students do not complete a thesis for this subprogram.

Music therapy students are not held to the common requirements. The music therapy subprogram requires the following coursework.

Music Therapy Research Core Courses

Course #	Title	Hours
Both of these (5 s.h.):		
MUS:6675	Research in Music Therapy - Graduate (taken three times for 1 s.h. each)	3
MUS:6685	Theory and Research in Music Therapy (taken twice for 1 s.h. each)	2
One of these (at least 2 s.h.):		
EDTL:4640	Introduction to Music Research	2-3
EDTL:7640	Advanced Research in Music Education	3
PSQF:6206	Advanced Child Development	3

PSQF:6220	Quantitative Educational Research Methodologies	3

Music Therapy Research Electives

Course #	Title	Hours
5 s.h. from these:		
MUS:7140	Seminar in Music Research	2
EDTL:4640	Introduction to Music Research	2-3
EDTL:5099	Conducting School-Based Action Research	3
EDTL:7008	Seminar: Research and Current Issues	arr.
EDTL:7070	Qualitative Research Methods in Teaching and Learning	3
EDTL:7071	Critical Discourse Analysis in Educational Research	3
EDTL:7410	Mixed Methods Research	3
EDTL:7640	Advanced Research in Music Education	3
EDTL:7751	Advanced Qualitative Data Analysis	3
EDTL:7953	Seminar: Single Subject Design Research	3
EPLS:6209	Survey Research and Design	3
PSQF:6206	Advanced Child Development	3
PSQF:6220	Quantitative Educational Research Methodologies	3
PSQF:6230	Research in Educational Psychology	1-3
PSQF:6248	Research Synthesis and Meta-Analysis	3
PSQF:7270	Scholarly Integrity and Responsible Conduct of Educational Research and Evaluation	arr.
PSQF:7331	Qualitative Educational Research Methods	3
PSQF:7476	Research in Educational Measurement and Statistics	3

Music Therapy Special Topics

Course #	Title	Hours
6 s.h. from these:		
MUS:6690	Special Studies in Music Therapy (may be repeated)	1-3
EDTL:7600	Seminar: Current Topics in Music Education (may be repeated)	1-3

Music Therapy Advanced Clinical, Supervision, and Teaching

Course #	Title	Hours
2 s.h. from these:		
MUS:6670	Graduate Music Therapy Practicum (may be repeated)	1-2
MUS:6680	College Teaching and Clinic Supervision in Music Therapy	1-2

Music Therapy Electives

Course #	Title	Hours
Sociocultural, Historical, Theoretical, or Educational		
At least 3 s.h. from these:		
MUS:3400	Methods of Teaching Piano (may be repeated)	2
MUS:4320	Music and Gender	3
MUS:4350	Advanced Jazz History	3
MUS:4355	American Music	3
MUS:4730	Jazz Theory	3
MUS:6315	Foundations of Ethnomusicology	3
Performance, Ensemble, and Composition		
2 s.h. from these (all courses may be repeated unless otherwise noted):		
MUS:3001	Introduction to Jazz Improvisation (may not be repeated)	3
MUS:3160	Symphony Band/Concert Band	1
MUS:3163	Iowa Steel Band	1
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1
MUS:3174	University Choir	1
MUS:3180	Orchestra	1
MUS:3710	Intermediate Jazz Improvisation	2
MUS:3730	Jazz Band	1
MUS:5220	Advanced Composition	1-2
MUS:6120	Graduate Secondary Performance - Voice	1
MUS:6121	Graduate Secondary Performance - Piano	1
MUS:6122	Graduate Secondary Performance - Organ	1
MUS:6123	Graduate Secondary Performance - Violin	1
MUS:6124	Graduate Secondary Performance - Viola	1
MUS:6125	Graduate Secondary Performance - Cello	1
MUS:6126	Graduate Secondary Performance - String Bass	1
MUS:6127	Graduate Secondary Performance - Flute	1
MUS:6128	Graduate Secondary Performance - Oboe	1
MUS:6129	Graduate Secondary Performance - Clarinet	1
MUS:6130	Graduate Secondary Performance - Bassoon	1
MUS:6131	Graduate Secondary Performance - Saxophone	1
MUS:6132	Graduate Secondary Performance - Horn	1

MUS:6133	Graduate Secondary Performance - Trumpet	1
MUS:6134	Graduate Secondary Performance - Trombone	1
MUS:6135	Graduate Secondary Performance - Euphonium	1
MUS:6136	Graduate Secondary Performance - Tuba	1
MUS:6137	Graduate Secondary Performance - Percussion	1
MUS:6138	Graduate Secondary Performance - Jazz	1
MUS:6580	Advanced Orchestral Conducting (may not be repeated)	2
MUS:6581	Advanced Choral Conducting I	1-3
MUS:6582	Advanced Choral Conducting II	1-3
MUS:6583	Advanced Choral Conducting III	1-3
MUS:6584	Advanced Choral Conducting IV	1-3
MUS:6589	Advanced Wind Conducting	1-2

Music Therapy Supporting Electives

In consultation with their advisor, students must take 5 s.h. of coursework numbered 3000 or above from any course subject excluding music (prefix MUS) and English as a second language (prefixes ESL and TAPE).

Musicology

The MA in music with a musicology subprogram requires at least 32 s.h. of graduate credit and satisfaction of a world language proficiency requirement. Students are required to complete a thesis for this subprogram.

In addition to 9 s.h. of common requirements, the musicology subprogram requires the following coursework.

Musicology Required Courses

Course #	Title	Hours
All of these (minimum 10 s.h.):		
MUS:4390	Musicology Colloquium (taken three times for 1 s.h. each)	3
MUS:6312	Historical Approaches to Music	3
MUS:6315	Foundations of Ethnomusicology	3
MUS:6950	MA Thesis	1-3

Musicology Seminars

Course #	Title	Hours
6 s.h. from these:		
MUS:6310	Topics in Musicology (may be repeated)	3
MUS:6314	Topics in Ethnomusicology (may be repeated)	3

Musicology Electives

Course #	Title	Hours
3 s.h. from these:		
MUS:4320	Music and Gender	3
MUS:4325	Medieval and Renaissance Music	3
MUS:4330	Baroque Music	3
MUS:4335	Eighteenth-Century Music	3
MUS:4340	Nineteenth-Century Music	3
MUS:4345	Twentieth-Century Music	3
MUS:4350	Advanced Jazz History	3
MUS:4355	American Music	3
MUS:4360	Jazz Matters	3
MUS:4610	Studies in Film and Music (may be repeated)	3
MUS:6305	Teaching Music History and Culture	3
MUS:6312	Historical Approaches to Music	3
MUS:6326	Renaissance Music Notations	3
MUS:6375	Music Editing	3

Musicology Ensemble Requirement

Course #	Title	Hours
At least 1 s.h. from these:		
MUS:3151	Percussion Chamber Ensemble	1
MUS:3160	Symphony Band/Concert Band	1
MUS:3162	All University Steel Band	1
MUS:3163	Iowa Steel Band	1
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1
MUS:3174	University Choir	1
MUS:3180	Orchestra	1
MUS:3190	Center for New Music Ensemble	1
MUS:3481	Piano Chamber Music	1
MUS:3482	String Chamber Music	1
MUS:3485	Wind Chamber Music	1
MUS:3489	Chamber Music Residency Program	1
MUS:3502	Opera Production	2
MUS:3730	Jazz Band	1
MUS:3740	Small Jazz Ensembles	1

Additional Musicology Elective

Students must take 3 s.h. of music coursework (prefix MUS) numbered 3000 or above not related to musicology. Courses listed under "Musicology Required Courses", "Musicology Seminars", or "Musicology Electives," and MUS:5300 may not be counted.

Musicology World Language Proficiency

Students must demonstrate the ability to read musicological literature in either French or German, or another language chosen in consultation with the advisor and approved by the musicology faculty.

The requirement can be met in one of the following ways.

1. Successful completion of one semester of a graduate-level reading course approved by the musicology faculty with a grade of C or higher.
2. Two years of coursework in the language in the last ten years with grades of C or higher.
3. Testing out of the second semester of a language at the University of Iowa through individual testing in a specific language area, as approved by the musicology faculty.
4. Written examination administered by the musicology faculty. The exam consists of a short article in the designated language, which the student summarizes and from which they translate a short excerpt.

Orchestral Conducting

The MA in music with an orchestral conducting subprogram requires 41 s.h. of graduate credit. Students do not complete a thesis for this subprogram.

In addition to the common requirements, the orchestral conducting subprogram requires the following coursework.

Orchestral Conducting Required Courses

Course #	Title	Hours
All of these (21 s.h.):		
MUS:5510	Graduate Diction	2
MUS:6120	Graduate Secondary Performance - Voice	1
MUS:6580	Advanced Orchestral Conducting (taken four times for 2 s.h. each)	8
MUS:6585	Score Reading	1
MUS:6586	Advanced Orchestral Literature and Professional Development (taken four times for 2 s.h. each)	8
MUS:6900	MA Recital	1

Orchestral Conducting Applied Lessons

Course #	Title	Hours
One of these:		
MUS:6120	Graduate Secondary Performance - Voice	1
MUS:6121	Graduate Secondary Performance - Piano	1
MUS:6122	Graduate Secondary Performance - Organ	1
MUS:6123	Graduate Secondary Performance - Violin	1
MUS:6124	Graduate Secondary Performance - Viola	1
MUS:6125	Graduate Secondary Performance - Cello	1
MUS:6126	Graduate Secondary Performance - String Bass	1
MUS:6127	Graduate Secondary Performance - Flute	1
MUS:6128	Graduate Secondary Performance - Oboe	1
MUS:6129	Graduate Secondary Performance - Clarinet	1
MUS:6130	Graduate Secondary Performance - Bassoon	1
MUS:6131	Graduate Secondary Performance - Saxophone	1
MUS:6132	Graduate Secondary Performance - Horn	1
MUS:6133	Graduate Secondary Performance - Trumpet	1
MUS:6134	Graduate Secondary Performance - Trombone	1
MUS:6135	Graduate Secondary Performance - Euphonium	1
MUS:6136	Graduate Secondary Performance - Tuba	1
MUS:6137	Graduate Secondary Performance - Percussion	1

Orchestral Conducting Ensemble Requirement

Choral Ensemble

Course #	Title	Hours
One of these:		
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1
MUS:3174	University Choir	1

Orchestral Conducting

Course #	Title	Hours
An additional 3 s.h. from these (all courses may be repeated):		
MUS:3160	Symphony Band/Concert Band	1
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1
MUS:3174	University Choir	1

Organ

The MA in music with an organ subprogram requires 34 s.h. of graduate credit. Students do not complete a thesis for this subprogram.

In addition to the common requirements, the organ subprogram requires the following coursework.

Organ Required Courses

Course #	Title	Hours
All of these (13 s.h.):		
MUS:4450	Organ Literature Survey (taken twice for 2 s.h. each)	4
MUS:6022	Major Organ (taken four times for 2 s.h. each)	8
MUS:6900	MA Recital	1

Organ Ensemble Requirement

Course #	Title	Hours
4 s.h. from these (all courses may be repeated):		
MUS:3160	Symphony Band/Concert Band	1
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1
MUS:3174	University Choir	1
MUS:3180	Orchestra	1

Organ Electives

Course #	Title	Hours
2 s.h. from these:		
MUS:4452	Liturgics	2
MUS:4454	Service Playing and Improvisation	2
MUS:5450	History of Organ Building and Design	2
MUS:5452	Organ Pedagogy	2
MUS:5475	Organ Literature Special Topics	2

Percussion

The MA in music with a percussion subprogram requires 35 s.h. of graduate credit. Students do not complete a thesis for this subprogram.

In addition to the common requirements, the percussion subprogram requires the following coursework.

Percussion Required Courses

Course #	Title	Hours
All of these (16 s.h.):		
MUS:3150	Percussion Ensemble (taken four times for 1 s.h. each)	4
MUS:5130	Advanced Percussion Pedagogy and Literature	2
MUS:6037	Major Percussion (taken four times for 2 s.h. each)	8
MUS:6900	MA Recital	2

Percussion Ensemble

Course #	Title	Hours
4 s.h. from these:		
MUS:3160	Symphony Band/Concert Band (may be repeated)	1
MUS:3180	Orchestra (may be repeated)	1

Piano

The MA in music with a piano subprogram requires 37 s.h. of graduate credit. Students do not complete a thesis for this subprogram. Students choose to emphasize either pedagogy or performance.

In addition to the common requirements, the piano subprogram requires the following coursework.

Piano Required Courses

Course #	Title	Hours
All of these (13 s.h.):		
MUS:3480	Piano Accompaniment	1
MUS:6021	Major Piano (taken four times for 2 s.h. each)	8
MUS:6900	MA Recital	2
MUS:7401	Special Studies in Piano Accompaniment and Chamber Music (taken twice for 1 s.h. each)	2

Piano Chamber Music Requirement

Course #	Title	Hours
One of these:		
MUS:3481	Piano Chamber Music	1
MUS:3489	Chamber Music Residency Program	1

Piano Pedagogy Emphasis

Students completing the pedagogy emphasis complete the following coursework.

Course #	Title	Hours
6 s.h. from these:		
MUS:3400	Methods of Teaching Piano	2
MUS:5400	Piano Pedagogy I	2
MUS:5401	Piano Pedagogy II	2
MUS:5990	Graduate Special Studies (may not be repeated)	2
One of these (2 s.h.):		
MUS:5410	Piano Literature I (may be repeated)	2
MUS:5411	Piano Literature II	2

Piano Performance Emphasis

Students completing the performance emphasis complete the following coursework.

Course #	Title	Hours
4 s.h. from these:		
MUS:3400	Methods of Teaching Piano	2
MUS:5400	Piano Pedagogy I	2
MUS:5401	Piano Pedagogy II	2
MUS:5990	Graduate Special Studies	2
4 s.h. from these:		
MUS:5410	Piano Literature I (may be repeated)	2
MUS:5411	Piano Literature II (may be repeated)	2

String

The MA in music with a string subprogram requires 35 s.h. of graduate credit. Students do not complete a thesis for this subprogram.

In addition to the common requirements, the string subprogram requires the following coursework.

String Required Courses

Course #	Title	Hours
All of these (9 s.h.):		
MUS:3180	Orchestra (taken four times for 1 s.h. each)	4
MUS:5121	Advanced String Methods and Literature I	2
MUS:5122	Advanced String Methods and Literature II	2
MUS:6900	MA Recital	1

String Applied Lessons

Students must choose one instrument for all 8 s.h. in applied lessons.

Course #	Title	Hours
One of these:		
MUS:6023	Major Violin (taken four times for 2 s.h. each)	8
MUS:6024	Major Viola (taken four times for 2 s.h. each)	8
MUS:6025	Major Cello (taken four times for 2 s.h. each)	8
MUS:6026	Major String Bass (taken four times for 2 s.h. each)	8

String Chamber Music

Course #	Title	Hours
3 s.h. from these:		
MUS:3482	String Chamber Music (may be repeated)	1
MUS:3489	Chamber Music Residency Program (may be repeated)	1

Voice

The MA in music with a voice subprogram requires 38 s.h. of graduate credit and satisfaction of a world language proficiency requirement. Students do not complete a thesis for this subprogram.

In addition to the common requirements, the voice subprogram requires the following courses.

Voice Required Courses

Course #	Title	Hours
All of these (14 s.h.):		
MUS:5510	Graduate Diction	2
MUS:6020	Major Voice (taken four times for 2 s.h. each)	8
MUS:6520	Voice Pedagogy	3
MUS:6900	MA Recital	1

Voice Ensemble

Course #	Title	Hours
4 s.h. from these (all courses may be repeated):		
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1
MUS:3174	University Choir	1

Voice Survey of Song Literature

Course #	Title	Hours
One of these:		
MUS:6541	Survey of Song Literature I	3
MUS:6542	Survey of Song Literature II	3

Voice Opera/Musical Theater

Course #	Title	Hours
One of these (at least 2 s.h.):		
MUS:3500	Opera Workshop	2
MUS:3502	Opera Production	2-4
MUS:3530	Musical Theatre Workshop	2

Voice Language Proficiency Requirement

Students must have completed at least two semesters of college-level language study with a grade of B or above in two of the three major singing languages (French, German, and Italian) within the six years prior to taking the final exam. Students may also verify proficiency in any or all of these languages by testing out of the second semester of the language at the University of Iowa through individual testing with the individual world language area.

Wind Conducting

The MA in music with a wind conducting subprogram requires 39 s.h. of graduate credit. Students do not complete a thesis for this subprogram.

In addition to the common requirements, the wind conducting subprogram requires the following coursework.

Wind Conducting Required Courses

Course #	Title	Hours
All of these (24 s.h.):		
MUS:3160	Symphony Band/Concert Band (taken four times for 1 s.h. each)	4
MUS:6589	Advanced Wind Conducting (taken four times for 2 s.h. each)	8
MUS:6590	Seminar in Advanced Band Literature and Band History	2
MUS:6900	MA Recital (taken twice for 2 s.h. each)	4

Woodwind

The MA in music with a woodwind subprogram requires 35 s.h. of graduate credit. Students do not complete a thesis for this subprogram.

In addition to the common requirements, the woodwind subprogram requires the following coursework.

Woodwind Required Courses

Course #	Title	Hours
All of these (6 s.h.):		
MUS:5101	Advanced Woodwind Pedagogy and Literature I	2
MUS:5102	Advanced Woodwind Pedagogy and Literature II	3
MUS:6900	MA Recital	1

Woodwind Ensemble

Course #	Title	Hours
4 s.h. from these:		
MUS:3160	Symphony Band/Concert Band (may be repeated)	1
MUS:3180	Orchestra (may be repeated)	1

Woodwind Applied Lessons

Students must choose one instrument for all 8 s.h. in applied lessons.

Course #	Title	Hours
One of these:		
MUS:6027	Major Flute (taken four times for 2 s.h. each)	8
MUS:6028	Major Oboe (taken four times for 2 s.h. each)	8
MUS:6029	Major Clarinet (taken four times for 2 s.h. each)	8

MUS:6030	Major Bassoon (taken four times for 2 s.h. each)	8
MUS:6031	Major Saxophone (taken four times for 2 s.h. each)	8

Woodwind Wind Chamber Music

Course #	Title	Hours
2 s.h. from these:		
MUS:3485	Wind Chamber Music (may be repeated)	1
MUS:3489	Chamber Music Residency Program (may be repeated)	1

Admission

Individuals applying to graduate programs in music must audition and/or submit supporting materials in their area of concentration in order to be considered for admission. Information about Graduate College admission and curriculum requirements for each area is available on the School of Music website.

For detailed information about Graduate College admission and policies, see the Manual of Rules and Regulations on the Graduate College website.

Preliminary Procedures for Music Therapy Graduate Students

Because music therapists work with vulnerable populations, the School of Music is required to run a criminal background check on all students when they begin their clinical experiences. Criminal convictions could negatively impact a student's ability to continue in the music therapy program and/or gain placement at an internship site. For more information, contact the director of the music therapy program.

Career Advancement

The Grad Success Center within the Graduate College offers multiple resources to help students explore their potential career options.

Music, PhD

Learning Outcomes

- Acquisition of the highest level of knowledge and skills that will prepare students for careers in or beyond academia.
- Development of advanced critical thinking and skills in music research, writing, and public presentation of original scholarship.
- Demonstration of a core body of knowledge concerning the student's area of study.
- Learning effective approaches to pedagogy in the student's area of study.
- Knowledge and skills in one or more fields of music outside the student's area of study, such as theory, musicology, performance, composition, and more.

Requirements

The Doctor of Philosophy program in music requires a minimum of 72 s.h. of graduate credit. Students must maintain a minimum cumulative grade-point average of 3.00 to earn the degree. PhD concentration areas include composition, musicology, music education, and music theory. Information about specific curricular requirements for each area is available on the School of Music website.

Advisory Examinations

Entering Doctor of Philosophy students must take School of Music advisory examinations in the areas of music history and music theory. These examinations are given on the Friday and Saturday preceding the opening of classes in the fall semester. PhD students in music education are not required to take the advisory examinations.

PhD students in composition, musicology, and music theory must complete the courses required for the MA (see the MA in music [p. 852] in the catalog) and the following coursework. In addition, proficiency in one or more world languages is required.

Course #	Title	Hours
One or more additional music history course(s) listed in the MA requirements		
One or more additional music theory course(s) listed in the MA requirements		
And one of these:		
MUS:7950	PhD Thesis	1-4
MUS:7960	Composition PhD Thesis	1-4

Admission

Applicants must audition and/or submit supporting materials in their area of concentration in order to be considered for admission. Information about Graduate College admission for each area is available on the School of Music website.

For detailed information about Graduate College admission and policies, see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

The Grad Success Center within the Graduate College offers multiple resources to help students explore their potential career options.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Music, PhD

- Composition Concentration [p. 862]
- Musicology Concentration [p. 863]
- Music Education Concentration [p. 864]
- Music Theory Concentration [p. 865]

Composition Concentration

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; up to 30 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
	Hours	**0**
First Year		
Any Semester		
MUS:5300	Introduction to Graduate Study in Music [d]	3
	Hours	**3**
Fall		
MUS:3230	Composition Seminar	1
MUS:5200	Review of Undergraduate Theory [e]	3
MUS:5220	Advanced Composition	2
Music history course [f]		3
	Hours	**9**
Spring		
MUS:3230	Composition Seminar	1
MUS:5220	Advanced Composition	2
MUS:5820	Electronic Music Production	3
Music history course [f]		3
Music theory course [f, g]		3
	Hours	**12**
Second Year		
Fall		
MUS:3230	Composition Seminar	1
MUS:5220	Advanced Composition	2
MUS:5800	Interactive Music	3
Music history course [f]		3
Music theory course [f, g]		3
	Hours	**12**
Spring		
Qualification Exam [h]		
MUS:3230	Composition Seminar	1

MUS:4200	Counterpoint Before 1600	3
MUS:4220	Orchestration	3
MUS:5220	Advanced Composition	2
Outside area course [i, j]		3
	Hours	**12**
Third Year		
Fall		
Exam: Doctoral Comprehensive Exam [k]		
Composition area course [l]		3
Elective course or music theory course (if needed) [f, g, j]		3
Elective course [j]		3
	Hours	**9**
Spring		
Composition area course [l]		3
Elective course [j]		3
Elective course [j]		3
	Hours	**9**
Fourth Year		
Fall		
MUS:7960	Composition PhD Thesis	2
Elective course [j]		3
	Hours	**5**
Spring		
MUS:7960	Composition PhD Thesis	1
Exam: Doctoral Final Exam [m]		
	Hours	**1**
	Total Hours	**72**

a Students must demonstrate ability to read professional literature in either French or German (other languages must be approved by the composition area). The language requirement must be satisfied by the end of the student's final semester of coursework.

b An Area Keyboard Examination is required. Students may demonstrate basic keyboard ability in one of two ways: 1) take and pass MUS:4210 with a grade of B or better; or 2) take and pass the final examination for MUS:4210 by arrangement with the organ faculty.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d May take during second year instead.

e Take a music theory elective if exempted from MUS:5200 based on results from advisory examination in music theory.

f See the department website for list of approved courses.

g Must have either passed the advisor examination in music theory or completed MUS:5200 before taking additional music theory elective courses.

h The PhD Qualification Exam is to be taken not later than the end of the second semester of residency; consists of both written and oral components. Refer to the department website for more information.

i Take a graduate level course (numbered 4000 or above) outside of the School of Music.

j Work with faculty advisor to determine appropriate graduate level coursework.

k Typically taken during the final semester of coursework.

l Choose from MUS:3190, MUS:3280, MUS:3285, MUS:4201.

mThesis defense.

Musicology Concentration

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; up to 30 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Any Semester		
MUS:5300	Introduction to Graduate Study in Music [c]	3
	Hours	**3**
Fall		
MUS:4390	Musicology Colloquium	1
MUS:5200	Review of Undergraduate Theory [d]	3
MUS:6310	Topics in Musicology	3
MUS:6312	Historical Approaches to Music	3
MUS:6315	Foundations of Ethnomusicology	3
	Hours	**13**
Spring		
MUS:4390	Musicology Colloquium	1
MUS:6211	Theoretical Approaches to Music [e]	3
MUS:6305	Teaching Music History and Culture	3
Musicology or methodology course [f]		3
	Hours	**10**
Second Year		
Fall		
MUS:4390	Musicology Colloquium	1
MUS:6314	Topics in Ethnomusicology	3
Music theory course [e, f]		3
Musicology or methodology course [f]		3
Music elective course [g]		3
	Hours	**13**
Spring		
Music theory course [e, f]		3
Musicology or methodology course [f]		3
Non-music elective course [g, h]		3
Non-music elective course [g, h]		3
	Hours	**12**
Third Year		
Fall		
Exam: Doctoral Comprehensive Exam [i]		
Elective course [g]		3
Elective course [g]		3
Elective course [g]		2
	Hours	**8**
Spring		
Elective course [g]		3
Elective course [g]		3
Elective course [g]		2
	Hours	**8**

Fourth Year		
Fall		
MUS:7950	PhD Thesis	3
	Hours	**3**
Spring		
MUS:7950	PhD Thesis	3
Exam: Doctoral Final Exam [j]		
	Hours	**3**
	Total Hours	**73**

a Proficiency in the ability to read musicological literature in two languages is required: French, German, or another language, chosen in consultation with the adviser and approved by the musicology faculty. The requirement for one of the two languages must be satisfied by the end of the second year of residency, and the requirement for the second language must be satisfied before taking the comprehensive examination. Refer to the department website for more information.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c May take during second year instead.

d Take a music theory elective if exempted from MUS:5200 based on results from advisory examination in music theory.

e Must have either passed the advisor examination in music theory or completed MUS:5200 before taking additional music theory elective courses.

f See the department website for list of approved courses.

g Work with faculty advisor to determine appropriate graduate level coursework.

h Take two graduate courses (6 s.h.) outside of the School of Music related to specialization area.

i Typically taken during the final semester of coursework.

j Dissertation defense.

Music Education Concentration

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; up to 30 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
EDTL:4630	Psychology of Music	2
EDTL:4640	Introduction to Music Research	3
MUS:6690 or EDTL:5610	Special Studies in Music Therapy or Foundations of Music Education Curricula	3
MUS:6690 or EDTL:7040 or EDTL:7600	Special Studies in Music Therapy or Advanced Topics in Teaching and Learning or Seminar: Current Topics in Music Education	3
	Hours	**11**
Spring		
MUS:6690 or EDTL:7600 or EDTL:7040	Special Studies in Music Therapy or Seminar: Current Topics in Music Education or Advanced Topics in Teaching and Learning	3
Statistics and research methods course [b]		3
Statistics and research methods course [b]		3
Elective course [c]		3
	Hours	**12**
Second Year		
Fall		
EDTL:7040 or EDTL:7600 or MUS:6690	Advanced Topics in Teaching and Learning or Seminar: Current Topics in Music Education or Special Studies in Music Therapy	3
Statistics and research methods course [b]		3
Statistics and research methods course [b]		3
Elective course [c]		3
	Hours	**12**
Spring		
EDTL:7600 or MUS:6690 or EDTL:7040	Seminar: Current Topics in Music Education or Special Studies in Music Therapy or Advanced Topics in Teaching and Learning	3
Statistics and research methods course [b]		3
Elective course [c]		3
Elective course [c]		3
	Hours	**12**
Third Year		
Fall		
Exam: Doctoral Comprehensive Exam [d]		
MUS:7950	PhD Thesis	3
Elective course [c]		3
Elective course [c]		3
Elective course [c]		2
	Hours	**11**
Spring		
MUS:7950	PhD Thesis	3
Elective course [c]		3
Elective course [c]		2
	Hours	**8**
Fourth Year		
Fall		
MUS:7950	PhD Thesis	3
	Hours	**3**
Spring		
MUS:7950	PhD Thesis	3
Exam: Doctoral Final Exam [e]		
	Hours	**3**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program

admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b See the department website for list of approved courses.

c Work with faculty advisor to determine appropriate graduate level coursework.

d Typically taken during the final semester of coursework.

e Thesis defense.

Music Theory Concentration

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; up to 30 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
	Hours	**0**
First Year		
Any Semester		
MUS:5300	Introduction to Graduate Study in Music [d]	3
	Hours	**3**
Fall		
MUS:4200 or MUS:4201	Counterpoint Before 1600 or Counterpoint After 1600	3
MUS:4290	Music Theory Colloquium	1
Music history course [e]		3
Outside area course [f, g]		3
	Hours	**10**
Spring		
MUS:4290	Music Theory Colloquium	1
MUS:6211	Theoretical Approaches to Music	3
Music history course [e]		3
Outside area course [f, g]		3
	Hours	**10**
Second Year		
Fall		
Qualifying Exam [h]		
MUS:4290	Music Theory Colloquium	1
MUS:5235 or MUS:5237 or MUS:5236	Tonal Analysis or Analysis of Popular Music or Non-Tonal Analysis	3
MUS:6215	Music Theory Pedagogy	3
Music history course [e]		3
	Hours	**10**
Spring		
MUS:4290	Music Theory Colloquium	1
MUS:5235 or MUS:5237 or MUS:5236	Tonal Analysis or Analysis of Popular Music or Non-Tonal Analysis	3
Music history course [e]		3
Elective course [f]		3
	Hours	**10**
Third Year		
Fall		
Exam: Doctoral Comprehensive Exam [i]		
MUS:4290	Music Theory Colloquium	1
Theory area course [j]		3
Elective course [f]		3
	Hours	**10**
Spring		
MUS:4290	Music Theory Colloquium	1
Theory area course [j]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**10**
Fourth Year		
Fall		
MUS:4290	Music Theory Colloquium	1
MUS:7950	PhD Thesis	4
	Hours	**5**
Spring		
MUS:4290	Music Theory Colloquium	1
MUS:7950	PhD Thesis	3
Exam: Doctoral Final Exam [k]		
	Hours	**4**
	Total Hours	**72**

a Students must demonstrate the ability to read pertinent scholarly literature in French or German and one other language. This requirement must be fulfilled before the student takes the comprehensive examination, preferably during the first year of residency. Refer to the department website for more information.

b Students must demonstrate competence in six areas of practical musicianship: sight singing; dictation of a chorale; keyboard sight reading; realization of thoroughbass OR harmonization of a melody from chord symbols; keyboard sight reading of a string quartet score OR improvising on an instrument; reduction at the keyboard of an orchestral score. Musicianship examinations are offered once a semester and may be taken as many times as necessary to pass.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d May take during second year instead.

e See the department website for list of approved courses.

f Work with faculty advisor to determine appropriate graduate level coursework.

g Take two graduate courses (6 s.h.) outside of the School of Music.

h Taken at the end of the second semester or the beginning of the third; must pass a written examination evaluating foundational theoretical knowledge of analytical skills with regard to a reading and score study list determined by the theory faculty. See the General Catalog and department website for more information.

i Taken at the end of the fourth semester or the beginning of the fifth. See the General Catalog and department website for more information.

j Choose from MUS:4200, MUS:4201, MUS:4730, MUS:5235, MUS:5236, MUS:5237, MUS:5240.

k Dissertation defense.

Doctor of Musical Arts, DMA

Learning Outcomes

- Acquisition of the highest level of knowledge and skills in performance that will prepare students for careers in performance or academia.
- Advanced competencies in repertoire, historical understanding, performance practice, and overall musicianship.
- Acquisition of knowledge and skills at the highest professional level in all facets and modes of performance within the student's area of study.
- Learning of effective approaches to pedagogy in the student's area of study.
- Knowledge and skills in one or more fields of music outside the student's area of study, such as theory, musicology, performance, composition, etc.

Requirements

The Doctor of Musical Arts (DMA) requires a minimum of 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average of at least 3.00 to earn the degree. The DMA is offered with two concentrations: conducting and performance.

Advisory Examinations

Entering Doctor of Musical Arts students must take School of Music advisory examinations in the areas of music history and music theory. These examinations are given on the Friday and Saturday preceding the opening of classes in the fall semester.

DMA students complete the courses under the MA degree (see the MA in music [p. 852] in the catalog) and the following courses. In addition, students have either a world language or a secondary area requirement.

Course #	Title	Hours
One or more additional music history course(s) listed in the MA requirements		
One or more additional music theory course(s) listed in the MA requirements		
MUS:7140	Seminar in Music Research	2
MUS:7899	DMA Qualifying Recital	0
MUS:7900	DMA Recital (three required recitals for 1-2 s.h. each)	3-6
MUS:7970	DMA Essay and Thesis (minimum 2 s.h. required; maximum 6 s.h.)	2

Ensemble Participation

Students in the performance and pedagogy tracks of all graduate programs are required to complete four semesters of major ensemble participation. Students enroll in major ensemble participation during consecutive semesters beginning early in their degree work, to ensure completion of the major ensemble requirements in a timely manner. Ensemble assignments are made at the discretion of the major teacher and ensemble director.

Major ensembles are as follows.

Course #	Title	Hours
MUS:3160	Symphony Band/Concert Band	1
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1
MUS:3174	University Choir	1
MUS:3180	Orchestra	1

For more information, visit the School of Music website.

Admission

Applicants must audition and/or submit supporting materials in their area of concentration in order to be considered for admission. Information about Graduate College admission and curriculum requirements for each area is available on the School of Music website.

For detailed information about Graduate College admission and policies, see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

The Grad Success Center within the Graduate College offers multiple resources to help students explore their potential career options.

Theory Pedagogy, Graduate Minor

Requirements

The graduate minor in theory pedagogy requires 18 s.h. of graduate credit. The program is open to students who have been admitted to a graduate degree program in the School of Music. A minimum UI cumulative GPA of 2.50 and a graduate college major program GPA of 3.00 is required.

The minor in theory pedagogy requires the following coursework.

Course #	Title	Hours
This course:		
MUS:6215	Music Theory Pedagogy	3
One of these:		
MUS:4200	Counterpoint Before 1600	3
MUS:4201	Counterpoint After 1600	3
Two of these:		
MUS:5240	Special Topics in Theory and Analysis (may be repeated)	3
MUS:6211	Theoretical Approaches to Music	3
Two of these:		
MUS:4730	Jazz Theory	3
MUS:5235	Tonal Analysis	3
MUS:5236	Non-Tonal Analysis	3
MUS:5237	Analysis of Popular Music	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Theory Pedagogy, Graduate Minor

Course	Title	Hours
Academic Career		
Any Semester		
The graduate minor in theory pedagogy requires 18 s.h. of graduate credit. The program is open to students who have been admitted to a graduate degree program in the School of Music.		
Some courses for the minor are offered on a 3-semester rotation but they may be taken in any order. Check MyUI for course availability since offerings are subject to change.		
	Hours	**0**
First Year		
Fall		
MUS:6215	Music Theory Pedagogy	3
	Hours	**3**
Spring		
MUS:5240 or MUS:6211	Special Topics in Theory and Analysis [a] or Theoretical Approaches to Music	3
	Hours	**3**
Second Year		
Fall		
MUS:4201 or MUS:4200	Counterpoint After 1600 or Counterpoint Before 1600	3
	Hours	**3**
Spring		
MUS:5240 or MUS:6211	Special Topics in Theory and Analysis [a] or Theoretical Approaches to Music	3
	Hours	**3**
Third Year		
Fall		
Minor: theory pedagogy elective course [b]		3
	Hours	**3**
Spring		
Minor: theory pedagogy elective course [b]		3
	Hours	**3**
	Total Hours	**18**

a MUS:5240 may be repeated.
b Students must complete two courses from MUS:4730, MUS:5235, MUS:5236, MUS:5237.

Native American and Indigenous Studies

Interim Chair, American Studies

- Rene R. Rocha

Director

- Stephen Warren

Undergraduate minor: Native American and Indigenous studies

Undergraduate certificate: Native American and Indigenous studies

Graduate certificate: Native American and Indigenous studies

Faculty: https://nativeamericanstudies.uiowa.edu/people

Website: https://nativeamericanstudies.uiowa.edu/

Native American and Indigenous studies (NAIS) is an interdisciplinary program that focuses on the histories, cultures, literatures, and contemporary legal and political issues of Native North Americans and the Indigenous peoples of the world.

Students taking NAIS courses begin to understand the historical and contemporary social issues facing Indigenous peoples within the international and global context of settler colonialism. Courses provide students with a better understanding of ethnic, social, and political diversity. The curriculum provides students with teaching methods that cross conventional disciplinary boundaries, and that involve visiting and learning more about regional Native American communities. Through engagement with Native peoples from Iowa and the Midwest, students will learn how to communicate knowledge to audiences both within and beyond the classroom. Students thereby gain expertise for employment in advocacy, social services, health care, education, and other areas that require cross-cultural understanding and communication with diverse public audiences. Students also gain a background for more specialized or advanced study in a variety of disciplines, including anthropology; economics; education; ethnic studies; gender, women's, and sexuality studies; geography; history; political science; psychology; religious studies; and social justice.

A certificate or minor in NAIS also complements preprofessional and professional training in areas such as health care, business, social work, and law.

The Native American and Indigenous Studies Program is administered by the Department of American Studies [p. 51].

Programs

Undergraduate Programs of Study

Minor

- Minor in Native American and Indigenous Studies [p. 871]

Certificate

- Certificate in Native American and Indigenous Studies [p. 872]

Graduate Program of Study

- Certificate in Native American and Indigenous Studies [p. 874]

Courses

Native American and Indigenous Studies Courses

NAIS:1049 Introduction to Native American and Indigenous Studies **3 s.h.**
Exploration of past, present, and future of American Indians in the United States and beyond through film, art, music, and comedy. GE: Values and Society. Same as AMST:1049, HIST:1049.

NAIS:1095 Native American Art **3 s.h.**
Survey of the visual arts of Indigenous peoples in North America with emphasis on regions that have become the United States; exploration of painting, sculpture, ceramics, fiber arts, performance, and architecture as expressions of identity, creativity, resistance, and resilience from ancestral traditions through transformations prompted by non-Native contact to today's vibrant art scene. GE: Literary, Visual, and Performing Arts; Values and Society. Same as ARTH:1095.

NAIS:1290 Native American Foods and Foodways **3 s.h.**
Native Americans as original farmers of 46% of the world's table vegetables; examination of food as a cultural artifact (e.g., chocolate, tobacco); food as a primary way in which human beings express their identities; environmental, material, and linguistic differences that shape unique food cultures among Native peoples across the Western Hemisphere; close analysis of Indigenous foods, rituals, and gender roles associated with them; how colonization transformed Native American, European, and African American cultures. GE: Understanding Cultural Perspectives. Same as AMST:1290, GHS:1290, HIST:1290.

NAIS:1500 Topics in Native American and Indigenous Studies **3 s.h.**
Native American and Indigenous peoples; concepts, problems, and issues.

NAIS:2165 Native Peoples of North America **3 s.h.**
History, culture of American Indian peoples; emphasis on North America. GE: Understanding Cultural Perspectives. Same as AMST:2165, ANTH:2165.

NAIS:2292 Native American Law and Policy: A History **3 s.h.**
Native Americans are citizens of governments that predate the U.S.; what it means to be a citizen of a federally recognized tribe within the U.S.; exploration of the peculiar status of Native nations and their citizens since 1789. Same as AMST:2292, HIST:2292.

NAIS:2300 Native Americans in Film **3 s.h.**
Representations of Native Americans in film from the western to science fiction and animation. Same as AMST:2300.

NAIS:2500 Indigenous Art, Land, and Social Justice 3 s.h.
Examples, readings, discussions, and special projects to examine contemporary visual, performance, and multimedia art by Native North American and other Indigenous artists as a component of broader indigenous activism for social justice and defense of land.

NAIS:3110 Colonialism and Indigenous Health Equity 3 s.h.
Health problems and services for Indigenous populations worldwide, from perspective of Fourth World postcolonial politics. Prerequisites: ANTH:1101 or ANTH:2165 or GHS:2000 or HIST:1049 or CPH:1400. Same as ANTH:3110, CBH:4200, GHS:3110.

NAIS:3145 Excavation to Exhibit: Making Artifacts Public 3 s.h.
In-depth exploration of methodological, theoretical, and historical issues in the creation of archaeological museum exhibitions including hands-on learning involving the development of an exhibit for the Stanley Museum of Art. Same as ANTH:3145, MUSM:3145.

NAIS:3240 Cultural Resources Management Archaeology: Practice and Practicalities 3 s.h.
Cultural Resources Management (CRM) archaeology is the largest sector of archaeological research in the United States in terms of employment, funding, field- and lab-related activity; students investigate the past and navigate complexities of compliance requirements from federal, state, and local regulations concerning historic preservation; introduction to legal, procedural, and practical foundations of CRM archaeology; preparation for employment by acquisition of skills from project planning through dissemination of results. Recommendations: completion of other anthropology, geography, history, or Native American studies courses. Same as ANTH:3240.

NAIS:3243 Archaeology of the American Midcontinent 3 s.h.
Survey of the archaeology of the American midcontinent for students interested in the past beyond what historical documents reveal; exploration of Late Pleistocene and Archaic hunter-gatherer adaptations, Woodland and Late Prehistoric horticulturalists, Middle and Upper Mississippian emergent chiefdoms, and historic period first contact, fur trade, and fort sites; how archaeologists utilize regional archaeological data in addressing culture change issues to develop the essential grounding for understanding how people lived in different times and places in the past, and how prehistoric peoples relate to their modern descendants across the midcontinent. Recommendations: ANTH:1201. Same as ANTH:3243.

NAIS:3257 North American Archaeology 3 s.h.
Prehistoric cultural development north of Mexico from initial occupation to European contact and conquest; emphasis on dynamics of culture change. Same as ANTH:3257.

NAIS:3270 Colonial North America, ca. 1600-1775 3 s.h.
Introduction to major themes in colonial American history prior to the American Revolution; Native American history; colonialism and Native resistance; slavery; material culture; religion and spirituality; immigration; gender and sexuality in cross-cultural perspective. Same as HIST:3270.

NAIS:3272 Native Americans in the Age of Empires, ca. 1500-1815 3 s.h.
Overview of major issues in Native American history during the period of European Imperialism; colonialism, diplomacy and alliance building, warfare, captivity, religious and spiritual exchanges, revolution, and the disintegration of Native-European alliances in the early 19th century. Same as HIST:3272.

NAIS:3289 The Atlantic World c. 1450-1850 3 s.h.
Interactions between peoples of Europe, Africa, and the Americas between the 15th and mid-19th centuries, interconnected system of exchange that defied national and imperial boundaries; encounters between Native Americans, Africans, and Europeans in different parts of the Americas; forced and voluntary resettlement of Africans and Europeans overseas; development of plantation slave societies; biological consequences of transatlantic contact; circulation of people, goods, and ideas; development of creole societies; era of revolutions; abolition of slavery. Same as HIST:3289.

NAIS:3305 Human Osteology 3 s.h.
The human skeletal system; normal and pathologic variation; skeletal measurement and analysis with application to paleoanthropology, forensic, and archaeological investigations. Same as ANTH:3305.

NAIS:3430 Environmental Politics and Indigeneity 3 s.h.
Examination of contemporary environmental challenges through the lens of indigeneity; exploration of the concepts of environment and indigeneity, and development of a guiding framework for analyzing environmental challenges; application of this framework to analyze themes including climate change, biodiversity, food production, management of genetic resources, extractivism, and sustainable development; environmental/indigenous scholars and activists share their work and insights. Same as POLI:3430.

NAIS:3432 Agriculture Politics and Policy 3 s.h.
Examination of local, national, and international politics and policies around agriculture including genetically modified organisms (GMOs), subsidies, trade, genetic seed banks, sustainability, and indigeneity. Same as POLI:3432.

NAIS:3441 Native American Literature 3 s.h.
Native American literature and culture. Same as ENGL:3441.

NAIS:3502 History of Mexico 3 s.h.
Mexican history since the eve of the Spanish invasion, with focus on the national period; indigenous groups, conquest and demographic disaster, Native survival, labor and migration, social protest and rebellions, nationhood, revolution, regional differences, religions, popular culture, economic growth and distribution, state building, environmental change, international relations; survey. Same as HIST:3502, LAS:3502.

NAIS:3580 Native American Public Policy 3 s.h.
Exploration of ways that Native nations govern themselves, including the relationship between these sovereign entities and the U.S. government; topics include Indian Child Welfare Act, membership and enrollment, income and taxation, crime and justice; how these systems have changed over time; current practices and innovations that have emerged within different tribes. Same as PBAF:3580.

NAIS:4500 Special Topics in Native American and Indigenous Studies 1-3 s.h.
Native American and Indigenous peoples; concepts, problems, and issues.

NAIS:4990 Independent Study arr.

NAIS:5099 American Indian and Native Studies Proseminar **1 s.h.**
Intensive reading on designated topics with multidisciplinary relevance in Native American and Indigenous studies; may include screenings, field trips, guest speakers, special events.

NAIS:6050 Seminar: Topics in Native American and Indigenous Studies **3 s.h.**
Native American and Indigenous peoples; concepts, problems, and issues.

NAIS:6099 Independent Study Project **arr.**
Completion of a significant scholarly project that addresses the scope, goals, and ongoing development of Native American and Indigenous studies as an academic field; findings presented on campus (e.g., NAIS steering committee or in association with an NAIS-sponsored event) or at an academic conference.

NAIS:6620 Readings in Native American Literatures **3 s.h.**
Same as ENGL:6620.

NAIS:7202 Readings: 20th-Century Native American History **arr.**
Examination of the Indigenous 20th century through a series of themes including settler colonialism, sovereignty and self-determination, federal Indian policy, and Indigenous feminism; readings focus primarily on secondary sources, but attention is given to key primary sources; students are required to carry out specified research tasks. Same as HIST:7202.

Native American and Indigenous Studies, Minor

Requirements

The minor in Native American and Indigenous studies (NAIS) requires a minimum of 15 s.h., including at least 12 s.h. in courses completed at the University of Iowa. Students must earn a grade-point average of at least 2.00 in all coursework completed for the minor.

Students complete one introductory course and 12 s.h. in elective coursework. Elective courses reflect the program's emphasis on Indigenous histories in the Americas, Indigenous cultures and literatures, and Indigenous peoples in global perspectives. Elective courses from several departments ensure that students are exposed to different themes. Students may consult with the NAIS coordinator.

The minor in Native American and Indigenous studies requires the following coursework.

Introductory Courses

Course #	Title	Hours
One of these:		
NAIS:1049/ AMST:1049/ HIST:1049	Introduction to Native American and Indigenous Studies	3
NAIS:2165/ AMST:2165/ ANTH:2165	Native Peoples of North America	3
NAIS:2292/ AMST:2292/ HIST:2292	Native American Law and Policy: A History	3

Elective Courses

Students must choose 12 s.h. in elective coursework. They may petition for minor credit for courses not in the following list that contain significant Indigenous content.

Course #	Title	Hours
NAIS:1049/ AMST:1049/ HIST:1049	Introduction to Native American and Indigenous Studies (if not taken as an introductory course)	3
NAIS:1095/ ARTH:1095	Native American Art	3
NAIS:1290/ AMST:1290/ GHS:1290/ HIST:1290	Native American Foods and Foodways	3
NAIS:1500	Topics in Native American and Indigenous Studies	3
NAIS:2165/ AMST:2165/ ANTH:2165	Native Peoples of North America (if not taken as an introductory course)	3
NAIS:2292/ AMST:2292/ HIST:2292	Native American Law and Policy: A History (if not taken as an introductory course)	3
NAIS:2300/ AMST:2300	Native Americans in Film	3
NAIS:2500	Indigenous Art, Land, and Social Justice	3
NAIS:3110/ ANTH:3110/ CBH:4200/ GHS:3110	Colonialism and Indigenous Health Equity	3
NAIS:3145/ ANTH:3145/ MUSM:3145	Excavation to Exhibit: Making Artifacts Public	3
NAIS:3240/ ANTH:3240	Cultural Resources Management Archaeology: Practice and Practicalities	3
NAIS:3243/ ANTH:3243	Archaeology of the American Midcontinent	3
NAIS:3257/ ANTH:3257	North American Archaeology	3
NAIS:3270/ HIST:3270	Colonial North America, ca. 1600-1775	3
NAIS:3272/ HIST:3272	Native Americans in the Age of Empires, ca. 1500-1815	3
NAIS:3289/ HIST:3289	The Atlantic World c. 1450-1850	3
NAIS:3305/ ANTH:3305	Human Osteology	3
NAIS:3430/ POLI:3430	Environmental Politics and Indigeneity	3
NAIS:3432/ POLI:3432	Agriculture Politics and Policy	3
NAIS:3441/ ENGL:3441	Native American Literature	3
NAIS:3502/ HIST:3502/ LAS:3502	History of Mexico	3
NAIS:3580/ PBAF:3580	Native American Public Policy	3
NAIS:4500	Special Topics in Native American and Indigenous Studies	1-3
ENGL:2505	Introduction to Postcolonial Studies	3
ENGL:3431	American Novel Since 1945 (when topic is Native American literature)	3
ENGL:3515	Topics in Postcolonial Studies	3
FREN:4090	Quebec Literature	3
GWSS:3350/ ANTH:3125/IS:3350	Transnational Feminism	3
HIST:1040	Diversity in History (when topic is Indigenous feminisms; consult instructor)	3
HIST:2151	Introduction to the History Major (when topic is focused on Indigenous peoples)	3
HIST:3273	War and Violence in Early American Societies and Culture	3
HIST:4130/ MUSM:4130	Museum Literacy and Historical Memory	3
SPAN:3240	Mexico City	3

Native American and Indigenous Studies, Certificate

Requirements

The undergraduate Certificate in Native American and Indigenous Studies (NAIS) requires a minimum of 18 s.h., including at least 12 s.h. in courses completed at the University of Iowa. Students must earn a grade-point average of at least 2.00 in all certificate coursework.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

All students develop an individual certificate plan of study in consultation with the NAIS coordinator. In some cases, students may be able to count certificate courses toward certain GE CLAS Core [p. 22] requirements. Students complete one introductory course and 15 s.h. in elective coursework. Elective courses reflect the certificate program's emphasis on Indigenous histories in the Americas, Indigenous cultures and literatures, and Indigenous peoples in global perspectives. Elective courses from several departments ensure that students are exposed to different themes.

The Certificate in Native American and Indigenous Studies requires the following coursework.

Introductory Courses

Course #	Title	Hours
One of these:		
NAIS:1049/ AMST:1049/ HIST:1049	Introduction to Native American and Indigenous Studies	3
NAIS:2165/ AMST:2165/ ANTH:2165	Native Peoples of North America	3
NAIS:2292/ AMST:2292/ HIST:2292	Native American Law and Policy: A History	3

Elective Courses

Students must choose 15 s.h. in elective coursework. They may petition for certificate credit for courses not in the following list that contain significant Indigenous content.

Course #	Title	Hours
NAIS:1049/ AMST:1049/ HIST:1049	Introduction to Native American and Indigenous Studies (if not taken as an introductory course)	3
NAIS:1095/ ARTH:1095	Native American Art	3
NAIS:1290/ AMST:1290/ GHS:1290/ HIST:1290	Native American Foods and Foodways	3
NAIS:1500	Topics in Native American and Indigenous Studies	3
NAIS:2165/ AMST:2165/ ANTH:2165	Native Peoples of North America (if not taken as an introductory course)	3
NAIS:2292/ AMST:2292/ HIST:2292	Native American Law and Policy: A History (if not taken as an introductory course)	3
NAIS:2300/ AMST:2300	Native Americans in Film	3
NAIS:2500	Indigenous Art, Land, and Social Justice	3
NAIS:3110/ ANTH:3110/ CBH:4200/ GHS:3110	Colonialism and Indigenous Health Equity	3
NAIS:3145/ ANTH:3145/ MUSM:3145	Excavation to Exhibit: Making Artifacts Public	3
NAIS:3240/ ANTH:3240	Cultural Resources Management Archaeology: Practice and Practicalities	3
NAIS:3243/ ANTH:3243	Archaeology of the American Midcontinent	3
NAIS:3257/ ANTH:3257	North American Archaeology	3
NAIS:3270/ HIST:3270	Colonial North America, ca. 1600-1775	3
NAIS:3272/ HIST:3272	Native Americans in the Age of Empires, ca. 1500-1815	3
NAIS:3289/ HIST:3289	The Atlantic World c. 1450-1850	3
NAIS:3305/ ANTH:3305	Human Osteology	3
NAIS:3430/ POLI:3430	Environmental Politics and Indigeneity	3
NAIS:3432/ POLI:3432	Agriculture Politics and Policy	3
NAIS:3441/ ENGL:3441	Native American Literature	3
NAIS:3502/ HIST:3502/ LAS:3502	History of Mexico	3
NAIS:3580/ PBAF:3580	Native American Public Policy	3
NAIS:4500	Special Topics in Native American and Indigenous Studies	1-3
ENGL:2505	Introduction to Postcolonial Studies	3
ENGL:3431	American Novel Since 1945 (when topic is Native American literature)	3
ENGL:3515	Topics in Postcolonial Studies	3
FREN:4090	Quebec Literature	3
GWSS:3350/ ANTH:3125/IS:3350	Transnational Feminism	3
HIST:1040	Diversity in History (when topic is Indigenous feminisms; consult instructor)	3
HIST:2151	Introduction to the History Major (when topic is focused on Indigenous peoples)	3

HIST:3273	War and Violence in Early American Societies and Culture	3
HIST:4130/ MUSM:4130	Museum Literacy and Historical Memory	3
SPAN:3240	Mexico City	3

Native American and Indigenous Studies, Graduate Certificate

Requirements

The graduate Certificate in Native American and Indigenous Studies (NAIS) requires a minimum of 15 s.h. in courses numbered 3000 and above. Students must maintain a grade-point average of at least 3.00 in coursework toward the certificate.

Students must contact the NAIS coordinator in order to apply to the certificate program, and they work with the NAIS coordinator to develop a plan of study.

Students who earned an undergraduate certificate in the program may not receive a graduate certificate.

Native American and Indigenous studies aims to expose students to the interdisciplinary nature of the field. NAIS emphasizes Indigenous histories in the Americas, Indigenous cultures and literatures, and Indigenous peoples in global perspectives.

Students may petition for certificate credit for courses that are not on the list. The petition must show that the course contains significant Indigenous content. Before enrolling in any courses for the graduate certificate, students should contact the NAIS coordinator.

Course #	Title	Hours
NAIS:3110/ ANTH:3110/ CBH:4200/ GHS:3110	Colonialism and Indigenous Health Equity	3
NAIS:3240/ ANTH:3240	Cultural Resources Management Archaeology: Practice and Practicalities	3
NAIS:3243/ ANTH:3243	Archaeology of the American Midcontinent	3
NAIS:3257/ ANTH:3257	North American Archaeology	3
NAIS:3270/ HIST:3270	Colonial North America, ca. 1600-1775	3
NAIS:3272/ HIST:3272	Native Americans in the Age of Empires, ca. 1500-1815	3
NAIS:3289/ HIST:3289	The Atlantic World c. 1450-1850	3
NAIS:3430/ POLI:3430	Environmental Politics and Indigeneity	3
NAIS:3432/ POLI:3432	Agriculture Politics and Policy	3
NAIS:3441/ ENGL:3441	Native American Literature	3
NAIS:3502/ HIST:3502/ LAS:3502	History of Mexico	3
NAIS:4500	Special Topics in Native American and Indigenous Studies	1-3
NAIS:6620/ ENGL:6620	Readings in Native American Literatures	3
NAIS:7202/ HIST:7202	Readings: 20th-Century Native American History	arr.
ENGL:3431	American Novel Since 1945 (when topic is Native American literature)	3
ENGL:3515	Topics in Postcolonial Studies	3
FREN:4090	Quebec Literature	3
GWSS:3350/ ANTH:3125/IS:3350	Transnational Feminism	3
HIST:4130/ MUSM:4130	Museum Literacy and Historical Memory	3
HIST:6140/ AMST:6140	Engaged Scholarship in the Humanities	0,3
SPAN:3240	Mexico City	3

Neuroscience

Chair, Department of Biology

- Tina L. Tootle

Undergraduate major: neuroscience (BS)

Faculty: https://clas.uiowa.edu/neuroscience

Website: https://clas.uiowa.edu/neuroscience

The departments of Biology and Psychological and Brain Sciences collaborate to offer the Bachelor of Science degree in neuroscience. The neuroscience program is also closely aligned with the Iowa Neuroscience Institute (INI). The program is administered by the Department of Biology [p. 141].

Programs

Undergraduate Program of Study

Major

- Major in Neuroscience (Bachelor of Science) [p. 876]

Neuroscience, BS

Learning Outcomes

Students will:

- learn how molecules and cells generate brain circuits that build human behavior and cognition;
- design effective experiments;
- think critically about scientific data;
- communicate effectively about neuroscience; and
- be prepared for graduate education in neuroscience or related life-science fields; for medical school or other health-related programs such as public health or nursing; or for a first step in a career, including work in biomedical industries, academic laboratories, and science education.

Requirements

The Bachelor of Science with a major in neuroscience requires a minimum of 120 s.h., including at least 64 s.h. of work for the major. Coursework includes neuroscience, chemistry, biochemistry, mathematics, and physics courses. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students who major in neuroscience may not earn a major in biology or psychology, but may earn a minor in biology or psychology as long as no more than 3 s.h. are double counted.

The BS with a major in neuroscience requires the following coursework.

Requirements	Hours
Cognate Requirements	20
Introductory Courses	8
Core Courses	17
Laboratory Course	4
Neuroscience Electives	15

Cognate Requirements

Course #	Title	Hours
This sequence:		
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
One of these sequences:		
PHYS:1511 & PHYS:1512	College Physics I and College Physics II (preferred)	8
PHYS:1611 & PHYS:1612	Introductory Physics I and Introductory Physics II	8
One of these:		
MATH:1460	Calculus for the Biological Sciences (preferred)	4
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4

Introductory Courses

Course #	Title	Hours
Both of these:		
BIOL:1411	Foundations of Biology	4
PSY:2701	Introduction to Behavioral Neuroscience	4

Core Courses

Course #	Title	Hours
All of these:		
BIOL:3253	Neurobiology I	4
BIOL:3254	Neurobiology II	4
PSY:2811 & PSY:2812	Research Methods and Data Analysis in Psychology I and Research Methods and Data Analysis in Psychology II	6
PSY:2975	Introduction to Cognitive Neuroscience	3

Laboratory Course

Course #	Title	Hours
One of these:		
BIOL:3245	Animal Behavior Laboratory	4
BIOL:3655	Neurogenetics Laboratory	4
BIOL:3656	Neurobiology Laboratory	4
PSY:4025	Laboratory in Cognitive Neuroscience	4
PSY:4035	Laboratory in Computational Neuroscience	4

Neuroscience Electives

Course #	Title	Hours
A minimum of five courses (15 s.h.) from these:		
BIOL:1412	Diversity of Form and Function	4
BIOL:2254	Endocrinology	3
BIOL:2512	Fundamental Genetics	4
BIOL:2723	Cell Biology	3
BIOL:3244	Animal Behavior	3
BIOL:3343	Animal Physiology	3
BIOL:4333	Genes and Development	3
CHEM:2210	Organic Chemistry I	3
PCOL:3101	Pharmacology I: A Drug's Fantastic Journey	3
PSY:3035	Science of Emotion	3
PSY:3040	Psychology of Learning	3
PSY:3055	Interdisciplinary Science of Sound and Hearing	3
PSY:3060	Sensation and Perception	3
PSY:3075	The Damaged Brain	3
PSY:3250	Neuroscience of Learning and Memory	3
PSY:3265	Cognitive and Clinical Neuroscience of Executive Functions	3
PSY:3270	Neurobiology of Stress	3
PSY:3275	The Science of Sleep	3

PSY:3360	The Psychosis Spectrum	3
PSY:3575	Social Cognition in Autism	3
PSY:4090	Psychology Seminar (when topic is social cognitive neuroscience or learning and decision making)	3
May include one of these:		
BIOL:3999/ PSY:3999	Independent Research in Neuroscience	3
BIOL:4995/ PSY:4995	Honors Research in Neuroscience	3
May include one of these:		
PCOL:3102	Pharmacology II: Mechanisms of Drug Action	3
PSY:3230	Psychopharmacology	3
May include one of these:		
BMB:3110	Biochemistry	3
BMB:3120	Biochemistry and Molecular Biology I	3

Honors

Honors in the Major

Students majoring in neuroscience have the opportunity to graduate with honors in the major. Departmental honor students must maintain a major grade-point average (GPA) and a UI GPA of at least 3.33.

In order to earn honors in the neuroscience major, students must complete the following.

- A minimum of 6 s.h. over two or more semesters of an independent laboratory research project undertaken in the laboratory of an Iowa Neuroscience Institute (INI) faculty member chosen from a list of approved mentors. Students enroll in BIOL:4995/PSY:4995 Honors Research in Neuroscience.
- A brief initial research proposal summarizing the background and goals of the planned honors investigations research, submitted to the honors coordinator, typically at the end of the semester immediately prior to the final semester of honors research.
- An acceptable honors thesis describing the research submitted to the honors coordinator near the end of the final semester of enrollment in BIOL:4995/PSY:4995 Honors Research in Neuroscience.
- An oral presentation of the honors research findings during the student's final semester.

Honors students are also encouraged to participate in the Office of Undergraduate Research (OUR) and to apply for research scholarships, including the Iowa Neuroscience Institute (INI) Summer Scholars Fellowships.

Neuroscience majors interested in graduating with honors in the major should contact the honors coordinator as early as possible, preferably during their sophomore or junior year.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Students who satisfy the requirements for honors in the neuroscience major also satisfy the experiential learning requirement of the university honors curriculum.

Membership in the UI Honors Program is not required to earn honors in the neuroscience major.

Career Advancement

The major provides students with a rigorous and broad background in neuroscience, from the cellular and molecular levels to the behavioral and cognitive levels. Students earning a degree in neuroscience will be well prepared to pursue graduate work in neuroscience or related life sciences, attend medical school, or enter other health-related programs such as a physician's assistant program, public health, or nursing. Graduates will also be prepared to directly enter the workforce in biotechnology industries, academic life science laboratories, or in science education, and science writing.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: BIOL:1411 Foundations of Biology, CHEM:1110 Principles of Chemistry I, CHEM:1120 Principles of Chemistry II, MATH:1460 Calculus for the Biological Sciences (can also be taken during the third semester) or MATH:1550 Engineering Calculus I or MATH:1850 Calculus I, and PSY:2701 Introduction to Behavioral Neuroscience.

Before the fifth semester begins: PHYS:1511 College Physics I or PHYS:1611 Introductory Physics I, PSY:2811 Research Methods and Data Analysis in Psychology I, PSY:2812 Research Methods and Data Analysis in Psychology II, and PSY:2975 Introduction to Cognitive Neuroscience.

Before the seventh semester begins: one of the five approved laboratory courses and PHYS:1512 College Physics II or PHYS:1612 Introductory Physics II.

Before the eighth semester begins: BIOL:3253 Neurobiology I and three required neuroscience electives.

During the eighth semester: BIOL:3254 Neurobiology II, remaining required neuroscience electives, enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Neuroscience, BS

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
PSY:1001	Elementary Psychology [b]	3
PSY:2701	Introduction to Behavioral Neuroscience	4
CHEM:1110	Principles of Chemistry I [c]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Values and Society [d]		3
	Hours	**14-15**
Second Year		
Fall		
PSY:2811	Research Methods and Data Analysis in Psychology I	3
PSY:2975	Introduction to Cognitive Neuroscience	3
MATH:1460	Calculus for the Biological Sciences [e]	4
GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
	Hours	**14-15**
Spring		
PHYS:1511	College Physics I	4
PSY:2812	Research Methods and Data Analysis in Psychology II	3
Major: neuroscience elective [g]		3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
Elective course [h]		3
	Hours	**17-19**
Third Year		
Fall		
PHYS:1512	College Physics II	4
Major: neuroscience elective [g]		3 - 4
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]		4 - 5
Elective course [h]		3
	Hours	**17-19**
Spring		
Major: neuroscience lab course [g]		4
Major: neuroscience elective [g]		3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]		4 - 5
	Hours	**14-16**
Fourth Year		
Fall		
BIOL:3253	Neurobiology I	4
Major: neuroscience elective [g]		3 - 4
Major: neuroscience elective [g]		3 - 4
GE CLAS Core: International and Global Issues [d]		3
Elective course [h]		3
	Hours	**16-18**
Spring		
BIOL:3254	Neurobiology II	4
Major: neuroscience elective [g]		3 - 4
Major: neuroscience elective [g]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
Elective course [h]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**16-18**
	Total Hours	**123-136**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b It is strongly recommended that neuroscience majors take this course as their GE CLAS Core: Social Science requirement and that they do so in their first semester.

c Enrollment in chemistry courses requires completion of a placement exam.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Enrollment in math courses requires completion of a placement exam.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g See General Catalog for a list of courses.

h Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all

requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Philosophy

Chair

- Ali M. Hasan

Undergraduate major: philosophy (BA)

Undergraduate minor: philosophy

Graduate degrees: MA in philosophy; PhD in philosophy

Faculty: https://philosophy.uiowa.edu/people/faculty

Website: https://philosophy.uiowa.edu/

The Department of Philosophy offers programs of study for undergraduate and graduate students. A major in philosophy develops abilities useful for careers in many fields and for any situation requiring clear, systematic thinking.

The department also administers the interdisciplinary undergraduate major in ethics and public policy, which it offers jointly with the departments of Economics, Sociology and Criminology, and Political Science; see Ethics and Public Policy [p. 459] in the catalog.

Programs

Undergraduate Programs of Study

Major

- Major in Philosophy (Bachelor of Arts) [p. 884]

Minor

- Minor in Philosophy [p. 888]

Graduate Programs of Study

- Master of Arts in Philosophy [p. 889]
- Doctor of Philosophy in Philosophy [p. 891]

Courses

For more detailed descriptions of undergraduate and graduate courses offered during a given session, visit MyUI before early registration. Graduate students can take courses numbered 4000–7900 for graduate credit.

Philosophy Courses

PHIL:1010 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities).

PHIL:1033 The Meaning of Life **3 s.h.**
Philosophical investigation of the nature of human life and of what makes human life valuable and/or meaningful. GE: Historical Perspectives.

PHIL:1034 Liberty and the Pursuit of Happiness **3 s.h.**
Examination of conflict between state power and individual liberty; philosophical and historical examination of theories from Plato through today. GE: Historical Perspectives.

PHIL:1401 Matters of Life and Death **3 s.h.**
Contemporary ethical controversies with life and death implications; topics may include famine, brain death, animal ethics, abortion, torture, terrorism, capital punishment. GE: Values and Society.

PHIL:1636 Principles of Reasoning: Argument and Debate **3 s.h.**
Critical thinking and its application to arguments and debates. GE: Quantitative or Formal Reasoning.

PHIL:1861 Introduction to Philosophy **3 s.h.**
Varied topics; may include personal identity, existence of God, philosophical skepticism, nature of mind and reality, time travel, and the good life; readings, films. GE: Values and Society.

PHIL:1950 Philosophy Club **1-3 s.h.**
Relevant philosophical debates as they are exhibited in current events, text, and film; participation through discussions and film screenings.

PHIL:2111 Ancient Philosophy **3 s.h.**
Ancient Greek philosophy from Thales to Aristotle; pre-Socratic cosmologists, Socrates, ancient medicine and religion, rivalry between sophists and philosophers; primary focus on reaction of Plato and Aristotle to this intellectual inheritance culminating in their greatest achievement, the invention of systematic philosophy.

PHIL:2214 Seventeenth-Century Philosophy **3 s.h.**
Varied topics; may include free will, the mind-body problem, existence of God, relationship between God and creatures, science and religion, stoicism, early feminism; Francis Bacon, Rene Descartes, Margaret Cavendish, Baruch Spinoza, Anne Conway, G.W. Leibniz, Mary Astell, John Locke.

PHIL:2215 Modern Philosophy **3 s.h.**
Varied topics; may include free will, the mind-body problem, existence of God, creation versus evolution, subjectivity of perception, limits of cognition, the good life; Rene Descartes, Margaret Cavendish, Baruch Spinoza, Anne Conway, G.W. Leibniz, Mary Astell, John Locke, George Berkeley, David Hume, Immanuel Kant.

PHIL:2216 Eighteenth-Century Philosophy **3 s.h.**
Varied topics; may include appearance versus reality, empiricism and science, the mind-body problem, existence of God, creation versus evolution, subjectivity of perception, limits of cognition, the good life, and early feminism; Mary Astell, John Locke, George Berkeley, David Hume, Immanuel Kant, and Thomas Reid.

PHIL:2343 Philosophy East and West **3 s.h.**
Conception of human good in the East and in the West.

PHIL:2402 Introduction to Ethics **3 s.h.**
Analytical and historical introduction to ethical theories; issues such as the nature of the goodness, distinction between right and wrong. GE: Values and Society.

PHIL:2415 Bioethics **3 s.h.**
Recent developments in biotechnology and medicine; designer babies and cloning, genetic screening for disease, distributive justice in health care, animal experimentation, physician-assisted suicide, and euthanasia. Same as GHS:2415.

PHIL:2422 Feminist Ethics **3 s.h.**
Philosophical evaluation of gender as a pervasive and persistent structuring principle for social inequality. Same as GWSS:2422.

PHIL:2425 Sex, Marriage, Friendship, and the Law 3 s.h.
Examination and evaluation of ways in which society and law have privileged or discouraged certain forms of sexual activity and certain forms of adult intimate relationships. GE: Understanding Cultural Perspectives.

PHIL:2429 War, Terrorism, and Torture 3 s.h.
Examination of some of the most compelling ethical and legal questions surrounding the topic of war: Can a war ever be just? If so, under which conditions is one justified in waging war? Are there limitations on permissible ways to fight a war? How are acts of terrorism different from acts of war? Is torture ever justified?

PHIL:2432 Introduction to Political Philosophy 3 s.h.
Survey of central problems in political philosophy; focus on liberty, equality, justice, and purpose of the state; core philosophers may include John Locke, Jean-Jacques Rousseau, Thomas Hobbes, John Stuart Mill, and John Rawls.

PHIL:2435 Philosophy of Law 3 s.h.
Examination of jurisprudential theories and their answers to the question, "What is law?"; intersection between law and morality, legal punishment, political obligation, constitutional interpretation.

PHIL:2436 The Nature of Evil 3 s.h.
The nature of evil explored through philosophical texts, videos and films, case studies of individuals.

PHIL:2437 Introduction to Metaphysics 3 s.h.
Questions about the ultimate nature of reality and our place in it: What is the nature of space and time? Is time travel possible? What is the self and how does it persist through time and change? What is the nature of causation? Do we have free will?

PHIL:2442 Knowledge and the Threat of Skepticism 3 s.h.
Skeptical doubt and distinction between appearance and reality; nature of knowledge and what, if anything, can we know.

PHIL:2480 Language and Its Social Roles 3 s.h.
Introduction to basic concepts in philosophy of language and speech act theory; social and political uses of language including nature of speech, silencing, oppressive and hate speech, propaganda and dehumanizing language, lying and misleading with language.

PHIL:2534 Philosophy of Religion 3 s.h.
Historical to contemporary treatments of central issues; nature of faith, existence and nature of God, science and religion, ethics and religion, miracles, religious experience, interpretation of religious texts. Requirements: sophomore or higher standing. Same as RELS:2834.

PHIL:2538 Minds and Machines 3 s.h.
Questions concerning artificial intelligence: What is a mind? What is the relationship between minds and machines? What distinguishes real minds from artificial minds? Could computers or robots think or have feelings? If we create something whose intelligence surpasses that of humans, do we have a right to control it? Are your smart electronic devices parts of your mind? How has the internet changed our lives? Do we survive, perhaps immortally, if we upload contents of our minds to the internet or cloud?

PHIL:2542 Minds and Brains 3 s.h.
Nature of mind in the age of the brain; exploration of questions (How is the mind related to the brain? What do brain scans show? How does the brain process information? What is conscious experience? Is free will threatened by neuroscience? How are intuitive conceptions of memory, emotion, and other mental capacities changing?).

PHIL:2603 Introduction to Symbolic Logic 3 s.h.
Main ideas and techniques of modern natural deduction with quantifiers (all, some, most, exactly one); relations and identity; topics in philosophy of logic including nature of logic, nature of functions, logical necessity, identity as a relation, and how we know logic.

PHIL:3002 Stoics and Epicureans, or How to Live Like a Roman Sage 3 s.h.
Introduction to ethics, epistemology, and metaphysics of Stoicism and Epicureanism, two rival schools of philosophy that profoundly influenced popular and intellectual culture of the Roman Empire.

PHIL:3143 Existentialism 3 s.h.
Main ideas of existentialism, including free will, authenticity, power, nihilism; emphasis on Jean Paul Sartre, Simone de Beauvoir, Friedrich Nietzsche, Martin Heidegger, Soren Kierkegaard, Albert Camus.

PHIL:3318 Twentieth-Century Philosophy 3 s.h.
Exploration of fundamental issues that shaped philosophy in the past century; impact of the theory of evolution on philosophy; whether philosophy is a science; nature of truth and meaning; nature of necessity; nature of space, time, and being; John Dewey, Bertrand Russell, Gottlob Frege, Ludwig Wittgenstein, W.V.O. Quine, Saul Kripke, David Lewis.

PHIL:3342 Multiculturalism and Toleration 3 s.h.
Evaluation of multiculturalism as a political policy and as a personal attitude of respect; individual and collective identity, gender justice, autonomy, toleration, multiculturalism and education; contested practices.

PHIL:3430 Philosophy of Human Rights 3 s.h.
Examination of the concept of human rights; sources of human rights; how we justify calling some, while not other rights, "human rights"; applied issues in women's, children's, and anti-poverty rights.

PHIL:3604 Introduction to Philosophy of Science 3 s.h.
Examination of basic questions regarding nature of science and scientific knowledge: When is a field of inquiry a science? What counts as evidence in a science, and why? In what sense, if any, is science objective? What are scientific laws, theories, and explanations? If scientific theories are never proven with certainty, are we justified in believing them to be true? Recommendations: background in science (psychology, biology, chemistry, physics).

PHIL:3847 Philosophical Issues 3-4 s.h.
A philosophical topic or controversy.

PHIL:3902 Workshop: Analytical Skills for the LSAT 3 s.h.
Guided preparation for pre-law students who plan to take the Law School Admission Test (LSAT); exercises in analytical thinking, analytical writing, problem solving; practice developing skills in logical reasoning; reflection on professional skills and goals.

PHIL:3906 Workshop: Analytical Skills for the MCAT **3 s.h.**
Guided preparation for students who plan to take the Medical College Admission Test (MCAT); exercises in analytical thinking, analytical writing, problem solving; practice developing skills in logical reasoning; reflection on professional skills and goals.

PHIL:3908 Workshop: Analytical Skills for the GRE **3 s.h.**
Guided preparation for students who plan to take the Graduate Record Examination (GRE) and attend graduate school; exercises in analytical thinking, analytical writing, problem solving; practice developing skills in logical reasoning; reflection on professional skills and goals.

PHIL:3920 Philosophy in Public **1-3 s.h.**
Engagement and service-learning; philosophical concepts are applied to and extracted from internship work in the community and beyond.

PHIL:3950 Readings in Philosophy **arr.**
Independent study. Requirements: sophomore or higher standing.

PHIL:4152 Plato **3 s.h.**
Introduction to metaphysics, epistemology, and moral theory of Plato; topics may include the philosophy of Socrates, Plato's theory of Forms, the tripartite soul, nature of virtue and moral education; Plato's cosmology and assimilation of human nature to the divine; close reading and interpretation of specific texts.

PHIL:4153 Aristotle **3 s.h.**
Introduction to metaphysics, epistemology, and moral theory of Aristotle; topics may include Aristotle's theories of matter and form, causation, motion, change, space, void, time; Aristotle's philosophy of biology and theory of the soul; unity of virtue, nature of action and choice; the syllogism; combines survey with close reading and interpretation of specific texts.

PHIL:4258 Descartes **3 s.h.**
Descartes' systematic philosophy and impact on current debates; topics may include skepticism, the confusion of everyday experience, the mind-body problem, innate ideas and empiricism, free will, nature and existence of God, science and religion, problem of evil, stoicism.

PHIL:4260 Spinoza and Leibniz **3 s.h.**
Comparative and critical examination of metaphysical and epistemological views of 17th-century rationalists, Baruch Spinoza and G.W. Leibniz; topics may include monism, panpsychism, space and time, free will and necessity, the confusion of everyday experience, incomplete versus complete ideas, nature and existence of God, stoicism, passions and emotions as objects of detached scientific investigation.

PHIL:4266 Kant **3 s.h.**
Main ideas and major texts of Kant's metaphysics and epistemology; particular attention given to *Critique of Pure Reason*.

PHIL:4346 Frege and Russell **3 s.h.**
Major issues concerning Frege's revolution in logic, Cantor's taming of the infinite, and Russellian synthesis of these revolutions to form Logicist thesis that all of pure mathematics (including geometry) is a branch of the science of logic; central issues in the philosophy of language and analysis of logical form; Russell's theory of definite descriptions and his logicism as a paradigm for a philosophical solution to mysteries of existence, number, infinite, motion, and Zeno paradoxes.

PHIL:4373 Heidegger **3 s.h.**
Main ideas and major texts of Martin Heidegger; early and later periods; particular attention given to *Being and Time*; focus on Heidegger's analyses of Being and being-in-the-world.

PHIL:4375 Rawls's Political Philosophy **3 s.h.**
Major works by John Rawls, selected secondary readings; contractarianism, concept of justice, justice as fairness as an alternative to utilitarianism, Kantian foundations, comprehensive and political liberalism.

PHIL:4377 Wittgenstein **3 s.h.**
Main ideas and major texts of Ludwig Wittgenstein; early and later periods; particular attention given to *Tractatus*, *Philosophical Investigations*, and development of Wittgenstein's thought.

PHIL:4431 Aesthetics **3 s.h.**
Issues regarding art, aesthetic judgment, and role of art in society; investigation of questions: What is art and what is good art? What is conceptual art? Are aesthetic judgments just a matter of taste, or are some opinions about art better than others? What features of artworks matter for making such judgments, and which don't?; issues pertaining to various arts including painting and sculpture, music, fiction and poetry, performance arts; introduction to artworks and artists.

PHIL:4480 Analytic Ethics **3 s.h.**
Exploration of central meta-ethical questions: Are there objective values, and if there are, can we gain knowledge of what has such value? Should we always act so as to bring about the best consequences? If not, why not? Can we derive moral conclusions from scientifically established facts about the world? If not, does this undermine the idea that we can offer sensible arguments for ethical conclusions?

PHIL:4481 Issues in Philosophy of Law **3 s.h.**
Nature of law and legal interpretation; natural law theory and positivism; critical legal theories.

PHIL:4482 Early Modern Ethics **3 s.h.**
Thomas Hobbes' 1651 publication, *Leviathan*, set British moral philosophy on a new course, rejecting most of the presuppositions of theistic natural law theory, shocked and outraged many of his contemporaries, and set in motion a debate about the nature of morality that continues today in philosophical ethics; focus on debate between sentimentalists (Francis Hutcheson, David Hume, Adam Smith) who regarded morality as a matter of human attitudes and emotions, and rationalists (Samuel Clarke, Ralph Cudworth, Richard Price) who regarded morality as analogous to mathematics.

PHIL:4485 Political Philosophy **3 s.h.**
Political philosophy topics; may include obligation to obey the law, secession, nature of rights, limits of state power, just distribution of property, feminist criticisms.

PHIL:4510 Neuroethics **3 s.h.**
Issues that arise from advances in knowledge of brain-mind relations: cognitive neuroenhancement, neuroimaging-based lie detection and privacy, changing standards of moral and legal responsibility, justification of punishment, admissibility of neuroimaging in legal contexts.

PHIL:4586 Topics in Metaphysics **3 s.h.**
In-depth exploration of metaphysical problems: material constitution, persistence of objects and persons through time, problem of universals, mind-body problem, free will and determinism.

PHIL:4587 Epistemology 3 s.h.
Theories of nature, structure, and extent of knowledge and rational belief; investigation of questions: Do we really know as much as we are inclined to think we do? Can we rule out the possibility that we are dreaming or being systematically deceived right now? And if we can't, what reason do we have for thinking that things are as they seem to us to be?

PHIL:4588 Philosophy of Mind 3 s.h.
Foundational questions about the mind: What is the mind, and how is it related to the brain? What makes minds so special? How do we know if other animals, or even other people, have minds? Can things without brains, such as aliens or computers, think? What is consciousness? Are we mere machines, lacking free will, if neuroscientists can explain the mind?; recent research in related sciences including neuroscience, psychology, cognitive ethology (animal cognition).

PHIL:4589 Philosophy of Language 3 s.h.
Main issues in contemporary philosophy of language; topics may include theories of meaning, truth, belief, interpretation, translation, speech acts, performatives, rule following, reference, naming, propositional attitudes, metaphor. Same as LING:4589.

PHIL:4590 Foundations of Cognitive Science 3 s.h.
Cognitive science defined as the study of individual agency; its nature, mechanisms, and patterns; development of cognitive science from historical roots in psychology, computer science, neuroscience, philosophy, linguistics; key issues; motivations for and varieties of cognitive explanations; models of cognitive architecture; nature of information processing; relation between cognitive processes and experimental tasks; relation between cognitive and neural theories, models, explanations.

PHIL:4691 Mathematical Logic 3 s.h.
Presentation of logic as the science that studies kinds of structure; different axiom systems, decidability, model theoretic semantics, Gödel's incompleteness theorems; topics include nature of logic, mathematics, type-theories, set-theoretical paradoxes.

PHIL:4692 Modal Logic 3 s.h.
Presentation of systems of logic designed to capture concepts of necessity and possibility; different axiom systems, semantics, nonexistent objects; topics include nonclassical systems, nature of possible worlds, relevant entailment, transworld identity, and counterparts inhabiting parallel worlds.

PHIL:4694 Philosophy of Science 3 s.h.
Issues in the nature of science and scientific knowledge considered in greater depth; nature of causation, kinds of relations that might hold between sciences and scientific theories, and varieties of explanation. Requirements: prior coursework in philosophy.

PHIL:4798 Topics in Philosophy 3 s.h.
A single philosopher or philosophical problem.

PHIL:5373 Heidegger: Seminar Discussion 1 s.h.
Seminar discussion; for graduate students enrolled in PHIL:4373. Corequisites: PHIL:4373.

PHIL:5377 Wittgenstein: Seminar Discussion 1 s.h.
Main ideas and major texts of Ludwig Wittgenstein; early and later periods; particular attention given to *Tractatus Logico-Philosophicus*, *Philosophical Investigations*, and development of Wittgenstein's thought; seminar discussion for graduate students. Corequisites: PHIL:4377.

PHIL:6100 Seminar: Ancient Philosophy 3 s.h.

PHIL:6200 Seminar: Modern Philosophy 3 s.h.

PHIL:6300 Seminar: Philosophical Analysis 3 s.h.

PHIL:6400 Seminar: Ethics 3 s.h.

PHIL:6510 Seminar: Metaphysics 3 s.h.

PHIL:6520 Seminar: Epistemology 3 s.h.

PHIL:6620 Seminar: Philosophy of Science 3 s.h.

PHIL:6920 Philosophy Colloquium 1-3 s.h.
Attendance and participation at departmental colloquia and precolloquium meetings; lunch with visiting speakers; weekly meetings to discuss background to topic and larger issues of professionalization.

PHIL:7200 Research: History of Philosophy arr.

PHIL:7400 Research: Value Theory arr.

PHIL:7500 Research: Metaphysics and Epistemology arr.

PHIL:7600 Research: Logic and Philosophy of Science arr.

PHIL:7900 Thesis arr.

Philosophy, BA

Undergraduate courses in philosophy are designed to impart knowledge of fundamental issues and main developments in philosophy while strengthening logical and analytic skills.

The department sponsors an active Philosophy Club that hosts informal discussion meetings, movie nights, outreach events, departmental public lectures and colloquia, and other activities. The department also offers a service-learning course, PHIL:3920 Philosophy in Public.

Learning Outcomes

The goals of philosophical training are:

- to think critically and make well-grounded arguments, both orally and in written work;
- to understand key philosophical problems and major traditions;
- to learn variegated approaches to solving problems;
- to detect problems and puzzles that are not readily apparent;
- to develop critical listening;
- to learn a step-by-step approach to the mastery of public speaking; and
- to read and interpret all forms of text—news reports, books, film, TV, etc.

Department of Philosophy Initiatives

- Applying philosophical concepts to everyday affairs.
- Creating community through movie nights, the philosophy club, public lectures, optional one-hour lab sections for students to work more closely with research faculty, an undergraduate colloquium series, and the undergraduate journal, Labyrinth.
- Outreach and engagement; for example, through the service-learning course, PHIL:3920 Philosophy in Public, the K–12 Iowa Lyceum Summer Philosophy Institute, and outreach with the Johnson County Senior Center.
- The philosophy undergraduate internship program.
- Prompt and helpful advising.
- An annual newsletter that connects students with successful alumni.

Requirements

The Bachelor of Arts with a major in philosophy requires a minimum of 120 s.h., including at least 30 s.h. of work for the major. A minimum of 15 s.h. for the major must be earned at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students should discuss the requirements for the major with an advisor as soon as possible. The advisor can suggest the most effective order for taking courses, based on each student's interests and on the relation of the course topics to each other. See Courses [p. 880] in this section of the catalog for a complete listing of philosophy courses.

Students can only count one of these courses toward the major.

Course #	Title	Hours
PHIL:3902	Workshop: Analytical Skills for the LSAT	3
PHIL:3906	Workshop: Analytical Skills for the MCAT	3
PHIL:3908	Workshop: Analytical Skills for the GRE	3

Of the 30 s.h. of philosophy coursework (prefix PHIL) required for the major, at least two courses must be numbered 3000 or above.

The BA with a major in philosophy requires the following coursework.

Requirements	Hours
Value Theory Courses	6
Metaphysics/Epistemology Courses	6
Ancient Philosophy Course	3
Modern Philosophy Course	3
Introductory Logic Course	3
Philosophy Electives	9

Only 6 s.h. of the total hours required for the major can be taken in coursework numbered 1000–1999 (see the following list for options).

Course #	Title	Hours
May take two courses from these:		
PHIL:1033	The Meaning of Life	3
PHIL:1034	Liberty and the Pursuit of Happiness	3
PHIL:1401	Matters of Life and Death	3
PHIL:1636	Principles of Reasoning: Argument and Debate	3
PHIL:1861	Introduction to Philosophy	3

Value Theory

Course #	Title	Hours
At least two of these:		
PHIL:2402	Introduction to Ethics	3
PHIL:2415	Bioethics	3
PHIL:2422	Feminist Ethics	3
PHIL:2425	Sex, Marriage, Friendship, and the Law	3
PHIL:2429	War, Terrorism, and Torture	3
PHIL:2432	Introduction to Political Philosophy	3
PHIL:2435	Philosophy of Law	3
PHIL:2436	The Nature of Evil	3
PHIL:3342	Multiculturalism and Toleration	3
PHIL:3430	Philosophy of Human Rights	3
PHIL:4375	Rawls's Political Philosophy	3
PHIL:4431	Aesthetics	3
PHIL:4480	Analytic Ethics	3
PHIL:4481	Issues in Philosophy of Law	3
PHIL:4482	Early Modern Ethics	3
PHIL:4485	Political Philosophy	3
PHIL:4510	Neuroethics	3
May be taken with permission of the instructor if content is applicable:		

PHIL:3847	Philosophical Issues	3
PHIL:4152	Plato	3
PHIL:4153	Aristotle	3
PHIL:4798	Topics in Philosophy	3
PHIL:6100	Seminar: Ancient Philosophy	3
PHIL:6200	Seminar: Modern Philosophy	3
PHIL:6300	Seminar: Philosophical Analysis	3
PHIL:6400	Seminar: Ethics	3

Metaphysics/Epistemology

Course #	Title	Hours
At least two of these:		
PHIL:2343	Philosophy East and West	3
PHIL:2437	Introduction to Metaphysics	3
PHIL:2442	Knowledge and the Threat of Skepticism	3
PHIL:2480	Language and Its Social Roles	3
PHIL:2534	Philosophy of Religion	3
PHIL:2538	Minds and Machines	3
PHIL:2542	Minds and Brains	3
PHIL:3002	Stoics and Epicureans, or How to Live Like a Roman Sage	3
PHIL:3143	Existentialism	3
PHIL:3318	Twentieth-Century Philosophy	3
PHIL:3604	Introduction to Philosophy of Science	3
PHIL:4258	Descartes	3
PHIL:4260	Spinoza and Leibniz	3
PHIL:4266	Kant	3
PHIL:4346	Frege and Russell	3
PHIL:4373	Heidegger	3
PHIL:4377	Wittgenstein	3
PHIL:4586	Topics in Metaphysics	3
PHIL:4587	Epistemology	3
PHIL:4588	Philosophy of Mind	3
PHIL:4589	Philosophy of Language	3
PHIL:4590	Foundations of Cognitive Science	3
PHIL:4694	Philosophy of Science	3
May be taken with permission of the instructor if content is applicable:		
PHIL:3847	Philosophical Issues	3
PHIL:4152	Plato	3
PHIL:4153	Aristotle	3
PHIL:4798	Topics in Philosophy	3
PHIL:6100	Seminar: Ancient Philosophy	3
PHIL:6200	Seminar: Modern Philosophy	3
PHIL:6300	Seminar: Philosophical Analysis	3
PHIL:6510	Seminar: Metaphysics	3
PHIL:6520	Seminar: Epistemology	3
PHIL:6620	Seminar: Philosophy of Science	3

Ancient Philosophy

Course #	Title	Hours
This course:		
PHIL:2111	Ancient Philosophy	3

Modern Philosophy

Course #	Title	Hours
At least one of these:		
PHIL:2214	Seventeenth-Century Philosophy	3
PHIL:2215	Modern Philosophy	3
PHIL:2216	Eighteenth-Century Philosophy	3

Introductory Logic

Course #	Title	Hours
This course:		
PHIL:2603	Introduction to Symbolic Logic	3

Combined Programs

BA/JD

The Department of Philosophy participates in the 3+3 program with the College of Law which allows students the opportunity to apply for admission during their junior year to the College of Law, and if accepted, to begin work on the Juris Doctor degree during their fourth year of study in the BA degree program.

For more information, see the 3+3 Program for Undergraduates on the College of Law website and the Juris Doctor, JD [p. 1833] (College of Law) in the catalog.

Honors

Honors in the Major

Students majoring in philosophy have the opportunity to graduate with honors in the major. In order to be admitted to the departmental honors program, a student must have taken and passed three courses required for the philosophy major. To graduate with honors in the major, students must complete the requirements for the major with a grade-point average (GPA) of at least 3.40 in philosophy coursework and a University of Iowa cumulative GPA of at least 3.33. In addition, they must write an acceptable honors thesis on a significant topic in philosophy of interest to them. Contact the department's director of undergraduate studies for more information.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the philosophy major.

Career Advancement

Philosophy graduates have a variety of career options. Many continue their education by studying law or pursuing graduate work in philosophy or other disciplines. Philosophy graduates also enter into such fields as business, medicine, scientific research, government, consulting, journalism, and K–12 education, among others.

Undergraduates are encouraged to enroll in PHIL:3920 Philosophy in Public at least one time before graduating in order to get a head start on their career trajectory. Students who intend to teach philosophy in a college setting must earn a graduate degree.

Philosophy majors earn among the very highest scores on the Law School Admission Test (LSAT), the Graduate Management Admission Test (GMAT), the Medical College Admission Test (MCAT), and the Graduate College Record Exam (GRE) General Test.

The Pomerantz Career Center offers multiple resources to help students with résumé writing, career exploration, interview skills, finding internships and jobs, and preparing for the University of Iowa job and internship fair.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the fifth semester begins: at least one course in the major.

Before the seventh semester begins: at least five courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least six courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Philosophy, BA

Course	Title	Hours
Academic Career		
Any Semester		
A minimum of 15 s.h. for the philosophy major must be earned at the University of Iowa.		
Students can only count one of these courses toward the major: PHIL:3902 Workshop: Analytical Skills for the LSAT, PHIL:3906 Workshop: Analytical Skills for the MCAT, PHIL:3908 Workshop: Analytical Skills for the GRE.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
PHIL:1861	Introduction to Philosophy [b, c, d]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
PHIL:1636	Principles of Reasoning: Argument and Debate [d, f]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: Social Sciences [e]		3
Elective course [g]		3
	Hours	**16-17**
Second Year		
Fall		
PHIL:2111	Ancient Philosophy	3
PHIL:2603	Introduction to Symbolic Logic	3
GE CLAS Core: International and Global Issues [e]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
Elective course [g]		3
	Hours	**16-17**
Spring		
PHIL:2214 or PHIL:2215 or PHIL:2216	Seventeenth-Century Philosophy or Modern Philosophy or Eighteenth-Century Philosophy	3
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
Elective course [g]		3
Elective course [g]		3
	Hours	**16-17**
Third Year		
Fall		
Major: metaphysics/epistemology course		3
Major: value theory course		3
GE CLAS Core: Natural Sciences without Lab [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
Elective course [g]		3
	Hours	**16-17**
Spring		
Major: metaphysics/epistemology course		3
Major: value theory course		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
Elective course [g]		3

Elective course [g]	3
Hours	**16-17**

Fourth Year

Fall

Major: upper-level course numbered 3000 or above (prefix PHIL) [i]	3
Elective course [g]	3
Elective course [g]	3
Elective course [g]	3
Elective course [g]	3
Hours	**15**

Spring

Major: upper-level course numbered 3000 or above (prefix PHIL) [i]	3
Elective course [g]	3
Elective course [g]	3
Elective course [g]	3
Elective course [g]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]	
Hours	**15**
Total Hours	**123-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b PHIL:1861 fulfills a GE requirement. This course may also count as credit toward the major.

c Students may choose from PHIL:1033, PHIL:1034, PHIL:1401, PHIL:1636, or PHIL:1861. A student is not required to take any 1000-level courses for the major, but a 1000-level course often serves as an important introduction to help a student determine which particular topics they might want to pursue at a more advanced level.

d Students may include no more than 6 s.h. of 1000-level PHIL courses toward the major.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f PHIL:1636 is recommended for the GE CLAS Core Quantitative or Formal Reasoning requirement. It is not a major requirement.

g Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i Students complete 30 s.h. of philosophy courses (prefix PHIL), of which at least two courses must be numbered 3000 or above.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Philosophy, Minor

Requirements

The undergraduate minor in philosophy requires a minimum of 15 s.h. in philosophy courses, including at least 9 s.h. in courses numbered 2000 or above. At least 12 s.h. for the minor must be taken at the University of Iowa. Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

See Courses [p. 880] in this section of the catalog for a complete listing of philosophy courses.

Students may count only one of these courses toward the minor.

Course #	Title	Hours
PHIL:3902	Workshop: Analytical Skills for the LSAT	3
PHIL:3906	Workshop: Analytical Skills for the MCAT	3
PHIL:3908	Workshop: Analytical Skills for the GRE	3

Contact the director of undergraduate studies for more information.

Philosophy, MA

The Master of Arts in philosophy is not offered as a terminal degree. It is awarded to students as they work toward the philosophy PhD or as part of the combined MA/JD program.

Learning Outcomes

- Breadth of knowledge: demonstrate knowledge of a wide range of areas in philosophy—metaphysics and epistemology; value theory; history of philosophy; and logic, philosophy of mathematics, and philosophy of science.
- Depth of knowledge: demonstrate advanced knowledge in at least one major subarea of philosophy.
- Scholarship and research skills: develop the skills required to conduct rigorous philosophical research, including philosophical writing and communication skills; and the ability to engage others' work.
- Professionalization and career preparation: understand the disciplinary norms and standards of research, and of professional and collegial engagement with others; and develop a portfolio and skills contributing to one's career prospects, guided by one's career goals and interests, and informed by knowledge of different possible career opportunities and trajectories.

Requirements

The Master of Arts program in philosophy requires a minimum of 30 s.h. of graduate credit and is offered without thesis. Students must earn a program grade-point average of at least 3.00.

The MA in philosophy requires the following coursework.

Metaphysics and Epistemology

Course #	Title	Hours
Two of these (with earned grades of B or higher):		
PHIL:4586	Topics in Metaphysics	3
PHIL:4587	Epistemology	3
PHIL:4588	Philosophy of Mind	3
PHIL:4589	Philosophy of Language	3
PHIL:4590	Foundations of Cognitive Science	3
PHIL:6300	Seminar: Philosophical Analysis	3
PHIL:6510	Seminar: Metaphysics	3
PHIL:6520	Seminar: Epistemology	3

Ancient and Medieval Philosophy and Modern Philosophy

Course #	Title	Hours
Two of these (with earned grades of B or higher):		
Ancient and Medieval Philosophy		
PHIL:4152	Plato	3
PHIL:4153	Aristotle	3
PHIL:6100	Seminar: Ancient Philosophy	3
Modern Philosophy		
PHIL:4260	Spinoza and Leibniz	3
PHIL:4266	Kant	3
PHIL:4377	Wittgenstein	3
PHIL:6200	Seminar: Modern Philosophy	3

Logic, Philosophy of Science, and Philosophy of Mathematics

Course #	Title	Hours
One of these (with an earned grade of B or higher):		
PHIL:4346	Frege and Russell	3
PHIL:4691	Mathematical Logic	3
PHIL:4692	Modal Logic	3
PHIL:4694	Philosophy of Science	3
PHIL:6620	Seminar: Philosophy of Science	3

Value Theory

Course #	Title	Hours
One of these (with an earned grade of B or higher):		
PHIL:4375	Rawls's Political Philosophy	3
PHIL:4480	Analytic Ethics	3
PHIL:4481	Issues in Philosophy of Law	3
PHIL:4482	Early Modern Ethics	3
PHIL:4485	Political Philosophy	3
PHIL:6400	Seminar: Ethics	3

Students may be able to apply PHIL:4798 Topics in Philosophy or a research course toward one of the requirement areas. Contact the graduate studies director for more information.

Electives

All students must complete 12 s.h. in coursework numbered 4000 or above. They should consult the graduate studies director for approval of elective coursework.

Final Examination

Students must pass an oral final examination that will not exceed three hours in length. They are informed of at least one of the exam questions no later than one week before their exam. Students who fail may petition the MA examination committee for a second opportunity to pass the exam. The second exam must be scheduled no sooner than three months, nor later than one year, after the date of the examination.

Combined Programs

MA/JD

The Department of Philosophy and the College of Law offer a combined Master of Arts/Juris Doctor program. MA/JD students may count 12 s.h. earned in the combined program toward both degrees. They must earn 18 of the 30 s.h. required for the MA in graduate-level philosophy courses (the usual requirement is 24 s.h.). They also must earn a minimum of 36 s.h. in undergraduate and graduate philosophy courses, combined (the usual requirement is 42 s.h.).

Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

For more information about the JD, see Juris Doctor, JD [p. 1833] (College of Law) in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

The graduate program is designed to train teachers and scholars in philosophy. The Department of Philosophy is also invested in helping students use their philosophical training in careers outside of academia.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Philosophy, PhD

The main areas of concentration in the graduate curriculum are metaphysics, epistemology, history of philosophy, philosophy of science, social and political philosophy, logic, and value theory.

Learning Outcomes

- Breadth of knowledge: demonstrate knowledge of a wide range of areas in philosophy—metaphysics and epistemology; value theory; history of philosophy; and logic, philosophy of mathematics, and philosophy of science.
- Depth of knowledge: demonstrate advanced knowledge in a primary area of specialization and substantial knowledge in a distinct, secondary area, to support teaching and potential research in that area.
- Scholarship and research skills: develop specific research projects, including the central project of the dissertation; and develop the skills required to conduct research at a professional level, including philosophical writing and communication skills, the ability to engage others' work, and the ability to make substantial contributions in the field.
- Teaching skills and pedagogy: demonstrate effective teaching skills that are in line with pedagogical standards in the discipline, acquire teaching competence in a wide range of areas, and develop pedagogical tools for effective engagement with their students.
- Professionalization and career preparation: understand the disciplinary norms and standards of research, professional and collegial engagement with others, and responsibilities related to teaching; and develop a portfolio and skills contributing to one's career prospects, guided by one's career goals and interests, and informed by knowledge of different possible career opportunities and trajectories.

Requirements

The Doctor of Philosophy program in philosophy requires a minimum of 72 s.h. of graduate credit. Graduate students must take Department of Philosophy courses (prefix PHIL) that are numbered 4000 and above. Students must earn a Graduate College program grade-point average of at least 3.00. Candidacy for the doctoral program is determined by a formal vote of the entire Department of Philosophy faculty, usually after a student has completed three semesters of graduate study in residence.

Requirements include courses in metaphysics, epistemology, history of philosophy, logic, philosophy of science, and value theory. See Courses [p. 880] in this section of the catalog for a complete listing of philosophy courses.

Students are required to take a comprehensive examination that includes both a written dissertation prospectus and an oral defense. Upon successfully completing the exam, they begin work on their dissertation. There is no world language requirement. Contact the graduate studies director for more information.

Admission

Applications and all supporting documents for graduate admission must be submitted electronically by Feb. 1.

Applicants should submit their applications and supporting materials to the University of Iowa admissions website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

The graduate program is designed to train teachers and scholars in philosophy. The Department of Philosophy is also invested in helping students to use their philosophical training careers outside of academia.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Philosophy, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
Graduate College program GPA of at least 3.00 is required. [d]		
	Hours	**0**
First Year		
Fall		
History of philosophy course [e]		3
Metaphysics and epistemology course [f]		3
Value theory course [g]		3
	Hours	**9**
Spring		
PHIL:6920	Philosophy Colloquium [h]	3
History of philosophy course [e]		3
Logic, philosophy of science, or philosophy of math course [i]		3
Metaphysics and epistemology course [f]		3
	Hours	**12**
Second Year		
Fall		
History of philosophy course [e]		3
Metaphysics and epistemology course [f]		3
Value theory course [g]		3
	Hours	**9**
Spring		
PHIL:6920	Philosophy Colloquium [h]	3
Logic, philosophy of science, or philosophy of math course [i]		3
Value theory course [g]		3

Secondary area of concentration course [j]		3
	Hours	**12**
Third Year		
Fall		
Area of specialization course [k]		3
Secondary area of concentration course [j, l]		3
Elective course [m]		3
	Hours	**9**
Spring		
Exam: Doctoral Comprehensive Exam [n]		
PHIL:6920	Philosophy Colloquium	3
Independent study in philosophy [o]		3
	Hours	**6**
Fourth Year		
Fall		
PHIL:7900	Thesis	3
	Hours	**3**
Spring		
PHIL:6920	Philosophy Colloquium	3
PHIL:7900	Thesis	3
	Hours	**6**
Fifth Year		
Fall		
PHIL:7900	Thesis	3
	Hours	**3**
Spring		
PHIL:7900	Thesis	3
Exam: Doctoral Final Exam [p]		
	Hours	**3**
	Total Hours	**72**

a Students must take Department of Philosophy courses (prefix PHIL) that are numbered 4000 and above; graduate transfer credits of up to 9 s.h. (maximum of 3 s.h. for any distribution area) allowed upon approval.

b Four main areas: 1) Metaphysics and Epistemology (metaphysics, epistemology, philosophy of mind, philosophy of language, philosophy of religion); 2) History (ancient philosophy, medieval philosophy, early modern philosophy, 19th century philosophy, 20th century philosophy; 3) Logic/Philosophy of Science/Philosophy of Mathematics (logic, philosophy of science, philosophy of mathematics); 4) Value Theory (ethics, aesthetics, political philosophy, philosophy of law).

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

e 9 s.h. total coursework required with grades of B or better, 3 s.h. of which should be in ancient philosophy and 3 s.h. in modern philosophy.

f 9 s.h. total coursework required with grades of B or better, 3 s.h. of which should be a seminar.

g 9 s.h. total coursework required with grades of B or better.

h Course on varied topics in the profession: pedagogy, writing, publication, career preparation, etc.

i 6 s.h. total coursework required with grades of B or better.

j Must take two additional courses in one of the four main areas of distribution; must be different from the student's area of specialization. Requested exceptions to this rule possible with approval.

k Can overlap with other requirements. Note: 9 s.h. of specialization coursework required. Must pass three courses in a specific area (e.g., metaphysics, epistemology, ancient, logic).

l Should have completed all distribution and secondary area requirements.

m Includes professionalization courses, research and thesis credit; must be numbered 4000 or above. May include coursework from other units relevant to one's philosophical research with approval.

n Written and oral exam, consisting of a written dissertation prospectus and oral defense of the prospectus.

o Work with advisor on research relevant to comprehensive exam (dissertation prospectus).

p Dissertation defense.

Physics and Astronomy

Chair

- Gregory G. Howes

Director, Undergraduate Studies

- Jane M. Nachtman

Director, Graduate Studies

- Allison N. Jaynes

Director, Research Operations

- Casey DeRoo

Undergraduate majors: physics (BA, BS); applied physics (BS); astronomy (BA, BS)

Undergraduate minors: physics; astronomy

Graduate degrees: MS in physics; MS in astronomy; PhD in physics

Faculty: https://physics.uiowa.edu/people

Website: https://physics.uiowa.edu/

The Department of Physics and Astronomy provides comprehensive and rigorous instruction in all basic aspects of its subjects. It also provides research facilities and guidance in selected specialties for advanced individual scholarly work.

In addition to its undergraduate and graduate programs of study, the department offers several courses that undergraduate students in all majors may use to satisfy the GE CLAS Core Natural Sciences requirement. Look for courses with prefixes ASTR and PHYS under "Natural Sciences" in the GE CLAS Core [p. 22] section of the catalog. The department often offers First-Year Seminars designed for entering undergraduates.

The applied physics degree offers flexibility in the choice of concentration corresponding to career goals, and can also be customized beyond the existing areas of concentration.

Students may pair a BA in physics or astronomy or a BS in applied physics with a Master of Arts in Teaching (MAT), data science, or another postgraduate degree. More information can be found on the Department of Physics and Astronomy website.

The department also participates in an interdisciplinary doctoral program, the Applied Mathematical and Computational Sciences [p. 1695] Program (Graduate College).

All of the department's courses and advanced laboratories are taught by faculty members. Faculty members also supervise associated laboratories taught by graduate students. Enrollment in courses beyond the elementary level is typically 15 to 20 students; there is ample opportunity for individual work. Special introductory courses are offered for students majoring in physics and astronomy and for others with a special interest in these subjects.

Student Organizations

The Department of Physics and Astronomy sponsors two organizations open to students for support and enrichment.

Students may join the University of Iowa undergraduate student chapter of the Society of Physics Students (SPS). Chapter activities include outreach events to community groups and local schools, helping with public observing nights at the Van Allen Observatory, faculty dinners, undergraduate colloquia, and less formal social gatherings.

The department also sponsors GradMAP, a peer mentoring program for graduate students that assists early graduate students in navigating the nuances of our graduate school, informs them about departmental, collegiate, and university resources for their professional development, and provides a network of mentorship to support them during the transition to the graduate program.

Programs

Undergraduate Programs of Study

Majors

- Major in Physics (Bachelor of Arts) [p. 899]
- Major in Astronomy (Bachelor of Arts) [p. 903]
- Major in Physics (Bachelor of Science) [p. 906]
- Major in Applied Physics (Bachelor of Science) [p. 909]
- Major in Astronomy (Bachelor of Science) [p. 913]

Minors

- Minor in Physics [p. 916]
- Minor in Astronomy [p. 917]

Graduate Programs of Study

- Master of Science in Physics [p. 918]
- Master of Science in Astronomy [p. 920]
- Doctor of Philosophy in Physics [p. 922]

Facilities

The department has a number of well-equipped laboratories and observatories. Faculty, students, and staff access national supercomputers via the internet, and have access to high performance computing clusters on campus. The central machine shop is fully equipped and staffed by skilled instrument makers and machinists, and there are electronics and machine shops for use by advanced students and research staff.

Experimental research is conducted in astronomy (optical, radio, and X-ray), atomic and molecular physics, condensed matter physics, elementary particle physics, laser physics, medical physics, plasma physics, and space physics. Extensive facilities are available for the construction of specialized research equipment and for data processing and analysis.

State-of-the-art semiconductor materials and devices are grown in two molecular beam epitaxy machines. Ultrafast laser techniques are developed and used to probe electron transport, energy relaxation, recombination, and spin dynamics in the novel nanostructures grown in these machines. Experiments are also conducted on laser-induced coherent phenomena and coherent control of charge carriers in semiconductor nanostructures. The experimental condensed matter program is closely coordinated with the condensed matter theory group.

Plasma physics is an active area of experimental and theoretical research. Laboratory experiments studying plasma processes of importance in various space and astrophysical

plasmas are performed in a Q machine, including experiments on waves and instabilities in dusty plasmas. Additional laboratory and microgravity experiments with dusty plasmas include studies of Coulomb crystals, shocks, and complex fluids. Glow discharges for plasma processing applications are studied using laser diagnostics and numerical simulations. Wave propagation and plasma particle dynamics are also studied in collisionless plasmas through laboratory experiments. Laser techniques are developed for measuring plasma flow and following particle orbits. Plasma theory efforts include analytical and numerical investigations of magnetic reconnection and turbulence in space and astrophysical plasmas; collaboration with laboratory and space plasma experimental groups in strongly coupled dusty plasmas, waves, and instabilities; and free electron lasers and hydrodynamic turbulence.

State-of-the-art laser systems are available for high-resolution spectroscopic measurement and ultrafast studies of molecular structure, for collisional relaxation and nonlinear optical effects in atomic and molecular systems, and for plasma diagnostics.

Experimental research in elementary particle physics is carried out at Fermi National Accelerator Laboratory, Stanford Linear Accelerator Center, CERN in Switzerland, and other international laboratories. The present generation of high-energy experiments has been designed to probe both the strong nuclear force and the weak interactions.

The department is well-equipped for research and instruction in observational astronomy. The primary optical instrument is a fully automated 15-inch telescope at a dark-sky site in Arizona. The telescope is equipped with CCD cameras and a variety of filters. There are 3-meter and 4.5-meter radio telescopes on the roof of Van Allen Hall, which are used for instruction and student research projects.

Research programs in galactic and extragalactic radio astronomy are carried out using the facilities of the National Radio Astronomy Observatory, including the Very Large Array and the Very Long Baseline Array, one element of which is 10 miles north of campus. Current long-term research activities include studies of the center of the Milky Way galaxy; investigations of extragalactic radio sources; the formation of powerful winds in young, luminous stars; radio-wave scattering in the interstellar and interplanetary media; and interacting binary stars. There is a research program in X-ray astronomy and a laboratory for instrument development. Research topics in X-ray astronomy concentrate on observations of X-ray emission from black holes and supernova remnants, using existing spacecraft.

Active theoretical research is carried on in astrophysics; atomic, molecular, and optical physics; condensed matter physics; elementary particle physics; laser physics; mathematical physics; nuclear physics; plasma physics; and space physics. An active mathematical physics seminar fosters the exchange of ideas between mathematics and physics.

The primary emphasis of Iowa's program in experimental and theoretical space physics is on studies of cosmic and heliospheric physics, magnetospheric physics, and magnetosphere-ionosphere interactions. Facilities are available for designing and constructing spaceflight instruments. Investigators in the department have flown instruments for studying plasmas, energetic charged particles, auroral images, plasma waves, and radio emissions on a wide variety of terrestrial and planetary spacecraft, including Pioneer 10 and 11, Dynamics Explorer, Voyager 1 and 2, Galileo, Polar, Cassini, and Mars Express.

Courses

- Physics Courses [p. 894]
- Astronomy Courses [p. 897]

Physics Courses

PHYS:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

PHYS:1200 Physics of Everyday Experience **3 s.h.**
Principles of physics; basic motion, behavior of fluids, waves, temperature and heat, gravity and planetary motion, electricity and magnetism, optics, nuclear energy, radioactivity, and medical imaging technology; examples from everyday experience; for non-science majors. GE: Natural Sciences without Lab.

PHYS:1400 Basic Physics **3-4 s.h.**
Quantitative treatment of mechanics, electricity, heat, liquids, gases, and atomic, nuclear, and elementary particle physics. Requirements: must have completed high school trigonometry or achieved a minimum ALEKS score of 75%. GE: Natural Sciences with Lab; Natural Sciences without Lab.

PHYS:1409 Basic Physics Lab **1 s.h.**
Laboratory for PHYS:1400. Corequisites: PHYS:1400 (if not taken as a prerequisite). GE: Natural Sciences Lab only.

PHYS:1410 Physics of Sound **3-4 s.h.**
Acoustical foundations of music; production of sound by vibrating objects, properties of sound waves, vocal acoustics, hearing, room acoustics, principles of electroacoustics. GE: Natural Sciences with Lab; Natural Sciences without Lab.

PHYS:1511 College Physics I **4 s.h.**
Algebra-based treatment of mechanics, waves, thermodynamics, and special relativity. Requirements: must have completed high school trigonometry or achieved a minimum ALEKS score of 75%. GE: Natural Sciences with Lab.

PHYS:1512 College Physics II **4 s.h.**
Continuation of PHYS:1511; algebra-based treatment of electricity, magnetism, light, and modern physics. Prerequisites: PHYS:1611 or PHYS:1511. GE: Natural Sciences with Lab.

PHYS:1611 Introductory Physics I **4 s.h.**
Calculus-based treatment of mechanics, waves, and thermodynamics. Corequisites: MATH:1550 or MATH:1850. GE: Natural Sciences with Lab.

PHYS:1612 Introductory Physics II **4 s.h.**
Continuation of PHYS:1611; calculus-based treatment of electricity, magnetism, and light. Prerequisites: PHYS:1611. Corequisites: MATH:1560 or MATH:1860. GE: Natural Sciences with Lab.

PHYS:1619 Introductory Physics II Lab **1 s.h.**
Laboratory for PHYS:1612. Requirements: 3 s.h. in PHYS:1612. GE: Natural Sciences Lab only.

PHYS:1701 Physics I **4 s.h.**
Introduction to physics; calculus-based treatment of Newtonian mechanics for point particles and rigid bodies; conservation laws. Offered fall semesters. Corequisites: MATH:1850. Requirements: physics or astronomy major. GE: Natural Sciences with Lab.

PHYS:1702 Physics II 4 s.h.
Continuation of PHYS:1701; introduction to fluid mechanics, electricity, magnetism (Maxwell's equations). Offered spring semesters. Prerequisites: PHYS:1701. Corequisites: MATH:1860. Requirements: physics or astronomy major. GE: Natural Sciences with Lab.

PHYS:1999 Undergraduate Seminar arr.
Selected topics in physics and astronomy; discussion, presentations.

PHYS:2703 Physics III 4 s.h.
Continuation of PHYS:1702; introduction to physics; calculus-based treatment of electromagnetic waves and optics; mechanical and sound waves; thermal physics. Offered fall semesters. Prerequisites: PHYS:1702.

PHYS:2704 Physics IV 3-4 s.h.
Introduction to quantum mechanics and other topics in modern physics, including special relativity, atomic and solid state physics. Offered spring semesters. Prerequisites: (PHYS:1612 or PHYS:2703) and (MATH:1860 or MATH:1550). Requirements: for 3 s.h. option—nonmajor.

PHYS:2905 Programming for Physics 2 s.h.
Introduction to scientific programming for applications in physics.

PHYS:2990 Reading in Physics arr.
Selected topics in physics.

PHYS:3710 Intermediate Mechanics 3 s.h.
Introduction to Newtonian mechanics; noninertial reference systems; central forces, celestial mechanics; rigid body motion; Lagrangian and Hamiltonian equations of motion; small oscillations. Prerequisites: (PHYS:1611 or PHYS:1511 or PHYS:1701) and (MATH:1860 or MATH:1560).

PHYS:3730 Statistical Physics 3 s.h.
Integrated introduction to subjects of thermodynamics, statistical mechanics, classical and quantum statistics of interacting particles; kinetic theory; emphasis on applications. Prerequisites: PHYS:2704.

PHYS:3741 Introduction to Quantum Mechanics I 3 s.h.
Superposition principle, Stern-Gerlach experiment, linear operators, measurement theory, time evolution, angular momentum, wave mechanics in one dimension, one-dimensional harmonic oscillator, two-body problems with central forces, and the hydrogen atom. Prerequisites: MATH:2850 and PHYS:2704 and MATH:2700.

PHYS:3742 Introduction to Quantum Mechanics II 3 s.h.
Continuation of PHYS:3741; Perturbation theory, variational methods, WKB approximation, scattering, Helium atom, periodic table, atomic spectroscopy, transition rates, and other selected applications. Prerequisites: PHYS:3741.

PHYS:3756 Intermediate Laboratory 3 s.h.
Introduction to instruments and techniques of experimental physics and basic skills needed for carrying out experimental physics research; hands-on use of a variety of instruments and equipment. Prerequisites: PHYS:2704. Corequisites: PHYS:3811.

PHYS:3811 Electricity and Magnetism I 3 s.h.
Introduction to electricity and magnetism; topics include electrostatics, magnetostatics, potential theory, and electric and magnetic fields in matter. Prerequisites: (MATH:3550 or MATH:2850) and (PHYS:1612 or PHYS:1702 or PHYS:1512).

PHYS:3812 Electricity and Magnetism II 3 s.h.
Continuation of PHYS:3811; introduction to electricity and magnetism; topics include Maxwell's equations, electrodynamics, electromagnetic waves, radiation, and special relativity. Prerequisites: PHYS:3811.

PHYS:3850 Electronics 4 s.h.
Design and construction of small circuits; use of measurement instruments—oscilloscope, multimeter, function generator; circuits, including transistors, operational amplifiers, digital, analog-to-digital conversion. Prerequisites: PHYS:1512 or PHYS:1612 or PHYS:1702. Requirements: physics or astronomy major.

PHYS:4720 Introductory Optics 3 s.h.
Wave motion and superposition, electromagnetic theory, photons, propagation of light, geometrical and physical optics, interference, diffraction, polarization, Fourier optics, coherence, lasers, a and nonlinear optics. Prerequisites: (PHYS:1512 or PHYS:2703 or PHYS:1612) and (MATH:1560 or MATH:1860). Same as ECE:4720.

PHYS:4726 Electro Optics 3 s.h.
Wave equation solutions; optical birefringence; finite beam propagation in free space, dielectric waveguides and fibers; optical resonators; nonlinear phenomena; electro-optic, acousto-optic modulation; optical detection, noise; application to communication systems. Requirements: for ECE:5790—ECE:3700; for PHYS:4726—PHYS:3812. Same as ECE:5790.

PHYS:4728 Introductory Solid State Physics 3 s.h.
Phenomena associated with solid state; classification of solids and crystal structures, electronic and vibrational properties in solids; thermal, optical, magnetic, dielectric properties of solids. Prerequisites: PHYS:3741. Same as ECE:4728.

PHYS:4731 Plasma Physics I 3 s.h.
Physics of ionized gases, including orbit theory, guiding center motion, adiabatic invariants, ionization balance description of plasmas by fluid variables and distribution functions; linearized wave motions, instabilities; magnetohydrodynamics. Prerequisites: PHYS:3812.

PHYS:4740 Elementary Particles and Nuclear Physics 3 s.h.
Accelerators, particle detectors, passage of radiation through matter; nuclear structure, nuclear reactions; quark model of hadrons; strong, electromagnetic, weak interactions of elementary particles; gauge theories, intermediate vector bosons; unification of electromagnetic and weak interactions. Prerequisites: PHYS:3741.

PHYS:4750 Advanced Laboratory 3 s.h.
Advanced experimental work and development of new experiments. Prerequisites: PHYS:3756.

PHYS:4761 Mathematical Methods of Physics I 3 s.h.
Functions of complex variables, integration methods, linear vector spaces, tensors, matrix algebra. Prerequisites: MATH:2850.

PHYS:4762 Mathematical Methods of Physics II 3 s.h.
Continuation of PHYS:4761; Hilbert space, special functions, Fourier transform and expansions in orthogonal polynomials, differential equations, Green's functions. Prerequisites: PHYS:4761.

PHYS:4820 Optical Signal Processing 3 s.h.
Linear systems description of optical propagation; diffraction and angular plane wave spectrum; lenses as Fourier transformers, lens configurations as generalized optical processors; lasers, coherence, spatial frequency analysis; holography; convolvers, correlators, matched filters; synthetic aperture radar; optical computing. Requirements: for ECE:5780—ECE:3700; for PHYS:4820—PHYS:3812. Same as ECE:5780.

PHYS:4860 Computational Physics 3 s.h.
Introduction to contemporary use of computers by physicists; topics such as numerical solutions of ordinary differential equations in classical mechanics, boundary value problems in electricity and magnetism, eigenvalue problems in quantum mechanics, Monte Carlo simulations in statistical mechanics, methods of data analysis. Prerequisites: PHYS:3741 and PHYS:3811 and PHYS:3710.

PHYS:4905 Special Topics in Physics arr.
Introduction to scientific programming using the Python language and linear algebra for applications in physics.

PHYS:4990 Reading in Physics arr.
Selected topics in physics.

PHYS:4999 Undergraduate Research arr.
Supervised research leading to written report or oral presentation.

PHYS:5000 Workshops and Special Training in Physics arr.
Workshops and special training opportunities for postbaccalaureate students; may include collaborations with other departments, institutions, or externally funded research organizations.

PHYS:5466 Optical Components, Alignment, and Instrumentation for Remote Sensing 3 s.h.
Explore optical components including lenses, mirrors, beam splitters, fiber optics, and filters, and optical assemblies including beam expanders, interferometers, and laser cavities; assess and align optical assemblies using metrology equipment including collimators, autocollimators, and wavemeters; hands-on laboratory work. Work with optics, optical devices, and metrology equipment; learn how to handle, work with, and assess optics and optical components and how to align complex assemblages of components in a sensor. Recommendations: basic or introductory physics course with applications to atmospheric chemistry. Same as CBE:5466, ECE:5466.

PHYS:5710 Classical Mechanics 3 s.h.
Dynamics of mass points; Lagrange multipliers, small oscillations, Hamilton's equations; canonical transformations, Hamilton-Jacobi theory; chaos. Prerequisites: PHYS:3710.

PHYS:5730 Statistical Mechanics I 3 s.h.
Probability concepts; kinetic equations; classical and quantum equilibrium statistical mechanics with applications, including ideal and imperfect gases and phase transitions, irreversible processes, fluctuation-dissipation theorems. Prerequisites: PHYS:3730 and PHYS:3741.

PHYS:5741 Quantum Mechanics I 3 s.h.
Nonrelativistic quantum mechanics, Schrödinger wave mechanics, Hilbert space methods, perturbation theory, scattering, spin and angular momentum, identical particles, selected applications, introduction to relativistic theory. Prerequisites: PHYS:3741 and PHYS:3742.

PHYS:5742 Quantum Mechanics II 3 s.h.
Continuation of PHYS:5741. Prerequisites: PHYS:5741.

PHYS:5805 Advanced Programming for Physics 2 s.h.
Introduction to scientific programming for applications in physics.

PHYS:5811 Classical Electrodynamics I 3 s.h.
Advanced electromagnetostatics, boundary value problems, Green's functions, Maxwell's equations, radiation theory, physical optics, multipole expansion of radiation field.

PHYS:5812 Classical Electrodynamics II 3 s.h.
Special relativity, motion of charges in fields, theories of radiation reaction, special topics. Prerequisites: PHYS:5811.

PHYS:5905 Special Topics in Physics 3 s.h.
Selected topics in physics.

PHYS:6723 Quantum Optics and Nanophotonics 3 s.h.
Classical theory of emission and absorption of light, classical dispersion, semiclassical approach, thermal and laser sources, photons, photon statistics, quantization of electromagnetic fields, quantum coherence, noise, Jaynes-Cummings model, squeezed light, metamaterials, plasmonics, and polaritons. Prerequisites: PHYS:3741 and PHYS:3812.

PHYS:6725 Microfabrication and Thin Film Materials 3 s.h.
Microfabrication and nanofabrication techniques and thin film materials growth used to create micro-, nano-, and opto-electronic devices that underlie modern technology; introduction to microfabrication techniques, physics, and chemistry; growth and properties of thin film materials upon which fabrication is performed; review of materials science; introduction to vacuum science and technology; survey of micro- and nano-devices; examination of thin film growth and deposition science, plasma etching and sputtering, micro- and nano-patterning and characterization, and film nucleation, growth, structure, and properties. Prerequisites: (PHYS:2704 or ENGR:2130 or CHEM:1120) and (MATH:1560 or MATH:1860) and (PHYS:1612 or PHYS:2703) and CHEM:1110. Recommendations: background in thermal and statistical physics, introductory quantum mechanics, and introductory chemistry. Same as ECE:6725, ME:6725.

PHYS:7270 Ethics in Physics for Graduate Students arr.
Responsible conduct and ethics training.

PHYS:7604 Ethics in Physics for Postdocs 0 s.h.
Responsible conduct and ethics training.

PHYS:7720 Semiconductor Physics 3 s.h.
Electronic, optical, and materials properties of semiconductors. Prerequisites: PHYS:4728 and PHYS:5742. Same as ECE:7720.

PHYS:7722 Advanced Condensed Matter 3 s.h.
Elementary excitations, plasmonics, exchange/magnetism, hyperfine interactions, resonance, superconductivity, topological materials. Prerequisites: PHYS:7720.

PHYS:7729 Plasma Physics II 3 s.h.
Continuation of PHYS:4731; cold plasma waves, MHD stability, kinetic theory of plasmas, including Landau damping and velocity space instabilities; nonlinear evolution. Prerequisites: PHYS:4731.

PHYS:7730 Advanced Plasma Physics I 3 s.h.
Microscopic plasma behavior: statistical mechanics of plasmas; Liouville equation; BBGKY hierarchy; Fokker-Planck equation and relaxation processes; Balescu-Lenard equation; Vlasov equation and linearized wave motion; shocks, nonlinear plasma motions, and instabilities; fluctuations and radiation processes; topics from recent literature.

PHYS:7740 Introduction to Quantum Field Theory 3 s.h.
Quantization of relativistic and nonrelativistic field theories, covariant perturbation theory, theory of renormalization, dimensional regularization, renormalization group theory, introduction to gauge theories and anomalies. Prerequisites: PHYS:5742.

PHYS:7746 Particle Physics 3 s.h.
Elementary particle properties and phenomenology, quark-parton models, quantum chromodynamics, unified theory of weak and electromagnetic interactions.

PHYS:7760 General Relativity 2-3 s.h.
Einstein's theory of gravitation; principles of general relativity.

PHYS:7761 Cosmology 3 s.h.
Einstein's theory of general relativity radically changed the way we understand the cosmos by providing a mathematical description of space-time itself—this is cosmology; the last three decades have shown remarkable evidence that cosmology is an experimentally testable theory; students explore mathematical underpinnings of cosmology by studying the early universe, the cosmic microwave background, inflation, big bang nucleosynthesis, neutrino physics, quantum field theory effects on space-time, and other issues. Prerequisites: PHYS:7760.

PHYS:7840 Quantum Gauge Theories 3 s.h.
Gauge invariance, introductory group theory, Yang-Mills theories, electroweak theory, quantum chromodynamics, running coupling constants, operator product expansions, Ward identities, spontaneous symmetry breaking, chiral anomalies, instantons, monopoles, effective Lagrangians, supersymmetry, quantum gravity, introduction to string theory. Prerequisites: PHYS:7740.

PHYS:7905 Special Topics in Physics arr.

PHYS:7920 Seminar: Condensed Matter Physics arr.
Current research.

PHYS:7930 Seminar: Plasma Physics arr.
Current research. Same as ECE:7930.

PHYS:7936 Seminar: Space Physics arr.
Current research.

PHYS:7945 Seminar: Math/Physics arr.
Current research.

PHYS:7946 Seminar: Nuclear and Particle Physics arr.
Current research.

PHYS:7990 Research: Physics arr.

PHYS:7992 Individual Critical Study arr.
Essay on topic chosen in consultation with faculty member. Requirements: candidacy for MS with critical essay.

Astronomy Courses

ASTR:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities).

ASTR:1060 Big Ideas: Origins of the Universe, Earth, and Life 3 s.h.
Origin of the universe, the biochemistry of life, and the origin of life on Earth; for non-science majors. Recommendations: first-year or sophomore standing. GE: Natural Sciences without Lab. Same as BIOL:1060, SEES:1060.

ASTR:1070 Stars, Galaxies, and the Universe 3-4 s.h.
Students survey topics including the Sun; life cycles of stars including black holes and pulsars; diversity of galaxies including the Milky Way and distant quasars; cosmology—the history, structure, and fate of the universe; current results from recent astronomical observations; for non-science majors. Recommendations: closed to physics and astronomy majors. GE: Natural Sciences with Lab; Natural Sciences without Lab.

ASTR:1079 Introductory Astronomy Laboratory 1 s.h.
Laboratory for ASTR:1070. GE: Natural Sciences Lab only.

ASTR:1080 Exploration of the Solar System 4 s.h.
Survey of the solar system; topics include physical properties of the planets, comets, and asteroids; origin of the solar system; search for extrasolar planetary systems; search for life in the universe; current results of recent planetary space missions; night sky observation; for non-science majors. Recommendations: closed to physics and astronomy majors. GE: Natural Sciences with Lab.

ASTR:1085 Citizen Astronomy 3 s.h.
Survey of topics in astronomy and astrophysics; topics include the Solar System and exoplanets, nearby stars in the Galaxy, distant galaxies and unseen black holes; focus on citizen science projects that allow students to examine real data; for non-science majors. GE: Natural Sciences without Lab.

ASTR:1771 Fundamental Astronomy I: The Solar System and Exoplanets 4 s.h.
Quantitative introduction to physical principles needed to understand astronomical phenomena (e.g., laws of motion, gravitation, radiation), astronomical instrumentation, properties structure, and evolution of solar system bodies, exoplanets, and the search for life. Requirements: four years of high school math. GE: Natural Sciences with Lab.

ASTR:1772 Fundamental Astronomy II: Evolution of Stars, Galaxies, and the Universe 4 s.h.
Continuation of ASTR:1771; quantitative introduction to stellar, Galactic, and extragalactic astronomy; topics include the Sun, stellar evolution, stellar corpses such as neutron stars and black holes, the Milky Way galaxy, the interstellar medium, galaxies, cosmology, and fate of the universe. Prerequisites: ASTR:1771. Requirements: four years of high school math. GE: Natural Sciences with Lab.

ASTR:2991 Reading in Astronomy arr.
Selected topics in astronomy.

ASTR:3771 Introduction to Astrophysics I 3 s.h.
Topics include celestial mechanics, radiative transfer, stellar structure and evolution, and star formation; first in a two-semester sequence. Prerequisites: PHYS:2704 and ASTR:1772 and ASTR:1771 and (MATH:2850 or MATH:3550) and (MATH:2700 or MATH:2550). Recommendations: computer programming experience.

ASTR:3772 Introduction to Astrophysics II 3 s.h.
Continuation of ASTR:3771; topics include post-main-sequence stellar evolution, stellar remnants, close binary stars, the Milky Way and other galaxies, active galactic nuclei, galaxy evolution, and cosmology; second in a two-semester sequence. Prerequisites: ASTR:3771.

ASTR:4850 Observational Techniques in Astronomy 3 s.h.
Introduction to instruments of optical (and sometimes multi-wavelength) astronomy and basic skills needed for carrying out observational astronomical research; hands-on use of observing equipment; nighttime observing sessions. Prerequisites: PHYS:2704 and ASTR:1772 and ASTR:1771.

ASTR:4996 Reading in Astronomy arr.

ASTR:6782 Extragalactic Astronomy 3 s.h.
Normal and active galaxies, large scale structure, the early Universe, cosmology.

ASTR:6785 The Interstellar Medium 3 s.h.
The interstellar medium; optical properties of small interstellar grains, radiative processes in interstellar gas, structure of HII regions, interstellar shock waves, supernova remnants, modification of interstellar medium by luminous stars, molecular clouds.

ASTR:6790 Stellar Astrophysics 3 s.h.
Stellar interiors, nuclear astrophysics; advanced topics.

ASTR:6870 Radiative Processes in Astrophysics 3 s.h.
Explores how electromagnetic radiation is generated and transported in astronomical systems, serving both as a driver of change and a key source of information; emphasis on using radiation processes to understand the physics of free charges, atoms, and molecules from a classical perspective, with links to quantum mechanics; topics include bremsstrahlung, Compton scattering, synchrotron radiation, and resonant interactions in atoms, molecules, and nuclei, including fine and hyperfine magnetic effects.

ASTR:6880 High Energy Astrophysics 3 s.h.
Detection of X-rays and gamma-rays, black holes and neutron stars, accretion onto compact objects, pulsars, supernova remnants, cosmic rays, and gamma-ray bursts.

ASTR:7775 Special Topics in Astrophysics 1-3 s.h.
Advanced lectures.

ASTR:7830 Space and Astrophysical Plasma Physics 3 s.h.
Dynamics and evolution of space and astrophysical plasmas; heliosphere, planetary magnetospheres, accretion disks; plasma waves, shock waves, turbulence.

ASTR:7970 Seminar: Astrophysics and Space Physics arr.
Current research.

ASTR:7991 Research: Astronomy arr.
Original research in observational, theoretical astronomy.

Physics, BA

Learning Outcomes

Physics majors will be able to:

- demonstrate competency in applying the basic laws of physics in classical and quantum mechanics, electromagnetism, thermodynamics, and statistical physics;
- solve complex, real-world problems using the principles of physics; and
- demonstrate competency in using basic instrumentation and in analyzing the data obtained.

Requirements

The Bachelor of Arts with a major in physics requires a minimum of 120 s.h., including at least 44 s.h. of work for the major (minimum of 24 s.h. in physics plus 20 s.h. in supporting coursework). The BA program requires fewer physics courses than the BS program does, giving students a wider choice of electives. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The major is designed for students who wish to build a foundation of knowledge in physics but do not plan a research-oriented career in the discipline. The BA program is also good preparation for students interested in secondary school science teaching; see the section titled "Teacher Licensure." Bachelor of Arts students majoring in physics who are interested in science teaching and in earning a graduate degree may enroll in a combined degree program offered by the College of Liberal Arts and Sciences and the College of Education; see "BA/MAT (Science Education Subprogram)" under Combined Programs [p. 900] in this section of the catalog.

Students who earn a BA in physics may not earn a BS in applied physics or a BS in physics.

The BA with a major in physics requires the following courses or their equivalents. Substitutions may be allowed by exception through the department.

Requirements	Hours
Mathematics Courses	8
Physics Courses	15-19
Elective Physics Courses	9-10
Supporting Coursework	12

Mathematics Courses

Course #	Title	Hours
Both of these:		
MATH:1850	Calculus I	4
MATH:1860	Calculus II	4
Or both of these:		
MATH:1550	Engineering Calculus I	4
MATH:1560	Engineering Calculus II	4

Physics Courses

Course #	Title	Hours
These three courses:		
PHYS:1701	Physics I	4
PHYS:1702	Physics II	4
PHYS:2703	Physics III	4
Or these two courses:		
PHYS:1611	Introductory Physics I	4
PHYS:1612	Introductory Physics II	4
Both of these:		
PHYS:2704	Physics IV	4
PHYS:3756	Intermediate Laboratory	3

Elective Physics Courses

Course #	Title	Hours
Three of these:		
PHYS:3710	Intermediate Mechanics	3
PHYS:3741	Introduction to Quantum Mechanics I	3
PHYS:3811	Electricity and Magnetism I	3
PHYS:3850	Electronics	4
PHYS:4720	Introductory Optics	3
PHYS:4726	Electro Optics	3
PHYS:4728	Introductory Solid State Physics	3
PHYS:4731	Plasma Physics I	3
PHYS:4740	Elementary Particles and Nuclear Physics	3
PHYS:4750	Advanced Laboratory	3
PHYS:4761	Mathematical Methods of Physics I	3
PHYS:4762	Mathematical Methods of Physics II	3
PHYS:4820	Optical Signal Processing	3
PHYS:4860	Computational Physics	3
PHYS:4905	Special Topics in Physics	arr.

Supporting Coursework

Students should work with their academic advisor to select courses that fit with their plan of study. Students wishing to pursue subject areas that are not in the following list may do so with the approval of the director of undergraduate studies.

Course #	Title	Hours
Coursework from one these STEM subject areas or from coursework required for teacher licensure		12
actuarial science (prefix ACTS)		
biochemistry and molecular biology (prefix BMB)		
biology (prefix BIOL)		
chemistry (prefix CHEM)		
computer science (prefix CS)		
earth and environmental sciences (prefix EES)		
engineering (subject to departmental approval)		
geography (prefix GEOG)		
mathematics (prefix MATH), except MATH:1210		

- physics (prefix PHYS)
- psychology (prefix PSY)
- statistics (prefix STAT)

In planning this work, they should be guided by the College of Liberal Arts and Sciences maximum hours rule: students earning a BA may apply a maximum of 56 s.h. earned in one department to the minimum 120 s.h. required for graduation, whether or not the coursework is accepted toward the requirements for the major. Students who earn more than 56 s.h. from one department may use the additional semester hours to satisfy requirements for the major (if the department accepts them), and the grades they earn become part of their grade-point average, but they cannot apply the additional semester hours to the minimum 120 s.h. required for graduation.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) [p. 1339] in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Double Major in Physics and Astronomy

Students working toward a Bachelor of Arts with a double major in physics and in astronomy must complete all requirements for both majors and must earn a minimum of 56 s.h. outside the Department of Physics and Astronomy in order to graduate. Students interested in earning a double major should consult with their advisors. See Requirements for a Bachelor's Degree on the College of Liberal Arts and Sciences website.

Combined Programs

BA/MAT (Science Education Subprogram)

Bachelor of Arts students in physics who are interested in pursuing a graduate degree in teaching may apply to the combined Bachelor of Arts/Master of Arts in Teaching with a science education subprogram offered by the College of Liberal Arts and Sciences and the College of Education. Designed for undergraduates majoring in biology, chemistry, environmental sciences, geoscience, or physics, the combined program enables students to earn a BA and MAT in five years by beginning to earn graduate credit during their fourth year of undergraduate study and by counting up to 19 s.h. of qualifying credit toward both degrees. For more information, see Science Education BA/MAT [p. 1497] in the Master of Arts in Teaching, MAT (College of Education) section of the catalog. Interested students should consult an advisor.

Undergraduate to Graduate (U2G) Program

Bachelor of Arts students in physics may pair their degree with an Undergraduate to Graduate (U2G) program, which allows earning a bachelor's and master's degree in five years of study. See the Undergraduate to Graduate (U2G) website for available programs.

Honors

Honors in the Major

Students majoring in physics have the opportunity to graduate with honors in their major. They must maintain a University of Iowa grade-point average (GPA) of at least 3.33. During their junior and senior years, students must conduct an investigation under the guidance of a faculty member. They must present a written report of their research (honors thesis) and describe their research results at a departmental seminar.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the physics major.

Career Advancement

Physics graduates have mastered skills that are readily transferable to a number of fields. They might choose to work in research, engineering, software development, teaching, finance, biomedical research, or consulting.

The degree leads to careers in medicine, law, science-related administration, business, or technical writing. It also is good preparation for students interested in secondary school science teaching.

About 70% of physics and astronomy graduates go on to graduate school. With help from the department's in-house recruiting office, they win acceptance to some of the best graduate programs in the country.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: MATH:1860 Calculus II and PHYS:1702 Physics II.

Before the fifth semester begins: PHYS:2703 Physics III, PHYS:2704 Physics IV, and up to four more courses in the major.

Before the seventh semester begins: two to four more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two or three more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Physics, BA

Course	Title	Hours
Academic Career		
Any Semester		
Research: students are strongly encouraged to be active participants in research within the department.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
PHYS:1701	Physics I	4
MATH:1850	Calculus I [b]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Social Sciences [c]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
PHYS:1702	Physics II	4
MATH:1860	Calculus II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
	Hours	**14-15**
Second Year		
Fall		
PHYS:2703	Physics III	4
MATH:2700	Introduction to Linear Algebra [d]	4
GE CLAS Core: Values and Society [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
	Hours	**15-16**
Spring		
PHYS:2704	Physics IV	3 - 4
MATH:2850	Calculus III [d]	4
GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
Elective course [f]		3
	Hours	**17-19**
Third Year		
Fall		
PHYS:3756	Intermediate Laboratory	3
Major: physics elective course numbered 3000 or above [g]		3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5
Elective course [f]		1 - 3
	Hours	**14-17**
Spring		
Major: additional STEM course in chosen thematic area		3
Major: physics elective course numbered 3000 or above [g]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
Elective course [f]		3
Elective course [f]		3
	Hours	**16-17**
Fourth Year		
Fall		
Major: additional STEM course in chosen thematic area		3
Major: physics elective course numbered 3000 or above [g]		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Spring		
Major: additional STEM course in chosen thematic area		3
Major: additional STEM course in chosen thematic area		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**121-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in math courses requires completion of a placement exam.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d While this course is not a major requirement, it is strongly recommended and a prerequisite for many physics and astronomy courses in the department.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an

approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g See General Catalog for a list of approved courses.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Astronomy, BA

Learning Outcomes

Astronomy majors will be able to:

- demonstrate understanding of the fundamental concepts in astrophysics such as gravity, the nature of light, the physical characteristics of matter, and the motions of astronomical objects in the night sky;
- demonstrate proficiency in each of the major areas of astronomy—cosmology, galaxies, accretion and compact objects, the life cycle, and properties of stars and solar system science;
- show a working knowledge of a broad array of astrophysical phenomena that are based upon fundamental concepts; and
- gain familiarity with astronomical observations, instrumentation, computational methods, and software.

Requirements

The Bachelor of Arts with a major in astronomy requires a minimum of 120 s.h., including at least 43 s.h. of work for the major. The BA program requires fewer physics and mathematics courses than the BS program does, giving students a wider choice of electives. Students take calculus in addition to physics and astronomy courses, which include laboratories. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The program is designed for students who wish to build considerable knowledge in astronomy but do not plan a research-oriented career in the field. It is appropriate for students planning careers in secondary school science teaching or science-related administration.

The BA with a major in astronomy requires the following courses or their equivalents. Substitutions may be allowed by exception through the department.

Requirements	Hours
Mathematics Courses	8
Physics Courses	24-29
Astronomy Courses	11

Mathematics Courses

Course #	Title	Hours
Both of these:		
MATH:1850	Calculus I	4
MATH:1860	Calculus II	4
Or both of these:		
MATH:1550	Engineering Calculus I	4
MATH:1560	Engineering Calculus II	4

Physics Courses

If students select PHYS:3811 Electricity and Magnetism I, they must complete the prerequisite before they register for that course.

Course #	Title	Hours
These three courses:		
PHYS:1701	Physics I	4
PHYS:1702	Physics II	4
PHYS:2703	Physics III	4
Or these two courses:		
PHYS:1611	Introductory Physics I	4
PHYS:1612	Introductory Physics II	4
All of these:		
PHYS:2704	Physics IV	4
PHYS:3710	Intermediate Mechanics	3
PHYS:3756	Intermediate Laboratory	3
One of these:		
PHYS:3730	Statistical Physics	3
PHYS:4720	Introductory Optics	3
One of these:		
PHYS:3811	Electricity and Magnetism I	3
PHYS:3850	Electronics	4

Astronomy Courses

Course #	Title	Hours
All of these:		
ASTR:1771	Fundamental Astronomy I: The Solar System and Exoplanets	4
ASTR:1772	Fundamental Astronomy II: Evolution of Stars, Galaxies, and the Universe	4
ASTR:4850	Observational Techniques in Astronomy	3

Undergraduate majors who plan to pursue graduate study are advised to go as far as they can beyond the minimum requirements, including further work in mathematics. In planning this work, they should be guided by the College of Liberal Arts and Sciences maximum hours rule: students earning a BA may apply a maximum of 56 s.h. earned in one department to the minimum 120 s.h. required for graduation, whether or not the coursework is accepted toward the requirements for the major. Students who earn more than 56 s.h. from one department may use the additional semester hours to satisfy requirements for the major (if the department accepts them), and the grades they earn become part of their grade-point average, but they cannot apply the additional semester hours to the minimum 120 s.h. required for graduation.

Double Major in Physics and Astronomy

Students working toward a Bachelor of Arts with a double major in physics and in astronomy must complete all requirements for both majors and must earn a minimum of 56 s.h. outside the Department of Physics and Astronomy in order to graduate. Students interested in earning a double major should consult with their advisors. See Requirements for a Bachelor's Degree on the College of Liberal Arts and Sciences website.

Honors

Honors in the Major

Students majoring in astronomy have the opportunity to graduate with honors in their major. They must maintain a University of Iowa grade-point average (GPA) of at least 3.33. During their junior and senior years, students must conduct an

investigation under the guidance of a faculty member. They must present a written report of their research (honors thesis) and describe their research results at a departmental seminar.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the astronomy major.

Career Advancement

Astronomy graduates have mastered skills that are readily transferable to a number of fields. They might choose to work in research, engineering, software development, teaching, finance, biomedical research, or consulting. Some graduates plan for careers in secondary school science teaching or science-related administration or plan to earn professional degrees.

About 70% of physics and astronomy graduates go on to graduate school. With help from the department's in-house recruiting office, they win acceptance to some of the best graduate programs in the country.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: math through MATH:1850 Calculus I and MATH:1860 Calculus II; and PHYS:1701 Physics I and PHYS:1702 Physics II.

Before the fourth semester begins: ASTR:1771 Fundamental Astronomy I: The Solar System and Exoplanets.

Before the fifth semester begins: ASTR:1772 Fundamental Astronomy II: Evolution of Stars, Galaxies, and the Universe, PHYS:2703 Physics III, PHYS:2704 Physics IV, and at least one more course in the major.

Before the seventh semester begins: three more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: three more courses in the major.

Before or during the eighth semester: ASTR:4850 Observational Techniques in Astronomy.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Astronomy, BA

Course	Title	Hours
Academic Career		
Any Semester		
Research: students are strongly encouraged to be active participants in research within the department.		
Students can pursue a double major in astronomy and physics and earn more than 56 s.h. from the department toward these degrees but must also complete at least 56 s.h. outside of the Department of Physics & Astronomy.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
ASTR:1771	Fundamental Astronomy I: The Solar System and Exoplanets	4
PHYS:1701	Physics I	4
MATH:1850	Calculus I [b]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
CSI:1600	Success at Iowa	1
	Hours	**16-17**
Spring		
ASTR:1772	Fundamental Astronomy II: Evolution of Stars, Galaxies, and the Universe	4
PHYS:1702	Physics II	4
MATH:1860	Calculus II	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
	Hours	**15-16**
Second Year		
Fall		
PHYS:2703	Physics III	4
MATH:2700	Introduction to Linear Algebra [c]	4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [e]		4 - 5
	Hours	**15-16**
Spring		
PHYS:2704	Physics IV	3 - 4
MATH:2850	Calculus III [c]	4
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [e]		4 - 5
	Hours	**14-16**
Third Year		
Fall		
PHYS:3756	Intermediate Laboratory	3
PHYS:3811	Electricity and Magnetism I	3
GE CLAS Core: World Languages Third Level Proficiency or elective course [e]		4 - 5

Elective course [f]		1 - 3
Elective course [f]		3
	Hours	**14-17**
Spring		
PHYS:3710	Intermediate Mechanics	3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
Elective course [f]		3
Elective course [f]		3
	Hours	**16-17**
Fourth Year		
Fall		
PHYS:3730	Statistical Physics	3
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: Social Sciences [d]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Spring		
ASTR:4850	Observational Techniques in Astronomy [g]	3
GE CLAS Core: Values and Society [d]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**120-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in math courses requires completion of a placement exam.

c While this course is not a major requirement, it is strongly recommended and a prerequisite for many physics and astronomy courses in the department.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Typically this course is offered every other year. Check MyUI for course availability since offerings are subject to change.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Physics, BS

Learning Outcomes

Physics majors will be able to:

- demonstrate competency in applying the basic laws of physics in classical and quantum mechanics, electromagnetism, thermodynamics, and statistical physics;
- solve complex, real-world problems using the principles of physics; and
- demonstrate competency in using basic instrumentation and in analyzing the data obtained.

Requirements

The Bachelor of Science with a major in physics requires a minimum of 120 s.h., including at least 55 s.h. of work for the major (minimum of 42 s.h. in physics plus 16 s.h. in supporting coursework). Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students must complete several required mathematics courses in addition to their required physics core. The department offers a wide range of upper-level electives and students are encouraged to explore different research areas. All students are strongly encouraged to get involved with research.

Students who earn a BS in physics may not earn a BS in applied physics or a BA in physics.

The BS with a major in physics requires the following courses or their equivalents. Substitutions may be allowed by exception through the department.

Requirements	Hours
Mathematics Courses	13-16
Introductory Physics Courses	8-12
Physics Core Courses	25
Upper-Level Elective Courses	9-11

Mathematics Courses

Course #	Title	Hours
All of these:		
MATH:1850	Calculus I	4
MATH:1860	Calculus II	4
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
Or all of these:		
MATH:1550	Engineering Calculus I	4
MATH:1560	Engineering Calculus II	4
MATH:2550	Engineering Matrix Algebra	2
MATH:3550	Engineering Vector Calculus	3

Introductory Physics Courses

Course #	Title	Hours
These three courses:		
PHYS:1701	Physics I	4
PHYS:1702	Physics II	4
PHYS:2703	Physics III	4
Or these two courses:		
PHYS:1611	Introductory Physics I	4
PHYS:1612	Introductory Physics II	4

Physics Core Courses

Course #	Title	Hours
All of these:		
PHYS:2704	Physics IV	4
PHYS:3710	Intermediate Mechanics	3
PHYS:3730	Statistical Physics	3
PHYS:3741	Introduction to Quantum Mechanics I	3
PHYS:3742	Introduction to Quantum Mechanics II	3
PHYS:3756	Intermediate Laboratory	3
PHYS:3811	Electricity and Magnetism I	3
PHYS:3812	Electricity and Magnetism II	3

Upper-Level Elective Courses

Students can only take these courses once: PHYS:3850 Electronics, PHYS:4750 Advanced Laboratory, or ASTR:4850 Observational Techniques in Astronomy.

Students must take at least three different courses from the following lists to satisfy this requirement.

Undergraduate majors who plan to pursue graduate study are advised to go as far as they can beyond the minimum requirements in the following list, including further work in mathematics.

Course #	Title	Hours
One of these:		
PHYS:3850	Electronics	4
PHYS:4750	Advanced Laboratory	3
ASTR:4850	Observational Techniques in Astronomy	3
Two of these:		
PHYS:3850	Electronics (if not taken for the previous requirement)	4
PHYS:4720	Introductory Optics	3
PHYS:4726	Electro Optics	3
PHYS:4728	Introductory Solid State Physics	3
PHYS:4731	Plasma Physics I	3
PHYS:4740	Elementary Particles and Nuclear Physics	3
PHYS:4750	Advanced Laboratory (if not taken for the previous requirement)	3
PHYS:4761	Mathematical Methods of Physics I	3
PHYS:4762	Mathematical Methods of Physics II	3
PHYS:4820	Optical Signal Processing	3
PHYS:4860	Computational Physics	3
PHYS:4905	Special Topics in Physics	3
PHYS:5905	Special Topics in Physics	3
ASTR:3771	Introduction to Astrophysics I	3

ASTR:3772	Introduction to Astrophysics II	3
ASTR:4850	Observational Techniques in Astronomy (if not taken for the previous requirement)	3

In planning this work, students should be guided by the College of Liberal Arts and Sciences maximum hours rule: students earning a BS may apply a maximum of 56 s.h. earned in one department to the minimum 120 s.h. required for graduation, whether or not the coursework is accepted toward the requirements for the major. Students who earn more than 56 s.h. from one department may use the additional semester hours to satisfy requirements for the major (if the department accepts them), and the grades they earn become part of their grade-point average, but they cannot apply the additional semester hours to the minimum 120 s.h. required for graduation.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) [p. 1339] in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Double Major in Physics and Astronomy

Students working toward a Bachelor of Science with a double major in physics and in astronomy must complete all requirements for both majors and must earn a minimum of 56 s.h. outside the Department of Physics and Astronomy in order to graduate. Students interested in earning a double major should consult with their advisors. See Requirements for a Bachelor's Degree on the College of Liberal Arts and Sciences website.

Honors

Honors in the Major

Students majoring in physics have the opportunity to graduate with honors in their major. They must maintain a University of Iowa grade-point average (GPA) of at least 3.33. During their junior and senior years, students must conduct an investigation under the guidance of a faculty member. Students must present a written report of their research (honors thesis) and describe their research results at a departmental seminar.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the physics major.

Career Advancement

Physics graduates have mastered skills that are readily transferable to a number of fields. They might choose to work in research, engineering, software development, teaching, finance, biomedical research, or consulting.

The degree provides preparation for careers in industry, employment in research laboratories, and graduate study in physics and related sciences.

About 70% of physics and astronomy graduates go on to graduate school. With help from the department’s in-house recruiting office, they win acceptance to some of the best graduate programs in the country.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: MATH:1860 Calculus II and PHYS:1702 Physics II.

Before the fifth semester begins: PHYS:2703 Physics III, PHYS:2704 Physics IV, MATH:2700 Introduction to Linear Algebra, MATH:2850 Calculus III, and up to two more courses in the major.

Before the seventh semester begins: two to four more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two or three more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Physics, BS

Course	Title	Hours
Academic Career		
Any Semester		
Research: students are strongly encouraged to be active participants in research within the department.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
PHYS:1701	Physics I	4
MATH:1850	Calculus I [b]	4

ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Social Sciences [c]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
PHYS:1702	Physics II	4
MATH:1860	Calculus II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
	Hours	**14-15**
Second Year		
Fall		
PHYS:2703	Physics III	4
MATH:2700	Introduction to Linear Algebra	4
GE CLAS Core: Values and Society [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
	Hours	**15-16**
Spring		
PHYS:2704	Physics IV	4
PHYS:3710	Intermediate Mechanics	3
MATH:2850	Calculus III	4
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
	Hours	**15-16**
Third Year		
Fall		
PHYS:3741	Introduction to Quantum Mechanics I	3
PHYS:3811	Electricity and Magnetism I	3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
Elective course [e]		1 - 3
	Hours	**14-17**
Spring		
PHYS:3742	Introduction to Quantum Mechanics II	3
PHYS:3812	Electricity and Magnetism II	3
PHYS:3850	Electronics [f]	4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [e]		3
	Hours	**17-18**
Fourth Year		
Fall		
PHYS:3730	Statistical Physics	3
PHYS:3756	Intermediate Laboratory [f]	3
Major: upper-level physics course		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
Elective course [e]		3
	Hours	**15**
Spring		
Major: upper-level physics course		3
GE CLAS Core: International and Global Issues [c]		3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [g]		
	Hours	**15**
	Total Hours	**120-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in math courses requires completion of a placement exam.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Students who choose PHYS:3850 as one of their two required laboratory courses are advised to take it before they take PHYS:3756 Intermediate Laboratory.

g Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Applied Physics, BS

Learning Outcomes

Applied physics majors will be able to:

- demonstrate competency in applying the basic laws of physics in a focused area of physics and a related applied field;
- solve complex, real-world problems using the principles of physics; and
- demonstrate competency in using theoretical tools and basic instrumentation, and in analyzing the data obtained.

Requirements

The Bachelor of Science with a major in applied physics requires a minimum of 120 s.h., including at least 56–87 s.h. of work for the major. Total credit required for the major depends on a student's choice of concentration. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The major in applied physics is intended primarily for students interested in a broad program of study in physics combined with a significant concentration of courses in a field that has immediate application to high-technology industries. The degree provides a foundation for a wide range of employment opportunities in high-technology industries, including research and development, product design and testing, sales, and quality control. It is also designed to include exposure to physics sufficient to allow students to continue with graduate studies in either physics or astronomy.

An essential component of each concentration is the successful completion of a related one-semester internship or practicum experience in a research laboratory (an applied physics research report is required for the latter option). Well-prepared students will be able to complete the degree in four years. Students should work closely with their advisors on a graduation plan.

All applied physics students complete a common set of courses that includes calculus, linear algebra, physics, and an experiential learning course. They also complete the courses required for their chosen concentration. The department encourages students to take additional coursework; advisors can suggest electives that will enrich programs and help students prepare for graduate work. Flexibility to customize an area of concentration or to develop a unique concentration is available in consultation with the applied physics coordinator.

Students who want to earn a double major in applied physics and astronomy must choose their coursework carefully; see the section titled "Double Major in Applied Physics and Astronomy."

Students who earn a BS in applied physics may not earn a BA or BS in physics.

The BS with a major in applied physics requires the following courses. Many upper-level physics courses have prerequisites; students should consult their advisors when choosing courses numbered 3000 or above.

Requirements	Hours
Common Requirements	34-41
Concentration Area Courses	22-46

Common Requirements

Students in all concentrations must successfully complete the following courses or their equivalents.

Mathematics

Course #	Title	Hours
All of these:		
MATH:1850 & MATH:1860	Calculus I and Calculus II	8
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
Or all of these:		
MATH:1550	Engineering Calculus I	4
MATH:1560	Engineering Calculus II	4
MATH:2550	Engineering Matrix Algebra	2
MATH:3550	Engineering Vector Calculus	3

Physics

Course #	Title	Hours
One of these sequences:		
PHYS:1611 & PHYS:1612	Introductory Physics I and Introductory Physics II	8
PHYS:1701 & PHYS:1702 & PHYS:2703	Physics I and Physics II and Physics III (strongly preferred)	12
All of these:		
PHYS:2704	Physics IV	4
PHYS:3710	Intermediate Mechanics	3
PHYS:3741	Introduction to Quantum Mechanics I	3
PHYS:3811	Electricity and Magnetism I	3

Experiential Learning

Course #	Title	Hours
One of these:		
A one-semester industrial internship (requires a research report)		
A one-semester practicum in a research laboratory (requires a research report)		

Concentrations

Students select one of four concentration areas, or, with approval from the applied physics advisor, a custom concentration is permitted, such as acoustics and propulsion science.

Computer Science Concentration

Course #	Title	Hours
All of these:		
PHYS:3730	Statistical Physics	3
PHYS:3756	Intermediate Laboratory	3
PHYS:3812	Electricity and Magnetism II	3
PHYS:3850	Electronics	4

CS:1210	Computer Science I: Fundamentals	4
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
One additional computer science course numbered 3000 or above		3
Two of these:		
CS:2630	Computer Organization	4
CS:2820	Introduction to Software Development	4
CS:3330	Algorithms	3

Optics Concentration

Course #	Title	Hours
All of these:		
PHYS:3730	Statistical Physics	3
PHYS:3756	Intermediate Laboratory	3
PHYS:3812	Electricity and Magnetism II	3
PHYS:3850	Electronics	4
PHYS:4720	Introductory Optics	3
Two of these:		
PHYS:4726	Electro Optics	3
PHYS:4728	Introductory Solid State Physics	3
PHYS:4820	Optical Signal Processing	3

Solid-State Electronics Concentration

Course #	Title	Hours
All of these:		
PHYS:3730	Statistical Physics	3
PHYS:4728	Introductory Solid State Physics	3
ECE:2400	Linear Systems I	3
ECE:2410	Principles of Electronic Instrumentation	4
ECE:3320	Introduction to Digital Design	3
ECE:3410	Electronic Circuits	4
ENGR:1300	Introduction to Engineering Computing	3
ENGR:2120	Electrical Circuits	3
ENGR:2730	Computers in Engineering	3
One of these:		
PHYS:3742	Introduction to Quantum Mechanics II	3
PHYS:3812	Electricity and Magnetism II	3

Medical Physics Concentration

Course #	Title	Hours
All of these:		
PHYS:3756	Intermediate Laboratory	3
PHYS:3850	Electronics	4
BIOL:1411 & BIOL:1412	Foundations of Biology and Diversity of Form and Function	8
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
CHEM:2210 & CHEM:2220	Organic Chemistry I and Organic Chemistry II	6
CHEM:2410	Organic Chemistry Laboratory	3
Two additional biology courses numbered 2000 or above		6-8
One of these:		
BIOS:4120	Introduction to Biostatistics	3
STAT:3510	Biostatistics	3
One of these:		
PHYS:3730	Statistical Physics	3
PHYS:3742	Introduction to Quantum Mechanics II	3
PHYS:3812	Electricity and Magnetism II	3
PHYS:4750	Advanced Laboratory	3
PHYS:4905	Special Topics in Physics (when topic is physics of the body)	3

Undergraduate majors who plan to pursue graduate study are advised to go as far as they can beyond the minimum requirements, including further work in mathematics. In planning this work, they should be guided by the College of Liberal Arts and Sciences maximum hours rule: students earning a BS may apply a maximum of 56 s.h. earned in one department to the minimum 120 s.h. required for graduation, whether or not the coursework is accepted toward the requirements for the major. Students who earn more than 56 s.h. from one department may use the additional semester hours to satisfy requirements for the major (if the department accepts them), and the grades they earn become part of their grade-point average, but they cannot apply the additional semester hours to the minimum 120 s.h. required for graduation.

Double Major in Applied Physics and Astronomy

Students working toward a Bachelor of Science with a double major in applied physics and in astronomy must complete all requirements for both majors and must earn a minimum of 56 s.h. outside the Department of Physics and Astronomy in order to graduate. Students interested in earning a double major should consult with their advisors. See Requirements for a Bachelor's Degree on the College of Liberal Arts and Sciences website.

Honors

Honors in the Major

Students majoring in applied physics have the opportunity to graduate with honors in their major. Departmental honors students must maintain a University of Iowa grade-point average (GPA) of at least 3.33. To graduate with honors in the major, students must conduct an investigation under the guidance of a faculty member during their junior and senior years. They must present a written report of their research (honors thesis) and describe their research results at a departmental seminar.

University of Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the

University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the applied physics major.

Career Advancement

Applied physics graduates have mastered skills that are readily transferable to a number of fields. They might choose to work in research, engineering, software development, teaching, finance, biomedical research, or consulting.

About 70% of physics and astronomy graduates go on to graduate school. With help from the department's in-house recruiting office, they win acceptance to some of the best graduate programs in the country.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: MATH:1860 Calculus II and PHYS:1702 Physics II.

Before the fifth semester begins: PHYS:2703 Physics III, PHYS:2704 Physics IV, MATH:2700 Introduction to Linear Algebra, MATH:2850 Calculus III, one more course in the major, and up to four courses in another science or engineering department.

Before the seventh semester begins: two to four more courses in the major, up to three other science or engineering courses, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two or three more courses in the major or other science or engineering courses and all or part of an academic year research experience or a summer research experience or internship as approved by the applied physics coordinator.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Applied Physics, BS

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
PHYS:1701	Physics I	4
CHEM:1110	Principles of Chemistry I [b]	4
MATH:1850	Calculus I [c]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
CSI:1600	Success at Iowa	1
	Hours	**16-17**
Spring		
PHYS:1702	Physics II	4
CHEM:1120	Principles of Chemistry II	4
MATH:1860	Calculus II	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
	Hours	**15-16**
Second Year		
Fall		
PHYS:2703	Physics III	4
BIOL:1411	Foundations of Biology	4
MATH:2700	Introduction to Linear Algebra	4
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
	Hours	**16-17**
Spring		
PHYS:2704	Physics IV	3 - 4
BIOL:1412	Diversity of Form and Function	4
MATH:2850	Calculus III	4
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
	Hours	**15-17**
Third Year		
Fall		
PHYS:3741	Introduction to Quantum Mechanics I	3
PHYS:3811	Electricity and Magnetism I	3
CHEM:2210	Organic Chemistry I	3
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
	Hours	**16-17**
Spring		
PHYS:3710	Intermediate Mechanics	3
PHYS:3850	Electronics	4
CHEM:2220	Organic Chemistry II	3
GE CLAS Core: Values and Society [e]		3
GE CLAS Core: World Languages Fourth Level Proficiency [d]		4 - 5
	Hours	**17-18**
Summer		
Internship: industrial internship or research practicum		3
	Hours	**3**
Fourth Year		
Fall		
PHYS:3756	Intermediate Laboratory	3
CHEM:2410	Organic Chemistry Laboratory	3
Major: biology course numbered 2000 or above [f]		3 - 4

GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
	Hours	**15-16**
Spring		
STAT:3510 or BIOS:4120	Biostatistics or Introduction to Biostatistics	3
Major: biology course numbered 2000 or above [f]		3 - 4
Major: medical concentration select one course [g]		3
GE CLAS Core: International and Global Issues [e]		3
GE CLAS Core: Social Sciences [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15-16**
	Total Hours	**128-137**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c Enrollment in math courses requires completion of a placement exam.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students in this concentration are required to complete two biology courses (BIOL) numbered 2000 or above (6-8 s.h.)

g Choose from PHYS:3730, PHYS:3742, PHYS:3812, PHYS:4750, or PHYS:4905.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Astronomy, BS

Learning Outcomes

Astronomy majors will be able to:

- demonstrate understanding of the fundamental concepts in astrophysics such as gravity, the nature of light, the physical characteristics of matter, and the motions of astronomical objects in the night sky;
- demonstrate proficiency in each of the major areas of astronomy—cosmology, galaxies, accretion and compact objects, the life cycle, and properties of stars and solar system science;
- show a working knowledge of a broad array of astrophysical phenomena that are based upon fundamental concepts; and
- gain familiarity with astronomical observations, instrumentation, computational methods, and software.

Requirements

The Bachelor of Science with a major in astronomy requires a minimum of 120 s.h., including at least 60 s.h. of work for the major. The program provides balanced and integrated coursework in astronomy, mathematics, and physics that prepares students for graduate studies in astronomy, astrophysics, or related science disciplines. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students must complete several required mathematics courses in addition to the required physics and astronomy core. The department offers a wide range of upper-level electives and students are encouraged to explore different research areas. All students are strongly encouraged to get involved with research.

The BS with a major in astronomy requires the following coursework. Substitutions may be allowed by exception through the department.

Requirements	Hours
Mathematics Courses	13-16
Physics Core Courses	24-28
Astronomy Core Courses	17
Upper-Level Physics Courses	6-7
Optional Upper-Level Elective Courses	

Mathematics Courses

Course #	Title	Hours
All of these:		
MATH:1850	Calculus I	4
MATH:1860	Calculus II	4
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
Or all of these:		
MATH:1550	Engineering Calculus I	4
MATH:1560	Engineering Calculus II	4
MATH:2550	Engineering Matrix Algebra	2
MATH:3550	Engineering Vector Calculus	3

Physics Core Courses

Course #	Title	Hours
These three courses:		
PHYS:1701	Physics I	4
PHYS:1702	Physics II	4
PHYS:2703	Physics III	4
Or these two courses:		
PHYS:1611	Introductory Physics I	4
PHYS:1612	Introductory Physics II	4
All of these:		
PHYS:2704	Physics IV	4
PHYS:3710	Intermediate Mechanics	3
PHYS:3741	Introduction to Quantum Mechanics I	3
PHYS:3811	Electricity and Magnetism I	3
PHYS:3812	Electricity and Magnetism II	3

Astronomy Core Courses

Course #	Title	Hours
All of these:		
ASTR:1771	Fundamental Astronomy I: The Solar System and Exoplanets	4
ASTR:1772	Fundamental Astronomy II: Evolution of Stars, Galaxies, and the Universe	4
ASTR:3771	Introduction to Astrophysics I (offered every other year)	3
ASTR:3772	Introduction to Astrophysics II (offered every other year)	3
ASTR:4850	Observational Techniques in Astronomy (offered every other year)	3

Upper-Level Physics Courses

Course #	Title	Hours
One of these:		
PHYS:3756	Intermediate Laboratory	3
PHYS:3850	Electronics	4
One of these:		
PHYS:3742	Introduction to Quantum Mechanics II	3
PHYS:4731	Plasma Physics I	3

Optional Upper-Level Elective Courses

Undergraduate majors who plan to pursue graduate study are advised to go as far as they can beyond the requirements by taking one or more of these elective courses.

Course #	Title	Hours
PHYS:3730	Statistical Physics	3
PHYS:3742	Introduction to Quantum Mechanics II	3
PHYS:4720	Introductory Optics	3
PHYS:4731	Plasma Physics I	3
PHYS:4740	Elementary Particles and Nuclear Physics	3

PHYS:4761	Mathematical Methods of Physics I	3
PHYS:4762	Mathematical Methods of Physics II	3
PHYS:4905	Special Topics in Physics	arr.

In planning this work, they should be guided by the College of Liberal Arts and Sciences maximum hours rule: students earning a BS may apply a maximum of 56 s.h. earned in one department to the minimum 120 s.h. required for graduation, whether or not the coursework is accepted toward the requirements for the major. Students who earn more than 56 s.h. from one department may use the additional semester hours to satisfy requirements for the major (if the department accepts them), and the grades they earn become part of their GPA, but they cannot apply the additional semester hours to the minimum 120 s.h. required for graduation.

Double Major in Physics and Astronomy

Students working toward a Bachelor of Science with a double major in physics and in astronomy must complete all requirements for both majors and must earn a minimum of 56 s.h. outside the Department of Physics and Astronomy in order to graduate. Students interested in earning a double major should consult with their advisors. See Requirements for a Bachelor's Degree on the College of Liberal Arts and Sciences website.

Honors

Honors in the Major

Students majoring in astronomy have the opportunity to graduate with honors in their major. They must maintain a University of Iowa grade-point average (GPA) of at least 3.33. During their junior and senior years, students must conduct an investigation under the guidance of a faculty member. They must present a written report of their research (honors thesis) and describe their research results at a departmental seminar.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the astronomy major.

Career Advancement

Astronomy graduates have mastered skills that are readily transferable to a number of fields. They might choose to work in research, engineering, software development, teaching, finance, biomedical research, or consulting.

About 70% of physics and astronomy graduates go on to graduate school. With help from the department’s in-house recruiting office, they win acceptance to some of the best graduate programs in the country.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: MATH:1850 Calculus I, MATH:1860 Calculus II, and PHYS:1702 Physics II.

Before the fifth semester begins: all of the remaining required math courses, PHYS:2703 Physics III, PHYS:2704 Physics IV, and two other courses in the major.

Before the seventh semester begins: four more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: three more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Astronomy, BS

Course	Title	Hours
Academic Career		
Any Semester		
Research: students are strongly encouraged to be active participants in research within the department.		
Students can pursue a double major in astronomy and physics and earn more than 56 s.h. from the department toward these degrees but must also complete at least 56 s.h. outside of the Department of Physics & Astronomy.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
ASTR:1771	Fundamental Astronomy I: The Solar System and Exoplanets	4
PHYS:1701	Physics I	4
MATH:1850	Calculus I [b]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
CSI:1600	Success at Iowa	1
	Hours	**16-17**
Spring		
ASTR:1772	Fundamental Astronomy II: Evolution of Stars, Galaxies, and the Universe	4
PHYS:1702	Physics II	4
MATH:1860	Calculus II	4

ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
	Hours	**15-16**
Second Year		
Fall		
PHYS:2703	Physics III	4
MATH:2700	Introduction to Linear Algebra	4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
	Hours	**15-16**
Spring		
PHYS:2704	Physics IV	3 - 4
MATH:2850	Calculus III	4
GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
	Hours	**14-16**
Third Year		
Fall		
ASTR:3771	Introduction to Astrophysics I [e]	3
PHYS:3756	Intermediate Laboratory	3
PHYS:3811	Electricity and Magnetism I	3
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
Elective course [f]		1 - 3
	Hours	**14-17**
Spring		
ASTR:3772	Introduction to Astrophysics II [e]	3
PHYS:3710	Intermediate Mechanics	3
PHYS:3812	Electricity and Magnetism II	3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Fourth Year		
Fall		
PHYS:3741	Introduction to Quantum Mechanics I	3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: Social Sciences [c]		3
GE CLAS Core: Values and Society [c]		3
Elective course [f, g]		3
	Hours	**15**
Spring		
ASTR:4850	Observational Techniques in Astronomy [e]	3
PHYS:3742	Introduction to Quantum Mechanics II	3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
Elective course [f, g]		3
Elective course [f, g]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**120-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in math courses requires completion of a placement exam.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Typically this course is offered every other year. Check MyUI for course availability since offerings are subject to change.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Students who plan to pursue graduate study are advised to go as far as they can beyond the minimum requirements. See General Catalog for a list of appropriate courses.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Physics, Minor

Requirements

The undergraduate minor in physics requires a minimum of 15 s.h. in physics coursework, including 12 s.h. taken at the University of Iowa from the following course list. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Course #	Title	Hours
12 s.h. from these:		
PHYS:1612	Introductory Physics II	4
or PHYS:2703	Physics III	
PHYS:2704	Physics IV	3-4
Physics courses numbered 3000 or above		

Both PHYS:2703 Physics III and PHYS:2704 Physics IV have prerequisites, as do most physics courses numbered 3000 or above. Students must complete a course's prerequisites before they may enroll in the course.

Astronomy, Minor

Requirements

The undergraduate minor in astronomy requires a minimum of 15 s.h. in astronomy and physics courses, including 12 s.h. of coursework numbered 3000 or above and 12 s.h. taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Course #	Title	Hours
6 s.h. from these:		
ASTR:3771	Introduction to Astrophysics I	3
ASTR:3772	Introduction to Astrophysics II	3
ASTR:4850	Observational Techniques in Astronomy	3

The remaining work may be chosen from astronomy and physics courses (prefixes ASTR and PHYS) numbered 3000 or above.

Most University of Iowa courses for the minor have prerequisites; students must complete a course's prerequisites before they may enroll in the course.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Astronomy, Minor

Course	Title	Hours
Academic Career		
Any Semester		
12 semester hours for the Astronomy minor must be taken at the University of Iowa.		
	Hours	**0**
First Year		
Fall		
MATH:1850	Calculus I [a]	4
PHYS:1701	Physics I	4
ASTR:1771	Fundamental Astronomy I: The Solar System and Exoplanets	4
	Hours	**12**
Spring		
MATH:1860	Calculus II	4
PHYS:1702	Physics II	4
ASTR:1772	Fundamental Astronomy II: Evolution of Stars, Galaxies, and the Universe	4
	Hours	**12**
Second Year		
Fall		
MATH:2700	Introduction to Linear Algebra	4
PHYS:2703	Physics III	4
	Hours	**8**
Spring		
MATH:2850	Calculus III	4
PHYS:2704	Physics IV	4
	Hours	**8**
Third Year		
Fall		
ASTR:3771	Introduction to Astrophysics I [b]	3
	Hours	**3**
Spring		
ASTR:3772	Introduction to Astrophysics II [b]	3
	Hours	**3**
Fourth Year		
Fall		
Minor: 3000-level or above course		3
	Hours	**3**
Spring		
Minor: 3000-level or above course (ASTR:4850 Observational Techniques in Astronomy is recommended)		3
	Hours	**3**
	Total Hours	**52**

a Enrollment in math courses requires completion of a placement exam.

b Typically this course is offered every other year. Check MyUI for course availability since offerings are subject to change.

Physics, MS

Graduate study in physics and astronomy is highly individualized. Each entering graduate student is assigned a faculty advisor, who assists in preparing a plan of study and in guiding the student's progress.

Learning Outcomes

Graduates will:

- understand the foundational principles that transcend many distinct areas, and learn the technical language, problem-solving skills, and training in technical listening and discussion;
- learn and practice advanced discourse in mathematical aspects that translate to physics;
- become familiar with the state-of-the-art experimental tools and equipment in the field;
- promote aspects of creativity and originality in the field and prepare for adaptability to new discoveries;
- learn and practice advanced discourse in experimental and observational aspects, including data and information mining, translating experimental observations to physical principles and vice versa; and
- learn analysis of data and computational skills as well as become familiar with state-of-the-art techniques for data processing.

Requirements

The Master of Science program in physics requires a minimum of 30 s.h. of graduate credit. All students must earn the required 30 s.h. of graduate credit in courses numbered 4000 or above, with at least 15 s.h. in courses numbered 5000 or above. At least 24 s.h. must be completed under the auspices of the University of Iowa after admission to the Department of Physics and Astronomy. Students must maintain a program grade-point average of at least 2.75.

Each student's plan of study should provide for as much advanced work as aptitude and previous preparation permit. Up to one-third of the program of study may be taken in related scientific fields other than physics (e.g., mathematics, chemistry, astronomy, geology, engineering).

The degree is offered with a thesis or critical essay. Students who choose the thesis option must write a thesis based on an original experimental or theoretical investigation that they have conducted. Students may earn a maximum of 6 s.h. in PHYS:7990 Research: Physics or PHYS:7992 Individual Critical Study.

Students who choose the critical essay option must conduct an independent study of the literature on a particular area of physics and write a critical essay on that topic. Students may earn a maximum of 4 s.h. in PHYS:7990 Research: Physics or PHYS:7992 Individual Critical Study.

The MS may be a terminal degree or a step toward a PhD. In either case, the final examination is oral, conducted by a committee of three faculty members.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Graduates have opportunities for employment in universities, colleges, and research laboratories in government and industry. Physics graduates have mastered skills that are readily transferable to a number of fields. They might choose to work in engineering, software development, finance, or consulting.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Physics, MS

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Students must maintain a Graduate College program GPA of 3.00 or higher. [c]		
	Hours	**0**
First Year		
Fall		
Physics course [d]		3
Physics course [d]		3
Physics course [d]		3
	Hours	**9**
Spring		
Physics course [d]		3
Physics course [d]		3
Elective course [d]		3
	Hours	**9**
Second Year		
Fall		
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**9**
Spring		
Elective course [d]		3
Final Exam [e]		
	Hours	**3**
	Total Hours	**30**

a Students must earn at least 15 s.h. in courses numbered 5000 or above. Up to one-third of the program of study may be taken in related scientific fields other than physics (e.g., mathematics, chemistry, astronomy, geology, engineering).

b Students must complete specific requirements in the University of Iowa Graduate College after program

admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Work with faculty advisor to determine appropriate upper-level graduate coursework and sequence.

e Oral examination.

Astronomy, MS

Graduate study in physics and astronomy is highly individualized. Each entering graduate student is assigned a faculty advisor, who assists in preparing a plan of study and in guiding the student's progress.

Learning Outcomes

Graduates will:

- understand the foundational principles that transcend many distinct areas, and learn the technical language, problem-solving skills, and training in technical listening and discussion;
- learn and practice advanced discourse in mathematical aspects that translate to physics;
- become familiar with the state-of-the-art experimental tools and equipment in the field;
- promote aspects of creativity and originality in the field and prepare for adaptability to new discoveries;
- learn and practice advanced discourse in experimental and observational aspects, including data and information mining, translating experimental observations to physical principles and vice versa; and
- learn analysis of data and computational skills as well as become familiar with state-of-the-art techniques for data processing.

Requirements

The Master of Science program in astronomy requires a minimum of 30 s.h. of graduate credit. Students must complete a minimum of 30 s.h. of graduate work, including at least 12 s.h. from the following course list, at least 3 s.h. numbered 5000 or above, and the remainder in courses numbered at least 4000 or above. At least 24 s.h. must be completed under the auspices of the University of Iowa after admission to the Department of Physics and Astronomy. Seminars do not count toward the minimum of 30 s.h. required for the degree. All students must maintain a grade-point average of at least 2.75.

Up to one-third of the program of study may be taken in related scientific fields (e.g., meteorology, geology, electrical engineering); selection of such courses is encouraged.

The degree is offered either with or without a thesis. The MS may be a terminal degree or a step toward a PhD in physics with a subprogram and a dissertation in astronomy or astrophysics. In either case, the final examination is oral, conducted by a committee of three faculty members.

Students must select at least 12 s.h. from these.

Course #	Title	Hours
ASTR:6782	Extragalactic Astronomy	3
ASTR:6785	The Interstellar Medium	3
ASTR:6790	Stellar Astrophysics	3
ASTR:6870	Radiative Processes in Astrophysics	3
ASTR:6880	High Energy Astrophysics	3
ASTR:7775	Special Topics in Astrophysics	1-3
ASTR:7830	Space and Astrophysical Plasma Physics	3
PHYS:7760	General Relativity	2-3
PHYS:7761	Cosmology	3

For the MS with thesis option, students may take no more than 6 s.h. in PHYS:7992 Individual Critical Study and ASTR:7991 Research: Astronomy; and for those who complete the MS without thesis and writing a critical essay, no more than 4 s.h. may be taken in those courses.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Graduates have opportunities for employment in universities, colleges, and research laboratories in government and industry. Astronomy graduates have mastered skills that are readily transferable to a number of fields. They might choose to work in engineering, software development, finance, or consulting.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Astronomy, MS

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Students must maintain a Graduate College program GPA of 3.00 or higher. [c]		
	Hours	**0**
First Year		
Fall		
Required course [d]		3
Required course [d]		3
Required course [d]		3
	Hours	**9**
Spring		
Required course [d]		3
Elective course (numbered 4000 or above) [e]		3
Elective course (numbered 4000 or above) [e]		3
	Hours	**9**
Second Year		
Fall		
ASTR:7991	Research: Astronomy [f]	2
Elective course (numbered 5000 or above) [e]		3

Elective course (numbered 4000 or above) [e]		3
	Hours	**8**
Spring		
PHYS:7992	Individual Critical Study [f]	2
Elective course (numbered 4000 or above) [e]		2
Final Exam [g]		
	Hours	**4**
	Total Hours	**30**

a Students must complete at least 12 s.h. from list of approved required courses, at least 3 s.h. numbered 5000 or above, and the remainder in courses numbered at least 4000 or above. Note: seminars do not count toward the minimum of 30 s.h. required for the degree.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d See the General Catalog for list of approved courses.

e Work with faculty advisor to select appropriate coursework. Up to one-third of the program of study may be taken in related scientific fields (e.g., meteorology, geology, electrical engineering); selection of such courses is encouraged.

f No more than 4 s.h. may be taken from ASTR:7991 and PHYS:7992.

g Oral examination.

Physics, PhD

Graduate study in physics and astronomy is highly individualized. The department does not offer a PhD in astronomy, but students may pursue a PhD in physics with an astronomy subprogram and a dissertation in astronomy.

Each entering graduate student is assigned a faculty advisor, who assists in preparing a plan of study and in guiding the student's progress.

Learning Outcomes

Graduates will:

- understand the foundational principles that transcend many distinct areas, and learn the technical language, problem-solving skills, and training in technical listening and discussion;
- learn, practice, and discover advanced discourse in mathematical aspects that translate to physics;
- become familiar with the state-of-the-art experimental tools and equipment in the field;
- develop skills for creativity and originality in the field and promote communication of new discoveries;
- learn and practice advanced discourse in experimental and observational aspects, including data and information mining, translating experimental observations to physical principles and vice versa; and
- learn analysis of data and computational skills as well as become familiar with state-of-the-art techniques for data processing.

Requirements

The Doctor of Philosophy program in physics requires a minimum of 72 s.h. of graduate credit. At least 39 s.h. must be earned at the University of Iowa to complete the residency requirement. For students interested in doing doctoral work in astronomy, the department offers an astronomy subprogram, including a dissertation, within the PhD program in physics. All students must maintain a program grade-point average of at least 3.00.

All students must earn at least 24 s.h. in departmental courses numbered 5000 or above. They may not count credit earned in PHYS:7990 Research: Physics, PHYS:7992 Individual Critical Study, ASTR:7991 Research: Astronomy, or seminars.

All students must take comprehensive examinations; participate in advanced seminars; do original research in experimental physics, theoretical physics, or astrophysics; and prepare and defend a written dissertation based on this work.

PhD students in physics without the astronomy subprogram must complete the following courses.

Course #	Title	Hours
PHYS:4761 & PHYS:4762	Mathematical Methods of Physics I and Mathematical Methods of Physics II (students who pass a written examination are exempt from this requirement)	6
PHYS:5710	Classical Mechanics	3
PHYS:5730	Statistical Mechanics I	3
PHYS:5741 & PHYS:5742	Quantum Mechanics I and Quantum Mechanics II	6
PHYS:5811 & PHYS:5812	Classical Electrodynamics I and Classical Electrodynamics II	6

These courses freely use advanced mathematics (e.g., complex variables, tensor analysis). An introduction is provided in PHYS:4761 Mathematical Methods of Physics I and PHYS:4762 Mathematical Methods of Physics II. The selection of less advanced coursework depends on the adequacy of a student's preparation for graduate work; students' choice of more advanced and specialized courses depends on the direction in which their interests develop.

PhD students in physics with the astronomy subprogram must complete a total of six courses from the following.

Course #	Title	Hours
Four of these:		
ASTR:6782	Extragalactic Astronomy	3
ASTR:6785	The Interstellar Medium	3
ASTR:6790	Stellar Astrophysics	3
ASTR:6870	Radiative Processes in Astrophysics	3
ASTR:6880	High Energy Astrophysics	3
ASTR:7775	Special Topics in Astrophysics	3
ASTR:7830	Space and Astrophysical Plasma Physics	3
PHYS:7760	General Relativity	3
PHYS:7761	Cosmology	3
Two of these:		
PHYS:5710	Classical Mechanics	3
PHYS:5730	Statistical Mechanics I	3
PHYS:5741	Quantum Mechanics I	3
PHYS:5742	Quantum Mechanics II	3
PHYS:5811	Classical Electrodynamics I	3
PHYS:5812	Classical Electrodynamics II	3

After a student has chosen a research specialty, the student must submit a formal thesis proposal and defend the proposal in an oral comprehensive exam. The appropriate thesis advisor then becomes the candidate's general advisor and the chair of the comprehensive and final examination committee. The comprehensive exam must be taken before the beginning of the fourth year of graduate study.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Graduates have opportunities for employment in universities, colleges, and research laboratories in government and industry. Physics graduates have mastered skills that are readily transferable to a number of fields. They might choose to work in engineering, software development, finance, or consulting.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Physics, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Students must maintain a Graduate College program GPA of 3.00 or higher. [c]		
	Hours	**0**
First Year		
Fall		
PHYS:4761	Mathematical Methods of Physics I [d]	3
PHYS:5710	Classical Mechanics	3
PHYS:5730	Statistical Mechanics I	3
	Hours	**9**
Spring		
PHYS:4762	Mathematical Methods of Physics II [d]	3
PHYS:5741	Quantum Mechanics I	3
PHYS:5811	Classical Electrodynamics I	3
	Hours	**9**
Second Year		
Fall		
PHYS:5742	Quantum Mechanics II	3
PHYS:5812	Classical Electrodynamics II	3
Elective course [e]		3
	Hours	**9**
Spring		
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Third Year		
Any Semester		
Comprehensive Exam		
	Hours	**0**
Fall		
PHYS:7990	Research: Physics	9
	Hours	**9**
Spring		
PHYS:7990	Research: Physics	9
	Hours	**9**
Fourth Year		
Fall		
PHYS:7990	Research: Physics	9
	Hours	**9**
Spring		
PHYS:7990	Research: Physics	9
Final Exam [f]		
	Hours	**9**
	Total Hours	**72**

a Students must earn at least 24 s.h. in departmental courses numbered 5000 or above, and may not include credit earned in PHYS:7990, PHYS:7992, ASTR:7991, or seminars.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Students who pass a written examination are exempt from this requirement.

e Work with faculty advisor to determine appropriate coursework and sequence.

f Dissertation defense.

Political Risk Analysis

Chair, Department of Political Science

- Julianna Pacheco

Undergraduate certificate: political risk analysis

The Certificate in Political Risk Analysis prepares students to work in a growing area of focus for many corporations and international organizations—political risk analysis or risk intelligence. Risk analysis focuses on the effect that country characteristics and events have on sovereign risk (the ability of a country to repay its debts), company security, supply chains, and the safety of individuals working or traveling in a country. Understanding this risk provides assistance to companies and organizations so that they can better manage their investments, assets, and activities in countries around the world based on threats they might face.

Career workshops, internships, and job opportunities also are provided.

The certificate demonstrates to companies that students have the requisite training to work in this area. The political risk analysis certificate was developed in conjunction with individuals working in this area and the Association of International Risk Intelligence Professionals. Feedback about the curriculum has been received from individuals working in the industry so that it provides the training that students need to be competitive in this area. Alumni are active in assisting students with advice on internships and careers.

The Certificate in Political Risk Analysis is administered by the Department of Political Science.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Political Risk Analysis [p. 925]

Political Risk Analysis, Certificate

Requirements

The undergraduate Certificate in Political Risk Analysis requires a minimum of 18 s.h. of credit. Students must maintain a grade-point average of at least 2.00 in work for the certificate. Certificate courses cannot be taken pass/nonpass. A maximum of 6 s.h. of transfer credit may be accepted toward certificate requirements, with the approval of the political risk analysis advisor.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

The Certificate in Political Risk Analysis requires the following coursework.

Core Courses

Financial Risk Principles

Course #	Title	Hours
This course:		
FIN:3400	Principles of Risk Management and Insurance	3

Quantitative Analysis

Course #	Title	Hours
One of these:		
POLI:3000	Analyzing Political Data	3
STAT:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:3510	Biostatistics	3

Politics Foundation

Course #	Title	Hours
One of these:		
POLI:1400	Introduction to Comparative Politics	3
POLI:1500	Introduction to International Relations	3

Elective Courses

Students select three courses from the following.

Country and International Risk

Course #	Title	Hours
POLI:2415	Latin American Politics	3
POLI:3405	Authoritarian Politics	3
POLI:3408	Chinese Politics and Society	3
POLI:3411	Democracy: Global Trends and Struggles	3
POLI:3420	Southeast Asia: Politics and Development	3
POLI:3422	Horn of Africa: Politics and Transnational Issues	3
POLI:3423	The Middle East: Policy and Diplomacy	3
POLI:3426	Outliers: Comparing Odd Countries	3
POLI:3428	Statecraft, Diplomacy, and World Order	3
POLI:3450	Problems in Comparative Politics	3
POLI:3503	Politics of Terrorism	3
POLI:3504	Globalization	3
POLI:3505	Civil Wars	3
POLI:3506	Consequences of War	3
POLI:3509	International Courts: The Intersection of Law and Politics	3
POLI:3512	International Conflict	3
POLI:3516	The Politics of International Economics	3
POLI:3518	Water Wars: Conflict and Cooperation	3
POLI:3550	Problems of International Politics	3

Experiential Learning Requirement

All students select one of the following after consultation with the political risk analysis advisor.

Study Abroad

Students may register for a study abroad course (prefix ABRD).

Research

Course #	Title	Hours
POLI:3001	Hawkeye Poll	3
POLI:3127	Legislative Policy Seminar	arr.
POLI:3160	Applied Research in Political Science	1-3
POLI:3525	Iowa Policy and Opinion Lab	0-3
POLI:3527	Civil War Research Lab	3
POLI:3530	Diplomacy Lab	arr.
POLI:3994	Political Science Undergraduate Research Projects	1-4
POLI:4701	Undergraduate Research Tutorial	3
URES:3992	Undergraduate Research and Creative Projects	0
URES:3993	Undergraduate Research and Creative Projects	1-4
URES:3994	Undergraduate Research and Creative Projects	1-4
URES:3995	Independent Creative Research by Undergraduates Summer Internship	0

Internship

Course #	Title	Hours
POLI:3124	Guided Political Science Internship	1-9
POLI:4900	Government and Politics Internship	1-3

Political Science

Chair

- Julianna Pacheco

Undergraduate major: political science (BA, BS)

Undergraduate minor: political science

Graduate degrees: MA in political science; PhD in political science

Faculty: https://politicalscience.uiowa.edu/people/faculty

Website: https://politicalscience.uiowa.edu

The Department of Political Science offers undergraduate majors and minors as well as graduate degree programs. In addition to the programs of study in political science, it offers the BA, BS, and minor in international relations and the undergraduate Certificate in Political Risk Analysis [p. 925]. It collaborates with other departments to offer the Certificate in Social Science Analytics [p. 996]. The department also offers several courses that undergraduate students in all majors may use to fulfill GE CLAS Core [p. 22] requirements and a First-Year Seminar designed for entering undergraduate students.

Related Certificates

Political Risk Analysis

The Certificate in Political Risk Analysis prepares students to work in this highly interdisciplinary area, which requires a keen understanding of business practices and the political situation facing countries. Political risk analysis focuses on the effect of country characteristics and events on sovereign risk (the ability of a country to repay its debts), company security, supply chains, and the safety of individuals working or traveling in a country. Understanding this risk is part of helping companies better manage their investments, assets, and activities in foreign countries based on threats that a company might face. The Department of Political Science collaborates with the College of Business to offer the undergraduate program in political risk analysis; see Political Risk Analysis [p. 924] in the catalog. The Department of Political Science administers the certificate.

Social Science Analytics

The growth of big data and informatics calls for a new set of skills for social science students and an increased understanding of the logic of data collection and analysis. The certificate focuses on the application side of data analysis. It allows students to focus on the specific research methods and data-driven quantitative skills that are most effective for understanding an increasingly complicated social-political world. The certificate offers an opportunity for interdisciplinary training on how data can be used to address important questions in the social sciences. The Department of Political Science collaborates with the School of Earth, Environment, and Sustainability and the departments of Sociology and Criminology and Statistics and Actuarial Science to offer the undergraduate program in social science analytics; see Social Science Analytics [p. 995] in the catalog. The Department of Political Science administers the certificate.

Programs

Undergraduate Programs of Study

Majors

- Major in Political Science (Bachelor of Arts) [p. 934]
- Major in Political Science (Bachelor of Science) [p. 938]

Minor

- Minor in Political Science [p. 942]

Graduate Programs of Study

- Master of Arts in Political Science [p. 943]
- Doctor of Philosophy in Political Science [p. 944]

Courses

Courses numbered below 2000 are introductory undergraduate courses. POLI:1000 First-Year Seminar does not count toward the major or the minor in political science.

Courses numbered 2000–4999 are considered advanced for undergraduates. POLI:4900 Government and Politics Internship and POLI:3124 Guided Political Science Internship do not count toward the major or the minor in political science; they are offered only satisfactory/fail or pass/nonpass.

Courses numbered 5000–6000 are graduate core courses; those numbered 7000 or above are advanced graduate courses.

Political Science Courses

POLI:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

POLI:1001 Introduction to Politics 3 s.h.
Introduction to selected processes, institutions, or behaviors central to the study of politics.

POLI:1050 Big Ideas: Introduction to Information, Society, and Culture 3 s.h.
What is information? What does it teach us about societies and cultures? How is information used to shape societies and even personal preferences? What types of information are there and how can we understand and use them? Students work with faculty from multiple disciplines to investigate these questions using inquiry-based activities to build success in critical thinking and teamwork. GE: Quantitative or Formal Reasoning. Same as RELS:1050.

POLI:1100 Introduction to American Politics 3 s.h.
Structure and processes of American national government; how the United States manages political conflict; impact of the U.S. Constitution; effect of public opinion, interest groups, and media on government; role and evolution of Congress, presidency, bureaucracy, and Supreme Court. GE: Social Sciences.

POLI:1120 Introduction to Lawyers in the American Political System 3 s.h.
Training and careers of lawyers; various roles they play in the American political system.

POLI:1200 Introduction to Political Behavior 3 s.h.
Patterns and basis of political behavior of American electorate; trends in voter turnout; vote choice; ideology, partisanship, and public opinion. GE: Social Sciences.

POLI:1300 Introduction to Political Thought and Action 3 s.h.
Common problems, literature, analytic techniques. GE: Social Sciences; Values and Society.

POLI:1400 Introduction to Comparative Politics 3 s.h.
Politics worldwide, including all regions and levels of development; wide-ranging themes, including regime types, political change, political culture, public opinion, government structures, state-society relationship, electoral systems, public policy issues. GE: International and Global Issues.

POLI:1401 Introduction to Russian Politics 3 s.h.
Political dynamics in postcommunist countries of east-central Europe and Eurasia; imperial legacies, ideology and practice of communist politics, patterns of democracy and authoritarianism. GE: International and Global Issues.

POLI:1449 Introduction to European Politics 3 s.h.
Political institutions, processes of selected European countries. GE: International and Global Issues.

POLI:1500 Introduction to International Relations 3 s.h.
Survey of key issues in international relations, including causes of wars, different types of theories of international relations, international organizations, and global environmental problems. GE: International and Global Issues.

POLI:1501 Introduction to American Foreign Policy 3 s.h.
Foreign policies: goals, basic themes and general patterns, problems encountered by policy makers, means employed in dealing with other nations and international organizations, processes by which policies are formulated, factors that influence structure of policies. GE: International and Global Issues.

POLI:1510 International Politics of Environmental Issues 3 s.h.
Why countries struggle to cooperate on pressing environmental issues; reducing greenhouse gas emissions, ozone depleting materials, and other environmental issues; examination and analysis of approaches taken to address global environmental issues. GE: Sustainability. GE: International and Global Issues; Sustainability.

POLI:1600 Introduction to Political Communication 3 s.h.
Institutions, dynamics, issues of political communities considered as networks of communication; representative topics include political actors, ads, films, media, myths, news, publics, regulations, rhetorics, symbols. GE: Social Sciences.

POLI:1601 Introduction to Social Media and Politics 3 s.h.
Politics in news, culture, commerce, campaigns, and government with attention to current media (e.g., cinema, internet, print, television). GE: Understanding Cultural Perspectives.

POLI:1700 Introduction to Political Analysis 3 s.h.
Tools necessary to analyze and solve puzzles in politics (i.e., Why do countries go to war rather than negotiate? Why do lifelong enemies become allies? Why do majorities act irrationally?); questions approached from a quantitative perspective (unlike most political analyses), in particular, game theory—a branch of mathematics that investigates how rational players act in situations (like those in politics) of strategic interaction. GE: Quantitative or Formal Reasoning.

POLI:1800 Introduction to the Politics of Class and Inequality 3 s.h.
Introduction to issues of class and economic inequality in the U.S. and other countries; what class and economic inequality are, debates surrounding these definitions, and attempts to measure both of these concepts; research and arguments on economic and political explanations of economic inequality; different policies aimed at reducing economic inequality and debates over them. GE: Understanding Cultural Perspectives.

POLI:1900 Introduction to the Politics of Race 3 s.h.
Introduction to politics of race in the U.S.; history of racial and ethnic groups in the U.S., their relationship with each other, and their interactions with different levels of government. GE: Understanding Cultural Perspectives.

POLI:1950 Introduction to the Politics of Religion 3 s.h.
Introduction to the complex relationship between religion and politics; examination of historical and contemporary effect of religion on a wide range of areas (e.g., political culture, political parties, political behavior, public policy); consideration of important policy debates (e.g., role of religion in public life, religious discrimination, various social issues). GE: Understanding Cultural Perspectives.

POLI:2000 Designing Political Research 3 s.h.
How research is conducted on politics and government; students examine different research approaches (both qualitative and quantitative), learn how to read and understand published research on politics, demonstrate an understanding of different research approaches, and understand, interpret, and critically analyze published research on politics.

POLI:2415 Latin American Politics 3 s.h.
Governmental institutions, major interest groups; focus on area as a whole. GE: International and Global Issues. Same as LAS:2415.

POLI:2417 Comparative Environmental Policy 3 s.h.
Analysis of environmental policy and governance processes; case examples and analysis primarily focus on water governance in local contexts outside the United States; causes and consequences of environmental policy differences; effects of government structure, society, and natural resource conditions on policy development, implementation, and environmental outcomes.

POLI:2500 Politics of Natural Disasters 3 s.h.
Examination of local, national, and international politics that guide government action (and inaction) in the face of increasingly intense and increasingly frequent natural disasters; draws on core concepts from political science related to distributive politics, natural resource governance, state capacity, government responsiveness, and collective action. GE: Sustainability. GE: International and Global Issues; Sustainability.

POLI:3000 Analyzing Political Data 3 s.h.
Creating knowledgeable evaluators of current research in political science; interpretation of different quantitative techniques with examples from current political science research.

POLI:3001 Hawkeye Poll 3 s.h.
Basics of survey design, sampling, question wording, interpreting responses, and writing press releases; students work together to help design questions as part of the Hawkeye Poll, a collaborative teaching and research enterprise in the Department of Political Science.

POLI:3002 Data Visualization 3 s.h.
Techniques and best practices for creating effective data visualizations for social science data. Recommendations: prior programming experience and understanding of basic statistical concepts not required, but recommended.

POLI:3020 Project Vote Smart: Research and Engagement on Elections 3 s.h.
Partnership between the Department of Political Science and Vote Smart; students will work in teams and each team will work with a different part of Vote Smart, including community engagement, communications, survey of political candidates, identification of political issues in the upcoming election, and other areas; students will be evaluated based on their work with Vote Smart and their team, as well as a bi-weekly reflection of what they are working on, and a final short paper connecting their work to the academic study of American politics.

POLI:3035 Careers in Political Science and International Relations 3 s.h.
Introduction to careers available to students in political science and international relations by Department of Political Science alumni; focus on types of careers available in their fields, how to prepare for these careers, and how to find jobs in the field.

POLI:3050 Problems in Methods arr.
Problems in political science research methods; data collection, interpretation, analysis.

POLI:3100 American State Politics 3 s.h.
Approaches to analysis of political behavior in American state governments; emphasis on cultures, parties, actors, processes, issues.

POLI:3101 American Constitutional Law and Politics 3 s.h.
Role of U.S. Supreme Court in American political system; emphasis on analysis of Supreme Court cases.

POLI:3102 The U.S. Congress 3 s.h.
History of Congress, how congressional elections shape what legislators do, how laws are made in Congress, rules and maneuvers that shape these laws, and the future of Congress as one of the major institutions of American government; gain an understanding of Congress and why Americans continue to be confused and fascinated by this complicated branch and its politics.

POLI:3104 Immigration Politics 3 s.h.
United States immigration policy and political consequences of Latina/o/x population growth; contrast of political experiences of Latina/o/x with groups and ideals of democratic political systems; analyses of past immigration policies; studies of public opinion, voter turnout, and campaign tactics. Same as LAS:3104, LATS:3104.

POLI:3107 Writing in Political Science: Writing for "Science" and for "Politics" 3 s.h.
Examination of principles used in writing for science and writing for politics: science writing clearly explains its ideas to promote understanding, and political writing advocates for its ideas by highlighting and obscuring different pieces of information and "spinning" its findings to promote persuasion; students produce and analyze examples of both forms of writing.

POLI:3110 Local Politics 3 s.h.
Models of city government, relation to state and federal governments; rights, liabilities of municipalities; city elections, campaigns, issues; role of pressure groups.

POLI:3111 American Public Policy 3 s.h.
Functions and policies of national government; emphasis on domestic policy making, impact of public policy.

POLI:3113 Research in Judicial Politics 3 s.h.
Applied research training in courts and judicial politics.

POLI:3114 Women and Politics in the United States 3 s.h.
Involvement of women in the U.S. political system; topics include political theories about women's involvement in politics and government, women and constitutional law, public policies that affect women, women's participation in politics at the mass and elite levels.

POLI:3116 The Presidency 3 s.h.
Constitutional foundations, subsequent development, current status of the office of the presidency; evolution of presidential selection process; powers, structures, functions of the office; role of president as legislative, executive, and public leader.

POLI:3117 Bureaucratic Politics and Public Administration 3 s.h.
Examination of bureaucracy from political, theoretical, and practical perspectives; what we mean by "bureaucracy" and how it developed over time; political control of bureaucracy; how bureaucracy performs its tasks, including behavior of bureaucrats; role of nonprofit service delivery in modern bureaucracy; how bureaucracy affects American policy and politics. Same as PBAF:3117.

POLI:3118 Interest Groups 3 s.h.
Theory, organization, and structure of interest groups; how they influence Congress, executive branch, courts, elections.

POLI:3120 The Criminal Justice System 3 s.h.
Role of actors, institutions that constitute and participate in the American criminal justice system.

POLI:3121 The Judicial Process 3 s.h.
Role of courts, lawyers, judges, interest groups in the American political system.

POLI:3124 Guided Political Science Internship 1-9 s.h.
Supervised professional work experience in government and nongovernment organizations, as well as private industry. Requirements: sophomore or higher standing.

POLI:3127 Legislative Policy Seminar arr.
Policy research for the Iowa Legislature.

POLI:3130 Congressional Elections 3 s.h.
Comprehensive exploration of congressional elections, institutional foundations of how congressional elections are run, campaign dynamics surrounding who runs, who wins, and how candidates behave on the campaign trail, as well as legislative implications of elections for public policy outcomes.

POLI:3150 Problems in American Politics 1-3 s.h.
Problems in studying American system; structures, functions, behavior.

POLI:3160 Applied Research in Political Science 1-3 s.h.
How research is conducted in political science; students learn about the research process including identification of research questions, doing literature reviews, developing an argument, collecting data, analyzing data, and assisting a PhD student on a research project; short assignments based on different parts of research process.

POLI:3202 Political Psychology 3 s.h.
Political phenomena from psychological perspective; political behaviors of individuals including decision-making by elites and masses, evaluations of political candidates, mass mobilization, response to mass media; psychological concepts including stereotyping, social cognition, attitude, and group identification.

POLI:3203 Campaigns, Elections, and Voting Behavior 3 s.h.
Determinants of voting behavior; correlates of political participation, political apathy; political socialization processes; nature and functions of elections.

POLI:3204 Public Opinion 3 s.h.
Role in making public policy; formation, change of political attitudes and opinions; political ideology; measurement of public opinion; how opinion polls are conducted; experience with interviewing and conducting public opinion research. Same as SOC:3525.

POLI:3205 Political Negotiation 3 s.h.
Examination of theories of political negotiation and strategies politicians use when debating public policy with an emphasis on negotiation in American politics; students discuss readings, participate in simulations of decision-making scenarios, and complete a group project; recognition of negotiation strategies; identification of goals of political actors; development of ability to collaborate in collective decision-making spaces.

POLI:3302 Current Political Theory 3 s.h.
Thinkers or schools of thought, from World War II to present.

POLI:3306 Problems of Democracy 3 s.h.
Theory and practice of democracy; democratic ideals and the institutions and practices necessary for those ideals to work in everyday politics—power, equality, majority rule, participation, trust, representation.

POLI:3350 Games of Politics 3 s.h.
Active learning component to many theories and concepts learned in political science and international relations; multitude of simulations (games) that provide a hands-on learning element to these concepts and theories; topics include alliances, balance of power, inequality, public opinion, gerrymandering, and policy making; students read materials connected to the specific weekly topic, complete a simulation tied to that topic, discuss links between topics; and complete a variety of assignments that tie these items together.

POLI:3405 Authoritarian Politics 3 s.h.
Political dynamics in countries with authoritarian governing regimes; how those dynamics differ from their counterparts in democracies; how decisions are reached and get enforced; forms political struggles take; how interest groups pursue influence; ways individuals deal with the government; tension between regime control and societal progress.

POLI:3408 Chinese Politics and Society 3 s.h.
Comprehensive introduction to modern Chinese history; current Chinese political system and political culture; public policy issues.

POLI:3411 Democracy: Global Trends and Struggles 3 s.h.
Diverse contemporary understandings and practices of democracy; worldwide democratization trends; what political, economic, cultural and transnational factors shape those trends; how elites and citizens struggle to promote or retard democracy; the news full of people around the world taking action to demand democracy and what this term, so highly prized, really means; what is known about when democracy will replace authoritarianism; how can democracies more fully live up to their promise.

POLI:3420 Southeast Asia: Politics and Development 3 s.h.
Eleven states of Southeast Asia; governance, development strategies, domestic politics, approach to democracy and national identity; regional politics and important transnational issues; role of ASEAN, terrorism, trans-Pacific trade and investment issues, China's looming presence, impact of ongoing and historic conflicts; briefings, discussions, presentations.

POLI:3422 Horn of Africa: Politics and Transnational Issues 3 s.h.
Eight states in the Horn of Africa region; important transnational and regional issues; governance, development strategies, domestic politics, social and civic dynamics of countries in the region; wildlife trafficking, piracy, fight against HIV/AIDS, imprint of colonialism, secession, ethnic and national identities, democratization, role of women in society, impact of ongoing and historic conflicts; briefings, discussions, presentations.

POLI:3423 The Middle East: Policy and Diplomacy 3 s.h.
Nineteen states and entities of North Africa and the Middle East; issues of governance, development strategies, domestic politics, and approach to democracy and national identity; regional politics and important transnational issues; role of political Islam; impacts of the Arab Spring, terrorism, oil, role of women in society, ongoing and historic conflicts; briefings, discussions, presentations.

POLI:3424 Global Development 3 s.h.
Exploration of political and social causes and consequences of economic development; two important questions asked—Why are some countries rich while others are poor? What can be done to encourage growth in underdeveloped countries?

POLI:3426 Outliers: Comparing Odd Countries 3 s.h.
The 195 countries that make up today's international system vary greatly by demography, geography, cultural variables, income, and many other characteristics; United Nations member Nauru, for example, with only 10,000 people and eight square miles of territory was once ranked among the world's richest countries per capita; how being "odd" (compared to the norm) in key characteristics relates to sociopolitical outcomes like good governance, human development, or happiness; students write short research papers, participate in group projects, and engage in an active learning environment to explore governance in the world's "odd" countries.

POLI:3427 Latinas/os/x and the Law 3 s.h.
Introduction and survey of Latina/o/x legal history; topics include segregation, educational rights, immigration, voting rights, citizenship, and the criminal justice system. Same as AMST:3420, LATS:3420, SJUS:3420.

POLI:3428 Statecraft, Diplomacy, and World Order 3 s.h.
Exploration of the interaction of statecraft, diplomacy, and changing perceptions of world order; how a state fosters its interests and values vis-à-vis the world's other nations, international organizations, and nonstate actors given significant changes to traditional diplomacy and statecraft wrought by advances in technology, globalization, domestic political inputs, and requirements of conflict management; material ranges broadly in scope from long arc of regional competition over thousands of years to nuts and bolts of modern-day statecraft.

POLI:3430 Environmental Politics and Indigeneity 3 s.h.
Examination of contemporary environmental challenges through the lens of indigeneity; exploration of the concepts of environment and indigeneity, and development of a guiding framework for analyzing environmental challenges; application of this framework to analyze themes including climate change, biodiversity, food production, management of genetic resources, extractivism, and sustainable development; environmental/indigenous scholars and activists share their work and insights. Same as NAIS:3430.

POLI:3431 U.S. Energy Policy in Global Context 3 s.h.
Historical and contemporary aspects of U.S. governmental planning and policy on a wide range of energy issues in global context. Same as GHS:3780, HIST:3240, SEES:3780.

POLI:3432 Agriculture Politics and Policy 3 s.h.
Examination of local, national, and international politics and policies around agriculture including genetically modified organisms (GMOs), subsidies, trade, genetic seed banks, sustainability, and indigeneity. Same as NAIS:3432.

POLI:3450 Problems in Comparative Politics 3 s.h.
Structures, functions, behaviors of different political systems.

POLI:3503 Politics of Terrorism 3 s.h.
Strategies of terrorists, insurgents, guerrillas, and other non-state actors; terrorists' use of the media; suicide attacks; al Qaeda and the U.S.-led War on Terrorism; counterinsurgency and counter-terrorism; self-starters and transnational terrorist networks; drone strikes and data-mining operations as counter-terrorism tools and the associated political controversies.

POLI:3504 Globalization 3 s.h.
Introduction to multidisciplinary literature on political economy and culture of globalization; major topics of debate on globalization.

POLI:3505 Civil Wars 3 s.h.
Causes, duration, management, and consequences of civil war; factors that create more frequent, longer civil wars (e.g., greed, grievance, ethnic conflict, state capacity); conflict management strategies for ending civil wars and minimizing long-term negative consequences.

POLI:3506 Consequences of War 3 s.h.
War's enduring effects: war's impact on individuals, including combatants and noncombatants; war's impact on states, including states' development, economic, political, and social effects; war's effects on the international system.

POLI:3509 International Courts: The Intersection of Law and Politics 3 s.h.
Introduction to important international courts including (Permanent) International Court of Justice, European Court of Justice, International Criminal Tribunal for Yugoslavia, International Criminal Tribunal for Rwanda, and International Criminal Court; the formation, design, and expansion of international courts from political and legal perspectives; states' capabilities, regime type, and war; intersection of domestic and international law, emphasizing the major legal systems in the world (civil law, common law, Islamic law).

POLI:3512 International Conflict 3 s.h.
International conflict as the primary ingredient of international politics; sources, causes, and effects of conflict, alliance structures, power distribution, geography, arms races, deterrence.

POLI:3516 The Politics of International Economics 3 s.h.
Politics of international trade and financial systems, including rise of free trade in 19th century and breakdown between the two world wars, postwar trading system framed around the World Trade Organization, different types of international monetary systems, relations between rich countries and poor countries, and global environmental politics.

POLI:3518 Water Wars: Conflict and Cooperation 3 s.h.
How climate change may aggravate shortage of freshwater in water-stressed regions, producing warnings of conflict over international river basins or "water wars"; recent U.S. intelligence assessment notes that water may be used as a weapon between or within states, or to further terrorist aims in the future; management of international water resources including conflicts over cross-border rivers and maritime areas; common property resources, piracy, maritime security, peaceful and militarized conflict management of water-based conflicts, climate issues, natural disasters, United Nations Law of the Sea Convention.

POLI:3519 Politics of Aging 3 s.h.
Core concepts and methods related to aging and policies that address the needs of older persons; demographic measures of population health and aging, including incidence and distribution of specific conditions relevant in older age; theories of public policy and involvement of older persons in the political process; key historical and current policies, at both the federal and state/local levels, that influence service provision and the well-being of older persons in the United States. Same as ASP:3519.

POLI:3525 Iowa Policy and Opinion Lab 0-3 s.h.
Collaboration and study of policymaking and public opinion in Iowa; examination of policy choices in legislative, executive, and judicial branches; collection of survey data on public opinion among Iowans; students assist with research question development, data collection, data analysis, writing up results, and work with topics in these and other areas (e.g., race and crime, gender and social issues, health and COVID-19, environment); research group led by faculty in the Departments of Political Science and Journalism and Mass Communication.

POLI:3526 Comparative Foreign Policy 3 s.h.
Students examine, compare, and analyze foreign policy of different countries; exploration of differences in different types of foreign policy across countries, including use of military force and cooperation on global issues (e.g., climate change, terrorism); understanding and evaluation of explanations for these differences, ranging from variation in leaders, domestic institutions, public opinion, and other factors; critical analysis of research on understanding foreign policies of countries.

POLI:3527 Civil War Research Lab 3 s.h.
Students engage in international relations research; focus on dynamics of conflict and cooperation in civil wars.

POLI:3528 Disasters, Migration, and Violence Lab arr.
Experiential learning course; conduct research on government responses to disasters in multiple countries and develop case reports of government responses and their efficacy regarding migration and political violence.

POLI:3530 Diplomacy Lab arr.
Students work in teams under the supervision of a faculty member on projects created by the U.S. Department of State; class meetings are arranged and most work will occur outside of the classroom; experiential learning course in partnership with the U.S. Department of State.

POLI:3550 Problems of International Politics 3 s.h.
Problems in studying international system, structures, functions, behavior.

POLI:3560 Public Policy and Persuasion 3 s.h.
Students build their skill set in policy analysis, formation, and communication through a social justice lens; engagement in service learning projects in one Iowa community, where work done directly impacts that community's ability to make changes; development of effective writing and oral presentation styles that can be adapted to different audiences; focus on homelessness policy using social policy and social justice concepts to explore work of policy makers who have "right-sized" existing systems to serve communities in crisis and propose solutions to systemic problems that disadvantage marginalized populations. Prerequisites: RHET:1030 or RHET:1040 or RHET:1060. Same as PBAF:3560, RHET:3560, SJUS:3560.

POLI:3570 Poverty Policy 3 s.h.
How poverty is regulated and addressed in the United States, and by federal, state, and local governments; particular focus on programs including Temporary Assistance for Needy Families (TANF), Section 8 housing, Medicaid, and Medicare; how these systems have changed over time; current models and innovations that have emerged in practice. Same as GHS:3570, PBAF:3570, SSW:3570.

POLI:3601 Politics of Film 3 s.h.
Issues in the popular politics of aesthetics, communication, culture, and myth, explored through analysis of films.

POLI:3603 War and Film 3 s.h.
Exploration of one of the most significant political phenomena, war, as it is represented and understood through film; various film genres including classic war films, historical and historical fiction, documentary (e.g., *Battle of Algiers*, *Triumph of the Will*, *Invisible War*), comedy-drama (e.g., *Life is Beautiful*), and dark comedy or satire (e.g., *The Mouse that Roared, Tropic Thunder*); scholarly writings on international conflict; students discover and investigate themes related to nature of war, its underlying causes, and its consequences.

POLI:3701 Special Topics in Politics 1-2 s.h.
Presentations by distinguished lecturers on topics in the study of politics not covered in other courses.

POLI:3710 Law School Readiness Seminar 1 s.h.
Engagement in a number of programs and educational activities in preparation for successful application to and completion of law school.

POLI:3711 Law School Readiness Seminar II 1 s.h.
Preparation for successful application to and completion of law school; second in a two-semester sequence. Prerequisites: POLI:3710.

POLI:3720 History and Politics of Voter Registration and Civic Engagement 1 s.h.
History and politics of civic engagement and voter registration, including approaches taken at the University of Iowa, in Iowa City, the state of Iowa, and nationally; working to promote voter registration on campus.

POLI:3992 Political Science Undergraduate Research Projects 0 s.h.
Independent research with mentorship from a political science faculty member.

POLI:3993 Political Science Undergraduate Research Projects 1-4 s.h.
Independent research with mentorship from a political science faculty member.

POLI:3994 Political Science Undergraduate Research Projects 1-4 s.h.
Independent research with mentorship from a political science faculty member.

POLI:4000 Honors Seminar on the Study of Politics 3 s.h.
Examination of big ideas in the study of politics and government that cut across the fields of American politics, comparative politics, international relations, and political theory. Requirements: honors standing in political science.

POLI:4600 Honors Research Project 3 s.h.
Special research assistance to political science faculty. Requirements: junior or senior honors standing in political science.

POLI:4601 Honors Senior Thesis 3 s.h.
Supervised research and writing. Requirements: honors standing in political science and more than one semester before graduation.

POLI:4700 Independent Study arr.
Supervised special projects.

POLI:4701 Undergraduate Research Tutorial 3 s.h.
Individual training in applied research.

POLI:4800 Senior Seminar in International Relations 3 s.h.
Completion of final research project as a culmination of student's work in the major; research supervised by a faculty member; required for international relations major. Recommendations: taken during one of student's final two semesters at the University of Iowa.

POLI:4801 Honors Senior Seminar in International Relations 3 s.h.
Honors capstone course for international relations majors.

POLI:4802 International Relations Senior Seminar Preparation 1 s.h.
Preparation for international relations senior seminar.

POLI:4900 Government and Politics Internship 1-3 s.h.
Undergraduate internships in state or national legislative office, executive agency, or with election campaign official.

POLI:5000 Introduction to Political Analysis 4 s.h.
Conceptual problems of political analysis; empirical research strategies, philosophy of science. Requirements: MA or PhD standing in political science.

POLI:5001 Introductory Methodology 3-4 s.h.
Introduction to quantitative techniques in political science; set theory, probability distributions, estimation, testing; emphasis on acquiring mathematical skills for more advanced quantitative work in political science. Requirements: MA or PhD standing in political science. Same as IGPI:5001.

POLI:5003 Intermediate Methodology 4 s.h.
Techniques of data analysis; statistical models and their relationship to hypotheses tested. Requirements: doctoral standing in political science and one semester of intermediate statistics.

POLI:5100 American Politics 4 s.h.
Major literature of American politics, emphasis on comparative, systemic, behavioral studies. Requirements: MA or PhD standing in political science.

POLI:5117 Bureaucratic Politics and Public Administration 3 s.h.
Examination of bureaucracy from political, theoretical, and practical perspectives; what we mean by "bureaucracy" and how it developed over time; political control of bureaucracy; how bureaucracy performs its tasks, including behavior of bureaucrats; role of nonprofit service delivery in modern bureaucracy; how bureaucracy affects American policy and politics. Same as PBAF:5117.

POLI:5400 Comparative Politics 4 s.h.
Conceptual, theoretical, and methodological issues in comparative study of politics; developments in comparative politics subfield. Requirements: MA or PhD standing in political science.

POLI:5500 International Politics 4 s.h.
Approaches to study of international politics. Requirements: MA or PhD standing in political science.

POLI:5700 Introduction to Formal Models in Political Science 4 s.h.
Use of formal mathematical models; current modeling techniques, applications in American politics, comparative politics, international politics. Requirements: MA or PhD standing in political science.

POLI:7002 Topics Methodology 4 s.h.
Application of advanced statistical techniques in political science; limited dependent variable regression techniques, simulation methods, missing data techniques, history/rare event analysis and maximum likelihood, and topics tailored to students' research; focus on learning how and when to apply these techniques.

POLI:7003 Advanced Methodology 4 s.h.
Introduction to regression techniques for limited dependent and qualitative variables in political science; logit, probit, multinomial logit and probit, ordered logit and probit, event history models, event count models; emphasis on understanding how and when to apply these models.

POLI:7150 Problems in American Politics 4 s.h.
Problems in study of American political system; structures, functions, behavior.

POLI:7202 Public Opinion and Electoral Behavior 4 s.h.
Political attitudes and beliefs in mass publics; voting behavior; how electoral systems function.

POLI:7270 Responsible Research in Political Science 1 s.h.
Concepts and practice of scholarly integrity, responsible conduct of research, and research ethics in political science; data management, mentor/trainee responsibilities, publication practices and responsible authorship, peer review, collaborative science, human subjects, animal welfare, research misconduct, and conflict of interest and commitment. Requirements: enrollment in political science MA or PhD program.

POLI:7450 Problems of Comparative Politics 4 s.h.
Problems in study of comparative political systems; structures, functions, behavior.

POLI:7502 International Institutions and Cooperation 4 s.h.
Literature of international systems and international organization; major schools of thought in international relations theory, their utility in explaining evolution of the international system and recent developments in international organization and global governance.

POLI:7503 International Conflict and Cooperation 4 s.h.
Recent theoretical and empirical debates in international relations literature; emphasis on formal and quantitative research.

POLI:7550 Problems in International Politics 4 s.h.
Issues of international politics, emphasis on problems of theoretical analysis.

POLI:7900 Readings Tutorial arr.
Independent study.

POLI:7901 Research Tutorial arr.
Individual training in applied research.

POLI:7910 PhD Dissertation arr.

Political Science, BA

Most of the political science coursework required for the major is the same for BA and BS students, but the BS also requires a set of statistics, research, and experiential courses, while the BA does not.

The BA degree with a major in political science offers an option for an on-campus or an online program of study. See Requirements [p. 934] in this section of the catalog.

Learning Outcomes

Graduates will:

- possess a basic understanding of American and world politics;
- be able to apply a theoretical approach in political science to understand American or world politics;
- have effective written and oral communication skills; and
- be able to conceptualize problems and apply analytical tools to solve them.

Requirements

The Bachelor of Arts with a major in political science requires a minimum of 120 s.h., including 36 s.h. of work for the major in political science courses. At least 18 s.h. of coursework for the major must be taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Credit earned in POLI:1000 First-Year Seminar, POLI:3124 Guided Political Science Internship, POLI:3710 Law School Readiness Seminar, POLI:3711 Law School Readiness Seminar II, POLI:3993 Political Science Undergraduate Research Projects, and POLI:4900 Government and Politics Internship does not count toward the major, but grades in these courses become part of a student's grade-point average.

In planning coursework, students should be guided by the College of Liberal Arts and Sciences maximum hours rule: students earning a BA may apply a maximum of 56 s.h. earned in one department to the minimum 120 s.h. required for graduation, whether or not the coursework is accepted toward requirements for the major; students who earn more than 56 s.h. from one department may use the additional semester hours to satisfy requirements for the major (if the department accepts them), and the grades they earn become part of their grade-point average, but they cannot apply the additional semester hours to the minimum 120 s.h. required for graduation.

The BA with a major in political science requires the following coursework.

Requirements	Hours
Political Science Introductory Courses	15
Additional Political Science Courses	21

Political Science Introductory Courses

Course #	Title	Hours
This course:		
POLI:1100	Introduction to American Politics	3
And four of these:		
POLI:1001	Introduction to Politics	3
POLI:1050	Big Ideas: Introduction to Information, Society, and Culture	3
POLI:1120	Introduction to Lawyers in the American Political System	3
POLI:1200	Introduction to Political Behavior	3
POLI:1300	Introduction to Political Thought and Action	3
POLI:1400	Introduction to Comparative Politics	3
POLI:1401	Introduction to Russian Politics	3
POLI:1449	Introduction to European Politics	3
POLI:1500	Introduction to International Relations	3
POLI:1501	Introduction to American Foreign Policy	3
POLI:1510	International Politics of Environmental Issues	3
POLI:1600	Introduction to Political Communication	3
POLI:1601	Introduction to Social Media and Politics	3
POLI:1700	Introduction to Political Analysis	3
POLI:1800	Introduction to the Politics of Class and Inequality	3
POLI:1900	Introduction to the Politics of Race	3
POLI:1950	Introduction to the Politics of Religion	3

Additional Political Science Courses

Course #	Title	Hours
All of these:		
At least seven additional political science courses numbered 2000 or above, excluding POLI:3124, POLI:3710, POLI:3711, POLI:3992, POLI:3993, and POLI:4900		21

Emphases in Political Science

Students may elect to complete one or two emphasis areas while fulfilling the requirements for the major. Emphasis areas are indicated on the transcript at graduation if students complete the emphasis and request recognition from the department.

Each emphasis consists of four courses. Emphases are available in American institutions, identity politics,

international relations, political behavior, political communication, politics of foreign countries, and public policy. For courses approved in each area, contact the Department of Political Science.

Online BA

The Department of Political Science offers an online BA degree with a major in political science intended for students who are not able to attend courses that meet on campus. The online program enables students to complete their BA degree from anywhere in the world.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students majoring in political science have the opportunity to graduate with honors in the major. Departmental honors students must maintain a UI grade-point average (GPA) of at least 3.33 and a major GPA of at least 3.50. In addition to maintaining the minimum GPA requirements and minimum major requirements, honors students must complete a final honors project.

Final Honors Project

Course #	Title	Hours
One of these:		
POLI:4600	Honors Research Project	3
POLI:4601	Honors Senior Thesis	3

Students who choose to write an honors thesis are required to schedule an oral discussion of their completed honors thesis, mainly to enrich the intellectual experience of its author. A student discusses the thesis with a faculty committee including the thesis director and the department's honors director or a faculty member designated by that official. The committee may withhold approval of fundamentally inadequate theses, but directors are to schedule theses for discussion only when they are ready. The discussion typically concentrates on exploring thesis ideas from several perspectives rather than whether to approve a thesis.

It is expected that students wishing to pursue the honors thesis (POLI:4601) begin discussing the thesis with their thesis director one full semester prior to the semester in which they want to write the thesis and consider enrolling in POLI:4700 Independent Study for 1 s.h. the semester before enrolling in the thesis seminar.

National Honor Society

The department sponsors a chapter of Pi Sigma Alpha. Students who have met the expectations for membership in Pi Sigma Alpha are invited to join. Contact the Department of Political Science honors advisor for more information.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the political science major.

Career Advancement

A recent survey showed that graduates with political science degrees have higher average salaries than graduates in all other social sciences, excluding economics. The Department of Political Science organizes career workshops for its students throughout the year. The workshops are led by former political science students who have achieved distinction in business, law, campaign operations, local government, elected office, or other fields.

The department has an active alumni mentorship program. Students can be connected to alumni to learn about careers, networking opportunities, and mentorship. The department also offers an opportunity for students to complete the last year of their collegiate career in Washington D.C.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

In addition to the following checkpoints, honors students must complete POLI:4000 Honors Seminar on the Study of Politics and one additional honors seminar before the seventh semester begins.

Before the fifth semester begins: two courses in the major.

Before the seventh semester begins: six courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: eight courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Political Science, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
POLI:1100	Introduction to American Politics [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [d]		3
	Hours	**14-16**
Spring		
Major: introductory-level course numbered POLI:1XXX [b]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
	Hours	**16-18**
Second Year		
Fall		
Major: introductory-level course numbered POLI:1XXX [b]		3
GE CLAS Core: Natural Sciences with Lab [e]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
	Hours	**14-15**
Spring		
Major: introductory-level course numbered POLI:1XXX [b]		3
Major: upper-level course numbered POLI:2XXX or above [f]		3
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
	Hours	**16-17**
Third Year		
Fall		
Major: introductory-level course numbered POLI:1XXX [b]		3
Major: upper-level course numbered POLI:2XXX or above [f]		3
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
Major: upper-level course numbered POLI:2XXX or above [f]		3
Major: upper-level course numbered POLI:2XXX or above [f]		3
GE CLAS Core: Values and Society [e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Fourth Year		
Fall		
Major: upper-level course numbered POLI:2XXX or above [f]		3
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: Natural Sciences without Lab [e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
Major: upper-level course numbered POLI:2XXX or above [f]		3
Major: upper-level course numbered POLI:2XXX or above [f]		3
GE CLAS Core: International and Global Issues [e]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [g]		
	Hours	**15**
	Total Hours	**120-126**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f For the political science major upper-level is defined as those courses numbered 2000 or above, excluding POLI:3124, POLI:3710, POLI:3711, POLI:3992, POLI:3993, and POLI:4900.

g Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Political Science, BS

Most of the political science coursework required for the major is the same for BS and BA students, but the BS also requires a set of statistics, research, and experiential courses, while the BA does not.

Learning Outcomes

Graduates will:

- possess a basic understanding of American and world politics;
- be able to apply a theoretical approach in political science to understand American or world politics;
- have effective written and oral communication skills; and
- be able to conceptualize problems and apply analytical tools to solve them.

Requirements

The Bachelor of Science with a major in political science requires a minimum of 120 s.h., including at least 39 s.h. of work for the major. At least 18 s.h. of political science coursework for the major must be taken at the University of Iowa. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Credit earned in POLI:1000 First-Year Seminar, POLI:3124 Guided Political Science Internship, POLI:3710 Law School Readiness Seminar, POLI:3711 Law School Readiness Seminar II, POLI:3993 Political Science Undergraduate Research Projects, and POLI:4900 Government and Politics Internship does not count toward the major, but grades in these courses become part of a student's grade-point average.

In planning coursework, students should be guided by the College of Liberal Arts and Sciences maximum hours rule: students earning a BS may apply a maximum of 56 s.h. earned in one department to the minimum 120 s.h. required for graduation, whether or not the coursework is accepted toward requirements for the major; students who earn more than 56 s.h. from one department may use the additional semester hours to satisfy requirements for the major (if the department accepts them), and the grades they earn become part of their grade-point average, but they cannot apply the additional semester hours to the minimum 120 s.h. required for graduation.

The BS with a major in political science requires the following coursework.

Requirements	Hours
Political Science Introductory Courses	15
Additional Political Science Courses	15
Statistics/Research/Experiential Courses	9

Political Science Introductory Courses

Course #	Title	Hours
This course:		
POLI:1100	Introduction to American Politics	3
And four of these:		
POLI:1001	Introduction to Politics	3
POLI:1050	Big Ideas: Introduction to Information, Society, and Culture	3
POLI:1120	Introduction to Lawyers in the American Political System	3
POLI:1200	Introduction to Political Behavior	3
POLI:1300	Introduction to Political Thought and Action	3
POLI:1400	Introduction to Comparative Politics	3
POLI:1401	Introduction to Russian Politics	3
POLI:1449	Introduction to European Politics	3
POLI:1500	Introduction to International Relations	3
POLI:1501	Introduction to American Foreign Policy	3
POLI:1510	International Politics of Environmental Issues	3
POLI:1600	Introduction to Political Communication	3
POLI:1601	Introduction to Social Media and Politics	3
POLI:1700	Introduction to Political Analysis	3
POLI:1800	Introduction to the Politics of Class and Inequality	3
POLI:1900	Introduction to the Politics of Race	3
POLI:1950	Introduction to the Politics of Religion	3

Additional Political Science Courses

Students must complete at least 15 s.h. (typically five courses) in additional political science courses (prefix POLI) numbered 2000 or above, excluding POLI:3124, POLI:3710, POLI:3711, POLI:3992, POLI:3993, and POLI:4900.

Statistics/Research/Experiential Courses

Students receive further exposure to statistical methods, research processes, and experiential learning courses. Students are allowed to customize the courses to fit their interests and academic goals.

Course #	Title	Hours
This course:		
POLI:3000	Analyzing Political Data	3
One of these (minimum 3 s.h.):		
POLI:3001	Hawkeye Poll	3
POLI:3020	Project Vote Smart: Research and Engagement on Elections	3
POLI:3127	Legislative Policy Seminar	arr.
POLI:3160	Applied Research in Political Science	1-3

POLI:3525	Iowa Policy and Opinion Lab	3
POLI:3527	Civil War Research Lab	3
POLI:3530	Diplomacy Lab	arr.
POLI:3994	Political Science Undergraduate Research Projects	3-4
POLI:4700	Independent Study	arr.
POLI:4701	Undergraduate Research Tutorial	3
One of these (minimum 3 s.h.):		
POLI:3050	Problems in Methods	arr.
CS:1210	Computer Science I: Fundamentals	4
CS:2110	Programming for Informatics	4
ECON:3300	Introduction to Econometrics: Causal Inference With Data	3
ECON:4800	Econometric Analysis: Advanced Causal Inference With Data	3
SEES:2050	Foundations of GIS	4
SEES:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3
SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3
SOC:3880	The Sociology of Networks	3
SOC:4000	Data Science for Social Good	3
Statistics courses (prefix STAT) numbered 3000 and above		

Additional courses may be approved by exception; contact the director of undergraduate studies

Emphasis Areas in Political Science

Students may elect to complete one or two emphasis areas while fulfilling the requirements for the major. Emphasis areas are indicated on the transcript at graduation if students complete the emphasis and request recognition from the department.

Each emphasis consists of four courses. Emphasis areas are available in American institutions, identity politics, international relations, political behavior, political communication, political theory, politics of foreign countries, and public policy. For courses approved in each area, contact the Department of Political Science.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students majoring in political science have the opportunity to graduate with honors in the major. Departmental honors students must maintain a UI grade-point average (GPA) of at least 3.33 and a major GPA of at least 3.50. In addition to maintaining the minimum GPA requirements and minimum major requirements, honors students must complete a final honors project.

Final Honors Project

Course #	Title	Hours
One of these:		
POLI:4600	Honors Research Project	3
POLI:4601	Honors Senior Thesis	3

Students who choose to write an honors thesis are required to schedule an oral discussion of their completed honors thesis, mainly to enrich the intellectual experience of its author. A student discusses the thesis with a faculty committee including the thesis director and the department's honors director or a faculty member designated by that official. The committee may withhold approval of fundamentally inadequate theses, but directors are to schedule theses for discussion only when they are ready. The discussion typically concentrates on exploring thesis ideas from several perspectives rather than whether to approve a thesis.

It is expected that students wishing to pursue the honors thesis (POLI:4601) begin discussing the thesis with their thesis director one full semester prior to the semester in which they want to write the thesis and consider enrolling in POLI:4700 Independent Study for 1 s.h. the semester before enrolling in the thesis seminar.

National Honor Society

The department sponsors a chapter of Pi Sigma Alpha. Students who have met the expectations for membership in Pi Sigma Alpha are invited to join. Contact the Department of Political Science honors advisor for more information.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the political science major.

Career Advancement

A recent survey showed that graduates with political science degrees have higher average salaries than graduates in all other social sciences, excluding economics. The Department of Political Science organizes career workshops for its students throughout the year. The workshops are led by former political science students who have achieved distinction in business, law, campaign operations, local government, elected office, or other fields.

The department has an active alumni mentorship program. Students can be connected to alumni to learn about careers,

networking opportunities, and mentorship. The department also offers an opportunity for students to complete the last year of their collegiate career in Washington D.C.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the fifth semester begins: two courses in the major.

Before the seventh semester: eight courses in the major, including one of the two required statistics/research/experiential courses and POLI:3000 Analyzing Political Data; and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: 11 courses in the major

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Political Science, BS

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
POLI:1100	Introduction to American Politics [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [d]		3
	Hours	**14-16**
Spring		
Major: introductory-level course numbered POLI:1XXX [b]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		2
	Hours	**15-17**
Second Year		
Fall		
Major: introductory-level course numbered POLI:1XXX [b]		3
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
Elective course [d]		2
	Hours	**15-16**
Spring		
POLI:3000	Analyzing Political Data [f]	3
Major: introductory-level course numbered POLI:1XXX [b]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
Elective course [d]		2
	Hours	**15-16**
Third Year		
Fall		
Major: introductory-level course numbered POLI:1XXX [b]		3
Major: upper-level course numbered POLI:2XXX or above [g]		3
Major: statistics/research/experiential course [f]		3 - 4
GE CLAS Core: Values and Society [e]		3
Elective course [d]		3
	Hours	**15-16**
Spring		
Major: upper-level course numbered POLI:2XXX or above [g]		3
Major: upper-level course numbered POLI:2XXX or above [g]		3
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
GE CLAS Core: Natural Sciences with Lab [e]		4
Elective course [d]		2 - 3
	Hours	**15-16**
Fourth Year		
Fall		
Major: upper-level course numbered POLI:2XXX or above [g]		3
Major: statistics/research/experiential course [f]		3 - 4
GE CLAS Core: Natural Sciences without Lab [e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15-16**
Spring		
Major: upper-level course numbered POLI:2XXX or above [g]		3
GE CLAS Core: International and Global Issues [e]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3

Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]	
Hours	**15**
Total Hours	**119-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students must complete a set of statistics/research/experiential courses (9 s.h.), including POLI:3000 and at least 6 s.h. of additional approved electives.

g Students must complete at least 15 s.h. (typically five courses) in additional political science courses (prefix POLI) numbered 2000 or above, excluding POLI:3124, POLI:3710, POLI:3711, POLI:3992, POLI:3993, and POLI:4900.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Political Science, Minor

Requirements

The undergraduate minor in political science requires a minimum of 15 s.h. in political science courses, including 12 s.h. in courses numbered 2000 or above and 12 s.h. taken at the University of Iowa. Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. Credit from POLI:1000 First-Year Seminar, POLI:3124 Guided Political Science Internship, POLI:3710 Law School Readiness Seminar, POLI:3711 Law School Readiness Seminar II, POLI:3993 Political Science Undergraduate Research Projects, and POLI:4900 Government and Politics Internship does not count toward the minor requirements.

Students may complete an emphasis area; see "Emphases in Political Science" under the BA in political science [p. 934] or the BS in political science [p. 938] in the catalog. Emphasis areas in the minor are not recorded on a student's transcript; however, a student may request a letter from the Department of Political Science noting the completion of an emphasis area in the minor.

The minor may be earned through coursework that is offered online.

Political Science, MA

The Master of Arts in political science is not typically offered as a terminal degree. It is awarded to students as they work toward the political science PhD.

Learning Outcomes

Students will:

- demonstrate in-depth knowledge of two major fields in the discipline and competency in one minor field (the minor field may be within the discipline, in an interdisciplinary subject, or in another related discipline);
- demonstrate advanced research skills, including advanced statistical analysis and broad knowledge of a range of theoretical and methodological approaches relevant to their field of research;
- demonstrate effective teaching skills following the pedagogical standards of the discipline;
- be familiar with and follow disciplinary norms and standards, including understanding issues related to ethical practices in research; professional, public, and collegial engagement; and instruction; and
- demonstrate a full understanding of the research enterprise, including an ability to engage others' work and an ability to make original and substantial contributions to the field.

Requirements

The Master of Arts in political science requires a minimum of 30 s.h. of graduate credit, with a Graduate College program grade-point average of at least 3.25. No thesis is required. Each student's record is reviewed by an evaluation committee, which may waive the oral summative examination.

Students take 30 s.h. of UI courses numbered 3000 or above; a minimum of 16 s.h. of that coursework must be in political science (prefix POLI) courses numbered 3000 or above.

A first-year evaluation committee convenes at the end of a student's first year of courses; if the committee finds that the student's work provides sufficient evidence of the research and writing skills ordinarily demonstrated in a master's thesis, it may recommend that the student be allowed to proceed with a doctoral program. When the first-year evaluation committee finds the quality of a student's work inadequate for recommending continuation toward the PhD, the committee may recommend that the student be permitted to seek the MA without thesis as a terminal degree.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Political Science, PhD

The doctoral program in political science is nationally recognized as a leader in the discipline, with outstanding research faculty in each of the major subfields and a reputation for outstanding graduate training.

Graduate study in political science emphasizes the Doctor of Philosophy program. The department usually offers the master's degree only as a preliminary step toward the PhD.

The program is designed to prepare students for research, teaching, and scholarly endeavors in academic settings and private or governmental institutions. It produces graduates who are deeply committed to the study of politics, familiar with fundamental knowledge about political processes, well trained in methods and techniques for careful investigation of basic and applied research questions, and determined to make contributions to the discipline of political science and society.

The department usually admits six to eight PhD students each year, so students work closely with faculty members, often collaborating on research and publication. Graduate students know one another and enjoy supportive, congenial working conditions.

Doctoral study usually lasts four to five years. The first-year curriculum for all students consists of core courses equally divided between substance and methodology. Emphasis is on basic research methods, including quantitative methods, that political scientists must understand thoroughly. Special attention is given to research design, collection of observations, and data analysis and interpretation.

Learning Outcomes

Students will:

- demonstrate in-depth knowledge of two major fields in the discipline and competency in one minor field (the minor field may be within the discipline, in an interdisciplinary subject, or in another related discipline);
- demonstrate advanced research skills, including advanced statistical analysis and broad knowledge of a range of theoretical and methodological approaches relevant to their field of research;
- demonstrate effective teaching skills following the pedagogical standards of the discipline;
- be familiar with and follow disciplinary norms and standards, including understanding issues related to ethical practices in research; professional, public, and collegial engagement; and instruction; and
- demonstrate a full understanding of the research enterprise, including an ability to engage others' work and an ability to make original and substantial contributions to the field.

Requirements

The Doctor of Philosophy in political science requires a minimum of 72 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average of at least 3.40.

Four fields of study are available: American politics, comparative politics, international relations, and methodology. Each student chooses three fields of study for qualifying examinations.

The PhD in political science requires the following coursework.

Required Coursework

Students must complete the appropriate course numbered 5100–5700 before enrolling in a course numbered 7000 or above. In unusual circumstances and with the permission of the instructor teaching the higher-level course, a student may enroll in that course and a course numbered 5100–5700 at the same time.

Core Courses

Students take the following courses, except POLI:7270, on an A–F graded basis. Students must earn a B or above in all courses except POLI:5000 and POLI:7270.

Course #	Title	Hours
All of these:		
POLI:5000	Introduction to Political Analysis	4
POLI:5001	Introductory Methodology	4
POLI:5003	Intermediate Methodology	4
POLI:7003	Advanced Methodology	4
POLI:7270	Responsible Research in Political Science	1

Graduate students are expected to take at least 12 s.h. of coursework per semester through their second year of graduate study. Typically, this is in regularly scheduled courses rather than readings courses.

Additional Courses

Students complete 55 s.h. of additional coursework in field area, advanced political science, and elective courses.

During the third year, students are expected to take a minimum of 12 s.h. of regularly scheduled coursework; readings courses should be limited to the second semester of the third year. Students may take up to 12 s.h. in readings courses (not counting coursework accumulated in summer terms, when readings courses are often all that is available).

Field Area

Students complete three of the following field area requirements. All courses must be taken on an A–F graded basis.

Course #	Title	Hours
American Politics		
These courses:		
POLI:5100	American Politics	4
POLI:7150	Problems in American Politics (taken twice for 4 s.h. each)	8
International Relations		
This course:		
POLI:5500	International Politics	4
8 s.h. from these:		
POLI:7502	International Institutions and Cooperation (may be repeated)	4
POLI:7503	International Conflict and Cooperation (may be repeated)	4
POLI:7550	Problems in International Politics (may be repeated)	4

Comparative Politics		
This course:		
POLI:5400	Comparative Politics	4
8 s.h. from these:		
POLI:7202	Public Opinion and Electoral Behavior (may be repeated)	4
POLI:7450	Problems of Comparative Politics (may be repeated)	4
Methodology		
8 s.h. from these:		
POLI:5700	Introduction to Formal Models in Political Science (may be repeated)	4
POLI:7002	Topics Methodology (may be repeated)	4

Students may develop a self-defined field area, drawing upon coursework outside of political science with the permission of their advisor.

Advanced Political Science Courses

Students take a minimum of 12 s.h. of political science courses (prefix POLI) numbered 5000 or above to satisfy the advanced political science courses requirement.

Electives

Elective courses must bring the total credit for the PhD to a minimum of 72 s.h. Elective coursework is tailored to a student's background and career goals. It is selected in consultation with the student's advisory committee and can include research.

Students may enroll in any course numbered 4000 or above, including additional political science courses (prefix POLI). From these, students are permitted a total maximum of 12 s.h. from POLI:7900 Readings Tutorial, POLI:7901 Research Tutorial, and POLI:7910 PhD Dissertation.

Qualifying Exam and Comprehensive Exam

Students must complete their qualifying examinations by the end of the third year. They take their comprehensive examination (oral defense of the dissertation proposal) by the middle of the first semester of their fourth year.

Postcomprehensive Registration

The fourth and fifth years are spent on dissertation research and writing. Students who do basic research and gather data abroad often require an additional year to complete the dissertation. Graduate College regulations require that students be registered at the University of Iowa each semester after passing the comprehensive examination until their degree is awarded, and that this registration accurately reflects the amount and type of work undertaken, the use of university facilities, and the amount of consultation with the faculty. After passing their comprehensive examination, students working on their dissertation research should register for POLI:7910 PhD Dissertation.

Admission

Because the number of positions available in the PhD program is limited, the competition for admission is keen. However, applicants who did not major in political science or who are not acquainted with quantitative research methods are not at a disadvantage.

The deadline for application and consideration for assistantships and fellowships is Jan. 7.

Admission requirements include a baccalaureate degree, an undergraduate grade-point average (GPA) of at least 3.30 on a four-point scale (or its equivalent for international applicants), and three letters of recommendation from persons who can comment upon the applicant's academic ability and motivation. For applicants who have pursued graduate work elsewhere, a graduate GPA of at least 3.50 is required.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Students may only enter the program in the fall semester.

Career Advancement

The Doctor of Philosophy program in political science is designed to prepare students for careers in research and teaching. All students receive a thorough grounding in research methods. It is this grounding that permits teachers to be critical consumers of the research they read and permits researchers to undertake significant theoretical and empirical work.

Because the faculty and the graduate student body are not large, there is ample opportunity to collaborate with individual faculty members in research endeavors. In addition, students spend some time as apprentice teachers in large undergraduate classes.

PhD graduates secure employment in a wide variety of academic and nonacademic settings. In particular, they work in highly ranked research universities and teaching colleges throughout the United States and the world. Over the last decade, almost all graduates seeking academic positions found jobs.

Iowa graduates use their training to build distinguished research records that allow them to move to some of the nation’s top institutions.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Political Science, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
Graduate College program GPA of at least 3.40 is required. [d]		
	Hours	**0**

First Year		
Fall		
POLI:5000	Introduction to Political Analysis	4
POLI:5001	Introductory Methodology [a]	4
Field Area course [e, f]		4
	Hours	**12**
Spring		
POLI:5003	Intermediate Methodology	4
Field Area course [e, f]		4
Advanced political science course (prefix POLI, numbered 5000 or above)		4
	Hours	**12**
Second Year		
Fall		
POLI:7003	Advanced Methodology	4
POLI:7270	Responsible Research in Political Science	1
Field Area course [e, f]		4
Advanced political science course (prefix POLI, numbered 5000 or above)		4
	Hours	**13**
Spring		
Advanced political science course (prefix POLI, numbered 5000 or above)		4
Elective course [g, h]		4
Elective course [g, h]		4
	Hours	**12**
Third Year		
Any Semester		
Qualifying Exams [i]		
	Hours	**0**
Fall		
Elective course [g, h]		4
Elective course [g, h]		4
	Hours	**8**
Spring		
Elective course [g, h]		4
Elective course [g, h]		4
	Hours	**8**
Fourth Year		
Fall		
POLI:7910	PhD Dissertation [g, h]	3
Exam: Doctoral Comprehensive Exam [j]		
	Hours	**3**
Spring		
POLI:7910	PhD Dissertation [g, h]	2
	Hours	**2**
Fifth Year		
Fall		
POLI:7910	PhD Dissertation [g, h]	1
	Hours	**1**
Spring		
POLI:7910	PhD Dissertation [g, h]	1
Exam: Doctoral Final Exam [k]		
	Hours	**1**
	Total Hours	**72**

a Students must earn a B or above in all courses except POLI:5000 and POLI:7270.

b Four fields of study are available: American politics, comparative politics, international relations, and methodology.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

e Complete courses for three of the following field areas: 1) American politics: POLI:5100 and POLI:7150 (taken twice); 2) international relations: POLI:5500 and 8 s.h. from POLI:7502, POLI:7503, POLI:7550; 3) comparative politics: POLI:5400 and 8 s.h. from POLI:7202, POLI:7450; 4) methodology: 8 s.h. from POLI:5700, POLI:7002.

f Students may develop a self-defined field area, drawing upon coursework outside of political science with the permission of their advisor.

g Elective courses must bring the total credit for the PhD to a minimum of 72 s.h. Elective coursework is tailored to a student's background and career goals. It is selected in consultation with the student's advisor committee and can include research.

h Students may enroll in any course numbered 4000 or above, including additional political science courses (prefix POLI). From these, students are permitted a total maximum of 12 s.h. from POLI:7900, POLI:7901, and POLI:7910.

i Must be completed by the end of the third year; students choose three fields of study for qualifying examinations.

j Includes oral defense of the dissertation proposal and must be completed by the middle of the first semester of the fourth year.

k Dissertation defense.

Psychological and Brain Sciences

Chair

- Mark S. Blumberg

Undergraduate major: psychology (BA, BS)

Undergraduate minor: psychology

Graduate degrees: MA in psychology; PhD in psychology

Faculty: https://psychology.uiowa.edu/people/faculty

Website: https://psychology.uiowa.edu

The Department of Psychological and Brain Sciences offers an undergraduate major and minor as well as graduate degree programs. It also offers courses that undergraduate students in all majors may use to satisfy the GE CLAS Core [p. 22] Social Sciences requirement, a course approved for the Understanding Cultural Perspectives requirement, and a First-Year Seminar designed for entering undergraduate students.

The department also collaborates with the Department of Biology to offer an undergraduate degree in neuroscience. See the BS in neuroscience [p. 876] in the catalog.

Faculty

Faculty members of the Department of Psychological and Brain Sciences are nationally and internationally renowned leaders in a variety of subdisciplines. Their research is funded by numerous federal and private research grants, their findings are documented in many publications, and their research and teaching accomplishments have earned them many awards.

Programs

Undergraduate Programs of Study

Majors

- Major in Psychology (Bachelor of Arts) [p. 954]
- Major in Psychology (Bachelor of Science) [p. 958]

Minor

- Minor in Psychology [p. 963]

Graduate Programs of Study

- Master of Arts in Psychology [p. 964]
- Doctor of Philosophy in Psychology [p. 966]

Facilities

The department's facilities for graduate training and research are among the finest in the country. The Department of Psychological and Brain Sciences is housed in three buildings. The newly constructed Psychological and Brain Sciences Building contains modern laboratories devoted to research in cognitive science, developmental science, and cognitive neuroscience. The building also houses administrative and faculty offices, an undergraduate advising center, classrooms, breakout rooms, conference rooms, and commons spaces.

The Kenneth W. Spence Laboratories of Psychology, which connects with the Psychological and Brain Sciences Building on each floor, houses additional laboratories devoted to research in human psychology, testing facilities associated with laboratories in behavioral neuroscience, animal housing, offices, meeting rooms, a mechanical shop, and a computer support facility. The adjacent and recently renovated Stuit Hall houses laboratories for many of the clinical science faculty, as well as offices, meeting rooms, and the Seashore Psychology Clinic.

The research and teaching activities of the department benefit greatly from the facilities and staff of other university entities and local agencies, including University of Iowa Health Care, the Iowa Neuroscience Institute, the VA Iowa City Health Care, the University Counseling Service, the Center for Disabilities and Development, the Wendell Johnson Speech and Hearing Clinic, the Center for Health Policy and Research, and the School of Social Work.

Courses

The following courses are open to first-year students who have satisfactorily completed an introductory psychology course (PSY:1001 Elementary Psychology or equivalent). Other courses numbered 1000–2999 are considered lower-level undergraduate courses.

Course #	Title	Hours
PSY:2301	Introduction to Clinical Psychology	
PSY:2401	Introduction to Developmental Science	
PSY:2501	Introduction to Social Psychology	
PSY:2601	Introduction to Cognitive Psychology	
PSY:2701	Introduction to Behavioral Neuroscience	

Before enrolling in any advanced undergraduate courses, students must complete all specified lower-level prerequisites or obtain the consent of the instructor. Courses numbered 3000–4999 are considered advanced undergraduate courses. Those numbered 5000–7610 are considered graduate-level courses.

Psychological and Brain Sciences Courses

PSY:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first- or second-semester standing.

PSY:1001 Elementary Psychology **3 s.h.**
Psychology as a behavioral science. GE: Social Sciences.

PSY:1010 Your Brain Unlocked: Learning About Learning 1 s.h.
Research about the human mind and brain that students can use to foster academic success at the UI; presentation of research findings that indicate best practices for studying, learning, and succeeding at the UI (not a remedial study skills course); topics range from retrieving information stored in memory to maintaining psychological health under stress; course format consists of lecture, student response to reading assignments, and discussion; readings are primarily original documents (journal articles).

PSY:1501 Everyone's a Little Bit Biased: The Science Behind Prejudice 3 s.h.
Tendencies to view and/or respond in favorable or unfavorable ways to individuals based solely on social group membership; social psychological concepts, underlying principles, and theories to understand how stereotypic beliefs, prejudicial attitudes, and discriminatory actions impact individuals and reinforce social inequality. GE: Understanding Cultural Perspectives.

PSY:2130 Advanced Psychology for Pre-Medical Track 3 s.h.
Psychology as a behavioral science; elementary psychology in more depth, advanced topics. Prerequisites: PSY:1001. Requirements: non-psychology major.

PSY:2301 Introduction to Clinical Psychology 3 s.h.
Introduction to abnormal psychology; scientist-practitioner model, training, ethics, research methods in clinical psychology; current approaches to intellectual, personality, behavioral assessment; theories, research on treatment of psychological disorders. Prerequisites: PSY:1001. GE: Social Sciences.

PSY:2401 Introduction to Developmental Science 3 s.h.
Current research in developmental science; prenatal development, brain development, motor and physical development, perceptual development, language development, cognitive development, aspects of socio-emotional development; emphasis on modern theoretical approaches. Prerequisites: PSY:1001. GE: Social Sciences.

PSY:2501 Introduction to Social Psychology 3 s.h.
Research and theories on people's thoughts, feelings, and behaviors in social situations; attitudes, attributions, person perception, aggression, stereotypes and prejudice, attraction, relationships, social influence, group processes, altruism. Prerequisites: PSY:1001.

PSY:2601 Introduction to Cognitive Psychology 3 s.h.
Individual human cognition; perception, attention, memory, language, learning, problem solving, decision-making, thought considered from viewpoint of information processing. Prerequisites: PSY:1001. GE: Social Sciences.

PSY:2701 Introduction to Behavioral Neuroscience 4 s.h.
Biological mechanisms of behavior; comparative study of behavior, behavioral organization, animal intelligence, social behavior, communication; behavioral neuroscience, how brain systems control sensation, movement, homeostasis, emotion, learning.

PSY:2811 Research Methods and Data Analysis in Psychology I 3 s.h.
Foundational knowledge in psychological research methods and corresponding statistical concepts; basic concepts of statistics, statistical inference, and research design as applied in psychological research; study of descriptive statistics, measurement, survey design, correlational analyses, and regression analysis; first in a sequence of two courses. Prerequisites: PSY:1001 or PSY:2701. GE: Quantitative or Formal Reasoning.

PSY:2812 Research Methods and Data Analysis in Psychology II 3 s.h.
Foundational knowledge in psychological research methods and corresponding statistical concepts; basic concepts of statistics, statistical inference, and research design as they are applied in psychological research; study of experimental control, experimental design, and hypothesis testing; second in a sequence of two courses. Prerequisites: PSY:2811 with a minimum grade of C-.

PSY:2930 Abnormal Psychology: Health Professions 3 s.h.
Introduction to psychological disorders; description of psychopathology; general issues in etiology and treatment; for non-psychology students in allied health professions. Prerequisites: PSY:1001. Requirements: non-psychology major.

PSY:2975 Introduction to Cognitive Neuroscience 3 s.h.
Analysis of brain systems and neuroanatomy that underlie cognitive tasks such as vision, hearing, emotion, attention, language, decision-making, learning, and memory. Prerequisites: PSY:2701.

PSY:3020 Mind and Behavior 3 s.h.
Theories of what it is to act and know, of what intelligence might be in animals, humans, machines; perspectives from philosophy, psychology. Prerequisites: PSY:2811 with a minimum grade of C- and (PSY:2701 with a minimum grade of C- or PSY:2601 with a minimum grade of C-). Requirements: junior or senior standing.

PSY:3025 Science of Addiction 3 s.h.
Biological, psychological, social, cognitive, and cultural bases of addiction; models for defining addiction; evidence-based prevention and treatment interventions; historical perspectives on substance use and misuse. Prerequisites: PSY:2811 with a minimum grade of C-.

PSY:3030 Social and Personality Development 3 s.h.
Emotional, social, and personality development from infancy to adolescence; major theories and empirical research; child temperament, parent-child relationship, and social context as contributors to individual differences. Prerequisites: PSY:2811 with a minimum grade of C- and (PSY:2501 with a minimum grade of C- or PSY:2401 with a minimum grade of C-).

PSY:3035 Science of Emotion 3 s.h.
Scientific study of emotion from psychological and neuroscientific perspectives; theories, measurements, and mechanisms (e.g., physiological, psychological, neural); perception, expression, and function of emotion. Prerequisites: PSY:2811 with a minimum grade of C- and (PSY:2501 with a minimum grade of C- or PSY:2601 with a minimum grade of C- or PSY:2701 with a minimum grade of C-).

PSY:3040 Psychology of Learning 3 s.h.
Psychological science of acquired behavior; interests in experimental study of Pavlovian conditioning, operant conditioning, cognition in humans and nonhuman animals, relevance to behavioral adaptation. Prerequisites: PSY:2811 with a minimum grade of C- and (PSY:2701 with a minimum grade of C- or PSY:2601 with a minimum grade of C-).

PSY:3050 Applied Psychology: Addressing Real-World Problems 3 s.h.
Bridging the basic applied research divide in psychology; contributions of cognitive, clinical, social, and developmental psychology to understand real-world problems (e.g., traffic safety, screen time). Prerequisites: PSY:2301 with a minimum grade of C- or PSY:2401 with a minimum grade of C- or PSY:2501 with a minimum grade of C- or PSY:2601 with a minimum grade of C-.

PSY:3055 Interdisciplinary Science of Sound and Hearing 3 s.h.
Introduction to physics of sound, biology/psychology of hearing, and audio technology; theories and experimental methods; music, speech, and environmental sounds. Same as CSD:3119, MUS:3055.

PSY:3060 Sensation and Perception 3 s.h.
Principles of sensory processes in vision, audition, and other modalities; perception of objects and events.

PSY:3066 Aging Mind and Brain 3 s.h.
Current theories and research on cognitive, affective, socioemotional, and decision-making changes that occur during aging; behavioral, cognitive, and cognitive neuroscience methodologies applied to study of aging in these domains; lifespan perspective with emphasis on decline and adaptation. Prerequisites: PSY:2811 with a minimum grade of C- and (PSY:2701 with a minimum grade of C- or PSY:2601 with a minimum grade of C-).

PSY:3075 The Damaged Brain 3 s.h.
Understanding relationships between brain structure and function with emphasis on how brain trauma and illnesses affect cognition and behavior; foundations of neuropsychology, structure of nervous system, functional specialization of brain, cognitive functions, and assessments of brain disorders. Prerequisites: PSY:2811 with a minimum grade of C-.

PSY:3110 Animal Cognition 3 s.h.
Cognition in nonhuman animals, comparison to humans; intelligence, learning, memory, reasoning, communication, consciousness, evolution, development. Prerequisites: PSY:2811 with a minimum grade of C- and (PSY:2601 with a minimum grade of C- or PSY:2701 with a minimum grade of C-).

PSY:3120 What Animals Can Teach Us About Being Human 3 s.h.
Comparative psychology; assess human-animal similarities and differences through lab and field studies; human-animal interactions; outreach and service learning with local non-profit organizations. Prerequisites: PSY:2811 with a minimum grade of C-.

PSY:3160 Psychological Science of Creativity 3 s.h.
Psychological science of creativity; its definition, measurement, development, evolution, neurobiology, and adaptive significance in individual behavior and cultural practices. Prerequisites: PSY:2811 with a minimum grade of C- and (PSY:2601 with a minimum grade of C- or PSY:2701 with a minimum grade of C-).

PSY:3165 Music Perception and Cognition 3 s.h.
Introduction to psychology of music; basics of music perception and cognition, musical emotions and preferences, and transfer benefits of musical training. Prerequisites: PSY:2812 with a minimum grade of C-.

PSY:3170 Fantasy Football: Predictive Analytics and Empiricism 3 s.h.
Empiricism; statistics; judgment, prediction, and decision making in the context of uncertainty; introductory overview of data analysis techniques, with applications using Fantasy Football; modern analytical techniques used to make informed predictions, test theories, and draw conclusions from data; how to evaluate and improve the accuracy of various prediction models; causal inference; heuristics and cognitive biases; judgment vs. actuarial prediction; base rates; Bayes' theorem; overconfidence; delay discounting; expertise and automaticity; wisdom of the crowd; risk aversion; reinforcement schedules; correlation; multiple regression; machine learning; R software. Prerequisites: PSY:2811 with a minimum grade of C- or PSQF:1020 with a minimum grade of C- or STAT:1020 with a minimum grade of C- or PSQF:4143 with a minimum grade of C- or STAT:4143 with a minimum grade of C- or STAT:1010 with a minimum grade of C- or STAT:1015 with a minimum grade of C- or STAT:1030 with a minimum grade of C- or STAT:3510 with a minimum grade of C-.

PSY:3180 Minds Unboxed: The Psychology of Social Labels 3 s.h.
Socially-guided perception and cognition; contemporary topics in socio-cognitive processes. Prerequisites: PSY:2811 with a minimum grade of C- and (PSY:2501 with a minimum grade of C- or PSY:2601 with a minimum grade of C-).

PSY:3190 Psycholinguistic Aspects of Bilingualism 3-4 s.h.
Interaction of two languages in a bilingual in terms of sound system, words, and grammar; different meanings of bilingualism, how bilingualism and multilingualism can change across lifespan. Taught in English. Requirements: linguistics or language acquisition course. Same as LING:3190.

PSY:3230 Psychopharmacology 3 s.h.
How drugs act to influence behavior; general principles of drug action on the nervous system; licit and illicit drugs, use/abuse, historical perspective on drug use. Prerequisites: PSY:2811 with a minimum grade of C-.

PSY:3250 Neuroscience of Learning and Memory 3 s.h.
Major topics in the neuroscience of learning and memory; focus on anatomical, cellular, molecular bases of various learning and memory processes. Prerequisites: (PSY:2701 with a minimum grade of C- or BIOL:2753 with a minimum grade of C-) and PSY:2811 with a minimum grade of C-.

PSY:3265 Cognitive and Clinical Neuroscience of Executive Functions 3 s.h.
Major topics in cognitive and clinical neuroscience of executive functions; focus on attention, working memory, cognitive control, and executive dysfunction in psychiatric and neurological disorders. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2701 with a minimum grade of C-.

PSY:3270 Neurobiology of Stress 3 s.h.
Introduction to concept of stress and physiological systems involved; factors modulating stress vulnerability versus resilience; stress interactions with other systems with health relevance; emphasis on current research on brain mechanisms. Prerequisites: PSY:2701 with a minimum grade of C- and PSY:2811 with a minimum grade of C-.

PSY:3275 The Science of Sleep 3 s.h.
What is the brain doing during sleep? Why do we and other animals exhibit an altered state of consciousness that renders us unresponsive to the outside world? These questions and many others are subjects of the rapidly growing field of sleep research, including neurobiological basis of sleep drive and biological clock, cognitive and emotional functions of sleep, significance of dreams, relationship between sleep and psychopathology, and impact of sleep on society (i.e., serendipitous discoveries and major disasters attributable to sleep). Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2701 with a minimum grade of C-.

PSY:3320 Psychopathology 3 s.h.
Etiology, phenomenology, and treatment of adult DSM-5-TR psychological disorders (e.g., depressive disorders, psychotic disorders, anxiety disorders, personality disorders). Formerly titled Abnormal Psychology. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2301 with a minimum grade of C-.

PSY:3330 Childhood Psychopathology 3 s.h.
Major forms of childhood psychopathology; current theoretical approaches and methodological issues in diagnosis, conceptualization, treatment of developmental psychopathology. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2301 with a minimum grade of C-.

PSY:3340 Behavior Modification 3 s.h.
Basic approaches to modification of clinically distressing behavior; learning theory principles underlying techniques, translation into procedures, experimental evaluation of effectiveness. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2301 with a minimum grade of C-.

PSY:3350 Psychotherapies 3 s.h.
Current theories and research on frequently used psychotherapeutic approaches; focus on methodology in psychotherapy research, specific types of therapy, and empirically supported therapies. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2301 with a minimum grade of C-.

PSY:3360 The Psychosis Spectrum 3 s.h.
Severe mental illnesses including schizophrenia, bipolar disorder, and depression with psychotic features; neurobiological basis for hallucinations, delusions, and impaired cognition; current genetic, neuroscience, clinical, cultural, and evolutionary perspectives on causes, course, and treatment of severe mental illness. Prerequisites: PSY:2301 with a minimum grade of C- or PSY:2701 with a minimum grade of C-.

PSY:3380 Personality Pathology 3 s.h.
Scientific evaluation of theories of personality pathology. Examination of models used to diagnose personality disorder and review of personality pathology beyond the DSM-5-TR (e.g., profiles such as psychopathy, sociopathy). Theories, measurements, and treatments for personality pathology. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2301 with a minimum grade of C-.

PSY:3390 Severe Mental Illness: Brain Mechanisms 3 s.h.
Severe mental illnesses including schizophrenia, bipolar disorder, and treatment-resistant depression; brain maturation; genetic risk factors; neuroimaging; sleep disturbances; novel treatments such as neuromodulation; aging and dementia in severe mental illness. Prerequisites: PSY:2811 with a minimum grade of C- and (PSY:2301 with a minimum grade of C- or PSY:2701 with a minimum grade of C-).

PSY:3395 Cognitive and Psychosocial Mechanisms of Severe Mental Illness 3 s.h.
Severe mental illnesses including schizophrenia, bipolar disorder, and borderline personality disorder; cognitive and psychosocial mechanisms; psychological, social, and environmental risk and protective factors; social and non-social information processing; evidence-based psychosocial interventions for severe mental illnesses. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2301 with a minimum grade of C-.

PSY:3420 Cognitive Development of Children 3 s.h.
Developmental research, theory concerning children's concepts, thinking, problem solving, memory, communication. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2401 with a minimum grade of C-.

PSY:3530 Personality 3 s.h.
Classic theoretical models and contemporary empirical research in personality, including influence of heredity and environment, consistency and stability of behavior. Prerequisites: PSY:2811 with a minimum grade of C- and (PSY:2301 with a minimum grade of C- or PSY:2501 with a minimum grade of C-).

PSY:3560 Psychology of Gender 3 s.h.
Origins of gender roles, gender socialization in childhood, gender differences across lifespan; research on gender differences in cognition, emotions, behavior, physical and mental disorders, communication. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2501 with a minimum grade of C-.

PSY:3570 Social Cognition 3 s.h.
Research and theory on cognitive structures and processes that underlie judgment, decision, belief, and behavior in social situations; attribution, heuristics, schemas, person perception, stereotypes, attitudes. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2501 with a minimum grade of C-.

PSY:3575 Social Cognition in Autism 3 s.h.
Introduction to social, cognitive, and neural mechanisms in autism spectrum disorder (ASD); topics include emotion processing, theory of mind, social attention, main theories of autism, and relevant research techniques (e.g., eye tracking); discussion of insights from neuroscience, as well as approaches to train/improve social cognition in ASD. Prerequisites: PSY:2811 with a minimum grade of C- and (PSY:2601 with a minimum grade of C- or PSY:2501 with a minimum grade of C- or PSY:2701 with a minimum grade of C-).

PSY:3580 Judgment and Decision Making 3 s.h.
Processes and biases that shape judgments and decisions of various types (e.g., about other people, the future, competitions, products, medical treatments, health risks, crime suspects). Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2501 with a minimum grade of C-.

PSY:3590 Stereotyping and Prejudice 3 s.h.
Research and theory on prejudice, stereotyping, discrimination, and stigmatization; focus on nature, origins, and impact of prejudice and stereotypes. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2501 with a minimum grade of C-.

PSY:3620 Human Memory 3 s.h.
Contemporary psychological theory and research on short-term and long-term memory, acquisition processes, related topics in cognition. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2601 with a minimum grade of C-.

PSY:3650 How the Brain Creates the Mind 3 s.h.
How the brain sees the world, makes decisions, controls actions, and experiences emotions; the nature of free will, justice, and consciousness; examination of how these questions are informed by insights from modern neuroscience. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2601 with a minimum grade of C-.

PSY:3670 Language Processes 3 s.h.
Psychological processes involved in using languages, including speech perception and production, the meaning of words, understanding and producing sentences, and basics of discourse and pragmatics; developmental and neural bases of language processes. Prerequisites: (PSY:2811 with a minimum grade of C- and PSY:2601 with a minimum grade of C-) or CSD:1015 or LING:3001. Same as LING:3670.

PSY:3690 Understanding Cognitive Processes Using Artificial Neural Networks 3 s.h.
Basic approaches to how artificial neural networks can be used to help understand mechanisms of human cognitive processing. Prerequisites: PSY:2811 with a minimum grade of C- and PSY:2601 with a minimum grade of C-.

PSY:3994 Research Practicum in Psychology arr.
Small-group participation in faculty research projects; literature review, study planning, data collection, analysis, interpretation, write-up.

PSY:3995 Advanced Research Practicum 1-3 s.h.
Individual participation in faculty research projects; significant reading and writing. Requirements: two semesters of PSY:3994 or HONR:3994.

PSY:3996 External Practicum in Psychology 1-3 s.h.
Student participation in career-related professional activities in community and University of Iowa agencies.

PSY:3997 Teaching/Advising Practicum in Psychology 1-3 s.h.
Participation in faculty teaching as undergraduate teaching assistant or the Psychology Peer Advisor Program.

PSY:3998 Individual Readings and Projects 1-3 s.h.
Requirements: psychology major and undergraduate standing.

PSY:3999 Independent Research in Neuroscience 2-3 s.h.
Independent scientific research related to the field of neuroscience. Same as BIOL:3999.

PSY:4020 Laboratory in Psychology 4 s.h.
Laboratory study of an aspect of behavior; topics in a particular area (e.g., learning and memory, perception, social behavior, operant behavior, physiological processes). Prerequisites: PSY:2701 and PSY:2812 with a minimum grade of C-.

PSY:4025 Laboratory in Cognitive Neuroscience 4 s.h.
Practical, hands-on experience analyzing data from three of the most common methods of cognitive neuroscience—scalp electroencephalography (brain waves), functional magnetic resonance imaging (brain imaging), and transcranial magnetic stimulation (brain stimulation). Prerequisites: PSY:2975 and PSY:2812. Requirements: neuroscience major.

PSY:4035 Laboratory in Computational Neuroscience 4 s.h.
How neuroscience and computer science benefit each other; classic findings in computational neuroscience; basics of neural networks and machine learning techniques; modification of computer programs of neural networks to model cognitive processes; application of machine learning algorithms to analysis of neural data; interpretation of findings in computational neuroscience. Prerequisites: PSY:2812. Requirements: linear algebra course. Recommendations: programming skills.

PSY:4090 Psychology Seminar 3 s.h.
Readings from original sources, presentations, papers, student participation. Prerequisites: PSY:2812 with a minimum grade of C-. Requirements: junior or senior standing.

PSY:4990 Honors Thesis Research 1-3 s.h.
Supervised original project; leads to written thesis, oral defense. Requirements: honors standing.

PSY:4995 Honors Research in Neuroscience arr.
Independent scientific research related to the field of neuroscience. Requirements: honors standing in neuroscience, UI GPA of at least 3.33, and neuroscience GPA of at least 3.33. Same as BIOL:4995.

PSY:5050 Quantitative Methods in Psychology 4 s.h.
Overview of statistical methods based on the general linear model, including ANOVA, ANCOVA, and multiple regression; how to conduct these analyses using SPSS. Requirements: first-year graduate standing in psychology.

PSY:5055 Mixed-Effects Modeling in Psychology 4 s.h.
Introduction to mixed-effects analysis of hierarchically structured and cross-classified psychological data using R. Prerequisites: PSY:5050.

PSY:5070 Programming for Psychologists 3 s.h.
Basics of programming; experiment design, stimulus delivery and response recording using Python; implementation of online testing using JavaScript; data analysis of behavioral data using Python; basic machine learning techniques and their applications to data analysis implemented using Python. Requirements: PSY:2812 or graduate standing.

PSY:5080 Foundations in Cognitive Neuroscience 4 s.h.
Key concepts and findings in human cognitive neurosciences.

PSY:5203 Fundamental Neurobiology I 3 s.h.
Neurobiology from molecular/cellular to systems levels, including cell biology of the neuron; membrane electrophysiology; synaptic transmission and plasticity, functional neuroanatomy, sensory, motor and autonomic systems; emotion, memory, sleep, language, attention and cognition, neuronal development; focus on systems and developmental neurobiology; first in a two-semester sequence. Same as BIOL:5653, NSCI:5653.

PSY:5204 Fundamental Neurobiology I Discussion 2 s.h.
Discussion of selected papers, including classics from neurobiology literature; coordinated with BIOL:5653 lecture material. Same as BIOL:5658, NSCI:5658.

PSY:5205 Fundamental Neurobiology II 3 s.h.
Neurobiology from molecular/cellular to systems levels, including cell biology of the neuron; membrane electrophysiology; synaptic transmission and plasticity; functional neuroanatomy, sensory, motor and autonomic systems; emotion, memory, sleep, language, attention and cognition, neuronal development; focus on molecular/cellular neurobiology and neurophysiology; second in a two-semester sequence. Prerequisites: BIOL:5653 or NSCI:5653 or PSY:5203. Same as BIOL:5654, NSCI:5654.

PSY:5206 Fundamental Neurobiology II Discussion 2 s.h.
Discussion of selected papers, including classics from neurobiology literature; coordinated with BIOL:5654 lecture material. Same as BIOL:5659, NSCI:5659.

PSY:5212 Foundations in Behavioral and Cognitive Neuroscience 4 s.h.
Concepts, methods, and findings in behavioral and cognitive neurosciences. Prerequisites: BIOL:3253. Same as NSCI:5212.

PSY:5320 Descriptive Psychopathology 3 s.h.
Psychiatric syndromes, including description, etiology, experimental and clinical research; development, function of classification systems.

PSY:5330 Principles of Psychological Assessment 3 s.h.
Assessment theory and basic psychometric principles in test construction, evaluation, application; ethical, social, psychological, and psychometric issues and controversies in assessment.

PSY:5365 Seminar: Neuropsychology and Neuroscience arr.
Clinical neuropsychology and cognitive neuroscience: cutting-edge research from scientific journals, case presentations in clinical neuropsychology, and current research. Same as NEUR:5365, NSCI:5365.

PSY:5410 Proseminar in Developmental Science 3 s.h.
Introduction to developmental process and developmental science; topics organized around mechanisms of development, with cross-disciplinary focus.

PSY:5610 Proseminar in Cognition and Perception 3 s.h.
Broad overview of study of cognition, including cognitive psychology, computer science and artificial intelligence, linguistics, neuroscience, philosophy of mind.

PSY:5710 Introduction to Health and Behavioral Science 3 s.h.
Evolution of health psychology; survey of major physiological systems in which pathology is affected by behavioral processes; review of theoretical approaches, experimental paradigms from behavioral science as they may apply to assessment of health problems; prevention, intervention, psychological adaptation to physical disease.

PSY:6070 Practical Introduction to Theoretical Methods for Brain Sciences 3 s.h.
Introductory overview of how mathematical and computational models are used to model and explain the mind and brain; encoding/decoding, learning and optimization, differential equations (e.g., Hodgkin-Huxley model of spiking neurons), dynamical systems, probability and statistics, information theory and inference, efficient coding.

PSY:6101 Cognitive Science of Language Proseminar I 3 s.h.
Survey of five major disciplines within language sciences: formal linguistic, communication disorders, psychological, neuroscience, and computational approaches. Requirements: graduate standing in communication sciences and disorders, linguistics, psychology, or neuroscience. Same as CSD:6101, LING:6101.

PSY:6102 Cognitive Science of Language Proseminar II 3 s.h.
Survey of five major disciplines within language sciences: formal linguistic, communication disorders, psychological, neuroscience, and computational approaches. Requirements: graduate standing in communication sciences and disorders, linguistics, psychology, or neuroscience. Same as CSD:6102, LING:6102.

PSY:6230 Foundations of Learning, Memory, and Cognition 3 s.h.
Determinants of adaptive behavior in humans and animals; emphasis on behavioral analysis of learning, memory, and cognition; relevance of laboratory research to real life activities.

PSY:6240 Neurobiology of Learning and Memory 3 s.h.
Memory systems, techniques to study learning and memory, invertebrate and mammalian learning, synaptic and systems consolidation, molecular mechanisms underlying learning and memory, neuroanatomy of mammalian episodic memory, human studies, theories of consolidation, memory liability, sleep and memory, engram representations, future directions.

PSY:6265 Neuroscience Seminar 0-1 s.h.
Research presentations. Same as ACB:6265, BIOL:6265, MPB:6265, NSCI:6265.

PSY:6280 Structural and Functional MRI Methods and Application 3 s.h.
Introduction to basic principles of magnetic resonance imaging and its application to psychology; imaging of brain structure; focus on functional MRI. Requirements: graduate-level introductory statistics.

PSY:6340 Psychological Therapies 3 s.h.
Historical development and current status of empirically based therapies for psychological disorders, including anxiety, depression, schizophrenia, childhood disorders; emphasis on critical evaluation of therapy techniques.

PSY:6360 Psychosis: Neurobiological, Cultural, and Evolutionary Perspectives 4 s.h.
Severe mental illnesses including schizophrenia, bipolar disorder, and depression with psychotic features; neurobiological basis for hallucinations, delusions, and impaired cognition; current genetic, neuroscience, clinical, cultural, and evolutionary perspectives on causes, course, and treatment of severe mental illness.

PSY:6370 Principles of Neuropsychology 3 s.h.
Principles of human neuropsychology, including foundations (history, methods, approaches), major functional systems (vision, memory, language, spatial processing), executive functions (emotional processing and personality), and applications (experimental, clinical). Recommendations: prior coursework in psychological assessment, psychopathology, and neuroanatomy.

PSY:6390 History and Systems of Psychology 3 s.h.
Pre-scientific psychology; influence of physiology, psychophysics, and early scientific conceptualization of the mind on modern psychology; development of the scientific discipline of psychology in Germany; initial development and early schools of psychology in the United States; development of applied and professional psychology in the United States; major systems of psychology, including psychoanalysis, behaviorism, and cognitive psychology; development of social action and social change in psychology; integrating historical sources and major systems ideas with personal areas of research or clinical interests.

PSY:6440 Developmental Cognitive Neuroscience 3 s.h.
Overview of current developmental cognitive neuroscience theory, research, and methods (PET, fMRI, optical imaging, EEG, ERPs); neural development, computational neuroscience, and methods.

PSY:6590 Judgment and Decision Making 3 s.h.
Theory and research on how people gather, perceive, and use information when making judgments and decisions; includes risky and uncertain contexts; social and nonsocial contexts.

PSY:7010 Professional Writing in Psychological and Brain Sciences 2 s.h.
Development of writing skills for research papers, fellowship applications, and grant proposals; workshop.

PSY:7050 Special Topics in Psychology: Social Bases of Behavior 2 s.h.
Directed readings on social bases of behavior. Requirements: graduate standing in psychology.

PSY:7070 Seminar: Behavioral Biomedical Interface 1 s.h.
Ongoing seminar; discussion of research at behavioral-biomedical interface. Requirements: acceptance to Behavioral Biomedical Interface Training Program.

PSY:7110 Research Projects arr.

PSY:7130 PhD Dissertation Research arr.

PSY:7150 Current Topics in Psychology 3 s.h.

PSY:7160 Problems in Psychology arr.
Individual study.

PSY:7170 Teaching Practicum arr.
Supervised practice in teaching.

PSY:7210 Seminar: Advanced Topics in Behavioral and Cognitive Neuroscience 3 s.h.

PSY:7270 Principles of Scholarly Integrity 1 s.h.
Training in responsible conduct of research; student/mentor responsibilities; authorship and reviewing; plagiarism/falsification/fabrication of data; intellectual property; conflict of interest; fiscal, institutional, societal; treatment of human and animal subjects; data handling. Requirements: enrollment in graduate psychology or biology program. Same as BIOL:7270.

PSY:7310 Seminar: Orientation to Clinical Research 0-1 s.h.
Issues in clinical research, including use of databases, advisor/advisee relationships, preparation of IRB proposals, paper presentation and publication, common early career problems, funding resources.

PSY:7330 Seminar: Acceptance and Commitment Therapy 1 s.h.
Core processes of acceptance and commitment therapy (ACT); case conceptualization and targeted intervention across a range of psychiatric and physical diagnoses; emphasis on therapeutic stance and theoretical underpinnings of ACT; readings, discussion, video review, therapist-patient role play, and discussion of ongoing cases.

PSY:7331 Seminar: Advanced Acceptance and Commitment Therapy 1 s.h.
Core processes of acceptance and commitment therapy (ACT) and implementation in clinical practice; theoretical underpinnings of ACT theory; ACT research; case conceptualization and targeted intervention across a range of psychiatric and physical diagnoses; reading, discussion, video review, therapist-patient role play, and discussion of ongoing cases. Prerequisites: PSY:7330.

PSY:7350 Introductory Practicum arr.
Orientation to Department of Psychology clinic, including instruction in interviewing, observation of clinic procedures, attendance at clinic rounds under supervision of clinical psychology faculty members.

PSY:7355 Assessment Practicum arr.
Supervised practice in psychological assessment techniques.

PSY:7360 Therapy Practicum arr.
Supervised practice and clinical experience in application and evaluation of psychological therapies.

PSY:7365 External Practicum arr.
Supervised practice and clinical experience in field setting; psychological assessment techniques and/or application, evaluation of psychological therapies.

PSY:7370 Supervision and Consultation Practicum arr.
Supervision and training of less advanced students; consultation to other programs and agencies.

PSY:7604 Principles of Scholarly Integrity 0 s.h.
Training in responsible conduct of research and scholarly activities; student/mentor responsibilities; authorship; plagiarism/falsification/fabrication of data; intellectual property; conflict of interest; fiscal, institutional, societal; treatment of human and animal subjects; data handling. Requirements: postdoctoral standing in psychology or biology. Same as BIOL:7604.

PSY:7610 Seminar: Cognitive Psychology 2-3 s.h.

PSY:7620 Seminar: Human Perception and Performance 1 s.h.
Professional issues and current topics relevant to psychologists studying human perception and performance.

Psychology, BA

An undergraduate degree in psychology provides students with skills that are relevant to many career paths. The major in psychology is designed to contribute to students' general liberal arts and sciences education and to provide a foundation for postbaccalaureate training in psychology and closely related disciplines as well as in areas such as business, law, communication, medicine, and the allied health sciences. Students who intend to enter the job market immediately after graduation should complement their psychology major with substantial preparation in another program that is more closely tied to their area of interest (e.g., education, social work, business, journalism, nursing). Almost all vocational opportunities in psychology require advanced degrees.

The Bachelor of Arts (BA) degree has fewer specific requirements than the Bachelor of Science (BS) degree and places less emphasis on methodology. The program leaves time for students to supplement the psychology major with another program of study.

Students who change to a psychology major after two years of undergraduate work may find they do not have sufficient background for the BS program. They may wish to enrich the BA program with courses in experimental psychology and other advanced electives if they intend to pursue graduate work in psychology or a related field.

Students begin with a general introductory course, followed by methodology and data analysis courses, and introductory courses in several broad areas: behavioral neuroscience, developmental science, clinical psychology, cognitive psychology, and social psychology. These courses are followed by upper-level psychology courses selected by each student. For additional information regarding the undergraduate major and career information, visit Undergraduate Programs on the Department of Psychological and Brain Sciences website.

The department maintains excellent facilities to support teaching and research on human and animal behavior. All faculty members are directly engaged in research, and they bring to their undergraduate teaching the excitement that such activity generates. Many opportunities exist for interested and capable students to participate in current research projects in the department.

The department has an active undergraduate organization, Psi Chi + Psych Iowa. The group sponsors speakers, films, career days, and student symposia. The Psi Chi portion is an honors society, whereas the Psych Iowa portion is open to any interested UI undergraduate student.

Learning Outcomes

The learning outcomes for students in the Department of Psychological and Brain Sciences align with several of the learning goals from the American Psychological Association's guidelines for undergraduate psychology education. These learning outcomes expand and deepen students' foundational knowledge obtained through the GE CLAS Core [p. 22] program.

Psychology majors will:

- understand psychology as an empirical science;
- graduate with a knowledge base in psychology, including an understanding of the major principles and theories in the field's main content areas;
- have learned how to use scientific reasoning to understand psychological phenomena and how to interpret and conduct psychological research; and
- be able to apply their knowledge of psychology to real-world situations and recognize the importance of ethical standards and diversity in psychology.

Requirements

The Bachelor of Arts with a major in psychology requires a minimum of 120 s.h., including 46–47 s.h. of work for the major, with at least 34 s.h. in psychology courses. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Transfer credits must be approved by the department, and transfer students must complete at least 18 s.h. of psychology courses at the University of Iowa.

The major for the BA is designed for students who wish to gain considerable knowledge in psychology but do not necessarily plan a professional career in the discipline. It is appropriate for students preparing for careers in law, business, counseling, social work, or secondary school teaching (see the section titled "Teacher Licensure"). It can be combined with a second major more easily than the Bachelor of Science program.

The choice of a degree program should be dictated by a student's personal career goals. BA students interested in pursuing graduate study in psychology or other social sciences may enrich their program by taking courses in mathematics, statistics, research methods, and the natural sciences.

BA and BS students complete the same psychology core and psychology electives. The BA also requires an additional statistics or computer science course plus a second concentration area.

Students are advised to take PSY:1001 Elementary Psychology as the first course in the major; however, if a student must take PSY:1001 for the first time after completing another psychology course with a higher number, the student may do so.

The BA with a major in psychology requires the following courses or their equivalents.

Requirements	Hours
Psychology Core	6
Lower-Level Psychology Requirements	19
Upper-Level Psychology Electives	9
Cognate Requirement	3-4
Second Concentration Area Courses	9

Psychology Core

All students complete the following coursework for the psychology core.

Course #	Title	Hours
Both of these:		
PSY:1001	Elementary Psychology	3
PSY:2811	Research Methods and Data Analysis in Psychology I	3

Lower-Level Psychology Requirements

Students take these courses after completing PSY:1001 Elementary Psychology.

Course #	Title	Hours
All of these:		
PSY:2301	Introduction to Clinical Psychology	3
PSY:2401	Introduction to Developmental Science	3
PSY:2501	Introduction to Social Psychology	3
PSY:2601	Introduction to Cognitive Psychology	3
PSY:2701	Introduction to Behavioral Neuroscience	4
PSY:2812	Research Methods and Data Analysis in Psychology II	3

Upper-Level Psychology Electives

Students take three advanced psychology courses (total of 9 s.h.) after satisfactorily completing the psychology core and other specified prerequisites. Psychology courses (prefix PSY) numbered 3000 or above may be used to fulfill this requirement, except those in the following list.

Course #	Title	Hours
PSY:3994	Research Practicum in Psychology	arr.
PSY:3995	Advanced Research Practicum	1-3
PSY:3996	External Practicum in Psychology	1-3
PSY:3997	Teaching/Advising Practicum in Psychology	1-3
PSY:3998	Individual Readings and Projects	1-3
PSY:3999/ BIOL:3999	Independent Research in Neuroscience	2-3
PSY:4020	Laboratory in Psychology	4
PSY:4025	Laboratory in Cognitive Neuroscience	4
PSY:4035	Laboratory in Computational Neuroscience	4
PSY:4090	Psychology Seminar	3
PSY:4990	Honors Thesis Research	1-3
PSY:4995/ BIOL:4995	Honors Research in Neuroscience	arr.

Additional Requirements

Cognate Requirement

Students complete one of the following math, statistics, or computer science courses.

Course #	Title	Hours
Statistics		
BIOS:4120	Introduction to Biostatistics	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:3510/ IGPI:3510	Biostatistics	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3
Computer Science		
CS:1020	Principles of Computing	3
CS:1110	Introduction to Computer Science	3
CS:1210	Computer Science I: Fundamentals	4
Mathematics		
MATH:1860	Calculus II	4
MATH:2700	Introduction to Linear Algebra	4

Second Concentration Area

Students complete 9 s.h. of graded coursework in a single department other than the Department of Psychological and Brain Sciences. Courses used to fulfill this requirement must be taken at the University of Iowa and may not be used to fulfill GE CLAS Core requirements. A second major or a minor may be used to fulfill the requirement.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students majoring in psychology have the opportunity to graduate with honors in the major. They must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a minimum GPA of 3.50 in the major.

There are two routes for honors in the major, one of which involves a thesis project as a capstone. For students who pursue honors without a thesis, other experiences constitute the capstone. Both routes include extra coursework. Interested students are encouraged to read Honors in Psychology on the department's website.

National Honor Society

The department sponsors a chapter of Psi Chi, the national honor society in psychology and an affiliate of the American Psychological Association. Students who have a GPA of at least 3.00 overall and in psychology coursework and who have completed 9 s.h. of psychology courses may request a membership application form. Consult the department's academic coordinator for more information.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the

University of Iowa Honors Program. Visit Honors at Iowa to learn about the University's honors program.

Membership in the UI Honors Program is not required to earn honors in the psychology major.

Combined Programs

BA/MPH (Community and Behavioral Health Subprogram)

Bachelor of Arts students majoring in psychology who are interested in earning a Master of Public Health degree with a community and behavioral health subprogram may apply to the combined BA/MPH program offered by the College of Liberal Arts and Sciences and the College of Public Health. The program permits students to count 12 s.h. of credit toward the requirements for both degrees, enabling them to begin the study of public health before they complete the bachelor's degree. For information about the public health program, see Community and Behavioral Health Subprogram [p. 2093] in the Master of Public Health, MPH section of the catalog.

Admission

Admission to the psychology major is open; any University of Iowa undergraduate student may enter the BA program.

Entering first-year and transfer students who have completed less than 30 s.h. of coursework and are interested in entering the BS program are admitted to the BA program until they satisfy the admission requirements for the BS program. New transfer students who meet the admission requirements for the BS program may choose to enter the BS or the BA program.

Students in the BA program may switch to the BS program if they meet admission requirements at the time of the request. Students may switch from the BS to the BA program at any time.

Career Advancement

The major in psychology is designed to contribute to students' general liberal arts and sciences education and to provide a foundation for postbaccalaureate training in psychology and closely related disciplines as well as in areas such as business, law, communication, medicine, and the allied health sciences.

Undergraduate psychology students who do not intend to enroll in graduate school immediately after earning their bachelor’s degree frequently earn a second major in a discipline that has broad opportunities for employment, such as education, social work, business, journalism, or nursing.

Learn more about careers in psychology at the American Psychological Association website.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the University's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

In addition to courses in psychology, the BA requires three graded courses in a second concentration area.

Before the third semester begins: PSY:1001 Elementary Psychology.

Before the fifth semester begins: PSY:2811 Research Methods and Data Analysis in Psychology I and one or more lower-level psychology requirements.

Before the seventh semester begins: four courses in the major (including PSY:2701 Introduction to Behavioral Neuroscience and PSY:2812 Research Methods and Data Analysis in Psychology II), one course in the second concentration area, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two additional courses in the major and an additional course in the second concentration area.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Psychology, BA

Course	Title	Hours
Academic Career		
Any Semester		
Students are strongly encouraged to complete internships, practicums, and other experiential learning; PSY:3994 Research Practicum in Psychology is required if planning to complete a PhD in psychology.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
PSY:1001	Elementary Psychology [b]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**14-16**
Spring		
PSY:2501 or PSY:2401	Introduction to Social Psychology [e] or Introduction to Developmental Science	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4

GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
Elective course (or exploratory course for major second concentration area) [f]		3
	Hours	**16-18**
Second Year		
Fall		
PSY:2501 or PSY:2401	Introduction to Social Psychology [e] or Introduction to Developmental Science	3
PSY:2811	Research Methods and Data Analysis in Psychology I	3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
Elective course [f]		2 - 3
	Hours	**15-17**
Spring		
PSY:2301	Introduction to Clinical Psychology [e]	3
PSY:2812	Research Methods and Data Analysis in Psychology II	3
GE CLAS Core: Natural Sciences with Lab (BIOL:1140 Human Biology: Nonmajors recommended but not required) [c]		4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [f]		3
	Hours	**17-18**
Third Year		
Fall		
PSY:2601	Introduction to Cognitive Psychology [e]	3
PSY:2701	Introduction to Behavioral Neuroscience	4
Major: second concentration area course [g]		3
GE CLAS Core: Values and Society [c]		3
Elective course [f]		3
	Hours	**16**
Spring		
Major: cognate requirement course [h]		3 - 4
Major: second concentration area course [g]		3
Major: upper-level psychology course (prefix PSY, numbered 3000 or above) [i]		3
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: Natural Sciences without Lab [c]		3
	Hours	**15-16**
Fourth Year		
Fall		
Major: upper-level psychology course (prefix PSY, numbered 3000 or above) [i]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Spring		
Major: second concentration area course [g]		3
Major: upper-level psychology course (prefix PSY, numbered 3000 or above) [i]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**123-131**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e PSY:2301, PSY:2401, PSY:2501, and PSY:2601 may be completed in any order.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Students complete 9 s.h. of graded coursework in a single department other than the Department of Psychological and Brain Sciences. Courses used to fulfill this requirement must be taken at the University of Iowa and may not be used to fulfill GE CLAS Core requirements. A second major or a minor may be used to fulfill the requirement.

h See the General Catalog for list of approved courses.

i Students take three advanced psychology courses (total of 9 s.h.) after satisfactorily completing the psychology core and other specified prerequisites. See the General Catalog for list of courses that do not count toward this requirement.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Psychology, BS

An undergraduate degree in psychology provides students with skills that are relevant to many career paths. The major in psychology is designed to contribute to students' general liberal arts and sciences education and to provide a foundation for postbaccalaureate training in psychology and closely related disciplines as well as in areas such as business, law, communication, medicine, and the allied health sciences. Students who intend to enter the job market immediately after graduation should complement their psychology major with substantial preparation in another program more closely tied to their area of interest (e.g., education, social work, business, journalism, nursing). Almost all vocational opportunities in psychology require advanced degrees.

The Bachelor of Science (BS) degree is intended for students who plan to pursue advanced work in psychology or in a related discipline. It requires a specific grade-point average for admission and certain courses in experimental psychology, mathematics, and natural science. The program leaves time for students to supplement the psychology major with another program of study.

Students who change to a psychology major after two years of undergraduate work may find they do not have sufficient background for the BS program.

Students begin with a general introductory course, followed by methodology and data analysis courses, and introductory courses in several broad areas: behavioral neuroscience, developmental science, clinical psychology, cognitive psychology, and social psychology. These courses are followed by upper-level psychology courses selected by each student. For additional information regarding the undergraduate major and career information, visit Undergraduate Programs on the Department of Psychological and Brain Sciences website.

The department maintains excellent facilities to support teaching and research on human and animal behavior. All faculty members are directly engaged in research, and they bring to their undergraduate teaching the excitement that such activity generates. Many opportunities exist for interested and capable students to participate in current research projects in the department.

The department has an active undergraduate organization, Psi Chi + Psych Iowa. The group sponsors speakers, films, career days, and student symposia. The Psi Chi portion is an honors society, whereas the Psych Iowa portion is open to any interested UI undergraduate student.

Learning Outcomes

The learning outcomes for students in the Department of Psychological and Brain Sciences align with several of the learning goals from the American Psychological Association's guidelines for undergraduate psychology education. These learning outcomes expand and deepen students' foundational knowledge obtained through the GE CLAS Core [p. 22] program.

Psychology majors will:

- understand psychology as an empirical science;
- graduate with a knowledge base in psychology, including an understanding of the major principles and theories in the field's main content areas;
- have learned how to use scientific reasoning to understand psychological phenomena and how to interpret and conduct psychological research; and
- be able to apply their knowledge of psychology to real-world situations and recognize the importance of ethical standards and diversity in psychology.

Requirements

The Bachelor of Science with a major in psychology requires a minimum of 120 s.h., including 54–56 s.h. of work for the major, with at least 41 s.h. in psychology courses. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Transfer credits must be approved by the department, and transfer students must complete at least 18 s.h. of psychology courses at the University of Iowa.

The major for the BS emphasizes research methodology, so the BS may be the degree of choice for students who plan to do graduate work in psychology and related research fields. However, a Bachelor of Science is not required for graduate study in psychology. Choice of a degree program should be dictated by a student's personal career goals.

BA and BS students complete the same psychology core and psychology electives. The major for the BS also requires additional psychology topics courses and natural science courses plus mathematics, statistics, or computer science courses. Unlike the BA, there is no second area course requirement.

Students are advised to take PSY:1001 Elementary Psychology as the first course in the major; however, if a student must take PSY:1001 for the first time after completing another psychology course with a higher number, the student may do so.

The BS with a major in psychology requires the following courses or their equivalents.

Requirements	Hours
Psychology Core	6
Lower-Level Psychology Requirements	19
Upper-Level Psychology Electives	9
Psychology Topics Courses	7
Natural Sciences Courses	7
Mathematics, Statistics, or Computer Science Courses	6-8

Psychology Core

All students complete the following coursework for the psychology core.

Course #	Title	Hours
Both of these:		
PSY:1001	Elementary Psychology	3
PSY:2811	Research Methods and Data Analysis in Psychology I	3

Lower-Level Psychology Requirements

Students take these courses after completing PSY:1001 Elementary Psychology.

Course #	Title	Hours
All of these:		
PSY:2301	Introduction to Clinical Psychology	3
PSY:2401	Introduction to Developmental Science	3
PSY:2501	Introduction to Social Psychology	3
PSY:2601	Introduction to Cognitive Psychology	3
PSY:2701	Introduction to Behavioral Neuroscience	4
PSY:2812	Research Methods and Data Analysis in Psychology II	3

Upper-Level Psychology Electives

Students take three advanced psychology courses (total of 9 s.h.) after satisfactorily completing the psychology core and other specified prerequisites. Psychology courses (prefix PSY) numbered 3000 or above may be used to fulfill this requirement, except those in the following list.

Course #	Title	Hours
PSY:3994	Research Practicum in Psychology	arr.
PSY:3995	Advanced Research Practicum	1-3
PSY:3996	External Practicum in Psychology	1-3
PSY:3997	Teaching/Advising Practicum in Psychology	1-3
PSY:3998	Individual Readings and Projects	1-3
PSY:3999/ BIOL:3999	Independent Research in Neuroscience	2-3
PSY:4020	Laboratory in Psychology	4
PSY:4025	Laboratory in Cognitive Neuroscience	4
PSY:4035	Laboratory in Computational Neuroscience	4
PSY:4090	Psychology Seminar	3
PSY:4990	Honors Thesis Research	1-3
PSY:4995/ BIOL:4995	Honors Research in Neuroscience	arr.

Additional Requirements

Psychology Topics Courses

Course #	Title	Hours
Both of these:		
PSY:4020	Laboratory in Psychology	4
PSY:4090	Psychology Seminar	3

Natural Science Courses

Course #	Title	Hours
At least 7 s.h. from these:		
BIOL:1140	Human Biology: Nonmajors	4
BIOL:1141	Human Biology: Health Professions	4
BIOL:1411	Foundations of Biology	4
BIOL:2120	Good Genes Gone Bad: Genetic Disorders of Notable Celebrities	3
BIOL:2512	Fundamental Genetics	4
CHEM:1070	General Chemistry I	3
CHEM:1080	General Chemistry II	3
CHEM:1090	Supplemental Chemistry Lab	1
CHEM:1110	Principles of Chemistry I	4
CHEM:1120	Principles of Chemistry II	4
CHEM:1160	Principles of Chemistry Lab	2
CSD:2111	Basic Acoustics for Speech and Hearing	3
CSD:3112	Anatomy and Physiology of Speech Production	4
CSD:3113	Introduction to Hearing Science	4
CSD:3116/ LING:3116	Basic Neuroscience for Speech and Hearing	3
HHP:1400	Human Anatomy and Physiology	3
PHYS:1400	Basic Physics	3-4
PHYS:1409	Basic Physics Lab	1
PHYS:1410	Physics of Sound	3-4
PHYS:1511	College Physics I	4
PHYS:1512	College Physics II	4
PHYS:1611	Introductory Physics I	4
PHYS:1612	Introductory Physics II	4
PHYS:1619	Introductory Physics II Lab	1

Mathematics, Statistics, or Computer Science Courses

Course #	Title	Hours
At least two courses from these:		
BIOS:4120	Introduction to Biostatistics	3
CS:1210	Computer Science I: Fundamentals	4
CS:2110	Programming for Informatics	4
CS:2230	Computer Science II: Data Structures	4
CS:2520	Human-Computer Interaction for Informatics	3
MATH:1350	Quantitative Reasoning for Business	4
MATH:1440	Mathematics for the Biological Sciences	4
MATH:1460	Calculus for the Biological Sciences	4
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4
MATH:1860	Calculus II	4
MATH:2700	Introduction to Linear Algebra	4
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:2010	Statistical Methods and Computing	3
STAT:3200/ DATA:3200/ IGPI:3200/ISE:3760	Applied Linear Regression	3

STAT:3210	Experimental Design and Analysis	3
STAT:3510/ IGPI:3510	Biostatistics	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students majoring in psychology have the opportunity to graduate with honors in the major. They must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a minimum GPA of 3.50 in the major.

There are two routes for honors in the major, one of which involves a thesis project as a capstone. For students who pursue honors without a thesis, other experiences constitute the capstone. Both routes include extra coursework. Interested students are encouraged to read Honors in Psychology on the department's website.

National Honor Society

The department sponsors a chapter of Psi Chi, the national honor society in psychology and an affiliate of the American Psychological Association. Students who have a GPA of at least 3.00 overall and in psychology coursework and who have completed 9 s.h. of psychology courses may request a membership application form. Consult the department's academic coordinator for more information.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the psychology major.

Admission

Admission to the major is selective. To be eligible for admission to the BS program, students must have completed 30 s.h. of college coursework (excluding any credit by exam) and must have a cumulative grade-point average of 2.67 or higher. There is no limit on the number of qualified students admitted to the BS program. Students who do not meet the minimum admission requirements may petition the department in writing, presenting additional evidence of their qualifications.

Entering first-year and transfer students who have completed less than 30 s.h. of coursework and are interested in entering the BS program are admitted to the BA program until they satisfy the admission requirements for the BS program. New transfer students who meet the admission requirements for the BS program may choose to enter the BS or the BA program.

Students in the BA program may switch to the BS program if they meet admission requirements at the time of the request. Students may switch from the BS to the BA program at any time.

Career Advancement

The major in psychology is designed to contribute to students' general liberal arts and sciences education and to provide a foundation for postbaccalaureate training in psychology and closely related disciplines as well as areas such as business, law, communication, medicine, and the allied health sciences.

Undergraduate psychology students who do not intend to enroll in graduate school immediately after earning their bachelor’s degree frequently earn a second major in a discipline that has broad opportunities for employment, such as education, social work, business, journalism, or nursing.

Learn more about careers in psychology at the American Psychological Association website.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

The psychology major for the BS is open only to students who have earned 30 s.h. and have a grade-point average of at least 2.67. Students complete 7 s.h. of natural science coursework, either as part of the GE CLAS Core [p. 22] or in addition to it. Students must also complete two quantitative and formal reasoning courses which may require some preliminary work.

Before the third semester begins: PSY:1001 Elementary Psychology and one additional course in the major.

Before the fifth semester begins: one course for the department’s quantitative and formal reasoning requirement and three additional courses in the major, including PSY:2811 Research Methods and Data Analysis in Psychology I and PSY:2812 Research Methods and Data Analysis in Psychology II.

Before the seventh semester begins: two more courses in the major, one course for the major's natural science requirement, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: second course for the department’s quantitative and formal reasoning requirement and two more courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Psychology, BS

Course	Title	Hours
Academic Career		
Any Semester		
Students are strongly encouraged to complete internships, practicums, and other experiential learning; PSY:3994 Research Practicum in Psychology is required if planning to complete a PhD in psychology.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
PSY:1001	Elementary Psychology [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**14-16**
Spring		
PSY:2501 or PSY:2401	Introduction to Social Psychology [e] or Introduction to Developmental Science	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
Elective course [f]		3
Elective course [f]		3
	Hours	**16-18**
Second Year		
Fall		
PSY:2501 or PSY:2401	Introduction to Social Psychology [e] or Introduction to Developmental Science	3
PSY:2811	Research Methods and Data Analysis in Psychology I	3
GE: Natural Sciences without Lab [b, c, g]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
Elective course [f]		2 - 3
	Hours	**15-17**
Spring		
PSY:2301	Introduction to Clinical Psychology [e]	3
PSY:2812	Research Methods and Data Analysis in Psychology II	3
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [f]		3
	Hours	**16-17**
Third Year		
Fall		
PSY:2601	Introduction to Cognitive Psychology [e]	3
PSY:2701	Introduction to Behavioral Neuroscience	4
GE CLAS Core: Values and Society [c]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**16**
Spring		
Major: upper-level psychology course (prefix PSY, numbered 3000 or above) [h]		3
Major: first mathematics, statistics, or computer science course [i, j]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: Natural Sciences with Lab [b, c, g]		4
Elective course [f]		2 - 3
	Hours	**15-17**
Fourth Year		
Fall		
PSY:4020	Laboratory in Psychology	4
Major: upper-level psychology course (prefix PSY, numbered 3000 or above) [h]		3
GE CLAS Core: International and Global Issues [c]		3
Elective course [f]		3
Elective course [f]		2
	Hours	**15**
Spring		
PSY:4090	Psychology Seminar	3
Major: upper-level psychology course (prefix PSY, numbered 3000 or above) [h]		3
Major: second mathematics, statistics, or computer science course [i, j]		3 - 4
Elective course [f]		3
Elective course [f]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**14-15**
	Total Hours	**121-131**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students

should consult with an advisor about the best sequencing of courses.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e PSY:2301, PSY:2401, PSY:2501, and PSY:2601 may be completed in any order.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Choose from an approved list to meet Psychology BS major requirements.

h Students take three advanced psychology courses (total of 9 s.h.) after satisfactorily completing the psychology core and other specified prerequisites. See the General Catalog for list of courses that do not count toward this requirement.

i See the General Catalog for list of approved courses.

j Enrollment in math courses requires completion of a placement exam.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Psychology, Minor

Requirements

The undergraduate minor in psychology requires a minimum of 15 s.h. of psychology courses (prefix PSY), including 12 s.h. taken at the University of Iowa. Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass or satisfactory/fail. Before registering for a psychology course, students must complete the course's prerequisites. No credit from practicum coursework can be applied to the minor. Only one course can be "double counted" for the psychology minor and neuroscience major (i.e., neuroscience majors must complete four psychology classes not included as part of their neuroscience BS).

A minor in psychology complements majors in a variety of disciplines. Department advisors can help students identify courses for the minor that are especially appropriate for their major.

Psychology, MA

Graduate study in psychology is designed for students seeking the PhD. Students enrolled in the doctoral program may elect to receive a Master of Arts (MA) when they have completed the necessary requirements.

Learning Outcomes

Students will:

- develop skills to design and carry out independent and team-based research projects;
- develop an understanding of multiple statistical techniques to support independent data analysis skills;
- develop skills to effectively communicate research results to a range of audiences in both written and oral formats;
- develop the capability to independently teach a course; and
- follow the highest ethical standards when conducting research and communicating results.

Requirements

The graduate program in psychology is primarily a PhD program. The program does not admit students who have a terminal master's degree in psychology as their objective. Students in good standing in the psychology PhD program may elect to receive a master’s degree at the end of the second year. Additionally, students who are terminated from the PhD program may elect to switch to the MA program. In both cases, the degree is an MA without thesis.

The Master of Arts without thesis program in psychology requires 37 s.h. of graduate credit. Students must maintain a cumulative and program grade-point average of at least 3.00 to earn the degree. Each student must satisfy a portion of the course requirements of the PhD program. The MA requirements are organized around training areas. For the MA, the student must have completed the coursework that would normally be expected by that point in the program, according to the training area’s required/recommended coursework (see the graduate handbook on the department's website). Exceptions must be approved by the area coordinator and director of graduate studies. Each student must have an advisor (a member of the department faculty who has agreed to advise and sponsor the student) at all times.

Students must earn 30 of the required 37 s.h. at the University of Iowa. Coursework for the MA nonthesis program must include at least 15 s.h. earned in Department of Psychological and Brain Sciences courses and seminars, or in courses and seminars that meet area-specific requirements for one of the training areas. The MA without thesis does not require a final exam.

Graduate Training Areas

Behavioral and Cognitive Neuroscience

The program in behavioral and cognitive neuroscience focuses on the analysis of learning, memory, attention, motivation, aging, sensory processing, and sleep, in both human and nonhuman subjects, through the application of behavioral and biological principles. Special faculty strengths are in the neurobiology of learning and memory, cognitive neuroscience, motivation and emotion, developmental psychobiology, comparative psychology, neuropharmacology, neuroendocrinology, and neuroanatomy. Students in this program have the opportunity to learn state-of-the-art techniques in computer-controlled experimentation and electronic instrumentation as well as advanced analytic and laboratory methods in neurophysiology, nonhuman neurosurgery, histology, neuroimaging, and assays of biochemical activity.

Faculty members in the behavioral and cognitive neuroscience area interact extensively with colleagues in other divisions in the department, in the Iowa Neuroscience Institute, and in many basic science and clinical departments in the Carver College of Medicine, including anatomy and cell biology, otolaryngology—head and neck surgery, pharmacology, internal medicine, pediatrics, psychiatry, and neurology. These collaborative activities provide excellent research and training opportunities for students interested in emerging interdisciplinary fields.

Clinical Science

The clinical science training program emphasizes a scientific approach to the understanding of psychological disorders and the influence of psychological factors on human relationships and health. The program is accredited by the Psychological Clinical Science Accreditation System (PCSAS), has been continuously accredited by the Commission on Accreditation of the American Psychological Association since 1948, and is a charter member of the Academy for Psychological Clinical Science.

The program is designed for students who are interested primarily in helping to advance scientific understanding of clinical phenomena and in acquiring the research skills necessary to do so. Faculty members and students have active research collaborations with colleagues from many departments in the university's Carver College of Medicine and College of Public Health and at the VA Iowa City Health Care. Many of the program's faculty members conduct externally funded research programs that use cutting-edge behavioral science to develop an improved understanding of mechanisms, processes, and interventions for mental disorders. Faculty members have strong training records, and the program's graduates have gone on to top-tier research, teaching, and clinical service positions.

The clinical psychology program provides first-hand clinical experience and opportunities to develop clinical competence that are integral to clinical research. It closely integrates practicum experience in the Seashore Psychology Clinic with coursework and supervised research experience. Advanced students have opportunities to gain additional clinical experience through placement in the Benton Neuropsychology Clinic, Women’s Wellness and Counseling Service, adult and child psychiatry clinics, the Iowa City VA Health Care System, and other venues.

Cognition

The cognition training area is guided by the philosophy that understanding cognitive processes requires an understanding of how they develop and interact with other cognitive processes. In this pursuit, the area strives for empirical and theoretical rigor.

The area's laboratories have overlapping research domains, so most topics are studied by multiple laboratories with multiple methodologies. Areas of strength include categorization, computational modeling, cognitive control, cognitive development, language and language learning, learning and memory, visual cognition, attention, and working memory.

Students in cognition take basic courses and seminars in specialty areas, but they devote most of their time to research activities. Students work closely with a faculty mentor at first and then become progressively independent as they gain knowledge and skills. The program encourages students to work with more than one faculty member, both in the program and across the department and the university. Students often combine basic work on cognition with work in areas such as neuroscience, neuropsychology, psychiatry, educational psychology, and human factors engineering.

Individualized Graduate Training Option

The purpose of the individualized graduate training option is to provide flexibility to graduate students who want to pursue a specialized course of study that does not easily fit within the other three graduate training areas. This training option may also be appropriate for students who have strong interdisciplinary research interests involving coursework in other departments. Students can choose the individualized training option when applying to the PhD program or may petition the committee on graduate studies to switch to the individualized option after beginning the PhD program. Oversight of students in the individualized training option is provided by the student's research advisory committee, the director of graduate studies, and the committee on graduate studies.

Admission

Since the graduate program in psychology is designed primarily for students seeking the PhD, all applicants are considered on that basis.

The application deadline is Dec. 1. Applications may be submitted at any time but are considered only once each year—between Dec. 1 and Feb. 1—for admission the following fall. Admission decisions are based on a composite consideration of prior academic and research performance, letters of reference, and an applicant's statement about background and purpose. Admission materials are reviewed initially by faculty members in the applicant's primary training area.

An undergraduate major in psychology—including a laboratory course in experimental psychology, a course in statistics, and additional work in the natural sciences and in mathematics—is desirable but not required. Students who have not had such a background but are strongly qualified on other grounds may be admitted. They may be asked to remedy deficiencies in background work with certain courses or independent study before embarking on the regular graduate program.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Students who pursue a master’s degree in psychology have many opportunities to teach psychology in community colleges or high schools or to find employment in a business, school, or hospital.

Learn more about careers in psychology at the American Psychological Association website.

Psychology, PhD

Graduate study in psychology is designed for students seeking the PhD. Students enrolled in the doctoral program may elect to receive a Master of Arts (MA) when they have completed the necessary requirements.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Students will:

- develop skills to design and carry out independent and team-based research projects;
- develop an understanding of multiple statistical techniques to support independent data analysis skills;
- develop skills to effectively communicate research results to a range of audiences in both written and oral formats;
- develop the capability to independently teach a course; and
- follow the highest ethical standards when conducting research and communicating results.

Requirements

The Doctor of Philosophy program in psychology requires a minimum of 72 s.h. of graduate credit. Students must maintain a cumulative and program grade-point average of at least 3.00 to earn the degree. The 72 s.h. required for the PhD includes at least 33 s.h. in the Department of Psychological and Brain Sciences. All students must satisfy, through one of several options, requirements in statistics and research methods. Those entering without previous graduate work usually require at least five years to complete the program; those entering with previous graduate training may require less, depending on the nature of the earlier preparation.

The PhD program places a strong emphasis on preparation for research, teaching, and other scholarly endeavors, whether in academic settings or in industrial, governmental, or medical institutions. The intent is to produce graduates who are deeply committed to the study of psychology, familiar with fundamental knowledge about psychological processes, well trained in the methods and techniques for careful investigation of basic and applied problems, and determined to make contributions to the discipline of psychology and society.

Graduate training is organized in three broad areas: behavioral and cognitive neuroscience, clinical science, and cognition. The department also offers an individualized graduate training option that allows students to design their own course of study. Within and across those areas, graduate training may be guided by additional organizing themes such as developmental science, developmental psychopathology, visual perception, health psychology, and social psychology. Entering students are expected to identify one of the three broad areas as their primary area and to follow a specific program that develops a thorough understanding of the substantive material and methods of investigation central to that subdiscipline, combined with the student's specific research goals. Regardless of specialty training, all students must meet course requirements in statistics and research methods, and they are expected to take courses in content areas other than their primary one. The training area programs are sufficiently flexible to permit students to develop substantial competence in a second training area.

During each of the first two semesters, graduate students ordinarily take two or three courses—for example, a statistics course, a course or two in the primary training area, and/or an outside area elective. Students also begin their research under the supervision of their advisor and with the guidance of their research advisory committee.

Near the end of the fall semester of the second year, students submit a report describing their research to date. At the beginning of the following semester, they present their research at the annual graduate research symposium.

During subsequent years, students continue selected coursework in their training and interest areas and continue to develop their research programs. In addition, they develop a prospectus for the dissertation research and take the comprehensive examination, which covers material in the specialty area. The final year is devoted primarily to conducting the PhD study and writing the dissertation. In the PhD final examination, students present an oral defense of their dissertation and are expected to relate the dissertation work to broader issues in the discipline of psychology.

Graduate Training Areas

Behavioral and Cognitive Neuroscience

The program in behavioral and cognitive neuroscience focuses on the analysis of learning, memory, attention, motivation, aging, sensory processing, and sleep, in both human and nonhuman subjects, through the application of behavioral and biological principles. Special faculty strengths are in the neurobiology of learning and memory, cognitive neuroscience, motivation and emotion, developmental psychobiology, comparative psychology, neuropharmacology, neuroendocrinology, and neuroanatomy. Students in this program have the opportunity to learn state-of-the-art techniques in computer-controlled experimentation and electronic instrumentation as well as advanced analytic and laboratory methods in neurophysiology, nonhuman neurosurgery, histology, neuroimaging, and assays of biochemical activity.

Faculty members in the behavioral and cognitive neuroscience area interact extensively with colleagues in other divisions in the department, in the Iowa Neuroscience Institute, and in many basic science and clinical departments in the Carver College of Medicine, including anatomy and cell biology, otolaryngology—head and neck surgery, pharmacology, internal medicine, pediatrics, psychiatry, and neurology. These collaborative activities provide excellent research and training opportunities for students interested in emerging interdisciplinary fields.

Clinical Science

The clinical science training program emphasizes a scientific approach to the understanding of psychological disorders and the influence of psychological factors on human relationships and health. The program is accredited by the Psychological Clinical Science Accreditation System (PCSAS), has been continuously accredited by the Commission on Accreditation of the American Psychological Association since 1948, and is a charter member of the Academy for Psychological Clinical Science.

The program is designed for students who are interested primarily in helping to advance scientific understanding of clinical phenomena and in acquiring the research skills necessary to do so. Faculty members and students have active research collaborations with colleagues from many departments in the university's Carver College of Medicine and College of Public Health and at the VA Iowa City Health Care. Many of the program's faculty members conduct externally funded research programs that use cutting-edge behavioral science to develop an improved understanding of mechanisms, processes, and interventions for mental disorders. Faculty members have strong training records, and the program's graduates have gone on to top-tier research, teaching, and clinical service positions.

The clinical psychology program provides first-hand clinical experience and opportunities to develop clinical competence that are integral to clinical research. It closely integrates practicum experience in the Seashore Psychology Clinic with coursework and supervised research experience. Advanced students have opportunities to gain additional clinical experience through placement in the Benton Neuropsychology Clinic, Women’s Wellness and Counseling Service, adult and child psychiatry clinics, the VA Iowa City Health Care, and other venues. After five to six years of on-campus work, including completion of all coursework and most of the dissertation, students serve a one-year internship at an approved site.

Cognition

The cognition training area is guided by the philosophy that understanding cognitive processes requires an understanding of how they develop and interact with other cognitive processes. In this pursuit, the area strives for empirical and theoretical rigor.

The area's laboratories have overlapping research domains, so most topics are studied by multiple laboratories with multiple methodologies. Areas of strength include categorization, computational modeling, cognitive control, cognitive development, language and language learning, learning and memory, visual cognition, attention, and working memory.

Students in cognition take basic courses and seminars in specialty areas, but they devote most of their time to research activities. Students work closely with a faculty mentor at first and then become progressively independent as they gain knowledge and skills. The program encourages students to work with more than one faculty member, both in the program and across the department and the university. Students often combine basic work on cognition with work in areas such as neuroscience, neuropsychology, psychiatry, educational psychology, and human factors engineering.

Individualized Graduate Training Option

The purpose of the individualized graduate training option is to provide flexibility to graduate students who want to pursue a specialized course of study that does not easily fit within the other three graduate training areas. This training option may also be appropriate for students who have strong interdisciplinary research interests involving coursework in other departments. Students can choose the individualized training option when applying to the PhD program or may petition the committee on graduate studies to switch to the individualized option after beginning the PhD program. Oversight of students in the individualized training option is provided by the student's research advisory committee, the director of graduate studies, and the committee on graduate studies.

Admission

Since the graduate program in psychology is designed primarily for students seeking the PhD, all applicants are considered on that basis.

The application deadline is Dec. 1. Applications may be submitted at any time but are considered only once each year—between Dec. 1 and Feb. 1—for admission the following fall. Admission decisions are based on a composite consideration of prior academic and research performance, letters of reference, and the applicant's statement about background and purpose. Admission materials are reviewed initially by faculty members in the applicant's primary training area.

An undergraduate major in psychology—including a laboratory course in experimental psychology, a course in statistics, and additional work in the natural sciences and in mathematics—is desirable but not required. Students who have not had such a background but are strongly qualified on other grounds may be admitted. They may be asked to remedy deficiencies in background work with certain courses or independent study before embarking on the regular graduate program.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Learn more about careers in psychology at the American Psychological Association website.

Religious Studies

Chair

- Paul C. Dilley

Undergraduate major: religious studies (BA)

Undergraduate minor: religious studies

Graduate degrees: MA in religious studies; PhD in religious studies

Faculty: https://religiousstudies.uiowa.edu/people/faculty

Website: https://religiousstudies.uiowa.edu/

Religious studies is an invaluable aspect of a liberal arts education, whether students take select courses or aim for a degree. The Department of Religious Studies helps students gain competency in global religious diversity, which is essential for successful interactions with others in daily life and in the modern workplace, at home or abroad.

Students in religious studies courses develop a critical understanding of the important role of religious diversity and change in the world we inhabit. Students learn to analyze religion's profound influences on people and societies around the world. Religious studies courses also investigate religions' complex relationships with social justice, especially related to matters of race, class, and gender.

The broad geographical range of religious studies courses enables students to better understand global events, as they unlock religious wisdom and understanding of the past and present from the United States, Asia, Europe, and Africa. The faculty encourages a multidisciplinary inquiry into religious ideas, experiences, philosophies, cultural expressions, and social movements.

Religious studies courses further help students hone their essential analytical writing and reading skills while gaining cross-cultural communication strategies and new ways to critically analyze historical and current events. Many of the departmental courses (prefix RELS) are approved for the GE CLAS Core [p. 22].

Employers in private industry, government, education, law, public policy, social work, the nonprofit sector, entertainment, and journalism value the ability of religious studies students to research and analyze pressing problems and social and political behavior, and to express significant ideas with clarity and sensitivity.

Faculty and students in the department participate in many of the university's interdisciplinary departments and programs, including the departments of American Studies; Classics; Communication Studies; Gender, Women's, and Sexuality Studies; and History; and the African American Studies and Latina/o/x Studies programs.

The Department of Religious Studies has a commitment to diversity including race, gender identity, sexual orientation, class, religion, national origin, disability, and veteran status.

Community Engagement

In addition to the many courses the department offers, faculty and students often participate in a variety of programming activities each semester. The department regularly organizes lectures on important themes such as race and religion, indigenous religion, and human rights.

Programs

Undergraduate Programs of Study

Major

- Major in Religious Studies (Bachelor of Arts) [p. 974]

Minors

- Minor in Religious Studies [p. 978]

Graduate Programs of Study

- Master of Arts in Religious Studies [p. 980]
- Doctor of Philosophy in Religious Studies [p. 983]

Courses

Religious Studies Courses

RELS:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

RELS:1001 Judaism, Christianity, and Islam **3 s.h.**
Introduction to sacred literature, beliefs, and rituals of Judaism, Christianity, and Islam; historical and contemporary relationship between these three Abrahamic religions. GE: Historical Perspectives.

RELS:1015 Global Religious Conflict and Diversity **3 s.h.**
Origins, evolution, and history of indigenous and global religions; role of religion in causing conflict, promoting peace, and/or mitigating effects of conflicts; religious, cultural, and institutional systems, conceptual and otherwise, that produce and/or manage violence, peace, and social change. GE: Understanding Cultural Perspectives.

RELS:1041 African American Religion and Popular Culture **3 s.h.**
Examination of the role African American religions play in shaping 20th century and contemporary popular culture in the United States; students explore recent histories of Black Christianity, American Islam, and African diaspora religions; gender and race; cultural production in hip hop, jazz, rhythm and blues, literature, poetry, film, sports, cuisine, visual art, and style. Same as AFAM:1041.

RELS:1050 Big Ideas: Introduction to Information, Society, and Culture **3 s.h.**
What is information? What does it teach us about societies and cultures? How is information used to shape societies and even personal preferences? What types of information are there and how can we understand and use them? Students work with faculty from multiple disciplines to investigate these questions using inquiry-based activities to build success in critical thinking and teamwork. GE: Quantitative or Formal Reasoning. Same as POLI:1050.

RELS:1070 Introduction to the Hebrew Bible/Old Testament **3 s.h.**
History, religion, and thought of ancient Jews as recorded in their scripture. GE: Values and Society.

RELS:1080 Introduction to the New Testament **3 s.h.**
History, religion, and thought of early Christians as recorded in the New Testament. GE: Values and Society.

RELS:1130 Introduction to Islamic Civilization 3 s.h.
Survey of texts, ideas, events, institutions, geography, communities, literature, arts, sciences, and cultures in Islamic communities and societies since the 7th century. GE: International and Global Issues. Same as HIST:1030.

RELS:1225 Medieval Religion and Culture 3 s.h.
Religion in Europe from classical antiquity to dawn of the Reformation; the religious element in traditions such as art, architecture, literature. GE: Historical Perspectives. Same as HIST:1025.

RELS:1250 Modern Religion and Culture 3 s.h.
European and American religious life from Renaissance to 21st century; focus on specific themes, such as secularism, regionalism, pluralism. GE: Historical Perspectives. Same as HIST:1050.

RELS:1350 Introduction to African American Religions 3 s.h.
GE: Values and Society. Same as AFAM:1250.

RELS:1404 Introduction to Asian Religions 3 s.h.
Religious beliefs, practices in India, China, Japan. GE: Values and Society. Same as ASIA:1040, HIST:1610.

RELS:1502 Asian Humanities: India 3 s.h.
Introduction to 4,000 years of South Asian civilization through popular stories. Taught in English. GE: Values and Society. Same as ASIA:1502, SOAS:1502.

RELS:1506 Introduction to Buddhism 3 s.h.
Development of Buddhism in India, its spread across Asia, and arrival in the West; exploration of diverse Buddhist philosophies, practices, and cultures; readings from India, Tibet, China, Japan, Korea, and Southeast Asia. GE: Values and Society. Same as ASIA:1060, HIST:1612.

RELS:1606 Civilizations of Asia: South Asia 3-4 s.h.
Civilization of a vast region that includes India, Pakistan, Bangladesh, Nepal, and Sri Lanka. GE: Historical Perspectives; International and Global Issues. Same as ASIA:1606, HIST:1606.

RELS:1670 Korea in the World 3 s.h.
Comprehensive and critical understanding of Korea's place in the world; emphasis on historical and sociocultural roots of various aspects of life on the contemporary Korean peninsula (both North and South Korea); comprehensive list of topics including cultural production (K-pop and film), religions, economy, gender relations, cuisine, politics, and prospects for reunification. Taught in English. Same as ASIA:1670, KORE:1670.

RELS:1702 Religion in America Today 3 s.h.
How American men, women, and children practice their beliefs in today's society. GE: Values and Society.

RELS:1810 Happiness in a Difficult World 3 s.h.
Religious backgrounds and unique spiritualities of Maya Angelou (an African-American Christian), Black Elk (a Lakota Sioux medicine man), and the Dalai Lama (a Tibetan Buddhist monk); forms of oppression that humans can experience as obstacles to happiness, and forms of liberation that are possible (social, political, economic, mental, emotional, spiritual). GE: Values and Society.

RELS:1903 Quest for Human Destiny 3 s.h.
Quests for destiny in terms of perceived options/goals and ability to recognize, pursue, achieve them. GE: Values and Society.

RELS:2000 Engaging Religious Diversity for Leadership and Entrepreneurship 3 s.h.
Practical skills in engaging religious diversity for workplace success; understanding religion's influences on perceptions and choices of business leaders, investors, customers, and coworkers; insight into how to build professional relationships with people from different backgrounds; clarity about your own ethical values. GE: Understanding Cultural Perspectives.

RELS:2068 Jews in Popular Culture 3 s.h.
Exploration of a wide variety of ways in which Jewish people represent themselves through production of cultural media.

RELS:2080 Public Life in the U.S.: Religion and Media 3 s.h.
Examination of how the U.S. came into being through specific communication practices, how religion has helped and hindered that process; religious roots of the idea of the U.S., intertwined histories of print media and religion, role of religion and secularism in public discourse; U.S. pride as a nation in which diversity thrives in public discourse; communicative acts that created and sustained this country and also mark sites of discord, conflict, and confusion from the very beginnings of the U.S. to today; how religion has been a source of national identity and national division. Same as COMM:2080.

RELS:2122 The Place of Animals in the Hebrew Bible 3 s.h.
Why the biblical God permits humans to eat other animals' flesh; fundamental dietary differences between humans and the beasts.

RELS:2152 The Gnostic Religion: Knowledge, Institution, and Salvation 3 s.h.
An introduction to Gnosticism, an early Christian heresy with a radical emphasis on salvation through knowledge, with ongoing influence and relevance for contemporary spirituality.

RELS:2182 Ancient Mediterranean Religions 3 s.h.
Introduction to major religious traditions of ancient Mediterranean world; Mesopotamia, the Levant (Hebrew Bible), Egypt, Greece, and Rome; central aspects of mythology, ritual, and archaeology, individually and in comparative perspective; ancient Judaism and Christianity considered in their various cultural contexts; basic concepts for understanding cultural exchange; fundamental theories in the study of religion. GE: Values and Society. Same as CLSA:2482.

RELS:2240 Introduction to Jewish Studies 3 s.h.
Introduction to the interdisciplinary field of Jewish studies; topics include history from ancient origins to the present, sociology of Jewish life in the U.S. and internationally, ethical and religious principles and practices, Jewish embeddedness in non-Jewish societies, and controversies within and surrounding the Jewish world. GE: Understanding Cultural Perspectives. Same as HIST:2149, JSTU:2149, SJUS:2240.

RELS:2250 Jews, Judaism, and Social Justice 3 s.h.
Jewish frameworks for grappling with justice and ethics from ancient world to present day; emphasis on internal diversity of Jewish experience as well as interactions with dominant and other minority cultures. Same as GWSS:2050, HIST:2150, SJUS:2050.

RELS:2260 Hard Cases in Healthcare at the Beginning of Life 3 s.h.
Exploration of ethical impact that advances in biotechnology, including genetic, reproductive, and neonatal technology, are having in the medical arena and on humanity; consideration of the powerful influence that religion and spirituality have on people's ethical and medical decision-making. Same as GHS:2260.

RELS:2265 Hard Cases in Healthcare at the End of Life 3 s.h.
Preparation for future healthcare providers to make difficult ethical decisions regarding the end of life; interactive course. Same as ASP:2265, GHS:2265.

RELS:2272 Gods and Superheroes: Mythologies for a Modern World 3 s.h.
Introduction to important roles that religious and cultural myths play in culture; their relevance through interpretation and adaptation to answer important questions like the meaning of life and what it means to be human; ancient myths behind modern superhero movies and how they are adapted to fit a new context; and how modern superhero movies fulfill functions similar to the way myths and religion reinforce or question religious ideas of the culture that creates them. Recommendations: some background in religious studies helpful.

RELS:2289 Jerusalem: The Holy City 3 s.h.
Religious, political, and cultural history of Jerusalem over three millennia as a symbolic focus of three faiths—Judaism, Christianity, and Islam; integration of several digital learning technologies, including digital reconstructions and Google Earth tours of Jerusalem. Same as CLSA:2489.

RELS:2330 Wealth, Inequality, and Islam 3 s.h.
Impacts of Islam and Islamic institutions on economic, religious, and political systems that produce wealth, use natural and human resources, design financial institutions, and structure business organizations. GE: Understanding Cultural Perspectives.

RELS:2361 Middle East and Mediterranean: Alexander to Suleiman 3 s.h.
GE: Historical Perspectives. Same as CLSA:2461, HIST:2461.

RELS:2444 Cities of the Bible 3 s.h.
Survey of the history and archaeology of key biblical cities and the contributions they made to the formation of the Bible. GE: Historical Perspectives. Same as CLSA:2444.

RELS:2515 Introduction to Chinese Religious Thought: How Best to Live 3 s.h.
Overview of how different Chinese religious traditions are addressing central questions about human existence and the best ways to live. Same as ASIA:2515.

RELS:2550 Water Worlds: Tools for Climate 3 s.h.
Tools from religion/spirituality, art, literature, and history foster sustainability and resilience in time of water crisis; explore new ways to understand and repair relationships to water and environment amid intense storms, flooding, high water usage, and uneven drinking water access; introduction to religious/spiritual ways to know and relate to nature as a vital part of the community; experiential learning component focused on the Iowa River.

RELS:2620 Sex and the Bible 3 s.h.
Examination and analysis of the role of the Bible in contemporary culture; how different groups can read the exact same passages, yet reach different conclusions about how they and others should live. Recommendations: basic familiarity with the Bible or religion. GE: Understanding Cultural Perspectives. Same as CLSA:2620.

RELS:2674 Food, Body, and Belief: A Global Perspective 3 s.h.
Exploration of local, national, and global forces that shape food consumption, body image, and spiritual practices. Taught in English. Same as GHS:2674, GWSS:2674.

RELS:2775 The Bible and the Holocaust 3 s.h.
Religious and philosophic implications of the Holocaust viewed through survivors' writings.

RELS:2834 Philosophy of Religion 3 s.h.
Historical to contemporary treatments of central issues; nature of faith, existence and nature of God, science and religion, ethics and religion, miracles, religious experience, interpretation of religious texts. Requirements: sophomore or higher standing. Same as PHIL:2534.

RELS:2852 Women in Islam and the Middle East 3 s.h.
Women in the Islamic community and in non-Muslim Middle Eastern cultures; early rise of Islam to modern times; references to women in the Qur'an and Sunnah, stories from Islamic history; women and gender issues. GE: International and Global Issues. Same as GWSS:2052.

RELS:2877 Sport and Religion in America 3 s.h.
Sport as a religion; religiosity in sports; examination of religion and sport as connected in important ways in American society. Same as SPST:2077.

RELS:2930 Digital Media and Religion 3 s.h.
Influences of digital media on religion and spirituality today. GE: Historical Perspectives. Same as COMM:2079.

RELS:2947 Quest II: Sex, Love, and Death 3 s.h.
Examination of ancient and modern responses to horrors associated with death; includes films, readings from the Hebrew Bible, J.D. Salinger, and Ernest Hemingway.

RELS:2955 Human Rights and Islam 3 s.h.
Exploration of social forces, legal regimes, and cultural norms that have shaped discourse on human rights in a global context with reliance on a systems thinking framework; examination of intersections of rights, culture, society, and law in the last 2,000 years; consideration of interplay between institutional (formal) and societal (informal) powers that shape human rights norms; origins and evolution of discourse on rights across cultures and throughout history. GE: International and Global Issues. Same as IS:2955.

RELS:2980 Religion and Contemporary Popular Culture 3 s.h.
Varied topics on the intersection of religion and popular culture; may include film, television, music, and religions in North America or Asia.

RELS:2986 Religion and Women 3 s.h.
Sexism and its disavowal in biblical narrative, law, wisdom texts, Gospels, epistles; contemporary impact. GE: Values and Society.

RELS:3003 Classical and Hellenistic Periods I 3 s.h.
Readings in Greek literature of the Classical and Hellenistic periods. Prerequisites: CLSG:2002. Same as CLSG:3003.

RELS:3055 Death, Dying, and Beyond in Asian Religions 3 s.h.
Survey of cultural and religious approaches to the dying process, post-death rituals, and conceptions about the afterlife in different religions in Asia. Same as ASIA:3055.

RELS:3145 Ancient Wisdom: Classical Islamic Medicine 3 s.h.
Explores the medical knowledge of ancient civilizations as transmitted and systematized in the Islamic Golden Age.

RELS:3190 Medieval to Modern: The Birth of Protestantism 3 s.h.
Same as HIST:3190.

RELS:3243 Pagans and Christians: The Church From Jesus to Muhammad 3 s.h.
Introduction to history of early Christianity, from time of Jesus to rise of Islam; focus on major movements, intellectuals, institutions in this period; growth of Christianity in different geographical areas including the Middle East, Greece, Western Europe, Africa; Christian relations with Jews, pagans, Muslims; conversion; orthodoxy, heresy, making of biblical canon; martyrdom; women and gender roles; asceticism, monasticism, sexuality; church and state; theological controversy and schisms; cult of saints; the Holy Land and pilgrimage. Same as CLSA:3443.

RELS:3245 Mythology of Otherworldly Journeys 3 s.h.
Examination of mythology of otherworldly journeys from earliest religions to Hellenistic period; historical context; comparison for common themes in their evolution over time; directed readings of mythological texts dealing with otherworldly journeys; ways in which past cultures confronted larger mysteries of life and death. Same as CLSA:3445.

RELS:3247 Banned From the Bible: Pseudepigrapha and Apocrypha 3 s.h.
Introduction to biblical Pseudepigrapha and Apocrypha; writings dating from third century B.C.E. to third century C.E. fictionally attributed to characters in the Hebrew Bible and New Testament, or written as though they originated in the First or Second Temple periods, not included in Jewish or major Christian canons of scripture; English translations of documents from this period; key themes and interpretative techniques common throughout biblical texts that provide tremendous insight into the worlds that produced the Hebrew Bible and New Testament. Same as CLSA:3247.

RELS:3267 Dissent and Rebellion in Islamic Societies: Was There an Arab Spring? 3 s.h.
Reviewing the so-called Arab Spring events that started in 2011 to understand and explain the uprisings and civil wars that transformed Southwest Asia and North Africa (SwANA) and influenced other wars in Africa, Ukraine, and elsewhere.

RELS:3325 Bioethics and Religious Diversity 3 s.h.
The impact of diverse ways of being religious on experiences of wellness, illness, and health care decision making.

RELS:3375 The Great Collision 3 s.h.
Major developments in architecture, sculpture, ceramics, and mosaics in Israel, Palestine, Syria, and Arabia from death of Alexander the Great to rise of Islam (4 B.C.E. to 8 C.E.); Greek and Roman influences versus local traditions; Roman Empire; growth of churches, synagogues, and mosques; identity and religion. Same as ARTH:3375.

RELS:3655 Zen Buddhism 3 s.h.
Same as ASIA:3655, HIST:3655.

RELS:3700 Nonprofit Organizational Effectiveness I 3 s.h.
Operational and financial aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as ENTR:3595, MGMT:3500, MUSM:3500, NURS:3595, SSW:3500.

RELS:3701 Nonprofit Organizational Effectiveness II 3 s.h.
Qualities for leadership of nonprofit organizations, including relationships with staff and volunteers; relationship of nonprofit and outside world; marketing, public relations, advocacy strategies for nonprofits. Same as MGMT:3600, NURS:3600, SSW:3600.

RELS:3704 Egyptian Art 3 s.h.
Survey of ancient Egypt over 3,500 years with emphasis on art and architecture in context; workshops, patrons, and audiences of Egyptian art; major principles, themes, and meanings of Egyptian art; relationship between writing and artistic representation; connections between art, kingship, and Egyptian view of the world; art and architecture of central elite and other social groups. Same as ARTH:3320.

RELS:3716 Greek Religion and Society 3 s.h.
From Bronze Age to the Hellenistic period, in context of Mediterranean culture; evidence such as choral hymn, inscribed prayers, magical curses inscribed on lead, architecture, sculpted offerings to the gods. Same as CLSA:3416.

RELS:3745 Twentieth- and Twenty-first Century African American Religion 3 s.h.
Twentieth- and twenty-first-century African American religious history; major political and cultural movements including civil rights, Black power, Black feminism/womanism, hip hop, and Black Lives Matter; their impact on Black Christianity and Islam in the United States. Same as AFAM:3245.

RELS:3808 Malcolm X, King, and Human Rights 3 s.h.
Religion and politics of Malcolm X and Martin Luther King, Jr. in the context of U.S. civil rights and international human rights in West Africa and the Muslim world; emphasis on civil rights connections to Gandhi, the Nobel Peace prize, and other international experiences that have impacted Pan Africanists, such as Stokely Carmichael, who worked on human rights. Recommendations: international studies major or undergraduate standing. Same as AFAM:3500, HIST:3160.

RELS:3850 Perspectives on Migration 3 s.h.
Explores the origins and functions of migration in cultural, religious, political, and legal discourses over time from a plurality of disciplinary and experiential perspectives.

RELS:4001 Biblical Hebrew I 3-4 s.h.
Introduces students with no prior Hebrew experience to Biblical Hebrew, the language used to compose the bulk of the Hebrew Bible. Introduction to the Hebrew alphabet, vocabulary, and grammar, culminating with reading and comprehending passages from the Hebrew Bible. GE: World Languages First Level Proficiency. Same as CLSA:4901.

RELS:4002 Biblical Hebrew II 3 s.h.
Continues the language instruction sequence begun in CLSA:4901. Deepens understanding of Hebrew vocabulary and grammar, and the ability to read and comprehend passages from the Hebrew Bible. GE: World Languages Second Level Proficiency. Same as CLSA:4902.

RELS:4154 Magic Machines: Technology and Social Change 3 s.h.
How media has altered culture, society, and human consciousness throughout history with focus on last two centuries (or modernity); how communication has been shaped by a variety of media (i.e., gesture, language, writing, printing, calendars, clocks, photography, telegraph, telephone, phonograph, film, radio, television, computers); 21st-century questions concerning technology and how few communicate today without aid of some kind of machine or technique. Prerequisites: (2 of the following are required: (COMM:1112 or COMM:1170), (COMM:1117 or COMM:1130), (COMM:1168 or COMM:1174)) and (2 of the following are required: COMM:1302, COMM:1305, COMM:1306, COMM:1816, COMM:1818, COMM:1819, COMM:1830, COMM:1840, COMM:1845, COMM:1898, COMM:2010, COMM:2011, COMM:2012, COMM:2013, COMM:2015, COMM:2020, COMM:2030, COMM:2040, COMM:2041, COMM:2042, COMM:2044, GWSS:2046, COMM:2048, COMM:2050, COMM:2054, COMM:2057, COMM:2064, COMM:2065, AFAM:2070, COMM:2070, AFAM:2072, COMM:2075, COMM:2076, COMM:2077, RELS:2930, COMM:2080, COMM:2083, COMM:2085, COMM:2086, COMM:2088, COMM:2089, COMM:2090, COMM:2091, WLLC:2248, COMM:2813, EDTL:2821, COMM:2828, COMM:2897, COMM:2899). Same as COMM:4154.

RELS:4352 The Dead Sea Scrolls 3 s.h.
Introduction to the Dead Sea Scrolls; reading of the scrolls in English translation; examination of Qumran site archaeology; survey of broader sociopolitical context of Second Temple Judaism (586 B.C.E. to 135 C.E.) out of which the scrolls emerged. Same as CLSA:4452.

RELS:4893 Classical Arabic: Vocabulary, Syntax, and Grammar 1-3 s.h.
Arabic grammar, syntax, and reading fluency. Prerequisites: ARAB:2001. Corequisites: RELS:2955.

RELS:4930 Internship in Research on Rights and Remedial Justice 1-3 s.h.
Faculty supervised research experience in human rights remedial justice.

RELS:4950 Senior Majors Seminar 3 s.h.
Issues central to academic study of religion.

RELS:4960 Individual Study: Undergraduates arr.

RELS:4970 Honors Tutorial 2-3 s.h.

RELS:4975 Honors Essay 2-4 s.h.

RELS:4990 Research With Faculty 3 s.h.
Research with a faculty member on a scholarly project; discussions of primary and secondary literature; regular small-group meetings. Requirements: religious studies major.

RELS:5001 Biblical Aramaic 3 s.h.
This course introduces the basics of Biblical Aramaic grammar and syntax and provides an introduction to the Biblical lexicon. There will be extensive grammatical exercises, both in class and at home, as well as frequent opportunities to apply grammatical and lexical knowledge to the Biblical text. Recommendations: Biblical Hebrew recommended. Same as CLSA:5903.

RELS:5002 Targumic Aramaic 3 s.h.
Language used by Targums—Aramaic translations of the Hebrew Bible—for use in the study of interpretative traditions of later Jewish groups. Same as CLSA:5904.

RELS:5100 Teaching and Public Engagement 1-3 s.h.
Critical importance of educating people about religion within increasingly globalized and digitized contexts; preparation to excel as classroom teachers and facilitators of cross-religious dialogue in public sphere.

RELS:5115 Blue Humanities 3 s.h.
Exploration of tools from art, history, religion, and theory to navigate water crises; critical cultural approaches to understanding and repairing relationships with water and environment in time of intense storms, flooding, water usage, and unequal access to water; readings in vitalist and other religious/spiritual approaches to the world-in-becoming, including Indigenous and anti-extractivist epistemologies; emphasis on interdisciplinary and experiential learning centered on the Iowa River.

RELS:5200 Asian Religions in the Modern World for Graduate Students 3 s.h.
Introduction to religious traditions of Asia; framework for further studies in Asian religions; preparation to design and teach a world religions course; for Asian studies and religious studies graduate students.

RELS:5300 Genealogies of Religion 3 s.h.
Genealogies of the idea of religion, academic study of religion, and comparative study of religions; intellectual and ideological foundations of discipline; preparation to work skillfully across traditions.

RELS:5400 Colonial Knowledge Production and Its Discontents: Religion and the Academy 3 s.h.
An interdisciplinary approach to how religion has participated in creating “Western” ways of knowing and the modern epistemologies that undergird academia. Course topics include colonialism, post-and de-colonialism, epistemology, race, and gender.

RELS:6040 Tiberius to Trajan arr.
Authors and topics from the first and second centuries C.E. Same as CLSL:6013.

RELS:6070 Nonprofit Organizational Effectiveness I 3 s.h.
Operational and financing aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as HMP:6360, MGMT:9150, PBAF:6278, SPST:6010, SSW:6247, URP:6278.

RELS:6075 Nonprofit Organizational Effectiveness II 3 s.h.
Qualities for leadership of nonprofit organizations, including relationships with staff and volunteers; relationship of nonprofit and outside world; marketing, public relations, advocacy strategies for nonprofits. Same as HMP:6365, MGMT:9160, PBAF:6279, SPST:6020, SSW:6248, URP:6279.

RELS:6125 Classical Arabic and Grammar 3-6 s.h.
Arabic alphabet, vocabulary, and syntax; poetry, legal texts, and media Arabic; converse in formal Arabic; for students with strong interest in classical Arabic, grammar, and original texts, or research students in Islamic and Middle Eastern studies or in professional programs.

RELS:6150 American Religious Histories 3 s.h.
Focused examination of the variety and vagaries of religious experiences in the Americas, 16th to 21st centuries. Same as HIST:6250.

RELS:6200 Seminar: Religious Ethics 3 s.h.

RELS:6343 Feminist Criticism 3 s.h.
Explore the rich terrain of feminist criticism within contemporary rhetorical and cultural studies; survey key interdisciplinary debates within contemporary feminist theory and criticism, trace significant trajectories within the history of feminist criticism, and consider how interdisciplinary feminist perspectives continue to shape humanities scholarship, including in communication studies and religious studies. Provides a strong foundation for exploring how feminism might meaningfully inform the art of academic inquiry and critical practice. Same as COMM:6343, GWSS:6343.

RELS:6345 New Materialisms 3 s.h.
Exploration of new strategies for rupturing persistent dichotomies of subject/object, representation/real, culture/nature, and active humans/passive things offered by theories of the vitality and agency of matter; introduction to origins of and developments in new materialisms; oriented to interdisciplinary inquiry and application to research in the humanities, broadly conceived; particular attention to actor-network theory, feminism, queer theory, infrastructuralism, and materialist theories of media. Same as COMM:6345, GWSS:6345.

RELS:6520 Seminar: South Asian Religion 3 s.h.
Topics in South Asian religions. Same as ASIA:6520.

RELS:6580 Seminar: Religion and Society 3 s.h.
Same as AFAM:6580.

RELS:6710 Seminar: Approaches to Human Rights 3 s.h.
Engagement with historical events, philosophical narratives, legal cases, institutional reports, lived experiences, and theoretical works to study origins, functions, and history of the discourse on human rights; application of a systems thinking framework to events involving treatment of women, Indigenous peoples, disabled persons, racial and ethnic groups, and other disempowered social groups across cultures and throughout history; examination of writings that attempted to explain key historical events and ideas relevant to human rights. Same as LAW:8575.

RELS:6723 Seminar on Islamic Law and Government 3 s.h.
Islamic legal and political legacy from formative period until modern time; critical analysis of logic and context of development; development of jurisprudential, legal, and political literature; overview of theories and practices of governance in Islam beginning with Caliphate system and ending with modern nation-state models. Same as LAW:9723.

RELS:7100 Readings in American Religions arr.

RELS:7200 Readings in Religious Ethics arr.

RELS:7400 Readings in Theology and Religious Thought arr.

RELS:7450 Readings in History of Christianity arr.

RELS:7500 Readings in Asian Religions arr.

RELS:7600 Readings in Islamic and Middle Eastern Studies 1-3 s.h.
Advanced works and/or texts in primary languages (Arabic, Persian, etc.) in the broad field of Islamic and Middle Eastern studies. Requirements: proficiency in Modern Standard Arabic.

RELS:7650 Readings in Ancient Near Eastern Religions arr.
Ancient Near Eastern religious texts; focus on their place in ancient Near Eastern history and religious thought.

RELS:7900 Individual Study: Graduates arr.

RELS:7950 Thesis arr.

Religious Studies, BA

A religious studies major enables students to gain competence in global religious diversity and develop the skills necessary for living and working effectively in an increasingly complex and interconnected world.

A degree in religious studies is often added as a second major to enhance students' education and training by stimulating their curiosity, expanding their imaginations, deepening their thinking, and helping them to better understand themselves and other people.

The department also provides its majors and minors with support for undergraduate research, for example in the form of scholarships, awards for the UI Undergraduate Research Festival, research assistant positions, and other support.

Learning Outcomes

Courses in religious studies help students to gain competence in global religious diversity by:

- understanding influential religious ideas and traditions;
- learning critical approaches to interpreting historical events and explaining the role of religion in societies;
- gaining analytical reading and writing skills and cross-cultural communication strategies;
- developing practical strengths to function well in diverse societies and a globalized world; and
- employing technologies to interpret ancient texts, images, and artifacts, and studying the output of new tools including radio, TV, and digital media.

Requirements

The Bachelor of Arts in religious studies requires 30 s.h. of coursework, including 15 s.h. that are distributed across at least three of the department's five core areas: social justice, equity, inclusion, and religion; religion in history; religion in global context; religion, values, and culture; and special topics and events. The remaining s.h. may be taken from any core area or religious studies course (prefix RELS). Of the 30 s.h., at least two courses (6 s.h.) must be numbered 3000 or above.

A minimum of 15 s.h. for the major must be earned at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the major. Courses for the major may not be taken pass/nonpass.

Students must complete the college's graduation requirements, which include at least 120 s.h. of coursework and the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. A number of the courses for the major count toward the GE CLAS Core. Students can identify courses approved for the GE CLAS Core by viewing the course descriptions. Students may count up to 56 s.h. of coursework from the Department of Religious Studies (prefix RELS) toward credit required for the Bachelor of Arts degree.

The BA with a major in religious studies requires the following coursework.

Requirements	Hours
Core Area Courses	15
Additional Coursework	15

Core Area Courses

Students select 15 s.h. (typically five courses) that are distributed across at least three of the department's five core areas.

Social Justice, Equity, Inclusion, and Religion

Course #	Title	Hours
RELS:1015	Global Religious Conflict and Diversity	3
RELS:1041	African American Religion and Popular Culture	3
RELS:1350	Introduction to African American Religions	3
RELS:1810	Happiness in a Difficult World	3
RELS:2000	Engaging Religious Diversity for Leadership and Entrepreneurship	3
RELS:2250	Jews, Judaism, and Social Justice	3
RELS:2330	Wealth, Inequality, and Islam	3
RELS:3745	Twentieth- and Twenty-first Century African American Religion	3

Religion in History

Course #	Title	Hours
RELS:1001	Judaism, Christianity, and Islam	3
RELS:1225	Medieval Religion and Culture	3
RELS:1250	Modern Religion and Culture	3
RELS:2152	The Gnostic Religion: Knowledge, Institution, and Salvation	3
RELS:2775	The Bible and the Holocaust	3
RELS:2930	Digital Media and Religion	3
RELS:3190	Medieval to Modern: The Birth of Protestantism	3

Religion in Global Context

Course #	Title	Hours
RELS:1130	Introduction to Islamic Civilization	3
RELS:1404	Introduction to Asian Religions	3
RELS:1506	Introduction to Buddhism	3
RELS:1670	Korea in the World	3
RELS:2515	Introduction to Chinese Religious Thought: How Best to Live	3
RELS:2852	Women in Islam and the Middle East	3
RELS:3655	Zen Buddhism	3
RELS:3850	Perspectives on Migration	3

Religion, Values, and Culture

Course #	Title	Hours
RELS:1070	Introduction to the Hebrew Bible/Old Testament	3
RELS:1080	Introduction to the New Testament	3
RELS:1702	Religion in America Today	3
RELS:1903	Quest for Human Destiny	3
RELS:2240	Introduction to Jewish Studies	3
RELS:2260	Hard Cases in Healthcare at the Beginning of Life	3
RELS:2265	Hard Cases in Healthcare at the End of Life	3
RELS:2272	Gods and Superheroes: Mythologies for a Modern World	3
RELS:2877	Sport and Religion in America	3

Special Topics and Current Events

Course #	Title	Hours
RELS:1050	Big Ideas: Introduction to Information, Society, and Culture	3
RELS:2122	The Place of Animals in the Hebrew Bible	3
RELS:2674	Food, Body, and Belief: A Global Perspective	3
RELS:2980	Religion and Contemporary Popular Culture	3
RELS:3055	Death, Dying, and Beyond in Asian Religions	3
RELS:3267	Dissent and Rebellion in Islamic Societies: Was There an Arab Spring?	3
RELS:3325	Bioethics and Religious Diversity	3
RELS:4893	Classical Arabic: Vocabulary, Syntax, and Grammar	1-3
RELS:4930	Internship in Research on Rights and Remedial Justice	1-3
RELS:4960	Individual Study: Undergraduates	arr.

Additional Coursework

Students select another 15 s.h. from any core area list or any other religious studies course.

Honors

Honors in the Major

To graduate with honors in the religious studies major, students must have a UI cumulative grade-point average (GPA) of at least 3.33, a minimum requirement set by the College of Liberal Arts and Sciences. Students must also maintain a UI religious studies GPA of at least 3.50. Beyond the 30 s.h. required for the major, students must take the 3 s.h. course RELS:4975 Honors Essay under the supervision of a faculty advisor and complete an approved honors thesis. Students often choose to take RELS:4960 Individual Study: Undergraduates or RELS:4970 Honors Tutorial in preparation for taking RELS:4975 Honors Essay, but this is not a requirement. Copies of the thesis are submitted to the Department of Religious Studies and may be published through Iowa Research Online.

University of Iowa Honors Program

Students also have the opportunity to pursue advanced studies and activities through the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Students do not have to be members of the University of Iowa Honors Program to write an Honors Thesis or graduate with honors in the religious studies major.

Career Advancement

Because religion and religious traditions impact every aspect of culture and society, a major in religious studies can prepare students for many different career paths while at the same time enhancing the quality of their everyday lives and interactions with others. Most employers look for employees who have some experience with different cultures, are comfortable interacting with people from various religious backgrounds, have curious, open, and creative minds, and collaborate well with others, all of which are fostered through the academic study of the world's religions. Religious studies majors also develop strong speaking and writing skills that prepare them for advancement into leadership positions.

Graduates have gone on to careers in media and communication, social work, nursing, public health, government, and nonprofit organizations. They have also pursued advanced degrees in the humanities, social sciences, law, and medical professions.

Students should contact the Department of Religious Studies to learn how the BA with a major in religious studies can benefit them.

The Pomerantz Career Center also offers many resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the fifth semester begins: one or two courses in the major.

Before the seventh semester begins: three to six courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: five to seven courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and

should be discussed with an academic advisor. For additional sample plans, see MyUI.

Religious Studies, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
Students may count up to 56 s.h. of coursework from the Religious Studies Department (prefix RELS) toward credit required for the Bachelor of Arts degree.		
	Hours	**0**
First Year		
Fall		
Major: core area course [b, c]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [d]		3
GE CLAS Core: Values and Society [d]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
Major: core area course [b, c]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Natural Sciences with Lab [d]		4
GE CLAS Core: Social Sciences [d]		3
Elective course [e]		2
	Hours	**15-16**
Second Year		
Fall		
Major: core area course [b, c]		3
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [f]		4 - 5
Elective course [e]		3
Elective course [e]		3
	Hours	**16-17**
Spring		
Major: core area course [b, c]		3
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [f]		4 - 5
Elective course [e]		3
Elective course [e]		3
	Hours	**16-17**
Third Year		
Fall		
Major: core area course [b, c]		3
Major: religious studies course [g]		3
GE CLAS Core: Natural Sciences without Lab [d]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [f]		4 - 5
Elective course [e]		3
	Hours	**16-17**
Spring		
Major: religious studies course [g]		3
Major: religious studies course [g]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f]		4 - 5
Elective course [e]		3
Elective course [e]		3
	Hours	**16-17**
Fourth Year		
Fall		
Major: religious studies course [g]		3
GE CLAS Core: Historical Perspectives [d]		3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**
Spring		
Major: religious studies course [g]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**122-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students select courses from at least three out of the five core areas in Religious Studies for a total of 15 s.h. toward the major. The core areas include: social justice, equity, inclusion, and religion; religion in history; religion in global context; religion, values, and culture; and special topics and current events. See General Catalog for list of approved courses in each area.

c Fulfills a major requirement and may fulfill a GE requirement.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course.

Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

g See General Catalog for list of approved courses.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Religious Studies, Minor

Requirements

The undergraduate minor in religious studies requires a minimum of 15 s.h. in religious studies courses, including 12 s.h. in courses taken at the University of Iowa. Students may count up to 3 s.h. of transfer credit toward the minor with the approval of the director of undergraduate studies. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Courses for the minor may not be taken pass/nonpass. The minor may be earned through coursework that is offered online.

A number of courses for the minor count toward the GE CLAS Core [p. 22]. Students can identify courses approved for the GE CLAS Core by viewing the course descriptions.

The minor in religious studies requires the following coursework.

Requirements	Hours
Core Area Courses	9
Additional Coursework	6

Core Area Courses

Students select courses from at least three out of the five core areas for a total of 9 s.h. (typically three courses).

Social Justice, Equity, Inclusion, and Religion

Course #	Title	Hours
RELS:1015	Global Religious Conflict and Diversity	3
RELS:1041	African American Religion and Popular Culture	3
RELS:1350	Introduction to African American Religions	3
RELS:1810	Happiness in a Difficult World	3
RELS:2000	Engaging Religious Diversity for Leadership and Entrepreneurship	3
RELS:2330	Wealth, Inequality, and Islam	3
RELS:3745	Twentieth- and Twenty-first Century African American Religion	3

Religion in History

Course #	Title	Hours
RELS:1001	Judaism, Christianity, and Islam	3
RELS:1225	Medieval Religion and Culture	3
RELS:1250	Modern Religion and Culture	3
RELS:2152	The Gnostic Religion: Knowledge, Institution, and Salvation	3
RELS:2775	The Bible and the Holocaust	3
RELS:2930	Digital Media and Religion	3
RELS:3190	Medieval to Modern: The Birth of Protestantism	3

Religion in Global Context

Course #	Title	Hours
RELS:1130	Introduction to Islamic Civilization	3
RELS:1404	Introduction to Asian Religions	3
RELS:1506	Introduction to Buddhism	3
RELS:1670	Korea in the World	3
RELS:2515	Introduction to Chinese Religious Thought: How Best to Live	3
RELS:2852	Women in Islam and the Middle East	3
RELS:3655	Zen Buddhism	3
RELS:3850	Perspectives on Migration	3

Religion, Values, and Culture

Course #	Title	Hours
RELS:1070	Introduction to the Hebrew Bible/Old Testament	3
RELS:1080	Introduction to the New Testament	3
RELS:1702	Religion in America Today	3
RELS:1903	Quest for Human Destiny	3
RELS:2260	Hard Cases in Healthcare at the Beginning of Life	3
RELS:2265	Hard Cases in Healthcare at the End of Life	3
RELS:2272	Gods and Superheroes: Mythologies for a Modern World	3
RELS:2877	Sport and Religion in America	3

Special Topics and Current Events

Course #	Title	Hours
RELS:1050	Big Ideas: Introduction to Information, Society, and Culture	3
RELS:2122	The Place of Animals in the Hebrew Bible	3
RELS:2674	Food, Body, and Belief: A Global Perspective	3
RELS:2980	Religion and Contemporary Popular Culture	3
RELS:3055	Death, Dying, and Beyond in Asian Religions	3
RELS:3267	Dissent and Rebellion in Islamic Societies: Was There an Arab Spring?	3
RELS:3325	Bioethics and Religious Diversity	3
RELS:4893	Classical Arabic: Vocabulary, Syntax, and Grammar	1-3
RELS:4930	Internship in Research on Rights and Remedial Justice	1-3
RELS:4960	Individual Study: Undergraduates	arr.

Additional Coursework

Students select an additional 6 s.h. from any core area list or any other religious studies course to reach the required minimum of 15 s.h.

Religious Studies, MA

The Master of Arts program in the Department of Religious Studies is designed for students who wish to advance their understanding of a particular area of religious studies or explore multiple traditions and topics beyond the undergraduate level. Many MA graduates from the department go on to pursue a PhD, while others bring their advanced education and competency in global religious diversity to such careers as health care, law, diplomacy, ministry, social advocacy, journalism, counseling, and informatics. MA students participate fully in the life of the department and study alongside PhD students.

MA students train to analyze the ways in which diverse religious traditions originate, develop, and interact over time, and learn to identify and use multiple methods for the study of religion, including historical, philosophical, ethical, literary, linguistic, psychological, ethnographic, and digital approaches. Students typically draw on the expertise of several different members of the religious studies faculty and are also encouraged to work with faculty members in other UI departments who specialize in their areas of interest. Some MA students work, for example, with scholars in the departments of Anthropology; Asian and Slavic Languages and Literatures; Classics; Communication Studies; English; Gender, Women's, and Sexuality Studies; and History.

The program offers a collegial intellectual community, including a departmental colloquium series, a collaborative reading group in critical theory, and an ethos of mutual support among the graduate students.

Graduate study in the Department of Religious Studies is highly flexible and personalized, and is shaped to individual students' interests concordant with existing faculty expertise.

Areas of Current Faculty Expertise

Religions of Southwest Asia, North Africa, and the Mediterranean

Religion, law, and politics in the Islamic world; the history of interpretation of the texts and traditions of Judaism, Christianity, and Islam; Greco-Roman and Egyptian religion and culture; digital humanities.

Religions of East Asia

Religious traditions of China and the political, social, and economic factors that have shaped them; modern religion and culture in Korea, most notably Christianity; religion and gender in transnational perspective; religion and empire.

Religions of the United States and the Atlantic World

History and ethnography of religion in the United States; African American religious traditions (Christianity, Islam, and African diaspora religions); West African religions; religion, media, and the negotiation of technological change; Latina/o/x Christianity.

Religion, Ethics, and Society

Religion and morality; religion, emotion, and affect; human rights; religion's relationship to gender, race, and ethnicity; ethics of medicine and biotechnology; religion and health.

Themes

Graduate study is also developed by theme. Popular themes include religions' relationships to public life, gender, race, media and technology, and human health and well-being.

Learning Outcomes

- Teaching success: students gain expertise in how to teach religious studies in a liberal arts setting, and if they serve as teaching assistants (TAs) during their graduate program, they show effectiveness in reaching a diverse audience of students.
- Critical knowledge of the field: students become familiar with foundational texts in their field, as well as influential scholarship that critically engages these texts and seeks to move the field in new directions; students identify ways in which they can contribute to the corpus of texts that compose their field.
- Academic skills: students develop skills to read carefully and think critically, and they write in clear and compelling ways about topics related to the study of religion; students have hands-on opportunities to develop key skills in public engagement.
- Religion and social equity: students gain a critical understanding of the historical entanglement of global religions with racism and misogyny; they can articulate religions' relationships to unjust power structures, as well as religions' contributions to greater social justice.
- Professional engagement: students demonstrate successful participation in the life of the department, their subfield, and the broader field of religious studies; they communicate about their learning with students from other fields.

For more detailed information on graduate programs in religious studies, contact the Department of Religious Studies or visit Graduate Program on the department's website.

Requirements

The Master of Arts program in the Department of Religious Studies requires a minimum of 30 s.h. of graduate credit. Students must complete 24 s.h. of the credit required for the degree at the University of Iowa and must maintain a cumulative grade-point average of at least 3.20. The MA is offered with or without thesis.

All MA students are required to demonstrate competency in English and at least one other language that is relevant to their advanced research; more specific language requirements are set in consultation with an advisory committee. Students are supervised by a three-person committee consisting of an advisor and two additional faculty members.

All MA students must complete the following four courses.

Course #	Title	Hours
RELS:5400	Colonial Knowledge Production and Its Discontents: Religion and the Academy	3
Three graduate seminars (9 s.h.) from these:		
RELS:5200	Asian Religions in the Modern World for Graduate Students	3
RELS:5300	Genealogies of Religion	3

RELS:6070	Nonprofit Organizational Effectiveness I	3
RELS:6075	Nonprofit Organizational Effectiveness II	3
RELS:6150	American Religious Histories	3
RELS:6200	Seminar: Religious Ethics	3
RELS:6343	Feminist Criticism	3
RELS:6345	New Materialisms	3
RELS:6580	Seminar: Religion and Society	3
RELS:6710	Seminar: Approaches to Human Rights	3
RELS:6723	Seminar on Islamic Law and Government	3

Students select remaining coursework depending on their area of interest and in consultation with their advisory committee.

In their MA thesis work, students demonstrate and refine their research and writing skills. They may count a maximum of 6 s.h. of thesis credit toward the degree. Students must defend their thesis to their committee. Those who choose not to write a thesis must pass an examination that tests their competence in completed coursework. MA study in the department is expected to be completed in two years.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Application materials must include an application form; a transcript of all undergraduate and graduate work (one copy must be sent to university Admissions, and a second copy to the Department of Religious Studies); an application or waiver of consideration form for graduate assistantships; three confidential letters of recommendation; and a writing sample that demonstrates the applicant's ability to engage in critical analysis. Applicants must also submit a statement of purpose that explains their objectives for graduate study and states which area of graduate study in religion best suits their objectives. Students may indicate one of the department's traditional areas of concentration or an area that is defined more by theme [p. 980]. Students are advised to view the Department of Religious Studies website, most notably the faculty pages, to ascertain whether their area of interest is well-supported by faculty expertise.

Moreover, students are encouraged to contact relevant faculty members prior to applying for graduate study in order to explore areas of mutual interest. It is helpful to include information about such contacts in their statement of purpose. The strongest applications show how students would benefit from working with multiple members of the faculty. For details, see Graduate Admissions Process and Graduate Funding on the department's website.

All application materials must be received by Jan. 15 to receive full consideration for fall admission.

Career Advancement

Graduate students in religious studies acquire a wide range of competencies that are useful for almost any career they pursue. Students gain research skills; they master the craft of writing; they learn to plan, manage, and complete large projects; they gain teaching skills that are useful both inside and outside the academy; they learn to argue a point persuasively; they gain the ability to communicate with others about controversial issues; they learn how to understand and mediate differences in religious perspectives and values; they acquire highly valued language skills; and they gain expertise in the use of digital technologies for research and teaching.

Students who earn an MA often gain admission to excellent PhD programs in religious studies and other areas of study, such as journalism and mass communication. Others have gone on to divinity school, law school, and into careers within media and communication, health care, libraries, museums, church leadership, government, and public service.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Religious Studies, MA

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework including 24 s.h. completed at the University of Iowa after admission; up to 6 s.h. of graduate transfer credit allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
All MA students are required to demonstrate competency in English and at least one other language that is relevant to their advanced research; more specific language requirements are set in consultation with an advisory committee.		
Students often develop plans of study either in relation to traditional areas of concentration or by theme. [c]		
	Hours	**0**
First Year		
Fall		
RELS:5400	Colonial Knowledge Production and Its Discontents: Religion and the Academy	3
Graduate seminar course (prefix RELS) [d]		3
Elective course [e]		3
	Hours	**9**
Spring		
Graduate seminar course (prefix RELS) [d]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Second Year		
Fall		
Graduate seminar course (prefix RELS) [d]		3
Elective course [e]		3
	Hours	**6**
Spring		
Elective course [e]		3

Elective course [e]	3
Exam: Master's Final Exam [f]	
Hours	**6**
Total Hours	**30**

a Students must complete RELS:5400 and three graduate seminars (9 s.h.). Courses may be offered at different times, so students should work with faculty advisor and the department to determine appropriate coursework and sequence.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Traditional areas of concentration may include religions in the Middle East, Ancient Near East, or Mediterranean, religions in Asia, religions of Europe and the Americas, or topics related to religion, ethics, and society. Popular themes include religions' relationships to public life, gender, race, media and technology, and human health and well-being. Students work with a faculty advisor to determine an area of concentration that best suits their interests.

d See General Catalog for list of approved courses.

e Work with faculty advisor to determine appropriate graduate level elective coursework and sequence.

f Final summative exam.

Religious Studies, PhD

The doctoral program in the Department of Religious Studies trains participants to become advanced practitioners of the study of religion as researchers, scholars, teachers, and facilitators of informed public discourse. Some graduates become professors at colleges or universities while others bring a nuanced, critical understanding of religion and its influences to such careers as health care, law, diplomacy, ministry, social advocacy, journalism, counseling, and informatics.

PhD students train to analyze the ways in which diverse religious traditions originate, develop, and interact over time, and learn to identify and use multiple methods for the study of religion, including historical, philosophical, ethical, literary, linguistic, psychological, ethnographic, and digital approaches. Students typically draw on the expertise of several different members of the religious studies faculty and are also encouraged to work with faculty members in other UI departments who specialize in their areas of interest. Many PhD students work, for example, with scholars in the departments of Anthropology; Asian and Slavic Languages; Classics; Communication Studies; English; Gender, Women's, and Sexuality Studies; and History.

The program offers a collegial intellectual community, including a departmental colloquium series, a collaborative reading group in critical theory, and an ethos of mutual support among graduate students.

Graduate study in the Department of Religious Studies is highly flexible and personalized, and is shaped to individual students' interests concordant with existing faculty expertise.

Areas of Current Faculty Expertise

Religions of Southwest Asia, North Africa, and the Mediterranean

Religion, law, and politics in the Islamic world; the history of interpretation of the texts and traditions of Judaism, Christianity, and Islam; Greco-Roman and Egyptian religion and culture; digital humanities.

Religions of East Asia

Religious traditions of China and the political, social, and economic factors that have shaped them; modern religion and culture in Korea, most notably Christianity; religion and gender in transnational perspective; religion and empire.

Religions of the United States and the Atlantic World

History and ethnography of religion in the United States; African American religious traditions (Christianity, Islam, and African diaspora religions); West African religions; religion, media, and the negotiation of technological change; Latina/o/x Christianity.

Religion, Ethics, and Society

Religion and morality; religion, emotion, and affect; human rights; religion's relationship to gender, race, and ethnicity; ethics of medicine and biotechnology; religion and health.

Themes

Graduate study is also developed by theme. Popular themes include religions' relationships to public life, gender, race, media, technology, and human health and well-being.

Learning Outcomes

- Teaching success: students gain expertise in how to teach religious studies in a liberal arts setting, and if they serve as teaching assistants (TAs) during their graduate program, they show effectiveness in reaching a diverse audience of students.
- Critical knowledge of the field: students become familiar with foundational texts in their field, as well as influential scholarship that critically engages these texts and seeks to move the field in new directions; students identify ways in which they can contribute to the corpus of texts that compose their field.
- Academic skills: students develop skills to read carefully and think critically, and they write in clear and compelling ways about topics related to the study of religion; students have hands-on opportunities to develop key skills in public engagement.
- Religion and social equity: students gain a critical understanding of the historical entanglement of global religions with racism and misogyny; they can articulate religions' relationships to unjust power structures, as well as religions' contributions to greater social justice.
- Professional engagement: students demonstrate successful participation in the life of the department, their subfield, and the broader field of religious studies; they communicate about their learning with students from other fields.

For more detailed information on graduate programs in religious studies, contact the Department of Religious Studies or visit Graduate Programs on the department's website.

Requirements

The doctoral program in the Department of Religious Studies requires a minimum of 72 s.h. of graduate credit. A maximum of 24 s.h. of relevant graduate work may be transferred from another accredited graduate school or professional program, as approved by the director of graduate studies. A maximum of 12 s.h. of thesis writing credit may count toward the 72 s.h. requirement. Students must maintain a cumulative grade-point average of at least 3.40.

All PhD students are required to demonstrate competency in English and at least one other language that is relevant to their advanced research; more specific language requirements are set in consultation with an advisory committee.

Students are supervised initially by a three-person committee consisting of an advisor and two additional faculty members; often these members serve also on the student's five-person comprehensive exam and dissertation committees.

All PhD students must complete the following six courses.

Course #	Title	Hours
RELS:5400	Colonial Knowledge Production and Its Discontents: Religion and the Academy	3

CLAS:5100	Practicum: College Teaching and Professional Development for Teaching Assistants	arr.
GRAD:6217	Seminar in College Teaching	3
Three of these (9 s.h.) taken in the first two years:		
RELS:5200	Asian Religions in the Modern World for Graduate Students	3
RELS:5300	Genealogies of Religion	3
RELS:6070	Nonprofit Organizational Effectiveness I	3
RELS:6075	Nonprofit Organizational Effectiveness II	3
RELS:6150	American Religious Histories	3
RELS:6200	Seminar: Religious Ethics	3
RELS:6345	New Materialisms	3
RELS:6580	Seminar: Religion and Society	3
RELS:6710	Seminar: Approaches to Human Rights	3
RELS:6723	Seminar on Islamic Law and Government	3

Students select remaining coursework depending on their interests and in consultation with their advisory committee. PhD students must submit and have their departmental program of study approved in the fourth semester of their study to be permitted to proceed in the PhD program. Those who are approved are expected to write and orally defend comprehensive exams (by the eighth semester), a dissertation prospectus (by the ninth semester), and a doctoral dissertation (by the twelfth semester).

Students working toward a PhD may receive an MA upon completing at least 30 s.h. of coursework and passing their comprehensive examination.

It is the expectation that PhD students complete their studies in six years; five for those who are accepted into the program with an MA and transfer credit.

For more detailed information on graduate programs in religious studies, contact the Department of Religious Studies or visit Graduate Programs on the department's website.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Application materials must include an application form; a transcript of all undergraduate and graduate work (one copy must be sent to university Admissions, and a second copy must be sent to the Department of Religious Studies); an application or waiver of consideration form for graduate assistantships; three confidential letters of recommendation; and a writing sample that demonstrates the applicant's ability to engage in critical analysis. Applicants must also submit a statement of purpose that explains their objectives for graduate study and states which area of graduate study in religion best suits their objectives. Students may indicate one of the department’s traditional areas of concentration or an area that is defined more by theme [p. 983].

Students are advised to view the Department of Religious Studies website, most notably the faculty pages, to ascertain whether their area of interest is well-supported by faculty expertise. Moreover, students are encouraged to contact relevant faculty members prior to applying for graduate study in order to explore areas of mutual interest. It is helpful to include information about such contacts in their statement of purpose. The strongest applications show how students would benefit from working with multiple members of the faculty. For details, see Graduate Admission Process and Graduate Funding on the department's website.

All application materials must be received by Jan. 15 to receive full consideration for fall admission.

Career Advancement

Graduate students in religious studies acquire a wide range of competencies that are useful for almost any career they pursue. Students gain research skills; they master the craft of writing; they learn to plan, manage, and complete large projects; they gain teaching skills that are useful both inside and outside the academy; they learn to argue persuasively; they gain the ability to communicate with others about controversial issues; they learn how to understand and mediate differences in religious perspectives and values; they acquire rare language skills; and they gain expertise in the use of digital technologies for research and teaching.

Students who earn a PhD in religious studies often go on to become scholars and teachers in university or college settings. Other degree recipients have become professional ethicists, leaders of nongovernmental organizations, school or church administrators, nonacademic educators, digital media specialists, and government employees in the area of international affairs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Religious Studies, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; up to 24 s.h. of graduate transfer credit allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Students often develop PhD plans of study either in relation to traditional areas of concentration or by theme. [c]		
	Hours	**0**
First Year		
Fall		
CLAS:5100	Practicum: College Teaching and Professional Development for Teaching Assistants	1
RELS:5400	Colonial Knowledge Production and Its Discontents: Religion and the Academy	3

Graduate seminar course (prefix RELS) [d]		3
Elective course [e]		3
	Hours	**10**
Spring		
GRAD:6217	Seminar in College Teaching	3
Graduate seminar course (prefix RELS) [d]		3
Elective course [e]		3
	Hours	**9**
Second Year		
Fall		
Graduate seminar course (prefix RELS) [d]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Spring		
Submit PhD Plan of Study [f]		
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Third Year		
Fall		
Elective course [e]		3
Elective course [e]		3
	Hours	**6**
Spring		
Elective course [e]		3
Elective course [e]		3
	Hours	**6**
Fourth Year		
Fall		
Elective course [e]		3
Elective course [e]		3
	Hours	**6**
Spring		
Elective course [e]		3
Elective course [e]		3
Exam: Doctoral Comprehensive Exam [g]		
	Hours	**6**
Fifth Year		
Fall		
Dissertation Prospectus and Defense [h]		
RELS:7950	Thesis [i]	3
	Hours	**3**
Spring		
RELS:7950	Thesis [i]	3
	Hours	**3**
Sixth Year		
Fall		
RELS:7950	Thesis [i]	3
	Hours	**3**
Spring		
RELS:7950	Thesis [i]	2
Exam: Doctoral Final Exam [j]		
	Hours	**2**
	Total Hours	**72**

a Students must complete RELS:5400, CLAS:5100, GRAD:6217, three graduate seminars, and a dissertation. Courses may be offered at different times, so students should work with faculty advisor and the department to determine appropriate coursework and sequence.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Traditional areas of concentration may include religions in the Middle East, Ancient Near East, or Mediterranean, religions in Asia, religions of Europe and the Americas, or topics related to religion, ethics, and society. Popular themes include religions' relationships to public life, gender, race, media and technology, and human health and well-being. Students work with a faculty advisor to determine an area of concentration that best suits their interests.

d Students must complete three graduate seminars (9 s.h.) during the first two years in the program; consult with faculty advisor regarding the appropriate coursework and sequence. See General Catalog for list of approved courses.

e Work with faculty advisor to determine appropriate graduate level elective coursework and sequence.

f During the fourth semester, in consultation with faculty advisor and core committee, submit a comprehensive plan that includes work already completed and work yet to be completed, along with a paper written in the first three semesters at the University of Iowa.

g Typically completed during fourth year spring semester.

h During the semester after the comprehensive exam, students must submit a draft of their dissertation prospectus to their dissertation committee, followed by a two-hour oral defense. A prospectus must be approved by a majority vote before students are permitted to proceed with writing the dissertation.

i Maximum of 12 s.h. of dissertation credit may be counted towards the degree.

j Dissertation defense.

Resilience and Trauma-Informed Perspectives

Director, School of Social Work

- Miriam J. Landsman

Certificate Coordinator

- Harmony Linden

Undergraduate certificate: resilience and trauma-informed perspectives

Website: https://socialwork.uiowa.edu/

Many students are majoring in areas where they will encounter individuals who have experienced trauma. Untreated adverse childhood experiences (ACEs) are connected to mental illness, substance abuse, and suicide. ACEs include physical and emotional neglect; physical, sexual, and emotional abuse; parental separation or divorce; mental illness; domestic violence; substance abuse; and incarceration of a parent.

Expanded ACE surveys include poverty, discrimination, homelessness, and community violence. The presence of four or more ACEs is associated with increased risk of poor behavioral, social, mental, and medical health. According to the Centers for Disease Control (2020), about 61% of adults in 25 states reported they had experienced at least one type of ACE, and nearly 1 in 6 adults reported they had experienced four or more types of ACEs. Women and several racial/ethnic minority groups are at greater risk for experiencing more ACEs. The economic and social costs to families, communities, and society totals hundreds of billions of dollars each year. Preventing ACEs could reduce a large number of health conditions. Acknowledging the importance of identifying and treating ACEs, certificate students could positively impact these numbers, and will be better prepared to provide interventions to others.

The primary audience for the certificate program includes undergraduate students planning to go into helping professions such as social work, education, psychology, nursing, and public health. Students from health sciences programs, including the Carver College of Medicine, the physician assistant studies and services program, and the College of Law, could benefit as well. All undergraduate students are eligible to participate.

The colleges of Liberal Arts and Sciences, Education, Nursing, and Law, and the Carver College of Medicine graduate teachers, social workers, nurses, physicians, police officers, attorneys, judges, prosecutors, nonprofit organization workers and administrators, and public health workers who are employed across the nation. These professionals encounter the most traumatized individuals in society. Preparing undergraduate students in their professional fields with a good understanding of trauma, trauma-sensitive responses, and trauma-informed prevention and care provides skills that supplement their chosen professions.

The interdisciplinary Certificate in Resilience and Trauma-Informed Perspectives is sponsored by the School of Social Work and the College of Education, with support from the colleges of Nursing and Public Health. The certificate is administered by the School of Social Work [p. 998].

Programs

Undergraduate Program of Study

Certificate

- Certificate in Resilience and Trauma-Informed Perspectives [p. 987]

Resilience and Trauma-Informed Perspectives, Certificate

Learning Outcomes

Students who complete the certificate program will be able to:

- describe adverse childhood experiences (ACEs) and the influence they have on physical, mental, emotional, and spiritual outcomes in childhood and adulthood;
- identify their own trauma, if any, and learn how to process it to become healthier and more resilient in their own lives;
- describe resiliency, its dynamics, and ways to strengthen resiliency;
- analyze strategies to decrease or eliminate trauma in society including learning how to create trauma-informed organizations; and
- describe the impact of ACEs on communities and formulate strategies to prevent ACEs in communities and their field of practice.

Requirements

The undergraduate Certificate in Resilience and Trauma-Informed Perspectives requires 18 s.h. of coursework. Students must maintain a grade-point average of at least 2.00 in work for the certificate.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

The Certificate in Resilience and Trauma-Informed Perspectives requires two core courses, both offered online. MyUI indicates if elective courses are offered in the classroom or online.

Required Courses

Course #	Title	Hours
Both of these:		
SSW:2700/ PSQF:2700	Introduction to Understanding Trauma and Resilience	3
CSED:4173	Trauma Across the Lifespan	3

Electives

Course #	Title	Hours
At least 12 s.h. from these:		
SSW:1200	Mental Health Across the Lifespan	3
SSW:3786/ ASP:3786	Death/Dying: Issues Across the Life Span	3-4
SSW:3796	Family Violence	3
SSW:3797	Child Welfare Policy and Practice	3
SSW:3900	Campus Sexual Assault: Policy, Prevention, and Intervention	3
ANTH:2164/ GHS:2164	Culture and Healing: An Introduction to Medical Anthropology	3
ASP:3150	Psychology of Aging	3
CCCC:2220	Foundations of Critical Cultural Competence	3
COMM:2015	Communication and Resilience	3
CRIM:3414	Criminology of Genocide	3
CRIM:3425	Women, Crime, and Justice	3
CRIM:4300	Gender and Violence	3
CSED:4113	Sleep, Sleep Deprivation, and Sleep Disorders	3
CSED:4131	Loss, Death, and Bereavement	3
CSED:4174	Positive Psychology	3
CSED:4176	Child Abuse: Assessment, Intervention, and Advocacy	3
GHS:3660	Social Environmental Health Risks and Community Engagement	3
OEH:4510/ CPH:4230/ EPID:4510	Injury and Violence Prevention	3
PSY:2701	Introduction to Behavioral Neuroscience	4
PSY:3075	The Damaged Brain	3
PSY:3330	Childhood Psychopathology	3
RHET:2350	Forensic Rhetoric (when topic is memory, storytelling, and archives)	3
SJUS:3400/ GWSS:3400	Advocacy and Engagement Colloquium	1-3
TR:2077	Children and Families in Healthcare	3
Independent study in the Rape Victim Advocacy Training Program (consult certificate coordinator)		
Additional related courses (consult certificate coordinator for approval)		
May include one of these:		
SSW:3729	Substance Use and Abuse	3
SSW:4155	Treatment of Substance Use and Co-Occurring Disorders	3
CSED:4132	Introduction to Addictions and Impulse Control Disorders	3
CSED:4185	Introduction to Substance Abuse	3

Rhetoric

Interim Chair

- Sarah Lucinda "Cinda" Coggins Mosher

Undergraduate minor: rhetoric and persuasion

Faculty: https://rhetoric.uiowa.edu/people/faculty

Website: https://rhetoric.uiowa.edu/

The Department of Rhetoric offers undergraduate courses that fulfill the Rhetoric requirement of the different colleges at the university, as well as courses that apply toward the areas of Understanding Cultural Perspectives and Values and Society; see GE CLAS Core [p. 22] in the catalog. It also provides individual instruction in its Writing Center and offers other undergraduate courses, graduate seminars, and an undergraduate minor.

Rhetoric for the GE CLAS Core

All rhetoric courses focus on the development of foundational skills in college-level communication: writing, speaking, listening, and critical reading. Rhetoric courses teach foundational compositional and presentational skills, such as thesis statements, introductions and conclusions, claim-evidence format, and proper citation formatting. Courses also build competence in analysis and persuasion, as well as in research and inquiry. Rhetoric is not a content course; it is skills-based and teaches students *how* to think, not *what* to think.

Once students have researched the breadth and depth of controversy-based issues that interest them, they are well-positioned to contribute to those discussions deliberately, persuasively, and with multiple interests in mind. While all rhetoric sections adhere to specific department requirements, focus primarily on responsible inquiry and analysis, and require comparable workloads in terms of formal and informal assignments, each instructor assigns a unique set of texts and contexts to teach rhetorical concepts.

Rhetoric aligns with the overall GE CLAS Core's mission to provide opportunities for individualized instruction and small class experiences by offering an intimate studio dynamic that is student- and process-centered. During their first year at the university, most students enroll in the rhetoric course indicated on their degree audit unless their English proficiency evaluation requires them to complete one or more prerequisite courses in English as a Second Language (ESL). Students planning to transfer to the University of Iowa should discuss rhetoric course equivalencies as soon as possible with University of Iowa Admissions.

Students who undergo formal evaluation by Student Disability Services and are found to have a learning disability in reading, writing, listening, or speaking should request reasonable accommodations in order to complete rhetoric. Accommodations may be arranged by Student Disability Services in consultation with the Department of Rhetoric and individual instructors.

Programs

Undergraduate Program of Study

Minor

- Minor in Rhetoric and Persuasion [p. 991]

Courses

Rhetoric Courses

RHET:1000 First-Year Seminar 1-2 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

RHET:1010 Writing for Academic Success 1 s.h.
Individualized instruction in the Writing Center; in conjunction with GE CLAS Core Rhetoric courses.

RHET:1030 Rhetoric: Writing and Communication 4-5 s.h.
Analysis and critique to discover, question, explain, and justify positions and claims made in writing and speaking; reading and listening to comprehend and assess arguments; employment of rhetorical concepts (e.g., purpose, audience); understanding research as responsible inquiry for speaking and writing; special topics, activities. Requirements: completion of any required ESL courses. GE: Rhetoric.

RHET:1040 College Writing and Reading 3 s.h.
Introductory course in writing required of students who have completed a college-level public speaking course, but have not otherwise satisfied the rhetoric requirement. Requirements: completion of GE CLAS Core speaking requirement and any required ESL courses. GE: Rhetoric - Writing.

RHET:1060 College Communication and Reading 3 s.h.
Introductory course in speaking required of students who have completed 6 s.h. of college writing instruction, but have not completed a 3 s.h. college-level speaking course; intended to improve speaking, listening, critical, analytical, and advocacy skills. Requirements: completion of GE CLAS Core writing requirement and any required ESL courses. GE: Rhetoric - Speech.

RHET:2000 Big Ideas: Creativity for a Lifetime 3 s.h.
Exploration of what senior artists can teach about creativity and aging; interdisciplinary project-based collaborative learning opportunities that consider role of arts and creativity across a lifespan; essential skills necessary to be professionals in numerous careers including health, social work, education, humanities, and the arts; identification of ways for students to be more creative in their own lives and work. GE: Values and Society. Same as ARTS:2000, ASP:2000, EDTL:2000.

RHET:2055 Persuasion and Advocacy 3 s.h.
Maya Angelou said, "The wisest thing I can do is be on my own side, be an advocate for myself and others like me"; how to craft a powerful voice that aligns intellect with passions, shape audience impressions, and gain acceptance and recognition from others when advocating for yourself and for things you believe in; assignments tailored to student's interests and goals.

RHET:2065 Persuading Different Audiences: Launching a Successful Career 3 s.h.
Preparation for student's future persuasive demands as they start their careers; creation of several short projects addressing a variety of audiences, context, and situations with the goal of developing a professional and personable style; assignments reflect challenging circumstances in the workplace.

RHET:2070 Persuasive Stories 3 s.h.
Examination of the persuasive dimension of stories; students master the skill of storytelling by examining stories circulating within their culture and exploring the effects these stories have on thinking about their identities and discovering their own voices; integration of speaking and writing skills with persuasive storytelling skills through short oral and written assignments that lead to a final multimodal project of two interrelated storytelling assignments—production of a website and a podcast. Prerequisites: RHET:1030 or RHET:1040 or RHET:1060. GE: Values and Society.

RHET:2085 Speaking Skills 3 s.h.
How to become confident and effective speakers; assignments include formal presentations and shorter, informal speaking activities; peer and instructor feedback help improve the impression students create as speakers; strengths developed include earning credibility, capturing and maintaining audience interest, and coming across as personable, professional, and confident. Prerequisites: RHET:1030 or RHET:1040 or RHET:1060.

RHET:2090 Conversation Practicum 0-3 s.h.
Intercultural conversation with international students in small groups or pairs; readings, classroom discussions, and in-class training to develop cultural competence and related skills.

RHET:2095 Fundamental Strategies of Persuasion 3 s.h.
Strategies of approaching persuasion in a variety of personal, professional, and communal contexts; fundamentals of persuasion including audience adaptation, creating reasoned and passionate appeals, conveying character, and enabling identification. Prerequisites: RHET:1030 or RHET:1040 or RHET:1060. Requirements: completion of GE CLAS Core Rhetoric.

RHET:2135 Decoding Disability: Rhetoric of Access and Accommodations 3 s.h.
Explores how language shapes perceptions of disability, access, and accommodations—acting both as a barrier to and a means of challenging societal norms. Students examine the role of rhetoric in defining ability and how communication practices impact accessibility. Through written, spoken, signed, and digital expression, they analyze how cultural frameworks value or marginalize different bodies and minds. Emphasizing practical strategies, the course equips students to foster accessibility and opportunity in academic, professional, and public spaces. GE: Understanding Cultural Perspectives. Same as SJUS:2135.

RHET:2350 Forensic Rhetoric 3 s.h.
Students strengthen argumentation, communication, and research skills while discussing the cultural phenomenon of forensic rhetoric (i.e., using the past to make arguments); rhetorical analysis of autobiographical stories, development of podcasts related to readings, and a multimodal project involving archival research.

RHET:2610 Acting for Success 3 s.h.
How skills learned by actors in the theatre world can be applied to presentations and interactions in business, education, and beyond; how to connect with others on a personal level; ability to stand out as a team player and a leader; acting techniques traditionally used in theatre to open up communication dynamics; how to display an authentic self in everyday situations. Corequisites: RHET:1030 or RHET:1040 or RHET:1060. GE: Engineering Be Creative. Same as THTR:2610.

RHET:3220 Honors Writing Fellows: Writing Theory and Practice 3 s.h.
Preparation of honors students selected as writing fellows to serve as peer tutors in writing-intensive courses; theories of writing, evaluation of drafts, peer tutoring with students.

RHET:3350 Gaming (the) Systems 3 s.h.
Knowing that Rhetoric is the art and study of persuasion and meaning making, students examine how games—one of the newest and most important forms of modern media—participate in these rhetorical practices; students play, discuss, and read about games and how games interact with the cultural discourses surrounding us on their way toward crafting their own rhetorical contributions to the world of games and gaming media; students play small, indie titles and a few major games as they produce an argumentative article, a game review, a video blog, and finally a game itself; beginner friendly, no prior knowledge of games or design programs required. Prerequisites: RHET:1030 or RHET:1040 or RHET:1060.

RHET:3560 Public Policy and Persuasion 3 s.h.
Students build their skill set in policy analysis, formation, and communication through a social justice lens; engagement in service learning projects in one Iowa community, where work done directly impacts that community's ability to make changes; development of effective writing and oral presentation styles that can be adapted to different audiences; focus on homelessness policy using social policy and social justice concepts to explore work of policy makers who have "right-sized" existing systems to serve communities in crisis and propose solutions to systemic problems that disadvantage marginalized populations. Prerequisites: RHET:1030 or RHET:1040 or RHET:1060. Same as PBAF:3560, POLI:3560, SJUS:3560.

RHET:3700 Advocacy and Sustainability: Crafting Stories of People, Place, and Resilience 3 s.h.
How sustainable approaches to meeting critical social needs (food, water, shelter, air, work) have influenced food systems, policies on development, environmental problems, social justice, and policy both local and global in scope; readings and field research activities leading to creation of work of multimodal advocacy. Prerequisites: RHET:1030 or RHET:1040 or RHET:1060. Requirements: fulfillment of GE CLAS Core Rhetoric.

RHET:4980 Special Projects for Undergraduates arr.
Prerequisites: RHET:1030 or RHET:1040 or RHET:1060.

RHET:5100 Practicum: College Teaching and Professional Development for Teaching Assistants arr.
Guidance for teaching assistants seeking introduction to teaching at college level; focus on practical pedagogical concerns, including how to structure a course, devise learning outcomes, develop a syllabus and a calendar of assignments, evaluate student work, and create a student-centered classroom with collaborate learning experiences; pre-semester intensive training session, weekly meetings during first month of semester, periodic meetings to address midterm and late-semester issues; concurrent with TA teaching assistantships. Recommendations: interest in teacher training and preparation. Same as CLAS:5100.

RHET:5350 Colloquium: Teaching Rhetoric 3 s.h.
Professional development program for new rhetoric teachers; includes three-day workshop.

RHET:5352 Seminar: Topics in Teaching and Professional Development 3 s.h.
Professional development and advanced study of pedagogical theories and practices; focus on teaching as a rhetorical act; readings on pedagogy, composition theories, and learning process; academic and alt-ac career options; teaching philosophy statement, teaching portfolio, peer classroom observations, and research project; for experienced rhetoric instructors and others teaching writing-intensive, process-oriented courses. Recommendations: previous or current teaching experience in composition-intensive courses.

RHET:5375 Teaching in a Writing Center 3 s.h.
Seminar/practicum to prepare graduate students to teach in the University of Iowa Writing Center or similar settings; seminar component on writing and reading processes, tutoring strategies, English-as-a-second-language issues; practicum experience tutoring in the Writing Center. Same as CNW:5375.

RHET:6330 Writing for Learned Journals 1-4 s.h.
Seminar that supports graduate students in bringing written work to publishable form; analysis of target journals' audiences, interests, and citation politics; submission and the publication process; response to reader reports and criticism; best writing and research practices; discussion of knowledge cultures and discourses in disciplines and the contemporary academy. Same as AMST:6300, GRAD:6300, GWSS:6300.

RHET:6980 Graduate Independent Study arr.
Exploration of advanced topics in the field of Rhetoric; pre-arranged and agreed upon by student and faculty member.

RHET:7500 Science Communication in the Digital Age 2-3 s.h.
Preparation for communicating scientific discoveries and importance of scientific endeavors in digital media; focus on adaptable and transferable skills; relevant preparation for digital communication in academic and nonacademic career paths; develop aptitude with speaking and performance skills relevant to video presentation; develop familiarity with video composition and editing processes.

RHET:7930 Writing in the Disciplines arr.
Writing instruction.

RHET:7940 Public Speaking for Academics 3 s.h.
Prepares graduate students for the public speaking occasions germane in their home disciplines and in their future professions; students gain experience moving between different rhetorical registers in public speaking through engaging in cross-disciplinary conversations about performance and speaking practices while refining discipline-specific speaking strategies; honing the ability to communicate the same information in different forms and styles (along with understanding the corresponding advantages and limitations of such) will contribute to students' teaching and scholarly skill sets.

Rhetoric and Persuasion, Minor

Requirements

The undergraduate minor in rhetoric and persuasion requires a minimum of 15 s.h., including 12 s.h. earned in courses taken at the University of Iowa and at least 12 s.h. earned in Department of Rhetoric courses. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

The minor in rhetoric and persuasion requires the following coursework.

Course #	Title	Hours
15 s.h. from these:		
RHET:2055	Persuasion and Advocacy	3
RHET:2065	Persuading Different Audiences: Launching a Successful Career	3
RHET:2070	Persuasive Stories	3
RHET:2085	Speaking Skills	3
RHET:2095	Fundamental Strategies of Persuasion	3
RHET:2135/ SJUS:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
RHET:2350	Forensic Rhetoric	3
RHET:3350	Gaming (the) Systems	3
RHET:3700	Advocacy and Sustainability: Crafting Stories of People, Place, and Resilience	3
RHET:4980	Special Projects for Undergraduates (may not be repeated)	arr.
May include one of these:		
RHET:2000/ ARTS:2000/ ASP:2000/ EDTL:2000	Big Ideas: Creativity for a Lifetime	3
RHET:2610/ THTR:2610	Acting for Success	3
RHET:3560/ PBAF:3560/ POLI:3560/ SJUS:3560	Public Policy and Persuasion	3
BUS:3000	Business Communication and Professionalism	3
CLSA:3742/ WRIT:3742	Word Power: Building English Vocabulary	3
COMM:1816	Business and Professional Communication	3
GWSS:3138/ SJUS:3138	Writing to Change the World	3
LATH:3000	Latham Fellows: Science Communication Skill Building	2
LATH:3001	Latham Fellows: Science Outreach Project	2
THTR:1140	Basic Acting	3

Focus Areas

Students who would like to choose courses in certain focus areas may select from the following, taking into account the preceding course requirements.

The Skills of Speaking, Presenting, and Communicating Effectively

Course #	Title	Hours
RHET:2065	Persuading Different Audiences: Launching a Successful Career	3
RHET:2085	Speaking Skills	3
RHET:2095	Fundamental Strategies of Persuasion	3
RHET:2610/ THTR:2610	Acting for Success	3

The Skills of Writing Professionally and Persuasively

Course #	Title	Hours
RHET:2070	Persuasive Stories	3
RHET:2350	Forensic Rhetoric	3
RHET:3350	Gaming (the) Systems	3

Advocacy: Making the World a Better Place

Course #	Title	Hours
RHET:2055	Persuasion and Advocacy	3
RHET:2070	Persuasive Stories	3
RHET:2135/ SJUS:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
RHET:3560/ PBAF:3560/ POLI:3560/ SJUS:3560	Public Policy and Persuasion	3
RHET:3700	Advocacy and Sustainability: Crafting Stories of People, Place, and Resilience	3

Performance Rhetoric

Course #	Title	Hours
RHET:2065	Persuading Different Audiences: Launching a Successful Career	3
RHET:2070	Persuasive Stories	3
RHET:2610/ THTR:2610	Acting for Success	3
RHET:3350	Gaming (the) Systems	3
RHET:4980	Special Projects for Undergraduates	arr.
THTR:1140	Basic Acting	3

Social Justice and the Performing Arts

Chair, Department of Theatre Arts

- Mary Beth Easley

Co-coordinators

- Caroline S. Clay, Johanna M. Kasimow

Undergraduate certificate: social justice and the performing arts

Faculty: https://theatre.uiowa.edu/people

Website: https://theatre.uiowa.edu/certificate-social-justice-and-performing-arts

Students who earn the Certificate in Social Justice and the Performing Arts learn methods and practices to expand the parameters of their academic and arts disciplines to include diverse ways of thinking, creative problem solving, and practical applications for social justice-focused arts projects and scholarship in the United States and transnationally. The certificate is designed to foster interdisciplinarity between students from across the university, whether they are in the arts or not.

Students access and hone human-centered skills in empathy, compassion, and social responsibility, and they gain a sense of belonging, equity, and inclusion as they approach their work and partner with others. They examine who the work will impact, determining who benefits, and how they can make ethical choices as they develop or collaborate on community-based creative projects. With a combination of performing arts and social justice courses and projects, certificate students will be better prepared to take on a wider range of career opportunities in and beyond performing arts organizations after graduation.

The certificate helps students to align their discipline studies more closely with their interests and their desire to be of service to their communities, to work in community with one another, and to collaborate with the wider community of Iowa City and beyond as they become fully engaged global citizens.

The departments of Dance [p. 326], Theatre Arts [p. 1100], and Gender, Women's, and Sexuality Studies [p. 468], and the School of Music [p. 813] collaborate to offer the certificate. The Department of Theatre Arts administers the certificate.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Social Justice and the Performing Arts [p. 993]

Social Justice and the Performing Arts, Certificate

Learning Outcomes

The certificate provides students with the following competencies:

- Increased knowledge about selected history of social movements, how those movements emerged, and the impacts those movements had on policy, populations, the environment, the arts, and culture.
- The ability to explore through coursework how the intersections of geography, race, class, gender, sexuality, health, economics, and history create networks of privilege and oppression across the globe, and to reflect on situations they encounter in art and community engagement work.
- The ability to explore the application of the role of performing arts in community and society throughout history and in established creative community engagement, social justice-based projects, and/or scholarly work, and how that focus can be applied to interdisciplinary social justice work.
- The ability to read, write, listen, and act through social justice coursework in order to understand how conditions are created for change on the local, regional, and national level historically, ethically, politically, and personally.
- The articulation of a vision that starts to inform their work, future project planning, and thinking about the arts and community that includes their ability to creatively conceptualize and articulate their personal goals while balancing the needs of community partners in performance, social, and global contexts in relation to existing philosophies and theories, and to apply their vision to creative or scholarly engagement work.

Requirements

The undergraduate Certificate in Social Justice and the Performing Arts requires a minimum of 21 s.h. of coursework, including at least 18 s.h. earned at the University of Iowa or in approved study abroad courses. Students must maintain a grade-point average of at least 2.00 in coursework for the certificate. Coursework in the certificate may not be taken pass/nonpass.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Students complete two foundation courses, one creative practice and skill-building course, three background courses, and one capstone course. They must meet with the certificate director or an area of study advisor every semester to discuss their course selections and plan for the capstone course.

Students who wish to count a course not listed in the certificate program of study, including study abroad courses, may submit a request for approval to the certificate director. Any course submitted for approval must address social justice themes.

Some of the courses have prerequisites; students must complete all of a course's prerequisites before they may register for a course. Some of these courses also have specific restrictions, such as courses being open only to certain majors.

The Certificate in Social Justice and the Performing Arts requires the following coursework.

Foundation Courses

Course #	Title	Hours
Both of these:		
THTR:3615	Action! Engage! Art! Creative Placemaking for the Public Good	3
SJUS:1001	Introduction to Social Justice	3

Creative Practice and Skill Building

Performing arts students must take a course outside their major or minor area of study to build partnerships across disciplines.

Course #	Title	Hours
One of these:		
THTR:1411	Comedy and Society	3
THTR:3421	Performing Autobiography	3
THTR:3630	Special Topics in Theatre Arts (when topic is devised theatre project: social justice and collaborative performance or the musical as vehicle for social change)	3
THTR:3895	Performance, Art, and New Technologies in Society	3
THTR:6310	Special Topics in Playwriting (when topic is site specific performances and playwriting)	3
DANC:1150	Brazilian Culture and Carnival	3
DANC:1412	The Arts in Performance	3
DANC:3600	Art, Feminist Practice, and Social Justice	3
EDTL:2670	Peacebuilding, Singing, and Writing in a Prison Choir	3
MUS:2800	Digital Arts: An Introduction	3

Background Courses

Performing arts students may take only one background course in their major or minor area of study. All students select 9 s.h. (three courses) from the following emphasis areas.

The Environment and Ecological Justice

Course #	Title	Hours
THTR:6310	Special Topics in Playwriting	3
AFAM:4770	Environmental Justice	3
ANTH:3103	Environment and Culture	3
RHET:3700	Advocacy and Sustainability: Crafting Stories of People, Place, and Resilience	3

SEES:3300	Envisioning Future Worlds: Sustainable Development and Its Alternatives	3
SJUS:1046	Environmental Politics in India	3

Gender, Women's, and Sexuality Studies

Course #	Title	Hours
THTR:2405	Staging Americans: U.S. Cultures Through Theatre and Performance	3
THTR:3430	Women on Stage	3
GWSS:3282	Women and Power in U.S. History Since the Civil War	3
GWSS:3600	Art, Feminist Practice, and Social Justice	3
MUS:4320	Music and Gender	3
SJUS:2500	Love, War, Activism: Stories About Women From Across the World	3

Global and Transnational Studies

Course #	Title	Hours
THTR:2320	Playwriting in a Global World	3
THTR:6310	Special Topics in Playwriting (when topic is cross-cultural collaboration: theatre and peace keeping, or theatre in conflict zones, or theatre and activism)	3
DANC:2060	Dance and Society in Global Contexts	3
DANC:2085	Introduction to African Caribbean Dance Practices	3
GWSS:2650	Global Reproduction	3
HRTS:3906	Global Crises and Human Rights	3
MUS:1310	World Music	3
SJUS:3250	Literature and Social Justice	3

Race and Ethnicity in the U.S.

Course #	Title	Hours
THTR:2405	Staging Americans: U.S. Cultures Through Theatre and Performance	3
AFAM:1241	The Soundtrack of Black America	3
AFAM:3053	The Civil Rights Movement	3
AFAM:3600	Digitizing Blackness	3
COMM:2054	Movements, Protest, Resistance	3
DANC:2065	Performing Power/ Performing Protest: The Body, Identity, and the Image	3
HIST:3232	History of American Inequality	3
MUS:1009	Jazz Cultures in America and Abroad	3
MUS:1303	Roots, Rock, and Rap: A History of Popular Music	3
MUS:4350	Advanced Jazz History	3
MUS:4360	Jazz Matters	3
SJUS:3250	Literature and Social Justice	3
SJUS:3415	Latina/o/x Protest, Movement, Resistance	3

Capstone Course

Students submit a capstone project plan in the semester before they enroll in the capstone course.

Course #	Title	Hours
One of these:		
THTR:4691	Projects in Theatre	3-4
THTR:4692	Honors Theatre Arts	3-4
DANC:4990	Independent Study	3-4
DANC:4998	BFA Senior Project in Dance	3-4
DANC:4999	Honors Project in Dance	3-4
GWSS:3900	Research for Public Engagement	3
MUS:3990	Undergraduate Special Studies	3-4
MUS:4995	Honors in Music	3-4

Social Science Analytics

Chair, Department of Political Science

- Julianna Pacheco

Coordinator, Social Science Analytics

- Frederick J. Boehmke (Political Science)

Undergraduate certificate: social science analytics

The growth of big data and informatics calls for a new set of skills for social science students and an increased understanding of the logic of data collection and analysis. The certificate focuses on the application side of data analysis. It allows students to focus on the specific research methods and data-driven quantitative skills that are most effective for understanding an increasingly complicated social-political world. The certificate offers an opportunity for interdisciplinary training on how data can be used to address important questions in the social sciences.

The Certificate in Social Science Analytics is interdisciplinary, and a number of departments collaborate to leverage distinct strengths and offer courses applicable to the certificate, including the School of Earth, Environment, and Sustainability and the departments of Political Science, Sociology and Criminology, and Statistics and Actuarial Science. The certificate is administered by the Department of Political Science [p. 927].

Programs

Undergraduate Program of Study

Certificate

- Certificate in Social Science Analytics [p. 996]

Social Science Analytics, Certificate

Requirements

The undergraduate Certificate in Social Science Analytics requires a minimum of 18 s.h. Students complete requirements in five different component areas for a total of at least six courses. Students must maintain a grade-point average of at least 2.00 in work for the certificate. Up to 6 s.h. of transfer credit may be counted toward certificate requirements.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Some of the certificate courses have prerequisites not included in the certificate requirements. Students should select courses for which they have met the prerequisites.

The Certificate in Social Science Analytics requires the following coursework.

Requirements	Hours
Introduction to Data and the Social Sciences Course	3
Social Science Research Design and Data Analysis Course	3
Core Statistics Courses	6-7
Building Skills and Data Science Course	3-4
Applied Research Experience	3

Introduction to Data and the Social Sciences

Course #	Title	Hours
This course:		
POLI:1050/ RELS:1050	Big Ideas: Introduction to Information, Society, and Culture	3

Social Science Research Design and Data Analysis

Course #	Title	Hours
One of these:		
POLI:2000	Designing Political Research	3
SOC:2170	Research Methods	3

Core Statistics

Course #	Title	Hours
Two of these:		
POLI:3000	Analyzing Political Data	3
SOC:2160	Applied Statistics for Social Scientists	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:2010	Statistical Methods and Computing	3
STAT:3120/ DATA:3120/ IGPI:3120	Probability and Statistics	4
STAT:3200/ DATA:3200/ IGPI:3200/ISE:3760	Applied Linear Regression	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3
STAT:6513/ PSQF:6243	Intermediate Statistical Methods	3

Building Skills and Data Science

Course #	Title	Hours
One of these:		
CS:1210	Computer Science I: Fundamentals	4
CS:2110	Programming for Informatics	4
CS:2420	Analyzing Data for Informatics	3
CS:2520	Human-Computer Interaction for Informatics	3
CS:3980	Topics in Computer Science I	3
ECON:4800	Econometric Analysis: Advanced Causal Inference With Data	3
POLI:3050	Problems in Methods	3-4
SEES:2050	Foundations of GIS	4
SEES:3540/ IGPI:3540	Geographic Visualization	3
SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3
SEES:4580/ IGPI:4581	Introduction to Geographic Databases	3
SOC:3880	The Sociology of Networks	3
SOC:4000	Data Science for Social Good	3
STAT:1015/ DATA:1015	Introduction to Data Science	3
STAT:4520/ IGPI:4522/ PSQF:4520	Bayesian Statistics	3
STAT:4540/ BAIS:4540/ DATA:4540/ IGPI:4540	Statistical Learning	3
STAT:4580/ DATA:4580/ IGPI:4580	Data Visualization and Data Technologies	3
STAT:6560	Applied Time Series Analysis	3

Applied Research Experience

Course #	Title	Hours
At least 3 s.h. from these:		
GHS:3010/ IGPI:3011	Social Science Approaches to Global Health	3
POLI:3001	Hawkeye Poll	3
POLI:3127	Legislative Policy Seminar	3
POLI:3525	Iowa Policy and Opinion Lab	0-3
POLI:3994	Political Science Undergraduate Research Projects	1-4

POLI:4600	Honors Research Project	3
POLI:4701	Undergraduate Research Tutorial	3
SEES:4030	Senior Project Seminar	3
SOC:3170	Applied Research	3
SOC:4998	Honors Research	arr.
STAT:6220/ DATA:6220	Consulting and Communication With Data	3

Career Advancement

The certificate will ensure students are more competitive for careers and opportunities with political campaigns, policy analysis, public opinion firms, consulting and government agencies, and local communities.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Social Work

Director

- Miriam J. Landsman

Director, Bachelor of Arts Program

- Alison L. Oliver

Director, Master of Social Work Program

- Stephen P. Cummings

Director, Doctor of Philosophy Program

- Aislinn Conrad

Undergraduate major: social work (BA)

Undergraduate minor: social work

Graduate degrees: MSW; PhD in social work

Faculty: https://socialwork.uiowa.edu/people

Website: https://socialwork.uiowa.edu/

The School of Social Work's mission is to develop culturally responsive practitioners, scholars, researchers, and leaders to create a more just society. The school operates from strengths-based perspectives and systems perspectives. It educates its graduates to be culturally competent scholars and practitioners who are committed to social justice and social work values and ethics, and who are prepared to serve in and have a positive impact on a broad range of family-centered and community-based practice settings throughout the State of Iowa and beyond.

The school provides a program of professional training accredited by the Council on Social Work Education at the baccalaureate and master's degree levels, aimed at developing effective intervention in multiple systems and using professional social work values and ethics. It also offers a PhD program, which prepares students to conduct research that contributes to the knowledge base of social work, to be leaders in setting policy and practice, and to teach in colleges and universities. In addition, the School of Social Work administers the following programs.

Minor and Certificates

Aging and Longevity Studies

The School of Social Work administers the undergraduate minor and graduate certificate in aging and longevity studies; see Aging and Longevity Studies [p. 47] in the catalog.

Critical Cultural Competence

The School of Social Work administers the undergraduate certificate in critical cultural competence; see the Certificate in Critical Cultural Competence [p. 325] in the catalog.

Resilience and Trauma-Informed Perspectives

The undergraduate certificate in resilience and trauma-informed perspectives is administered by the School of Social Work; see the Certificate in Resilience and Trauma-Informed Perspectives [p. 987] in the catalog.

Continuing Education

Nondegree students may enroll in selected courses. Students who later enroll in a degree program may be able to apply a limited amount of their nondegree work toward their degree requirements; applicable credit is determined by the School of Social Work.

Programs

Undergraduate Programs of Study

Major

- Major in Social Work (Bachelor of Arts) [p. 1005]

Minor

- Minor in Social Work [p. 1009]

Graduate Programs of Study

- Master of Social Work [p. 1010]
- Doctor of Philosophy in Social Work [p. 1015]

Courses

Social Work Courses

SSW:1000 First-Year Seminar 1-2 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

SSW:1022 Social Justice and Social Welfare in the United States 3 s.h.
Critically examine historical and current practices to address social injustices including poverty, discrimination, and other threats to human rights and well-being; evaluation of personal and professional values within the context of one's culture; exploration of roles and responsibilities to enhance society for future generations; dialogue with professionals working in topic areas. Topic areas may include poverty, homelessness, mental and physical health, criminal justice, education, aging, and interpersonal violence. GE: Values and Society. Same as SOC:1022.

SSW:1200 Mental Health Across the Lifespan 3 s.h.
Basic, foundational mental health concepts emphasizing mental health variations and disorders throughout the lifecycle; use of cultural humility and social determinants of mental health as guiding frameworks to better understand differences among groups. GE: Understanding Cultural Perspectives.

SSW:1800 Aging Matters: Introduction to Gerontology 3 s.h.
Overview of the field of gerontology from a bio-psycho-social framework; how the human body and brain age, effects of these biological changes on physical and cognitive functions, and interaction of these individual factors with societal contexts; broad perspective to give students a foundation in gerontology, paving the way for more advanced courses in biology of aging, psychology of aging, and global aging; for students from a wide range of disciplines and levels, no prior knowledge of aging required. GE: Social Sciences. Same as ASP:1800, CSD:1800, NURS:1800, TR:1800.

SSW:2042 Intercultural Communication 3 s.h.
Culture defined as a system of taken-for-granted assumptions about the world that influence how people think and act; cultural differences that produce challenges and opportunities for understanding and communication; those differences from several theoretical perspectives; opportunities to examine culture and cultural differences in practical, experience-driven ways. Same as COMM:2042, IS:2042.

SSW:2700 Introduction to Understanding Trauma and Resilience 3 s.h.
Introduction to understanding key concepts of trauma-informed systems of care in multiple settings; identification of various types of trauma along with behaviors and responses seen in survivors of trauma; students trace effects of historical trauma of marginalized communities and multiple trauma survivor groups to understand the consequences of trauma and its impact in the culture; resilience and strategies to offset consequences of trauma. Same as PSQF:2700.

SSW:3135 Global Aging 3 s.h.
Demographic factors that contribute to the worldwide phenomena of population aging in context of WHO Active Aging and the United Nation's Principles for Older Persons frameworks. Same as ASP:3135, GHS:3050.

SSW:3191 Individual Study arr.
Project related to student interest carried out under direction of faculty member.

SSW:3500 Nonprofit Organizational Effectiveness I 3 s.h.
Operational and financial aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as ENTR:3595, MGMT:3500, MUSM:3500, NURS:3595, RELS:3700.

SSW:3570 Poverty Policy 3 s.h.
How poverty is regulated and addressed in the United States, and by federal, state, and local governments; particular focus on programs including Temporary Assistance for Needy Families (TANF), Section 8 housing, Medicaid, and Medicare; how these systems have changed over time; current models and innovations that have emerged in practice. Same as GHS:3570, PBAF:3570, POLI:3570.

SSW:3580 Native American Public Policy 3 s.h.
Exploration of ways that Native nations govern themselves, including the relationship between these sovereign entities and the U.S. government; topics include Indian Child Welfare Act, membership and enrollment, income and taxation, crime and justice; how these systems have changed over time; current practices and innovations that have emerged within different tribes. Same as NAIS:3580, PBAF:3580.

SSW:3600 Nonprofit Organizational Effectiveness II 3 s.h.
Qualities for leadership of nonprofit organizations, including relationships with staff and volunteers; relationship of nonprofit and outside world; marketing, public relations, advocacy strategies for nonprofits. Same as MGMT:3600, NURS:3600, RELS:3701.

SSW:3712 Human Sexuality, Diversity, and Society 1-3 s.h.
Introduction to human sexuality from a biopsychosocial, sex-positive perspective; sexuality as a normal and essential component of human existence and expression throughout the life span; influence of gender, class, religion, race, ethnicity, sexual orientation, ability status, age, and culture on sexuality interwoven and highlighted; diversity of perspectives and experiences shared through active participation and respectful dialogue. Same as NURS:3712.

SSW:3729 Substance Use and Abuse 2-3 s.h.
Chemical dependency for helping professions; etiological, physiological, psychological, legal, sociological aspects; treatment methods.

SSW:3786 Death/Dying: Issues Across the Life Span 3-4 s.h.
Introduction to the field of end-of-life care; examination of student concerns about death, dying, and grieving process; historical, cultural, societal, and personal perspectives of death and dying in modern society. Same as ASP:3786.

SSW:3796 Family Violence 2-3 s.h.
Thinking critically about one of the most damaging family problems prevalent in the United States today—family violence; students examine the phenomena of child abuse and neglect, domestic violence, and elder abuse, including definitions, causes, risk factors, consequences, reporting, assessment, intervention, prevention, and policy.

SSW:3797 Child Welfare Policy and Practice 3 s.h.
Public and private child welfare practice and organizations in the United States; historical and legal aspects, co-occurring issues, foster care, adoption, family preservation.

SSW:3799 Selected Aspects of Social Work and Social Welfare arr.
Human behavior, practice, social welfare policy.

SSW:3840 Human Behavior in the Social Environment 3-4 s.h.
Behavior and development in context of social, ecological systems and human diversity; overview of biopsychosocial dimensions, individual behavior, and development throughout lifespan; contexts of diverse family, group, community, organization, and cultural systems. Requirements: completion of the professional social work agreement form.

SSW:3841 Fundamentals of Social Work Practice 3 s.h.
Professional practice: functions, roles, skills, conceptual frameworks, values, ethics; focus on integrated approach to practice, including assessment, intervention, evaluation of interventions, termination with individuals, families, groups; emphasis on empirically based practice. Corequisites: SSW:3840, if not taken as a prerequisite. Requirements: completion of the professional social work agreement form.

SSW:3842 Interpersonal Skills Laboratory 2 s.h.
Practice of interpersonal skills required in the helping relationship. Corequisites: SSW:3841, if not taken as a prerequisite. Requirements: completion of the professional social work agreement form.

SSW:3844 Introduction to Social Work Research 4 s.h.
Scientific approach to knowledge building, with emphasis on critical use of research; quantitative and qualitative methods, evaluation of practice, computerized data analysis, ethics and diversity in social work research. Requirements: completion of the professional social work agreement form.

SSW:3845 Social Work Processes 4 s.h.
Context of practice examined to understand structural factors that affect clients and communities; culturally competent practice using empowerment perspective. Corequisites: SSW:3840, if not taken as a prerequisite. Requirements: completion of the professional social work agreement form.

SSW:3847 Discrimination, Oppression, and Diversity 3 s.h.
Theoretical and historical perspectives on racism, sexism, other forms of discrimination; applications to social work, culturally competent practice, change strategies. Requirements: completion of the professional social work agreement form.

SSW:3900 Campus Sexual Assault: Policy, Prevention, and Intervention 3 s.h.
Among undergraduate students, 26.4% of females and 6.8% of males experience rape or sexual assault in college; students examine institutional responses to campus sexual assault with a goal of becoming informed advocates to work with institutions to strengthen programs and support; laws and policies that guide campus responses to sexual assault; effectiveness of a range of models for preventing and intervening with campus sexual assault; and prevention and interventions for groups at higher risk of sexual assault, including first-year students, racial and sexual minorities.

SSW:4100 Social Work in the Criminal Justice System 3 s.h.
How social work practice intersects with different aspects of the criminal justice system; focus on integrating social work values into criminal justice field; social work's responsibility to address social justice problems (e.g., mental illness, racial disparity, gender, human rights) within criminal justice system; critical examination of past and present practices in criminal justice and implications for social work practice and policy when working with individuals in criminal justice system.

SSW:4155 Treatment of Substance Use and Co-Occurring Disorders 3 s.h.
Treatment of individuals presenting substance related issues (abuse, dependency, co-occurring disorders); etiological, physiological, psychological, legal, and sociological aspects; evaluation of current research and direct application of contemporary treatment modalities to client situations encountered as helping professionals. Recommendations: introductory course in substance abuse.

SSW:4189 Bachelor of Arts Generalist Practicum Seminar 1 s.h.
Opportunity for students to recount their experiences from generalist practice in agencies; application of knowledge, skills, and values of culturally competent social work. Prerequisites: SSW:3840 and SSW:3847. Corequisites: SSW:4193. Requirements: completion of SSW:3840, SSW:3841, SSW:3842, SSW:3844, SSW:3845, SSW:3847, SSW:4843.

SSW:4190 Aging Studies Internship and Seminar 3 s.h.
Opportunities for students in various disciplines to relate their areas of study to older adults and aging; interdisciplinary relationships, approaches to meeting needs of older adults. Requirements: enrollment in undergraduate aging and longevity studies certificate program. Same as ASP:4190.

SSW:4192 Honors in Social Work arr.
Supervised individual research. Requirements: minimum 3.33 UI GPA, minimum 3.33 major GPA, and signed honors contract.

SSW:4193 Bachelor of Arts Generalist Practicum arr.
Supervised experience in selected social welfare organizations; application of knowledge and skill common to generalist practice in an agency setting. Prerequisites: SSW:3840 and SSW:3847. Corequisites: SSW:4189.

SSW:4490 Integrative Seminar in Critical Cultural Competence 3 s.h.
Capstone course; application of knowledge to one's areas of study; community settings where cultural competence is required; challenges and benefits of behaving in culturally competent ways in varied contexts; review and critique of educational experiences in the certificate program; development of skills in community education related to cultural competence; group project to benefit the university and/or community; development of a plan to integrate critical cultural competence into careers. Requirements: completion of other required certificate courses. Same as CCCC:4490.

SSW:4700 Motivational Interviewing in Diverse Application 3 s.h.
Application of motivational interviewing (MI) skills, as a collaborative process and communication style, while working with individuals presenting with ambivalence to change; MI skills are used to guide across the change process ("Stages of Change") by evoking the intrinsic motivation for change; includes application to diverse populations (e.g., cultural groups, veterans, adolescents) and psychological issues individuals may exhibit.

SSW:4843 Social Welfare Policy and Practice 3 s.h.
Basic social welfare policies and programs; economic, social, ideological, and political conditions that have influenced formation and implementation of social policy, current structure of major social welfare policies. Requirements: POLI:1100.

SSW:5194 Social Work Practice in Health Care Settings 2-3 s.h.
Introduction to organization, provision of social work services in health care settings; practice issues such as models of intervention, ethical questions, impact of cultural diversity on health care.

SSW:5200 Grief Work With Individuals and Families 2-3 s.h.
Complexity of grief and its multifaceted impact on family systems; utilizing grief theories, including Worden's Tasks of Mourning, ambiguous loss theory, several family systems models; examination of multi-generational dynamics that affect how we learn to grieve, how we experience grief, and how we live after a loss; acknowledged and unacknowledged grief and loss; generational family dynamics; difficulties and strengths passed from one generation to the next; assessing grief at individual, family, group, and community levels; how loss can affect personal well-being and professional practice, particularly when working with an interdisciplinary team. Requirements: social work graduate standing.

SSW:5240 Trauma Informed Family Practice 3 s.h.
Acquisition of the knowledge, skills, and attitudes necessary to effectively use 12 common trauma-informed practice elements in interventions for and the treatment of traumatized children and their families; highlights consideration of the impact of trauma, intervention objectives, and the practice elements needed to accomplish the intervention objectives.

SSW:5250 Resilience and Trauma-Informed Interventions With Individuals 3 s.h.
Focusing primarily on trauma caused by violence, students explore definitions, symptoms, and physiology of trauma and post-traumatic stress disorder (PTSD), and the impact of violence on individuals, family system, and communities; individual-level assessment and interventions.

SSW:6100 Thinking Like a Social Worker 3 s.h.
Introduction to social work values and ethics in context of systemic perspective and social, economic, and environmental justice; critical analysis of the profession's historical and social context to understand how privilege and power are perpetuated in society and in social work practice; ethical dilemmas and application of ethical decision-making models to make practice decisions; exploration of systemic thinking as distinguishing social work from other helping professions; examination of privilege from the perspective of those who have and do not have privilege or power. Requirements: admission to MSW program.

SSW:6200 Development of Professional Use of Self 3 s.h.
Development and practice of interpersonal skills for effective use of self in social work practice; students identify and resolve barriers to effective skill development and demonstrate professional demeanor, empathy, self-reflection, and self-regulation; examination of how cultural and family beliefs and values facilitate or constrain ability to develop an other-oriented stance open to new cultural information; development of effective use-of-self through recognizing and interpreting emotional and physiological reactions in interactions with client systems; engagement in active learning through role play and video recording skill practice. Requirements: admission to MSW program.

SSW:6224 Spirituality and Ethics in Social Work 2-3 s.h.
Knowledge, values, and skills that provide a framework for spiritually sensitive social work practice; preparation for responding competently and ethically to diverse spiritual perspectives, for recognizing and reflecting on one's own spiritual beliefs, and for identifying appropriate ways to apply personal beliefs to practice with varied populations while safeguarding client autonomy and self-determination.

SSW:6232 Therapy With Couples 3 s.h.
Introduction to working with couples in interaction and as a social system; theories of functional and dysfunctional systems; theoretical bases for couple's therapy and techniques of intervention; special attention to couple assessment. Requirements: completion of generalist year courses (or BA in social work).

SSW:6233 School Social Work Practice 3 s.h.
Evidence-based school social work services from a multilevel approach with student, family, school, and community grounded in social work standards, values, ethics and cultural competence; social and political influences on education and practice; prevention, assessment and intervention; specific practices include response to intervention and positive behavior supports; evaluating and serving students with disabilities including use of functional behavior assessment and development of behavior intervention plans; consultation and collaboration with teachers and school staff, engaging in culturally sensitive practices.

SSW:6234 Social Work Practice and Use of the Diagnostic and Statistical Manual of Mental Disorders 3 s.h.
Major categories of psychopathology and the DSM-5 system of classification; the use of the DSM-5 approach to diagnosis allows one to consider all aspects of an individual's behavior and presentation of symptoms; included in the DSM is information about effects of culture, developmental stage, and gender on the presentation of mental disorders.

SSW:6236 Interventions With Individuals 2 s.h.
Specialized practice; emphasis on thinking about how one works with individuals and importance of emotional (affective) regulation in the professional relationship; focus on emerging findings from the neurosciences combined with attachment theory and object relations; class deliberations involve theory and practice; understanding the overall interpersonal and psychotherapeutic process. Requirements: completion of foundation courses.

SSW:6237 Social Work Practice With Children, Youth, and Families 3 s.h.
Preparation for practice in child welfare, family service agencies; family life cycle, child development, child maltreatment, problems of adolescence, social services for families and children, legal issues. Requirements: completion of foundation courses.

SSW:6238 Introduction to Play Therapy 2-3 s.h.
Major theories and techniques of play therapy, relevance to social work practice.

SSW:6247 Nonprofit Organizational Effectiveness I 3 s.h.
Operational and financing aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as HMP:6360, MGMT:9150, PBAF:6278, RELS:6070, SPST:6010, URP:6278.

SSW:6248 Nonprofit Organizational Effectiveness II 3 s.h.
Qualities for leadership of nonprofit organizations, including relationships with staff and volunteers; relationship of nonprofit and outside world; marketing, public relations, advocacy strategies for nonprofits. Same as HMP:6365, MGMT:9160, PBAF:6279, RELS:6075, SPST:6020, URP:6279.

SSW:6271 Housing Policy 3 s.h.
Recent housing policy initiatives at federal, state, and local levels. Same as PBAF:6271, URP:6271.

SSW:6282 Grant Writing 1-2 s.h.
Same as PBAF:6282, URP:6282.

SSW:6300 Theory and Skills for Working With Individuals and Families 3 s.h.
Individual and family engagement, assessment, and intervention through the lens of multidisciplinary theoretical frameworks; students assess quality and credibility of different kinds of knowledge and critically appraise interventions for working with individuals and families; application of assessment and intervention frameworks that emphasize clients' strengths in diversity; development of self-reflective interpersonal skills necessary for establishing effective, anti-oppressive professional relationships with individuals and families. Requirements: admission to MSW program.

SSW:6400 Theory and Skills for Working With Organizations and Communities 3 s.h.
Social work practice requires interdisciplinary, interprofessional, and interorganization collaboration at all systems levels; focus on organizational and community engagement, assessment, intervention, and evaluation; assessment of quality and credibility of different kinds of knowledge when working with organizations and communities; students apply a social justice lens to see how structural systems of oppression contribute to social problems and injustices in organizations and communities, and critically examine interpersonal skills for establishing effective professional relationships when working with organizations and communities. Requirements: admission to MSW program.

SSW:6500 Social, Economic, and Environmental Justice I 3 s.h.
Students are challenged to think critically in context of deeply held personal beliefs; development of competencies for engaging diversity and difference in practice; examination of personal beliefs, biases, and affective reactions; how systems of oppression, alienation, marginalization, power, and privilege intersect for clients and communities; how social work practice can advance human rights and social, economic, and environmental justice; use of critical thinking to analyze, formulate, and advocate for policies that advance justice. Requirements: admission to MSW program.

SSW:6600 Engaging With Evidence 3 s.h.
Students expand critical thinking skills necessary for effective social work practice; development of competencies in research and evaluation at all levels of practice; critical appraisal of evidence-informed approaches to social work practice; quality of research evidence and its implications for improving practice effectiveness; application of research evidence to inform and improve practice. Requirements: admission to MSW program.

SSW:6700 Generalist Practicum in Social Work 3 s.h.
Generalist practice experience with individuals, families, small groups, organizations, and communities; communication skills, change process, professional values, and ethics applied at multiple system levels; students evaluate their own practice using a learning contract in an agency setting. Corequisites: SSW:6701. Requirements: admission to MSW program, and concurrent enrollment in or completion of generalist courses.

SSW:6701 Generalist Practice Seminar 1 s.h.
Integration of classroom learning and development as a social worker with experience in generalist practicum placement; ethical decision-making practice, critical reflection of situations when social work values may not align with client, agency, or interdisciplinary team values; peer feedback to promote professional accountability; documentation and reflection of professional development and acquisition of social work competencies from first half of MSW program; establishment of professional development plans for seeking and using feedback and supervision for self-reflection, self-care, and strategically establishing professional relationships. Corequisites: SSW:6700. Requirements: admission to MSW program, and concurrent enrollment in or completion of generalist courses.

SSW:7100 Critical Thinking for Clinical Practice 2 s.h.
Preparation for specialized coursework; builds on generalist practice at individual and family levels; critical thinking to appraise theory, practice, use, and creation of evidence for clinical practice; demonstration of critical thinking skills in assessment and treatment planning; how personal beliefs, biases, assumptions, and reactions influence and limit understandings of clients and communities; decentering personal experiences and understandings. Requirements: admission to advanced standing MSW program.

SSW:7200 Critical Thinking for Leadership Practice 2 s.h.
Preparation for specialized coursework; builds on generalist practice at group, organization, and community levels; demonstration of critical thinking skills in community or organization assessment; use of critical thinking to distinguish between practice models, critically appraise theory and practice models across systems levels, and understand the process of developing and using evidence in leadership practice; examination of how power and privilege manifest at group, organization, and community levels. Requirements: admission to advanced standing MSW program.

SSW:7271 Individual Study arr.
Project related to student interest; directed by faculty member.

SSW:7272 Thesis arr.

SSW:7310 Clinical Practice I: Treatment Planning and Intervention 3 s.h.
Examination of stages of planned change process in clinical practice with individuals and families; focus on engagement, clinical assessment, ethics of diagnosis, treatment planning, and intervention; students conceptualize cases through multiple lenses, including cultural humility and anti-oppressive practice; standards from the NASW Code of Ethics that guide clinical practice and extend understanding of effective self-reflection; use of self in establishing collaborative relationships with individuals, families, and other professionals.

SSW:7320 Clinical Practice II: Intervention, Evaluation, Termination 3 s.h.
Collaboration with clients using advanced clinical interventions that advance anti-oppressive and anti-racist social work practice; application of family systems theories through case-based learning and role plays; students critically self reflect and regulate their affective reactions in professional relationships.

SSW:7330 Clinical Practice III: Selected Topics in Clinical Practice 3 s.h.
Participation in advanced training in clinical topics; examination of theoretical underpinnings and case application of each advanced clinical topic.

SSW:7410 Leadership Practice I: Community Relationship Building and Collaboration 3 s.h.
Understanding and working within communities, cross-disciplinary collaboration, network and coalition-building; students utilize various technologies to conduct capacity assessments, facilitate meetings, and learn how to work with interdisciplinary teams; how to partner with community members to develop projects and advocate for social, economic, environmental, and racial justice; special emphasis on anti-racist and anti-oppressive practice and working with communities that are under-resourced or historically marginalized.

SSW:7420 Leadership Practice II: Policy Analysis and Advocacy 3 s.h.
Leadership skills for policy development, analysis, and implementation. Students develop policy analysis skills to understand how policies impact individuals, communities, and organizations; advocate for policies that advance social, economic, environmental, and racial justice; and develop a deep understanding of local, state, and federal policy and advocacy roles, networks, and leadership opportunities. Students will understand the importance of political social work and their role in leading communities.

SSW:7430 Leadership Practice III: Leading Programs and Organizations 3 s.h.
Principles of effective and inspiring leadership that center the interests of the communities served. Students learn about mission- and value-driven leadership, and how to build a foundation of ethical, anti-racist, and anti-oppressive practice in an organization. Knowledge and skill development include communication and relationship building with internal and external stakeholders; program development and implementation; staff supervision; change management; developing organizational policies; and planning and budgeting.

SSW:7500 Social, Economic, and Environmental Justice II 3 s.h.
Development of competencies for engaging in anti-racist and anti-oppressive social work practice; how to dismantle systems of oppression, alienation, marginalization, power, and privilege that intersect for clients and communities; students hone their skills in advancing human rights and social, economic, and environmental justice; use of critical thinking to analyze, formulate, and advocate for policies that advance anti-racism, diversity, equity, and inclusion.

SSW:7550 Program and Practice Evaluation 3 s.h.
Students build more advanced competencies in evaluation at all levels of practice; application of anti-racist and anti-oppressive lens to evaluation; focus on evaluation approaches that seek out expertise and develop evaluation leadership of marginalized communities to improve practice effectiveness; students apply and critically appraise evidence-informed approaches to practice.

SSW:7600 Practicum With Clinical Specialization 3-4 s.h.
Practice experience implementing clinical theories and skills in interventions with individuals, families, and groups; two semester practical course.

SSW:7601 Clinical Practicum Seminar I 1 s.h.
Integration of student learning in specialized year courses and practicum; practice giving, seeking, and incorporating feedback on use of self, ethical decision-making, engagement with anti-racist practice, and other aspects of professional development; focus on MSW program, students document and reflect on their professional development and acquisition of social work competencies by creating a portfolio of their work. Corequisites: SSW:7600.

SSW:7602 Clinical Practicum Seminar II 1 s.h.
Integration of student learning in specialized year courses and practicum; practice giving, seeking, and incorporating feedback on use of self, ethical decision-making, engagement with anti-racist practice, and other aspects of professional development; focus on MSW program, students document and reflect on their professional development and acquisition of social work competencies by creating a portfolio of their work. Corequisites: SSW:7600.

SSW:7750 Practicum With Leadership Specialization 3-4 s.h.
Practice experience implementing leadership theories and skills in interventions with organizations and communities; two semester practical course.

SSW:7751 Leadership Practicum Seminar I 1 s.h.
Integration of student learning in specialized year courses and practicum; practice giving, seeking, and incorporating feedback on use of self, ethical decision-making, engagement with anti-racist practice, and other aspects of professional development; focus on MSW program, students document and reflect on professional development and acquisition of social work competencies by creating a portfolio of their work. Corequisites: SSW:7750.

SSW:7752 Leadership Practicum Seminar II 1 s.h.
Integration of student learning in specialized year courses and practicum; practice giving, seeking, and incorporating feedback on use of self, ethical decision-making, engagement with anti-racist practice, and other aspects of professional development; focus on MSW program; students document and reflect on professional development and acquisition of social work competencies by creating a portfolio of their work.

SSW:7760 Practicum in School Social Work 3-4 s.h.
Practice experience implementing theories and skills in interventions in school setting; two semester practical course.

SSW:7800 Social Work Proseminar 1 s.h.
Orientation for new PhD students to program and degree requirements; how to formulate research questions; introduction to faculty research and interests. Requirements: admission to social work doctoral program.

SSW:7803 Social Work Research Practicum 1-4 s.h.
Student work with faculty on various phases of research process including research design, measurement, sampling, data collection, data analysis, human subjects review, and writing for publication. Requirements: admission to social work doctoral program.

SSW:7804 Thesis Writing Seminar 1-3 s.h.
Writing a thesis and an argument; synthesizing literature and justifying methods; development of scientific communication skills; defending ideas at proposal hearing and thesis defense.

SSW:7806 Teaching Practicum 1-2 s.h.
Development of knowledge, skills, and values needed to become effective, culturally competent social work educators through an applied teaching experience; faculty mentors provide ongoing instruction on how to teach and assess student learning.

SSW:7810 Conducting a Systematic Literature Review 3 s.h.
How to design, conduct, and write scoping and systemic reviews of existing research literature; methods of reviews, quality standards for reviews, and application of these standards to critique reviews or review proposals.

SSW:7820 Writing for Publication in Social Sciences 3 s.h.
Graduate seminar providing practical experience in publishing for peer-reviewed journals in a variety of disciplines. Using Belcher's "Writing Your Journal Article in Twelve Weeks," students explore strategies for planning a writing project, identifying appropriate journals, clarifying arguments, making claims for significance, and organizing material. Students revise a draft (such as a classroom paper, conference paper, or comprehensive exam) into a peer-reviewed article and submit it for publication. In a supportive environment, discuss strategies for overcoming resistance to writing.

SSW:7830 PhD Dissertation **arr.**
Ongoing and substantial feedback to doctoral candidates on development and defense of dissertation. Prerequisites: SSW:7800 and SSW:7803 and SSW:7806. Requirements: submission of comprehensive exam.

Social Work, BA

The undergraduate program in social work prepares students to work professionally as direct service providers and social change agents. The program has been accredited continuously by the Council on Social Work Education (CSWE) since 1974 and is designed to be consistent with CSWE's 2022 Educational Policy Statement competencies:

- demonstrate ethical and professional behavior;
- advance human rights and social, racial, economic, and environmental justice;
- engage anti-racism, diversity, equity, and inclusion (ADEI) in practice;
- engage in practice-informed research and research-informed practice;
- engage in policy practice;
- engage with individuals, families, groups, organizations, and communities;
- assess individuals, families, groups, organizations, and communities;
- intervene with individuals, families, groups, organizations, and communities; and
- evaluate practice with individuals, families, groups, organizations, and communities.

Consistent with CSWE standards, the program explores how diversity and intersectionality shape human experiences and identity development and affect equity and inclusion. The dimensions of diversity are understood as the intersections of factors including but not limited to age, caste, class, color, culture, disability and ability, ethnicity, gender, gender identity and expression, generational status, immigration status, legal status, marital status, political ideology, race, nationality, religion and spirituality, sex, sexual orientation, and tribal sovereign status. Social workers understand that a person's life experiences may include oppression, poverty, marginalization, and alienation as well as privilege and power.

See the CSWE Assessment of Learning Outcomes for the BA program on the School of Social Work website.

The specific mission of the BA program in social work is to prepare culturally aware generalist social workers whose practice is consistent with social work values and ethics, including a commitment to social justice and social change. The program's goals are to:

- prepare generalist practitioners to work with individuals, families, small groups, organizations, and communities;
- provide students with a base for continuing graduate education in social work and for lifelong learning; and
- prepare students for active engagement with issues of social justice, oppression, and social welfare in local, state, regional, national, and global contexts.

Learning Outcomes

In the social work major, students will build foundational competence in social work practice and demonstrate the following learning outcomes.

- Identify personal and professional ethics that guide social work practice with individuals, families, groups, organizations, and communities.
- Examine how one's own culture, values, biases, and beliefs influence professional use of self and one's ability to affect change at all levels of social work practice.
- Apply evidence-informed knowledge and skills to effectively engage, assess, and intervene with individuals, families, groups, organizations, and communities.
- Identify social policies at the local, state, federal, and global levels that affect well-being, human rights and justice, service delivery, and access to social services.
- Develop a deeper understanding of historical and current contexts of power and oppression to engage in practices that advance human rights and promote social, racial, economic, and environmental justice.

Requirements

The Bachelor of Arts with a major in social work requires a minimum of 120 s.h., including at least 56 s.h. of work for the major. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The program draws on a liberal arts perspective and integrates a systemic perspective and understanding of the interconnectedness of people and their environments. The program encourages collaborative learning approaches to support students' development and growth. Knowledge and practice in social work values and ethics are an integral part of students' education. Beginning with the course SSW:1022 Social Justice and Social Welfare in the United States, knowledge and skills related to the social work profession are integrated throughout the curriculum, continuing through practice and research courses, and culminating in SSW:4189 Bachelor of Arts Generalist Practicum Seminar and SSW:4193 Bachelor of Arts Generalist Practicum.

The BA with a major in social work requires the following coursework.

Requirements	Hours
Pre-Social Work Courses	9
Required Course	3
Professional Core Courses	32
Electives	12

Pre-Social Work Courses

Students must earn a grade of C or higher in pre-social work courses to advance into the professional core courses.

Transfer students can view transfer course tables for approved equivalent courses. Students who have taken an introductory course not listed there may contact the School of Social Work for further guidance.

Course #	Title	Hours
SSW:1022	Social Justice and Social Welfare in the United States	3
SOC:1010	Introduction to Sociology	3
PSY:1001	Elementary Psychology	3

Required Course

Students must complete POLI:1100 Introduction to American Politics, preferably before taking SSW:4843 Social Welfare Policy and Practice.

Professional Core Courses

Students may enroll in these courses if they have completed the pre-social work courses with a grade of C or higher, have

completed at least 45 s.h., and have a minimum 2.00 overall cumulative GPA.

Course #	Title	Hours
All of these:		
SSW:3840	Human Behavior in the Social Environment	4
SSW:3841	Fundamentals of Social Work Practice	3
SSW:3842	Interpersonal Skills Laboratory	2
SSW:3844	Introduction to Social Work Research	4
SSW:3845	Social Work Processes	4
SSW:3847	Discrimination, Oppression, and Diversity	3
SSW:4189	Bachelor of Arts Generalist Practicum Seminar	1
SSW:4193	Bachelor of Arts Generalist Practicum	8-11
SSW:4843	Social Welfare Policy and Practice	3

Electives

Students complete a minimum of 6 s.h. of social work electives and 6 s.h. of courses in one other approved discipline, or they can select 12 s.h. of coursework in social work. If they opt to complete 6 s.h. from another discipline, students typically select courses in areas closely related to social work, such as African American studies (prefix AFAM); aging and longevity studies (prefix ASP); American studies (prefix AMST); communication studies (prefix COMM); criminology, law, and justice (prefix CRIM); entrepreneurial management (prefix ENTR); global health studies (prefix GHS); journalism and mass communication (prefix JMC); management and entrepreneurship (prefix MGMT); political science (prefix POLI); psychological and brain sciences (prefix PSY); public health (prefix CPH); sociology (prefix SOC); social justice (prefix SJUS); and gender, women's, and sexuality studies (prefix GWSS).

Students who are earning a minor or a certificate may apply up to 6 s.h. from that program of study toward this requirement.

Honors

Honors in the Major

Students majoring in social work have the opportunity to graduate with honors in the major. Honors students complete in-depth study in areas that interest them. They must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a minimum major GPA of at least 3.33. Consult the School of Social Work for more information about graduating with honors in the major.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the social work major.

Career Advancement

The social work major prepares students for employment in social service areas such as public welfare, child welfare, human service organizations, mental health, health providers (such as hospitals, hospice, skilled care, substance abuse treatment), senior services, group services, residential treatment for youth and persons with disabilities, and corrections. Many graduates continue with advanced study in social work or related physical and mental health professions. Overall employment of social workers is projected to grow 7% from 2022–2032 (Bureau of Labor Statistics). Explore how social workers help individuals, groups, and families across their lifespans on the National Association of Social Workers website.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

The four-year graduation plan applies only to students who begin the professional core courses by their fifth semester.

Before the fifth semester begins: completion of the three pre-social work courses, at least 45 s.h. earned and a signed agreement to complete the major and begin the professional core courses.

Before the seventh semester begins: five more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: five more courses in the major and finalized generalist practicum placement.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Social Work, BA

Course	Title	Hours
Academic Career		
Any Semester		
Students must have completed the pre-social work courses with a grade of C or higher, have completed at least 45 s.h., and have a minimum 2.00 overall cumulative GPA to be eligible to enroll in the professional core courses. [a, b]		
Students must maintain a GPA of at least 2.00 in all courses for the major and in all UI courses for the major.		

GE CLAS Core: Sustainability [c]		
	Hours	**0**
First Year		
Fall		
SSW:1022	Social Justice and Social Welfare in the United States [d, e]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [f]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [g]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [h]		1
	Hours	**15-17**
Spring		
SOC:1010	Introduction to Sociology [d, e]	3 - 4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences with Lab [f]		4
GE CLAS Core: World Languages Second Level Proficiency or elective course [g]		4 - 5
	Hours	**14-17**
Second Year		
Fall		
PSY:1001	Elementary Psychology [d, e]	3
GE CLAS Core: International and Global Issues [f]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [g]		4 - 5
Elective course [h]		3
Elective course [h]		3
	Hours	**16-17**
Spring		
POLI:1100	Introduction to American Politics [e, i]	3
GE CLAS Core: Natural Sciences without Lab [f]		3
GE CLAS Core: Quantitative or Formal Reasoning [f]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [g]		4 - 5
Elective course [h]		3
Professional Social Work Agreement form should be submitted by end of second year in order to begin taking professional core courses in third year fall.		
	Hours	**16-17**
Third Year		
Any Semester		
The curriculum shown in the third and fourth years on this plan begins when students have met the criteria to enroll in the professional core social work courses and have submitted a Professional Social Work Agreement form.		
	Hours	**0**
Fall		
SSW:3840	Human Behavior in the Social Environment [j]	4
SSW:3847	Discrimination, Oppression, and Diversity [j]	3
Major: social work elective course (prefix SSW) [k]		3
Major: social work elective course [k]		3
GE CLAS Core: Historical Perspectives [f]		3
	Hours	**16**
Spring		
SSW:3844	Introduction to Social Work Research [j]	4
SSW:3845	Social Work Processes [j]	4
Major: social work elective course (prefix SSW) [k]		3
GE CLAS Core: Literary, Visual, and Performing Arts [f]		3
Elective course [h]		1
	Hours	**15**
Fourth Year		
Fall		
SSW:3841	Fundamentals of Social Work Practice [j]	3
SSW:3842	Interpersonal Skills Laboratory [j]	2
SSW:4843	Social Welfare Policy and Practice [j]	3
Major: social work elective course [k]		3
Elective course [h]		3
Elective course [h]		2
	Hours	**16**
Spring		
SSW:4189	Bachelor of Arts Generalist Practicum Seminar [j]	1
SSW:4193	Bachelor of Arts Generalist Practicum [j]	8 - 11
Elective course [h]		3
Elective course [h]		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**14-17**
	Total Hours	**122-132**

a Beginning with the course SSW:1022, knowledge and skills related to the social work profession are integrated throughout the curriculum, continuing through practice and research courses, and culminating in SSW:4189 and SSW:4193.

b After criteria is met, students must submit a Professional Social Work Agreement form to receive special permission to enroll in the professional core courses.

c Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

d Pre-social work course; students must earn a grade of C or higher to advance into the professional core courses.

e Fulfills a major requirement and may fulfill a GE requirement.

f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

g Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an

approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

h Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

i Students must complete POLI:1100, preferably before taking SSW:4843.

j Professional core course; students may enroll if they have completed the pre-social work courses with a grade of C or higher, have completed at least 45 s.h., and have a minimum 2.00 overall cumulative GPA.

k Students complete a minimum of 6 s.h. of social work electives and 6 s.h. of courses in one other approved discipline, or they can select 12 s.h. of coursework in social work. Students who are earning a minor or a certificate may apply up to 6 s.h. from that program of study toward this requirement. Work with academic advisor to select appropriate coursework.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Social Work, Minor

Requirements

The undergraduate minor in social work requires a minimum of 15 s.h. in social work courses, including 12 s.h. taken at the University of Iowa, 6 s.h. of which must be numbered 3000 or above. Students complete one required course and 12 s.h. of departmental elective coursework. They must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework for the minor may not be taken pass/nonpass.

Social work professional core courses required for the major are not available to students enrolled in the social work minor.

A social work minor provides students with foundational knowledge and skills to better understand and address social issues that affect individuals and communities. Students who are interested in the helping professions, human service organizations, and social change work may benefit from this minor. A social work minor is designed to complement a range of majors and disciplines, including social sciences, business, law, education, and public health.

The minor in social work requires the following coursework.

Required Course

Transfer students can view transfer course tables for approved equivalent courses. Students who have taken an introductory course not listed there may contact the School of Social Work for further guidance.

Course #	Title	Hours
This course:		
SSW:1022	Social Justice and Social Welfare in the United States	3

Electives

Students select 12 s.h. from the following; many courses have an online section.

Course #	Title	Hours
SSW:1200	Mental Health Across the Lifespan	3
SSW:1800	Aging Matters: Introduction to Gerontology	3
SSW:2700	Introduction to Understanding Trauma and Resilience	3
SSW:3135	Global Aging	3
SSW:3500	Nonprofit Organizational Effectiveness I	3
SSW:3600	Nonprofit Organizational Effectiveness II	3
SSW:3712	Human Sexuality, Diversity, and Society	1-3
SSW:3729	Substance Use and Abuse	2-3
SSW:3786	Death/Dying: Issues Across the Life Span	3-4
SSW:3796	Family Violence	2-3
SSW:3797	Child Welfare Policy and Practice	3
SSW:3900	Campus Sexual Assault: Policy, Prevention, and Intervention	3
SSW:4100	Social Work in the Criminal Justice System	3
SSW:4155	Treatment of Substance Use and Co-Occurring Disorders	3
SSW:4700	Motivational Interviewing in Diverse Application	3

Master of Social Work, MSW

The Master of Social Work (MSW) program prepares social workers for advanced social work practice and leadership in a wide range of settings. All students develop skills to work with individuals, families, and communities and to advocate for social change. Students select one of two specializations, clinical practice and leadership practice. The clinical specialization teaches students knowledge and skills to work with children, adults, older adults, families, and small groups in clinical settings. The leadership specialization teaches students knowledge and skills for working with communities through relationship building, policy advocacy, and program and organizational development. Students develop competencies to advance the field of social work, create lasting change, and launch impactful careers helping others and improving lives.

The program has been continually accredited by the Council on Social Work Education (CSWE) since 1951. See the CSWE Assessment of Learning Outcomes for the MSW program on the School of Social Work website.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Master in Social Work Program Options

Options are available to complete the MSW full-time or part-time in Iowa City, Des Moines, and online, with applications reviewed annually. The Sioux City program is a three-year, part-time program to which students are admitted every three years. Applicants to any of the options, at any of the centers, complete the same application.

Regular Standing (54 s.h. Option)

Designed for individuals who have completed a degree in a discipline other than a CSWE-accredited social work degree program. Applicants apply for fall admission.

Advanced Standing (36 s.h. Option)

Designed for individuals who have completed the BA in social work or the BSW from a CSWE-accredited social work degree program. Applicants apply for summer admission.

Learning Outcomes

The School of Social Work learning outcomes are expressed as enduring understandings—concepts that have lasting value beyond the classroom and apply to every aspect of social work practice.

- Commitment to advance social justice and fight discrimination and inequity.
- Adherence to a high standard of ethics.
- Using a systemic perspective, understanding the interconnectedness of people and their environments, and the systems in which we operate.
- Critical thinking, where problem-solving, creativity, and innovation are as important as learning facts.
- Self-awareness and effective use of self are crucial to effective relationships at all levels of practice.

Competencies

The curriculum is designed to address the following nine CSWE competencies for both generalist and specialized practitioners:

- demonstrate ethical and professional behavior;
- advance human rights and social, racial, economic, and environmental justice;
- engage in anti-racism, diversity, equity, and inclusion (ADEI) in practice;
- engage in practice-informed research and research-informed practice;
- engage in policy practice;
- engage with individuals, families, groups, organizations, and communities;
- assess individuals, families, groups, organizations, and communities;
- intervene with individuals, families, groups, organizations, and communities; and
- evaluate practice with individuals, families, groups, organizations, and communities.

Professional Association

Students and graduates of the social work program are eligible for membership in the National Association of Social Workers (NASW), the largest membership organization of professional social workers in the world with 132,000 members. NASW works to enhance the professional growth and development of its members, to create and maintain professional standards, and to advance sound social policies. The NASW Code of Ethics is intended to serve as a guide to the everyday professional conduct of social workers.

Requirements

The Master of Social Work requires 36 s.h. for advanced standing students—those who hold an undergraduate degree in social work from a program accredited by the Council on Social Work Education (CSWE)—or 54 s.h. for students who earned a bachelor's degree in a major other than a CSWE-accredited social work program. Students must maintain a graduate grade-point average of at least 3.00 and they must be in compliance with the school's student advancement policy. The degree is offered with or without a thesis.

Credit from previous graduate coursework toward the MSW may be applied if specific criteria are met, but students must earn a minimum of 36 s.h. after admission to the MSW program and agree to meet all requirements of the program.

All students complete one of two specializations (23 s.h.) and 9 s.h. in elective courses.

54 s.h. Program

Requirements	Hours
Generalist Practice	22
Specialization	23
Electives	9

Generalist Practice

Course #	Title	Hours
All of these:		
SSW:6100	Thinking Like a Social Worker	3

SSW:6200	Development of Professional Use of Self	3
SSW:6300	Theory and Skills for Working With Individuals and Families	3
SSW:6400	Theory and Skills for Working With Organizations and Communities	3
SSW:6500	Social, Economic, and Environmental Justice I	3
SSW:6600	Engaging With Evidence	3
SSW:6700	Generalist Practicum in Social Work	3
SSW:6701	Generalist Practice Seminar	1

36 s.h. Program

Requirements	Hours
Advanced Standing Courses	4
Specialization	23
Electives	9

Advanced Standing Courses

Course #	Title	Hours
Both of these:		
SSW:7100	Critical Thinking for Clinical Practice	2
SSW:7200	Critical Thinking for Leadership Practice	2

Specializations

The specific mission of the Master of Social Work (MSW) program is to prepare social workers for leadership in the profession and for advanced social work practice in one of two specializations: clinical practice or leadership practice. While students are not required to declare a more specific focus, opportunities to specialize are available in areas of practice such as aging, end-of-life care, school social work, child welfare, trauma-informed practice, social work in health and mental health settings, and many others. Students in both the generalist and advanced standing programs select one of the following specializations to complete.

Clinical Practice

The clinical practice specialization will prepare students for mental health work with individuals and families in organizations such as nonprofits, hospitals, schools, hospice/end-of-life, and private practice.

Course #	Title	Hours
All of these:		
SSW:7310	Clinical Practice I: Treatment Planning and Intervention	3
SSW:7320	Clinical Practice II: Intervention, Evaluation, Termination	3
SSW:7330	Clinical Practice III: Selected Topics in Clinical Practice	3
SSW:7500	Social, Economic, and Environmental Justice II	3
SSW:7550	Program and Practice Evaluation	3
SSW:7601	Clinical Practicum Seminar I	1
SSW:7602	Clinical Practicum Seminar II	1
One of these:		
SSW:7600	Practicum With Clinical Specialization (taken twice for 3 s.h. each)	6
SSW:7760	Practicum in School Social Work (taken twice for 3 s.h. each)	6

Leadership Practice

The leadership practice specialization will prepare students to partner with communities, develop programs, lead organizations, develop and interpret policy, and advocate for social, economic, and racial justice.

Course #	Title	Hours
All of these:		
SSW:7410	Leadership Practice I: Community Relationship Building and Collaboration	3
SSW:7420	Leadership Practice II: Policy Analysis and Advocacy	3
SSW:7430	Leadership Practice III: Leading Programs and Organizations	3
SSW:7500	Social, Economic, and Environmental Justice II	3
SSW:7550	Program and Practice Evaluation	3
SSW:7751	Leadership Practicum Seminar I	1
SSW:7752	Leadership Practicum Seminar II	1
One of these:		
SSW:7750	Practicum With Leadership Specialization (taken twice for 3 s.h. each)	6
SSW:7760	Practicum in School Social Work (taken twice for 3 s.h. each)	6

Electives

Students in both the regular and advanced standing programs complete 9 s.h. in elective coursework. Electives are chosen in consultation with their advisors; options include: social work courses (prefix SSW) and aging and longevity studies courses (prefix ASP) numbered 3000 and above (excluding courses already listed), PSQF:7354 Seminar: Experimental Approaches in Counseling Research , or courses in the following list.

Course #	Title	Hours
EDTL:4137	Introduction to Educating Advanced Learners	3
EDTL:4900	Foundations of Special Education	3
EDTL:4940	Characteristics of Disabilities	3
EDTL:4950	Behavioral and Social Interventions	3
EDTL:4990	Interdisciplinary Issues in Disabilities	1-3
EDTL:7040	Advanced Topics in Teaching and Learning	arr.
EPLS:3000	Foundations of Education	3

EPLS:5130	Sociology of Education	3
EPLS:6201	Foundations of School Administration	3
EPLS:6236	Special Education Administration	3
PSQF:4133	The Adolescent and Young Adult	3
PSQF:4136	Home/School/Community Partnerships	3
PSQF:4143	Introduction to Statistical Methods	3
PSQF:6200	Educational Psychology	3
PSQF:6206	Advanced Child Development	3
PSQF:6215	Online Instruction: Design and Facilitation	3
PSQF:7385	Teaching and Learning in Higher Education	3

With an advisor's permission, additional elective options are possible. Students completing a thesis are permitted to apply a maximum of 6 s.h. of SSW:7272 Thesis toward their elective requirements.

MSW Off-Campus Learning Centers

Full-time and part-time study are available in Iowa City, Des Moines, and online. Students follow a sequenced plan for their program option which may include electives in the summer. The Sioux City site only admits entering classes on a three-year cycle, beginning in the summer. Advanced standing students begin their coursework in the summer and may complete the program over one year (three semesters) or two years, following the sequenced plan.

The School of Social Work delivers the MSW curriculum in person in Iowa City and in two learning centers in Des Moines and Sioux City, Iowa, and as an online program. Each learning center is administered by the School of Social Work in cooperation with Distance and Online Education. Social work faculty members teach required courses at each center and are available for student advising. The off-campus programs have been evaluated by the Council on Social Work Education and the University of Iowa Graduate College as providing a program comparable to that available on the Iowa City campus.

Courses at each off-campus site are taught in classrooms by tenure-track, clinical, lecturers, visiting, and adjunct faculty members. Instructional connections between sites are maintained through varied technologies, including computer-based instruction.

Des Moines

The MSW program in Des Moines, in central Iowa, offers courses sequenced to accommodate both part-time and full-time study. Students complete most of their required courses in person at the Des Moines center and most of their electives online. Classes are held at the John and Mary Pappajohn Education Center.

Sioux City

The Sioux City part-time program is offered in classroom space at Briar Cliff University in Sioux City, Iowa, with additional online asynchronous components.

Online

Students in this program attend evening classes in real time using video conferencing, and asynchronous classes in which coursework is done independently, adhering to deadlines.

Combined Programs

Social Work Degree Programs

MSW/PhD in Social Work

The school offers a Master of Social Work/Doctor of Philosophy program in social work for students who have completed coursework in research and statistics and have postbaccalaureate experience related to social work practice. The program permits students to apply a limited amount of credit toward both graduate degrees, reducing the time required to graduate. Individuals must apply to the MSW program and the PhD program; applications are reviewed by the admission panels of both programs. For more information, contact the School of Social Work.

Degree Programs With Other Colleges

The School of Social Work collaborates with other colleges to offer combined degree programs. Each program permits students to apply up to 12 s.h. of graduate credit toward both degrees, reducing the time required to graduate.

Applicants must apply to each program separately and be admitted to each one before they may be admitted to the combined degree program. Information about the combined programs is available from the School of Social Work's program and admissions manager.

MSW/MBA

The School of Social Work and the Tippie College of Business offer the combined Master of Social Work/Master of Business Administration programs. For more information., see the MBA [p. 1274] (Tippie College of Business) in the catalog.

MSW/MS in Urban and Regional Planning

The School of Social Work along with the School of Planning and Public Affairs offer the combined Master of Social Work/Master of Science in urban and regional planning. For more information, see the MS in urban and regional planning [p. 1797] (Graduate College) in the catalog.

Admission

Admission to the 54 s.h. program requires a bachelor’s degree from a regionally accredited American college or university, or an equivalent degree from another country as determined by Admissions with a reasonable distribution of courses in the liberal arts and sciences (the humanities and the social, behavioral, and biological sciences).

Admission to the 36 s.h. program requires a bachelor's degree in social work from a Council on Social Work Education (CSWE)-accredited college or university.

All applicants must have an undergraduate grade-point average (GPA) of 3.00 or higher, or a GPA of 3.00 or higher on 12 s.h. of letter-graded graduate coursework; consult Admissions for assistance in calculating GPA.

Competence in personal computers and spreadsheet applications is required. While experience in volunteering, working, and life are valued, the CSWE does not permit the School of Social Work to grant academic credit for life experience or previous volunteer or work experience.

Applicants must submit:

- the University of Iowa graduate admissions application;
- a 2-page statement of purpose (advanced standing applicants have an additional question);
- a brief School of Social Work supplemental data form;
- a résumé;
- the name, email address, and phone number for two references (one academic and one professional reference); and
- unofficial transcripts from all colleges attended (except the University of Iowa).

Applications for the 54 s.h. program are accepted beginning Sept. 1 and must be completed by Feb. 1 to be considered for the next academic year. Applications for the 36 s.h. program are due Dec. 1 for the one-year program and Feb. 1 for the 2-year program.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

For a complete list of graduate admission policies, see the School of Social Work.

Career Advancement

Professional social workers are found in every facet of community life—in schools, health settings (such as hospitals, hospice, skilled care facilities, substance abuse treatment, mental health clinics), senior centers, elected office, private practices, prisons, military, corporations, and in numerous public and private agencies that serve individuals and families in need. Many also serve as social and community service directors.

According to the Substance Abuse and Mental Health Services Administration (SAMHSA), professional social workers are the nation's largest group of mental health services providers. There are more clinically trained social workers—over 200,000—than psychiatrists, psychologists, and psychiatric nurses combined. Federal law and the National Institutes of Health recognize social work as one of five core mental health professions.

The U.S. Department of Veterans Affairs employs more than 10,000 professional social workers. It is one of the largest employers of MSW individuals in the United States. More than 40% of all disaster mental health volunteers trained by the American Red Cross are professional social workers. There are hundreds of social workers in national, state, and local elected offices.

Projected growth in social work jobs is estimated to be greater than average for all occupations (Bureau of Labor Statistics).

Today, almost 50 special interest organizations contribute to the vitality and influence of the social work profession. There are social work groups for educators and researchers, as well as organizations for practitioners in health care leadership, nephrology, oncology, child welfare, schools, prisons, courts, and many other settings.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Master of Social Work, MSW

54 s.h. Program

Course	Title	Hours
Academic Career		
Any Semester		
54 s.h. of graduate level coursework must be completed including a minimum of 45 s.h. of required coursework and 9 s.h. of electives; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Admitted students attend orientation prior to the start of 1st (fall) semester.		
	Hours	**0**
First Year		
Fall		
SSW:6100	Thinking Like a Social Worker	3
SSW:6200	Development of Professional Use of Self	3
SSW:6300	Theory and Skills for Working With Individuals and Families	3
SSW:6400	Theory and Skills for Working With Organizations and Communities	3
Students attend generalist practicum planning meeting with practicum administrator		
	Hours	**12**
Spring		
SSW:6500	Social, Economic, and Environmental Justice I	3
SSW:6600	Engaging With Evidence	3
SSW:6700	Generalist Practicum in Social Work	3
SSW:6701	Generalist Practice Seminar	1
Elective course [b]		3
Students attend specialized practicum planning meeting with practicum administrator		
	Hours	**13**
Summer		
Elective course [b]		3
Elective course [b]		3
	Hours	**6**
Second Year		
Fall		
SSW:7410 or SSW:7310	Leadership Practice I: Community Relationship Building and Collaboration [c] or Clinical Practice I: Treatment Planning and Intervention	3
SSW:7500	Social, Economic, and Environmental Justice II	3
SSW:7550	Program and Practice Evaluation	3

SSW:7750 or SSW:7760 or SSW:7600	Practicum With Leadership Specialization [c] or Practicum in School Social Work or Practicum With Clinical Specialization	3
SSW:7751 or SSW:7601	Leadership Practicum Seminar I [c] or Clinical Practicum Seminar I	1
	Hours	**13**

Spring

Students may opt to apply for master's-level licensure and take the ASWB licensure exam		
SSW:7420 or SSW:7320	Leadership Practice II: Policy Analysis and Advocacy [c] or Clinical Practice II: Intervention, Evaluation, Termination	3
SSW:7430 or SSW:7330	Leadership Practice III: Leading Programs and Organizations [c] or Clinical Practice III: Selected Topics in Clinical Practice	3
SSW:7750 or SSW:7600 or SSW:7760	Practicum With Leadership Specialization or Practicum With Clinical Specialization or Practicum in School Social Work	3
SSW:7752 or SSW:7602	Leadership Practicum Seminar II [c] or Clinical Practicum Seminar II	1
Degree Application: apply for degree in MyUI (Degrees/Graduation tile)		
	Hours	**10**
	Total Hours	**54**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Students complete 9 s.h. of graduate level elective coursework. Work with advisor to determine appropriate courses and sequence.

c Work with advisor to determine appropriate coursework and sequence.

Social Work, PhD

Learning Outcomes

Graduates will:

- locate their work in the intellectual landscape of social work;
- critically analyze theories, practices, policies, and research in at least one specialized area of social work knowledge;
- disseminate knowledge that contributes to the advancement of social work research, practice, and policy, including writing publishable, peer-reviewed manuscripts; presenting at local, national, or international conferences; and/or producing policy briefs or white papers; and
- in the social work classroom, create a learning culture and classroom climate that is inclusive of a diverse population of students and diverse learning styles.

Requirements

The Doctor of Philosophy program in social work requires 78 s.h. of graduate credit. Students must maintain a cumulative grade-point average of at least 3.00. Students complete the required coursework, research, and teaching practicum; pass a comprehensive exam; write a dissertation; and defend it in an oral exam. Their work includes courses in one of four outside disciplines—sociology, psychology, public health, or education—to prepare for the comprehensive examination and dissertation.

The doctoral program prepares students to conduct research that contributes to the knowledge base of social work, to become leaders in the profession, and to teach social work in postsecondary educational institutions.

Those who enter the program with a Master of Social Work (MSW) degree are granted 30 s.h. credit; they must complete an additional 48 s.h. for the PhD. Individuals with master's degrees in related disciplines (for example, psychology or sociology) may choose to earn a PhD in social work without first earning the MSW. Credit from a related master's degree may be applied to the PhD degree program, as determined by the School of Social Work.

Individualized and Interdisciplinary Curriculum

The program allows students to develop a coherent program of study with opportunities to pursue their own scholarly interests. These interests are pursued through a core social work curriculum, a concentration (sociology, psychology, education, or public health), and a social work focal area (e.g., family violence). Students may take methods and electives in any college or department at the University of Iowa.

The School of Social Work provides a supportive environment with substantial opportunities for mentoring and interaction with faculty members. Throughout PhD studies at the University of Iowa, the school assists students in developing a program of study based on their unique educational and career goals. There are many opportunities to work closely with faculty members in a mentoring environment. In the first two years, students complete a mentored research practicum with a faculty member and a mentored in-class teaching experience. During the second year, students choose a faculty member to guide them through the comprehensive examination and dissertation processes.

Admission

To ensure that all doctoral students receive mentoring, the School of Social Work typically admits three or four students annually; approximately 35% of applicants are admitted.

Admission Requirements

Students are required to have a bachelor’s degree from an accredited college or university and a minimum undergraduate grade-point average of 3.00 (on a 4.00 scale).

Students should have completed an introductory statistics course (including graphing techniques for presenting data, descriptive statistics, correlation, introduction to regression, prediction, logic of statistical inference, elementary probability models, estimation, and tests of significance) with a grade of B or higher. Research methods courses taken in a Master of Social Work (MSW) program typically do not meet the criteria for an introductory statistics course. Applicants who have not taken an introductory statistics course must complete one before beginning the program.

Applicants applying only to the PhD program are required to have an MSW or a master’s degree in a related field, such as public policy, public health, sociology, psychology, political science, economics, education, nursing, or anthropology.

Admission and Selection Process

Applications are accepted beginning Sept. 1 for the following academic year; applications are due by Feb. 1. Admission decisions are made in February. Applicants are notified in writing of the decision by April 1. In some years, there may be a waiting list. If applicants are placed on the waiting list, they are notified of this decision by April 1.

The school evaluates applicants based on their potential to independently conduct and disseminate scholarship that contributes to policy or practice and on their potential to prepare future social workers.

Career Advancement

Graduates become leaders in education, research, and government. All of the PhD graduates from the University of Iowa's School of Social Work program have obtained employment within one year of graduation. Of these, about 75% of graduates obtain teaching or research positions, and about 25% obtain policy, administrative, or practice positions.

To learn more about the academic job market, see the Council on Social Work Education (CSWE) career center. The CSWE posts jobs year-round, although most new ads for teaching and research positions are posted between August and December.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Social Work, PhD

Course	Title	Hours
Academic Career		
Any Semester		
78 s.h. must be graduate level coursework; maximum of 30 s.h. of graduate transfer credits from master's allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
Arrange Teaching Practicum		
CLAS:5100	Practicum: College Teaching and Professional Development for Teaching Assistants	1
SSW:7800	Social Work Proseminar	1
SSW:7806	Teaching Practicum	2
Concentration Theory course [c]		3
Statistics Level 2 course [c]		3
	Hours	**10**
Spring		
Arrange Research Practicum		
Select Doctoral Committee Chair		
Concentration Elective course [c]		3
Concentration Theory course [c]		3
Statistics Level 3 course [c]		3
	Hours	**9**
Summer		
SSW:7803	Social Work Research Practicum	3
	Hours	**3**
Second Year		
Fall		
Finalize Comprehensive Committee Members		
SSW:7810	Conducting a Systematic Literature Review	3
Concentration Research Methods course [c]		3
Elective course [c]		3
	Hours	**9**
Spring		
Comprehensive Exam Preparation and Proposal Defense [d, e]		
Statistics Level 4 or Research Methods course [c]		3
Elective course [c]		3
	Hours	**6**
Summer		
Submit Comprehensive Exam Paper		
	Hours	**0**
Third Year		
Fall		
Exam: Doctoral Comprehensive Exam		
SSW:7804	Thesis Writing Seminar	3
SSW:7830	PhD Dissertation	2
	Hours	**5**
Spring		
Dissertation Prospectus and Defense [f]		
SSW:7830	PhD Dissertation	2
	Hours	**2**
Fourth Year		
Fall		
SSW:7830	PhD Dissertation	2
	Hours	**2**
Spring		
SSW:7830	PhD Dissertation	2
Exam: Doctoral Final Exam [g]		
	Hours	**2**
	Total Hours	**48**

a Includes required graduate coursework, dissertation hours and 9 s.h. of elective coursework beyond the 30 s.h. transferred from the master's; work with faculty advisor to determine coursework and sequence.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Work with faculty advisor to determine appropriate graduate coursework; see the department website and the Social Work PhD Handbook for specifics.

d Schedule oral comprehensive exam for third year fall.

e Written comps proposal due second year spring; written comprehensive exam due second year summer; oral comprehensive exam due third year fall.

f Proposal and defense with full committee completed in third year spring.

g Dissertation defense.

Sociology and Criminology

Chair

- Michael E. Sauder

Director, Graduate Studies

- Stephanie M. DiPietro

Director, Undergraduate Studies

- Jennifer Haylett (Sociology) and Michaela S. Ruppert (Criminology, Law, and Justice)

Undergraduate majors: criminology, law, and justice (BA); sociology (BA)

Undergraduate minors: criminology, law, and justice; sociology

Graduate degrees: MA in sociology; PhD in criminology; PhD in sociology

Faculty: https://sociology.uiowa.edu/people

Website: https://sociology.uiowa.edu

The Department of Sociology and Criminology offers undergraduate majors and minors as well as graduate degree programs. The department partners with the departments of Economics, Philosophy, and Political Science to offer the undergraduate major in ethics and public policy, an interdisciplinary program administered by the Department of Philosophy; see Ethics and Public Policy [p. 459] in the catalog. In addition, it offers courses that undergraduate students in all majors may use to fulfill GE CLAS Core [p. 22] requirements, and a rotating sociology or criminology, law, and justice First-Year Seminar designed for entering undergraduate students.

Certificate

Social Science Analytics

The growth of big data and informatics calls for a new set of skills for social science students and an increased understanding of the logic of data collection and analysis. The certificate focuses on the application side of data analysis. It allows students to focus on the specific research methods and data-driven quantitative skills that are most effective for understanding an increasingly complicated social-political world. The certificate offers an opportunity for interdisciplinary training on how data can be used to address important questions in the social sciences. The Department of Sociology and Criminology collaborates with the School of Earth, Environment, and Sustainability and the departments of Political Science and Statistics and Actuarial Science to offer the undergraduate program in social science analytics; see the Certificate in Social Science Analytics [p. 996] in the catalog.

Programs

Undergraduate Programs of Study

Majors

- Major in Sociology (Bachelor of Arts) [p. 1026]
- Major in Criminology, Law, and Justice (Bachelor of Arts) [p. 1031]

Minors

- Minor in Sociology [p. 1035]
- Minor in Criminology, Law, and Justice [p. 1036]

Graduate Programs of Study

- Master of Arts in Sociology [p. 1037]
- Doctor of Philosophy in Sociology [p. 1040]
- Doctor of Philosophy in Criminology [p. 1038]

Facilities

Crime and Justice Policy Research Program

The Crime and Justice Policy Research Program conducts research on the causes and consequences of crime, interpersonal violence, and antisocial behavior. The program also considers the implementation and implications of public policies designed to prevent and control criminal offending.

Center for the Study of Group Processes

The Center for the Study of Group Processes has a small-group laboratory with computer-controlled subject rooms that provide audiovisual and psychophysiological recording capabilities, large-group rooms with an adjoining observation room, an audiovisual control room, and other flexible research office spaces.

Courses

- Sociology Courses [p. 1017]
- Criminology, Law, and Justice Courses [p. 1022]

Prerequisites for courses are listed in the course descriptions.

Sociology Courses

SOC:1000 First-Year Seminar **1-2 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

SOC:1010 Introduction to Sociology **3-4 s.h.**
How individuals are organized into social groups, ranging from intimate groups to bureaucracies, and how these influence individual behavior; nature and interrelationships of basic social institutions (family, education, religion, economy). GE: Social Sciences.

SOC:1022 Social Justice and Social Welfare in the United States 3 s.h.
Critically examine historical and current practices to address social injustices including poverty, discrimination, and other threats to human rights and well-being; evaluation of personal and professional values within the context of one's culture; exploration of roles and responsibilities to enhance society for future generations; dialogue with professionals working in topic areas. Topic areas may include poverty, homelessness, mental and physical health, criminal justice, education, aging, and interpersonal violence. GE: Values and Society. Same as SSW:1022.

SOC:1030 Contemporary Social Problems 3-4 s.h.
Emergence and distribution of selected social problems; alternative solutions; may include population, inequality, female-male relationships, racism, crime. GE: Understanding Cultural Perspectives.

SOC:1040 Energy, Sustainability, and Society 3 s.h.
Energy is considered the lifeblood of modern societies, and as energy production and consumption accelerates worldwide, it is imperative that energy becomes sustainable or it is derived from resources that can maintain current operations without jeopardizing energy needs or climate of future generations; examination of global transition toward sustainable energy systems from a social science perspective; application of the concept of sociological imagination to understand challenges and opportunities presented by worldwide energy transformation towards sustainability. GE: Sustainability. GE: Social Sciences; Sustainability.

SOC:1220 Principles of Social Psychology 3-4 s.h.
Introduction to a range of theories that seek to explain behavior of people within their groups, and dynamics between groups, at various levels of society. GE: Social Sciences.

SOC:1310 Gender and Society 3 s.h.
Role and status of women in society; sex differences, sex role socialization, theories about origin and maintenance of sexual inequalities, changes in social life cycle of women, implications for social institutions and processes; focus on contemporary United States. GE: Values and Society. Same as GWSS:1310.

SOC:2064 African American Families: Urban and Suburban 3 s.h.
Racial inequality and experiences of African American families in the United States during the 20th and 21st centuries; historical context for contemporary research on African American family; relative impact of structural and cultural factors on various aspects of African American family life, declining marriage rates, family formation patterns; intersections of race and class in family life; research methods used to examine dynamics of African American family life, including quantitative analysis, structured qualitative interviews, and ethnography. GE: Understanding Cultural Perspectives. Same as AFAM:2064.

SOC:2130 Sociological Theory 3 s.h.
Theoretical perspectives in sociology; construction, evaluation of sociological explanations. Prerequisites: SOC:1010 or SOC:1030 or SOC:1310 or CRIM:1410.

SOC:2160 Applied Statistics for Social Scientists 3 s.h.
Applied statistics for sociology majors: frequency distributions, graphic presentation, measures of central tendency, measures of variability, elementary probability, populations and samples, sampling distributions, estimation and confidence intervals, hypothesis testing, chi-square test, regression and correlation, analysis of variance; computer software used in data analysis; emphasis on appropriate use and interpretation of statistics in the study of sociological topics. Recommendations: sociology major.

SOC:2170 Research Methods 3 s.h.
Basic scientific concepts; emphasis on theoretical thinking, statement of researchable propositions, logic and meaning of proof operant in the research process; general issues in designing social research, including problems of sampling and measurement, analysis, presenting research data, interpreting research findings. Prerequisites: (SOC:1010 or CRIM:1410 or CRIM:1447) and (PSQF:4143 or STAT:1020 or STAT:2010 or SOC:2160 or STAT:3510 or STAT:1030). Requirements: sociology major, or criminology, law, and justice major.

SOC:2710 The American Family 3 s.h.
Structure and process; change over the life cycle; interrelations with other institutions; historical changes; variations by social class and ethnic group. GE: Values and Society.

SOC:2770 Black and White Community Politics 3 s.h.
Students study the movement for environmental justice within the broader context of U.S. land use and development to understand environmental racism's prevalence and how it can be addressed; topics include pollution, health, food access, transportation and agricultural practice to land loss, public space, and infrastructure; exploration of perspectives on the environment and environmentalism. Same as AFAM:2770, GHS:2770.

SOC:2810 Social Inequality 3 s.h.
Major theoretical perspectives for understanding inequality in economics, power, prestige; the magnitude of social inequality in the United States; sex and race inequality; trends in and causes of social mobility; selected consequences of social inequality. GE: Values and Society.

SOC:2830 Race and Ethnicity 3 s.h.
Multidisciplinary study of intergroup relations, with emphasis on historical, sociological, and social psychological issues in the study of American minority groups. GE: Understanding Cultural Perspectives.

SOC:3100 Critical Race Theory: Culture, Power, and Society 3 s.h.
Examination of the historical context of race and racism in U.S. history; focus on how social structures perpetuate longstanding patterns of racial inequality. Same as AFAM:3100, AMST:3100.

SOC:3110 Race, Organizations, and Workplace 3 s.h.
Examination of racial discrimination in the American workplace and organizations; historical context for development of complex organizations; various forms of racial discrimination; longstanding patterns of racial inequality central to American organizations. Same as AFAM:3110.

SOC:3170 Applied Research 3 s.h.
Ongoing research project investigating the Flint water crisis; organization and analysis of emails for sociological research purposes and ultimately to create a searchable website for public access to the data; how to construct and analyze a "big data" data set in an interdisciplinary collaborative research setting; how to apply and build sociological theory with empirical data; how to write an academic journal article. Prerequisites: SOC:2170 or CRIM:2470.

SOC:3171 Drugs and Society 3 s.h.
How people use drugs for recreation, performance enhancement, and medical treatment; implications for drug control, treatment, and public policy.

SOC:3215 Digital Footprints: Sociology in the Age of Social Media 3 s.h.
A comprehensive look at how digital technologies influence individual identities, interpersonal relationships, privacy, mental health, communication patterns, and social justice. Students will be equipped with research skills, learning to observe behavior, design simple surveys, and conduct experiments to explore various online social phenomena. Through a blend of engaging readings, discussions, and research projects, the course offers diverse perspectives on the complex interplay between technology and society, preparing students with critical thinking, practical knowledge, and research experience. Prerequisites: SOC:1010 or SOC:1030 or CRIM:1410.

SOC:3220 Sociology of Mental Health 3 s.h.
The socially constructed nature of mental illness; theoretical perspectives and research on social antecedents and social consequences of mental health.

SOC:3510 Medical Sociology 3 s.h.
Theoretical perspectives and research on social precursors and consequences of physical and mental health ailments; focus on contemporary United States with cross-cultural comparisons; stereotypes and diagnosis, gender and racial/ethnic differences, health inequalities related to socioeconomic status.

SOC:3525 Public Opinion 3 s.h.
Role in making public policy; formation, change of political attitudes and opinions; political ideology; measurement of public opinion; how opinion polls are conducted; experience with interviewing and conducting public opinion research. Same as POLI:3204.

SOC:3530 Social Psychology of Small Groups 3 s.h.
Internal processes governing small groups (e.g., friendship cliques, families, the president's cabinet, committees); how small groups relate to the larger social environment; groups' impact on their members. Prerequisites: SOC:1030 or SOC:1010.

SOC:3540 Social Psychology of Good and Evil 3 s.h.
Exploration of the social science of good and evil, how society shapes us, how people make and interpret their choices, and how we judge others; covers a range of fields including sociology, criminology, psychology, philosophy, and more.

SOC:3610 Organizations and Modern Society 3 s.h.
Approaches to the sociological study of economic and noneconomic organizations; the role of power and authority within the organization, and between the organization and its environment.

SOC:3630 The Racial Wealth Gap: Black Debt, White Debt 3 s.h.
Exploration of extent, historical origins, and contemporary factors of the racial wealth gap with special attention to role of debt in U.S. race relations; potential topics include education debt, monetary sanctions in criminal justice, redlining, recession, bankruptcy, and reparations. Same as AFAM:3630.

SOC:3650 Education, Schools, and Society 3 s.h.
Overview of sociology of education; historical and current sociological perspectives on education; race, class, and gender inequality in schooling; higher education; contemporary debates in education (e.g., affirmative action, school choice). Prerequisites: SOC:1030 or SOC:1010.

SOC:3750 Born in the USA: Fertility and Reproduction 3 s.h.
Exploration of when, why, how, and with whom Americans bear children; comparison to other developed and developing countries in the world; infertility and its treatments; ethics of surrogacy; voluntary childlessness; rapid rise of nonmarital childbearing in the U.S. and other countries; politics of childbirth; declining populations; rapid aging of rich where women have basically stopped having children. Same as GWSS:3750.

SOC:3851 Economy and Society 3 s.h.
Economic sociologists examine connections between economic processes and social relations; students take a sociological approach to phenomena that is typically understood in economic terms; economic life through a diverse set of theoretical perspectives—ranging from structural networks to cultural analysis—and at different levels of analysis (e.g., individual, organizational, institutional); topics include embeddedness of markets and social networks, morals and markets, rise of financialization, performativity of economics, economic inequality and discrimination, development of money and credit, and social construction of pricing and value.

SOC:3880 The Sociology of Networks 3 s.h.
Introduction to the basic properties of network structure (e.g., density, mutuality, cliques); substantive insights regarding the role and consequences of networks in social life; the role of networks in job searching/hiring processes; how innovations diffuse through networks; and relationships as social resources. Prerequisites: SOC:1010 or SOC:1030.

SOC:4000 Data Science for Social Good 3 s.h.
The availability of big data transforms the way we solve difficult social problems; programming and analytical skills to analyze data from social media and open-access administrative data sources; basic principles and skills in data science including how to collect, clean, curate, and manipulate data, simple statistics, and computational methods; emphasis on linking big data to real world social problems and social science insights; students learn problem-solving skills and a data-driven approach to contemporary social problems. Prerequisites: SOC:2160 or POLI:3000 or STAT:3120 or IGPI:3120 or CS:1210.

SOC:4200 Sociology of Religion 3 s.h.
Introduction to the study of religion from a sociological perspective; religions exist in social contexts, are shaped by contexts in which they are embedded, and then often change those social contexts; to understand the relation between religions and other social systems, we must examine the sociological as well as the historical, anthropological, social psychological, and political impacts; students will study religious organizations critically and objectively, exploring and debating classical sociological theories pertaining to religions, as well as contemporary theories that predict religious behavior; social scientific perspective will be presented.

SOC:4225 The Social Psychology of Leadership 3 s.h.
Techniques, proven by research, that enhance students' ability to know, work with, and lead people; recent research in social psychology, how it applies to practical leadership problems.

SOC:4230 Sociology of Self-Improvement 3 s.h.
How self-improvement as a cultural goal shaped development of political, business, educational, and religious institutions in the United States; history of self-improvement movement and industry; selected readings that show how much self-improvement is possible and which techniques are more useful than others.

SOC:4540 Political Sociology and Social Movements 3 s.h.
Social unrest; crowd behavior; social movements treated as a form of social change. Prerequisites: SOC:1030 or SOC:1010.

SOC:4680 Corruption: The Social Scientific Perspectives 3 s.h.
Social scientists and policy makers alike recognize corruption as an obstacle to economic development, democratic governance, and human rights around the world; students survey recent research from sociology, criminology, political science, and anthropology that addresses causes and consequences of corruption; why individuals engage in corrupt behavior, how organizations affect patterns of corrupt transactions, and how rates of corruption impact and are impacted by political regimes; consequences that corruption has for social inequality, civic mobilization, lives of women and immigrants, and stability of autocratic governments. Same as CRIM:4680.

SOC:4800 Research Practicum in Sociology 3 s.h.
Students engage in a sociological research activity that is not related to an honors project, conducted under the supervision of (or in collaboration with) a faculty member.

SOC:4820 Sociology of Sexuality 3 s.h.
Sociological perspectives on sexuality, including theoretical and conceptual developments, empirical regularities, and social implications; sexual expression in the United States. Prerequisites: SOC:1010 or SOC:1030. Same as GWSS:4820.

SOC:4900 Selected Topics in Sociology 3 s.h.
Topics vary.

SOC:4909 Graduation Portfolio 0 s.h.
Submission of final graduation portfolio first assembled in capstone course required for sociology major. Corequisites: SOC:4910.

SOC:4910 Capstone Course in Sociology and Criminology 3 s.h.
Senior project illustrating student's accomplishments during the undergraduate career; prepared in collaboration with sociology faculty member or other experts in the student's area of sociological interest; record for student's own reflection, information for potential employers and graduate programs. Prerequisites: SOC:2130 and (SOC:2170 or CRIM:2470). Requirements: major GPA of 2.00.

SOC:4920 Social Services Organization Internship 3 s.h.
Student volunteer work with social services organizations. Prerequisites: SOC:1010 with a minimum grade of C or SOC:1030 with a minimum grade of C or SOC:1310 with a minimum grade of C or SOC:2810 with a minimum grade of C. Requirements: sociology major or minor, and junior standing.

SOC:4930 Teaching Internship 3 s.h.
Experience providing supervised support for instructors teaching basic courses in sociology. Requirements: appointment as sociology undergraduate teaching aide.

SOC:4950 Sociology Criminology Student Ambassador 1 s.h.
Ambassadors provide information about the Department of Sociology and Criminology to incoming and visiting students, university community, and broader community; conduct tours; meet with students and parents; review curriculum; provide information on opportunities; coordinate events; and update materials for prospective and incoming students. Requirements: sociology or criminology major. Same as CRIM:4950.

SOC:4990 Directed Individual Study arr.

SOC:4997 Honors Seminar 1 s.h.
Topic development for senior honors projects. Offered spring semesters. Requirements: sociology honors standing.

SOC:4998 Honors Research arr.
Research projects under faculty supervision.

SOC:5110 History of Sociological Theory 3 s.h.
Ideas of major 19th- and 20th-century social thinkers (e.g., Marx, Weber, Durkheim, Simmel, Mead).

SOC:5130 Sociology of Education 3 s.h.
Effects of school and school organization on educational outcomes; course-taking patterns and tracking, desegregation, differences in school sector; focus on entire span of student's academic career; examination of school and organizational effects at the primary, secondary, and postsecondary levels of education. Same as EPLS:5130.

SOC:5160 Research Design and Methods 3 s.h.
Research designs; sampling designs and techniques; questionnaire construction, interviewing techniques; participant and nonparticipant observation; coding and preparation of data for analysis; measurement techniques, reliability, and validity. Requirements: SOC:6170 or graduate standing.

SOC:5250 Graduate Writing 3 s.h.
Students improve their skills in academic writing and publication; how to write abstracts and project summaries; preparation of articles for submission to professional journals; creation of grant proposals.

SOC:5310 Gender Theory 3 s.h.
Introduction to sociological analysis of gender; multiple ways that gender patterns the social world in which we live; predominant theoretical stances related to study of gender; how gender structures everyday social interaction; how social institutions (e.g., work, family) give rise to and recreate gendered meanings, expectations, structures; possibilities for interventions and change to gender system.

SOC:5510 Sociology of Health 3 s.h.
Overview of relevant theories and related research in sociology of health field; topics related to social construction of health and its historical variation; focus on social determinants of health including social stressors, labeling processes, cross-cultural differences, and epigenetics or social genomics.

SOC:5680 Sociology of Higher Education 3 s.h.
Sociological approach to study of higher education; issues of inequality and stratification in higher education; focus on relationship between higher education and larger economic and demographic processes; college access, college destinations, attainment, and returns to a college degree. Same as EPLS:5142.

SOC:5810 Education and Social Change 2-3 s.h.
Role of educational institutions, in connection with political and economic structures, in the process of social change; illumination of theories of social change through case studies of educational systems in both less-developed and industrialized nations. Same as EPLS:5210.

SOC:6080 Master's Thesis arr.

SOC:6140 Seminar: Selected Topics in Sociological Theory 3 s.h.

SOC:6170 Introduction to Sociological Data Analysis 3 s.h.
Statistical measures for descriptive methods and association; logic of statistical inference, hypothesis testing; background essential to understanding linear models, models for categorical data analysis. Requirements: introductory statistics.

SOC:6175 Qualitative Methods 3 s.h.
Logic of qualitative research; basic skills necessary for a qualitative research project. Requirements: sociology graduate standing.

SOC:6180 Linear Models in Sociological Research 3 s.h.
Statistical techniques associated with general linear model; emphasis on multiple regression, its generalizations; corresponding computer programs. Requirements: SOC:6170 or graduate standing.

SOC:6210 Contemporary Approaches to Social Psychology 3 s.h.
Review and critical analysis of current theoretical approaches and systems of social psychological analysis. Recommendations: sociology graduate standing.

SOC:6220 Seminar: Selected Topics in Social Psychology 3 s.h.
Selected theoretical and methodological issues.

SOC:6310 Gender Stratification Seminar 3 s.h.
Occupational gender segregation; gender gap in pay; role of family caregiving in women's lower pay; evaluation of caregiving work; comparable work.

SOC:6425 Criminological Theory II 3 s.h.
Advanced study of criminological theories; contemporary criminological theories; testing criminological theories. Prerequisites: CRIM:5410. Same as CRIM:6420.

SOC:6435 Feminist Perspectives on Crime and Punishment 3 s.h.
Feminist criminology; gender theory; intersectional approaches; gender and crime; critical theories; system-involved girls and women. Recommendations: previous upper level or graduate course in sociology or criminology. Same as CRIM:6430.

SOC:6440 Crime and Health in the Life Course 3 s.h.
Patterns of physical and mental health, and deviant and criminal behavior across the life course; focus on intersection between health and deviance and crime; topics incorporate research from evolutionary biology, psychology, criminology, and public health; themes include policy, developmental context, social change, and population health. Same as CRIM:6440.

SOC:6450 Comparative Criminology 3 s.h.
Survey of theoretical and empirical literature on crime across nations with primary focus on homicide; exploration of why we even bother to study crime across nations, how crime is measured at cross-national level; where to find cross-national crime data; whether source matter for crime data across nations matters; discussion and evaluation of theoretical and empirical explanations for why some nations have more/less crime than others. Same as CRIM:6450.

SOC:6460 Criminal Punishment 3 s.h.
Sociological theories and research on criminal punishment; classical and contemporary theories; race and gender inequality in punishment; collateral consequences; research on imprisonment, community sanctions, monetary sanctions. Same as CRIM:6460.

SOC:6490 Immigration and Crime 3 s.h.
Historical trends in immigration and crime; media portrayal of immigration and its impact on public sentiment; relationship between immigration and crime at individual and aggregate levels; social impact of immigration policies including those that relate to deportation and militarization of U.S. borders. Recommendations: previous upper level or graduate course in sociology or criminology. Same as CRIM:6490.

SOC:6550 Environment and Society 3 s.h.
Examination of research at the intersection of society and environment; theories of environmental sociology, politics, and corporate social responsibility; opportunity to develop an understanding of complex relationships between human prosperity and natural environment; development of a micro-, meso-, or macro-level research project (e.g., determinants of environmental attitudes and behaviors, adoption of clean technologies by organizations, outcomes of environmental activism, diffusion of national environmental policies).

SOC:6610 Complex Organizations 3 s.h.

SOC:6740 Racial Inequality 3 s.h.
Historical and contemporary overview of race scholarship with primary focus on the United States; students track the evolution of race scholarship from Du Bois and the Chicago School to contemporary theories on racial formations, systemic racism, color-blind racism, and critical race theory.

SOC:6750 Race and Crime 3 s.h.
Relationships among race/ethnicity, crime, and the justice system through rigorous engagement with empirical research and data; emphasis on historical evolution of major branches of the justice system; sociological and criminological theories that predict racial/ethnic variation in crime and victimization; sociological, economic, and political reasons behind racial disparities in the justice system. Same as CRIM:6750.

SOC:6810 Social Stratification 3 s.h.
Classical and contemporary theories; current research on the causes and magnitude of inequality in economics, power, and prestige; social mobility; critical issues in stratification.

SOC:7010 Teaching Sociology 2-3 s.h.
Supervised preparation for teaching sociology courses; literature on teaching; course objectives, alternative teaching techniques; preparation of course syllabus, lectures, discussions, exams.

SOC:7030 Readings and Research Tutorial arr.

SOC:7090 PhD Dissertation arr.

SOC:7170 Advanced Statistical Modeling of Data 3 s.h.
Models for analysis of categorical data, including loglinear, logit, related discrete data models. Requirements: advanced graduate standing.

SOC:7175 Social Science Research: Big Data 3 s.h.
New opportunities and challenges faced by social science research with the advent of technologies that collect, store, and analyze massive human digital traces; data collection, manipulation, and curation skills; survey of computational methods commonly used in computational social science; different from other big data courses in connecting new data sources to theory-focused social science; emphasis on how to ask research questions informed by data and how to design analytical strategies to answer those questions. Prerequisites: SOC:6170 and SOC:6180.

SOC:7270 Scholarly Professionalism and Integrity I 2 s.h.
General introduction to department and discipline for entering graduate students; departmental and graduate college requirements, program and career planning, interaction with faculty members, consideration of student interests and concerns; two semesters beginning in fall. Requirements: sociology graduate standing.

SOC:7271 Scholarly Professionalism and Integrity II 2 s.h.
General introduction to department and discipline for entering graduate students; departmental and graduate college requirements, program and career planning, interaction with faculty members, consideration of student interests and concerns. Requirements: sociology graduate standing.

SOC:7400 Seminar: Selected Topics in Criminological Research 3 s.h.
Critical analysis of current research; emphasis on theoretical contributions and methodological foundations. Same as CRIM:7400.

SOC:7410 Communities and Crime 3 s.h.
Distribution of crime as rooted in community-level conditions such as concentrated affluence or poverty, racial residential segregation, unemployment, family disruption, and immigration. Requirements: sociology graduate standing. Same as CRIM:7410.

SOC:7420 Gender and Violence 3 s.h.
Research and theories on gender and violence (victimization, offending); masculinities and femininities; intersectionality approaches considering the combined impact of race, ethnicity, sexuality, gender, age, social class, etc. Same as CRIM:7430.

SOC:7440 Social Psychology of Violence 3 s.h.
Social psychological and criminological theories of aggression and violence; laboratory and observational research; contemporary theories; sources of data and research designs; interdisciplinary approaches. Recommendations: previous upper level or graduate course in sociology or criminology. Same as CRIM:7440.

SOC:7500 Seminar: Topics in Political Sociology 3 s.h.
Overview of current research in political sociology; topics related to inequality, citizenship, social change, institutions, social movements, political regimes, and globalization; survey of multiple methodological and theoretical approaches.

SOC:7620 Social Networks: Theory and Sociological Applications 3 s.h.
Relational, data-oriented approach to representing linkages or relationships among social units, and to examine the relevance of these social structures in social processes. Requirements: basic multiple regression.

SOC:7820 Seminar: Selected Topics in Social Stratification 3 s.h.
Requirements: social science graduate standing.

Criminology, Law, and Justice Courses

CRIM:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

CRIM:1410 Introduction to Criminology 3 s.h.
Nature and causes of crime; the criminal justice process, correctional treatment, crime prevention. GE: Social Sciences.

CRIM:1447 Introduction to the Criminal Justice System 3 s.h.
Organization and function of criminal justice system in the United States; history, organization, and current practices of policing, criminal courts, and correctional system; sociological and criminological research on major subsystems comprising criminal justice systems.

CRIM:2210 Iowa Criminal Justice Policy and Reform 3 s.h.
Introduction to contemporary discussions of policy and reform across all stages of criminal justice system including policing, pretrial detention, sentencing, incarceration, and reentry; current practices and policies; development of applied skills in policy analysis and communication; course material extends beyond policies for crime reduction and considers policies geared towards other outcomes (i.e., reducing inequalities and racial disparities in the criminal justice system); exploration of criminal justice policies through an Iowa lens at state and local levels.

CRIM:2430 Comparative Criminal Justice Systems 3 s.h.
Criminal justice systems around the world; similarities and differences in how justice is defined and operationalized in contemporary legal traditions in terms of police, courts, and corrections examined in light of cultural norms and values; emphasis on link between societal characteristics and legal traditions; differences in defendant rights guaranteed under various legal traditions.

CRIM:2440 Student Practicum in Policing 3 s.h.
Practical application of criminal justice knowledge with physical demonstrations and hands-on exercises; physical participation includes defensive tactics, firearms instruction, and violent intruder training; students journal about student police academy topics and present to faculty. Prerequisites: CRIM:1410 or CRIM:1447. Requirements: background check.

CRIM:2460 Policing in Modern Society 3 s.h.
History, theory, and practice of policing; exploring the link between officer decision-making and department expectations; policing subculture; ethical considerations officers face; policing administration; policing/community interaction; legal issues affecting policing practice; contemporary developments in policing emergent crime types.

CRIM:2470 Research Methods in Criminology and Criminal Justice 3 s.h.
Introduction to social science research methods in the fields of criminology and criminal justice; techniques necessary for systematic analysis of research questions and program effectiveness; critical evaluation of existing empirical research and sources of criminal justice data; assessment of data quality. Prerequisites: (STAT:1020 or STAT:1030 or SOC:2160 or STAT:2010 or STAT:3510 or PSQF:4143) and (CRIM:1410 or CRIM:1447).

CRIM:3110 Communities and Crime 3 s.h.
Why do some neighborhoods have more crime than others? Why do some neighborhoods see increasing rates of crime over time, while others seemingly do not? Although many crime events occur among individuals, scholars have long noted that crime events tend to cluster in neighborhoods and places where people live; students consider explanations for why this spatial patterning occurs; research methods that have been used to learn about crime in spatial context, classic and contemporary studies of this issue, and approaches to crime prevention that involve focusing on neighborhood or place, rather than simply on individuals. Prerequisites: CRIM:1410 or CRIM:1447.

CRIM:3250 Drugs, Deviance, and Social Control 3 s.h.
Introduction to social reality of drug use, drug users, and attempts to control drug behavior; exploration of relationship to crime and deviance, medicalization, and movements aimed at drugs.

CRIM:3260 Immigration and Crime 3 s.h.
Students are provided with a solid foundation to understanding key issues in immigration-crime debates; central to this is a critical examination of historical trends in immigration and its relationship to crime, media portrayal of immigration and its impact on public sentiment, relationship between immigration and crime at individual and aggregate levels, emergence of crimmigration—or blurring of immigration and criminal justice policies since the 1980s, and social impact of immigration policies including those that relate to deportation and militarization of U.S. borders.

CRIM:3400 Criminology Mentoring Program 1 s.h.
Career search through self-exploration, research, and discussion in area of criminology; preparation for criminology capstone and/or internship program; creation of an individual development plan; individual meetings with instructor at beginning and end of semester; bimonthly meetings to discuss aspects of criminology from a practical perspective; identification of student interests and potential career paths.

CRIM:3414 Criminology of Genocide 3 s.h.
Legal, social, and human causes and consequences of genocide in the 20th and 21st centuries; focus on the definition and dynamics of genocide, theoretical frameworks that help explain causality, dynamics, and consequences of genocide, and law, justice, and accountability for war crimes and genocide in the modern era.

CRIM:3415 Global Criminology 3 s.h.
Crime and the control of crime at the transnational and sub-national levels of analysis; focus on non-U.S. societies; consequences of economic, political, and cultural globalization.

CRIM:3416 Race, Crime, and Justice 3 s.h.
Extent and nature of racial disparities in offending and victimization; interpretation of patterns using various theoretical approaches; examination of race inequalities across many stages of criminal justice process.

CRIM:3417 Community Corrections 3 s.h.
Community corrections; probation, parole, intermediate sanctions (boot camps, intensive supervision, electronic monitoring); contemporary issues in community supervision of offenders.

CRIM:3420 Juvenile Delinquency 3 s.h.
Theories of juvenile delinquency; individual, neighborhood, and societal explanations of delinquency; research on families, schools, peers, neighborhoods, gangs, and delinquency.

CRIM:3421 Gangs and Gang Crime 3 s.h.
Criminology; sociology; theories of gangs and gang crime; violent crime; communities and crime; societal explanations of gangs; research on delinquency, peers, and identity; policing and gangs; crime prevention.

CRIM:3422 A Critical History and Exploration of Mass Incarceration and Reentry 3 s.h.
Explores the historical context leading to the current state of mass incarceration through the legislation of mandatory minimums, the direction of law enforcement toward marginalized populations, and the overcriminalization of nonviolent offenses. Addresses reentry and recidivism; analyzes the "Second Prison" of disenfranchisement and isolation of people formerly incarcerated; and explores the rise in calls for reform including a range of proposed options from system change to abolition.

CRIM:3425 Women, Crime, and Justice 3 s.h.
Overview of women's experiences with crime and criminal justice system, with reference to experiences of men for purposes of comparison; role of race, ethnicity, and poverty in women's experiences; causes of crime, inequalities in police-citizen interactions, imprisonment, and other aspects of criminal justice system experience. Same as GWSS:3425.

CRIM:3437 American Crime 3 s.h.
Prevailing issues in criminology; extent and nature of disparities in offending and victimization, interpretation of patterns using various theoretical approaches; evaluation of crime-control policies. Prerequisites: CRIM:1410 or CRIM:4430 or CRIM:3420.

CRIM:3450 Criminal Legal System 3 s.h.
Discretionary decision-making in U.S. criminal courts from arrest through sentencing; legal and sociolegal issues relevant to each stage of felony adjudication; sociological and social-psychological theories of decision-making in adjudication, empirical research testing these theories.

CRIM:3600 Crime and Public Policy 3 s.h.
Policies having to do with crime, delinquency, or deviance are often heavily debated; examination of certain crime-related policies including the theories that motivate them, research methods and design used to evaluate them, and prior studies that investigate whether they do, in fact, accomplish stated goals; students engage with a diversity of topics and policies including those dealing with individuals, groups, criminal justice institutions, geographic areas, and more. Prerequisites: CRIM:1410.

CRIM:4120 Environmental Criminology 3 s.h.
Macro-criminological theories tend to focus on sociodemographic correlates of crime (e.g., poverty), the basic question asked in environmental criminology is how does the built environment (e.g., roads, buildings, tourist destinations, etc.) shape where and when crime occurs? Students gain a more sophisticated understanding of spatial-temporal patterns of crime as opposed to garden variety application of peoples' routine activities; topics include seasonality and time of day, near repeat victimization, ambient population, geometry of crime, and offenders' journey to crime. Prerequisites: CRIM:1410 and (SOC:2170 or CRIM:2470).

CRIM:4300 Gender and Violence 3 s.h.
Focus on gendered violence, including violence against women and members of LGBTQ+ communities; relationship between masculinities and violence; ways in which gender, race, ethnicity, age, and social class combine to explain gendered violence; theories and empirical research.

CRIM:4400 Internship in Criminal Justice and Corrections 3 s.h.
Supervised fieldwork in a criminal justice or correctional agency. Prerequisites: (CRIM:1410 or CRIM:1447) and (CRIM:2430 or CRIM:2460 or CRIM:3415 or CRIM:3416 or CRIM:3417 or CRIM:3420 or CRIM:3437 or CRIM:3450 or CRIM:4420 or CRIM:4430 or CRIM:4450 or CRIM:4460). Requirements: criminology, law, and justice major or minor, and junior standing.

CRIM:4410 Treatment Interventions in Corrections 3 s.h.
Introduction to treatment interventions utilized in the criminal justice system that target some of the special populations seen within the system as a whole; specific populations may include mental health, substance abuse, sex offenders, and domestic violence; emphasis on evidence-based practices and successful program outcomes with focus on identification and discussion of ethical issues and concerns that arise when providing specialized services to this population, as well as the sometimes difficult mixture of treatment and safety/security. Prerequisites: CRIM:1410 or CRIM:1447. Requirements: junior, senior, or graduate standing.

CRIM:4420 Criminal Punishment 3 s.h.
Sociological theories and research on criminal punishment; classical and contemporary theories; research on imprisonment and capital punishment.

CRIM:4430 Interpersonal Violence in Society 3 s.h.
Extent and nature of interpersonal violence in societies, in general and for specific population subgroups; theoretical explanations for the phenomenon; alternative ways of defining and responding to violence across various social contexts; application of scientific method; relevant literatures from multiple disciplines including sociology, anthropology, criminology, psychology, and behavioral economics; types of violence defined as illegal and those which are deviant but not illegal.

CRIM:4440 Sociology of White-Collar Crime 3 s.h.
Critical perspectives on causes and consequences of white-collar crime; definitions and types; criminological, social-psychological, and rational-choice theories; political and economic causes of white-collar crime under capitalism and socialism; rates and patterns of white-collar criminality across different social groups (defined by racial, ethnic, class, and gender attributes); control, prevention, and criminal justice response.

CRIM:4450 Juvenile Justice: A Sociolegal Perspective 3 s.h.
Examination of social, historical, and legal foundations of juvenile justice system in the United States; adjudication processes in juvenile justice, transfer of juveniles to criminal court, contemporary juvenile court, community-based corrections programs, legalities of juvenile system; current and future directions in juvenile justice.

CRIM:4460 Sociology of Law 3 s.h.
Conceptual, historical, and theoretical issues of law and operation of the criminal justice system; theory and research on law and the criminal justice system.

CRIM:4680 Corruption: The Social Scientific Perspectives 3 s.h.
Social scientists and policy makers alike recognize corruption as an obstacle to economic development, democratic governance, and human rights around the world; students survey recent research from sociology, criminology, political science, and anthropology that addresses causes and consequences of corruption; why individuals engage in corrupt behavior, how organizations affect patterns of corrupt transactions, and how rates of corruption impact and are impacted by political regimes; consequences that corruption has for social inequality, civic mobilization, lives of women and immigrants, and stability of autocratic governments. Same as SOC:4680.

CRIM:4800 Research Practicum in Criminology 3 s.h.
Students engage in a criminology research activity that is not related to an honors project, conducted under the supervision of (or in collaboration with) a faculty member.

CRIM:4930 Teaching Internship 1-3 s.h.
Students gain teaching experience by providing supervised support for instructors in introductory-level courses in criminology. Requirements: criminology undergraduate teaching aide appointment.

CRIM:4950 Sociology Criminology Student Ambassador 1 s.h.
Ambassadors provide information about the Department of Sociology and Criminology to incoming and visiting students, university community, and broader community; conduct tours; meet with students and parents; review curriculum; provide information on opportunities; coordinate events; and update materials for prospective and incoming students. Requirements: sociology or criminology major. Same as SOC:4950.

CRIM:4990 Directed Individual Study 1-3 s.h.
Students pursue interests not covered in other courses.

CRIM:4998 Honors Research arr.
Honors research projects under faculty supervision.

CRIM:5120 Introduction to Criminal Justice Systems 3 s.h.
Critically explore the criminal justice system and its impact on communities across the U.S. Topics include crime and criminalization, policing, courts, prisons, community supervision, immigration detention centers, and the juvenile justice system. Recommendations: some general knowledge of the criminal justice system terminology.

CRIM:5410 Criminological Theory I 3 s.h.
Foundations of theoretical development; theory construction; classical criminological theories; intro to contemporary theories.

CRIM:5420 Crime and Public Policy 3 s.h.
Examines selected crime-related policies, focusing on the theories that motivate them, the research methods and designs used to evaluate them, and previous studies that investigate whether they achieve their stated goals.

CRIM:6080 Master's Thesis arr.

CRIM:6420 Criminological Theory II 3 s.h.
Advanced study of criminological theories; contemporary criminological theories; testing criminological theories. Prerequisites: CRIM:5410. Same as SOC:6425.

CRIM:6430 Feminist Perspectives on Crime and Punishment 3 s.h.
Feminist criminology; gender theory; intersectional approaches; gender and crime; critical theories; system-involved girls and women. Recommendations: previous upper level or graduate course in sociology or criminology. Same as SOC:6435.

CRIM:6440 Crime and Health in the Life Course 3 s.h.
Patterns of physical and mental health, and deviant and criminal behavior across the life course; focus on intersection between health and deviance and crime; topics incorporate research from evolutionary biology, psychology, criminology, and public health; themes include policy, developmental context, social change, and population health. Same as SOC:6440.

CRIM:6450 Comparative Criminology 3 s.h.
Survey of theoretical and empirical literature on crime across nations with primary focus on homicide; exploration of why we even bother to study crime across nations, how crime is measured at cross-national level; where to find cross-national crime data; whether source matter for crime data across nations matters; discussion and evaluation of theoretical and empirical explanations for why some nations have more/less crime than others. Same as SOC:6450.

CRIM:6460 Criminal Punishment 3 s.h.
Sociological theories and research on criminal punishment; classical and contemporary theories; race and gender inequality in punishment; collateral consequences; research on imprisonment, community sanctions, monetary sanctions. Same as SOC:6460.

CRIM:6490 Immigration and Crime 3 s.h.
Historical trends in immigration and crime; media portrayal of immigration and its impact on public sentiment; relationship between immigration and crime at individual and aggregate levels; social impact of immigration policies including those that relate to deportation and militarization of U.S. borders. Recommendations: previous upper level or graduate course in sociology or criminology. Same as SOC:6490.

CRIM:6750 Race and Crime 3 s.h.
Relationships among race/ethnicity, crime, and the justice system through rigorous engagement with empirical research and data; emphasis on historical evolution of major branches of the justice system; sociological and criminological theories that predict racial/ethnic variation in crime and victimization; sociological, economic, and political reasons behind racial disparities in the justice system. Same as SOC:6750.

CRIM:7030 Readings and Research Tutorial arr.

CRIM:7090 PhD Dissertation arr.

CRIM:7400 Seminar: Selected Topics in Criminological Research 3 s.h.
Critical analysis of current research; emphasis on theoretical contributions and methodological foundations. Same as SOC:7400.

CRIM:7410 Communities and Crime 3 s.h.
Distribution of crime as rooted in community-level conditions such as concentrated affluence or poverty, racial residential segregation, unemployment, family disruption, and immigration. Requirements: sociology graduate standing. Same as SOC:7410.

CRIM:7430 Gender and Violence 3 s.h.
Research and theories on gender and violence (victimization, offending); masculinities and femininities; intersectionality approaches considering the combined impact of race, ethnicity, sexuality, gender, age, social class, etc. Same as SOC:7420.

CRIM:7440 Social Psychology of Violence 3 s.h.
Social psychological and criminological theories of aggression and violence; laboratory and observational research; contemporary theories; sources of data and research designs; interdisciplinary approaches. Recommendations: previous upper level or graduate course in sociology or criminology. Same as SOC:7440.

Sociology, BA

A bachelor's degree with a major in sociology provides a liberal arts and sciences education. Sociology provides a broad foundation for a number of careers that require a deep understanding of human interactions and behaviors. Though broad in scope, sociology can be broken down into many marketable specializations, including these at the University of Iowa: family and health services, human relations and business, social psychology, and social and political organization.

The department has an active undergraduate organization, the Sociology and Criminology Club, which is open to all interested students. The student-run group sponsors speakers, films, and career days; conducts study groups; and facilitates group volunteerism.

Learning Outcomes

Students majoring in sociology will be able to:

- identify how sociological concepts and theories relate to everyday life;
- use a critical lens to better understand human behavior and societies;
- articulate the importance of evidence and scientific methods for explanations of social phenomena;
- identify the characteristics of high-quality data and methods in sociological research;
- identify disciplinary standards for both the qualitative and quantitative analysis of data; and
- use their sociological knowledge and skills to engage with and impact the world around them.

Requirements

The Bachelor of Arts with a major in sociology requires a minimum of 120 s.h., including at least 36 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Transfer students must earn at least 18 s.h. in sociology coursework at the University of Iowa; transfer courses must be approved by a sociology advisor.

The major offers two optional tracks for students with an interest in one of the following concentrations: family and health services, or human relations and business.

Students who earn the major in sociology can earn the major in criminology, law, and justice. No more than 9 s.h. of major coursework can be applied to both of the majors. Students who earn both majors may not complete a minor in either area.

Students may count up to 56 s.h. of coursework from the Department of Sociology and Criminology toward credit required for the Bachelor of Arts degree. BA students who are graduating with a double major in the department (sociology and criminology, law, and justice) may apply more than 56 s.h. from the department toward their degree, but they must earn at least 56 s.h. of credit in courses outside the department in order to graduate.

Students who earn the major in sociology may earn a minor in criminology, law, and justice. No more than 3 s.h. can count toward both the major and minor.

Students who earn the major in sociology may not earn the sociology minor.

In planning to complete the major, students must take courses in the proper sequence. Introduction to Sociology (SOC:1010) is a prerequisite for all required core theory and methods courses. Statistics is a prerequisite for the more advanced methods course. These introductory courses lay the foundation for all other work in the major. The recommended sequence for the major's core requirements is SOC:1010, SOC:2130 Sociological Theory, an approved statistics course, and SOC:2170 Research Methods. See the Four-Year Graduation Plan under Academic Plans [p. 1029] in this section of the catalog.

The BA with a major in sociology requires the following work.

Requirements	Hours
Introductory Sociology Course	3-4
Theory, Statistics, and Methods Courses	9-10
Electives	21
Capstone Course	3
Graduation Portfolio	
Optional Tracks	

Introductory Sociology

Course #	Title	Hours
This course:		
SOC:1010	Introduction to Sociology	3-4

Theory, Statistics, and Methods

Course #	Title	Hours
Both of these (completed as soon as possible):		
SOC:2130	Sociological Theory	3
SOC:2170	Research Methods	3
One of these (completed as soon as possible):		
SOC:2160	Applied Statistics for Social Scientists	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:2010	Statistical Methods and Computing	3
STAT:3510/ IGPI:3510	Biostatistics	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Electives

Students complete 21 s.h. of elective coursework in sociology (prefix SOC). Four of the required electives must be advanced, chosen from sociology courses numbered 3000–4903, SOC:4920 Social Services Organization Internship, or SOC:4998 Honors Research. Two of the four advanced required electives must be taken after (and not concurrent with) the completion of SOC:2130 Sociological Theory, SOC:2170 Research Methods, and an additional approved course from the "Theory, Statistics, and Methods" list. Students can use a maximum of two criminology, law, and justice courses (prefix CRIM) toward the electives requirement. With permission, students may use graduate courses in sociology numbered 5000 or above to satisfy the electives requirement.

The following courses may not be used as electives.

Course #	Title	Hours
SOC:1000	First-Year Seminar	1-2
SOC:4800	Research Practicum in Sociology	3
SOC:4910	Capstone Course in Sociology and Criminology	3
SOC:4930	Teaching Internship	3
SOC:4990	Directed Individual Study	arr.
SOC:4997	Honors Seminar	1

Capstone Course

All students complete a capstone course, which illustrates their accomplishments and includes assembling a portfolio. Students may take it as early as spring of their junior year, as long as they have completed SOC:2130 Sociological Theory, SOC:2170 Research Methods, and an additional approved course from the "Theory, Statistics, and Methods" list.

Course #	Title	Hours
One of these:		
SOC:4800	Research Practicum in Sociology	3
SOC:4910	Capstone Course in Sociology and Criminology	3
SOC:4920	Social Services Organization Internship	3

Graduation Portfolio

During their last semester, all students enroll in the following course, in which they submit the portfolio they assembled in the capstone course.

Course #	Title	Hours
SOC:4909	Graduation Portfolio	0

Optional Tracks

Family and Health Services Track

The family and health services track requires a minimum of 15 s.h. of credit, including 12 s.h. of coursework taken at the University of Iowa. It is open to sociology majors who are interested in understanding family structures and practices, differences between and within families, and those social institutions and forces that shape families or are shaped by them. Additionally, the track cultivates students' understanding of the social context of health, illness, and health care. It is especially well-suited for students who are interested in pursuing careers in the fields of social service and health.

Students must satisfy all requirements for the sociology major. They may count courses taken for the track as sociology electives for the major.

The family and health services track requires the following coursework.

Course #	Title	Hours
Required Courses		
6 s.h. from these:		
SOC:1310	Gender and Society	3
SOC:2710	The American Family	3
SOC:3510	Medical Sociology	3
Electives		
9 s.h. from these:		
SOC:2064	African American Families: Urban and Suburban	3
SOC:2810	Social Inequality	3
SOC:3171	Drugs and Society	3
SOC:3220	Sociology of Mental Health	3
SOC:3750	Born in the USA: Fertility and Reproduction	3
SOC:4230	Sociology of Self-Improvement	3
SOC:4820	Sociology of Sexuality	3
CRIM:3420	Juvenile Delinquency	3
CRIM:4430	Interpersonal Violence in Society	3
Or select electives from these graduate courses, with approval of instructor:		
SOC:6220	Seminar: Selected Topics in Social Psychology (when topic is life course)	3
SOC:6310	Gender Stratification Seminar	3
Students may also choose the remaining required course as an elective		

Human Relations and Business Track

The human relations and business track requires a minimum of 15 s.h. of credit, including 12 s.h. of coursework taken at the University of Iowa. It is open to sociology majors who are interested in understanding the macro- and micro-level processes that affect the ability to understand and manage organizations, as well as the groups and individuals that compose them. The track provides intensive training in both theoretical and empirical approaches to organizations and combines micro-level insights into work groups with macro-level perspectives on the influence of organizations' environments. It is especially well suited for students who are interested in pursuing careers in various services-providing sectors such as business services, educational services, social assistance, or government.

Students must satisfy all requirements for the sociology major. They may count courses taken for the track as sociology electives for the major.

The human relations and business track requires the following coursework.

Course #	Title	Hours
Required Courses		
6 s.h. from these:		
SOC:3610	Organizations and Modern Society	3
SOC:3880	The Sociology of Networks	3
SOC:4225	The Social Psychology of Leadership	3
Electives		
9 s.h. from these:		
SOC:2810	Social Inequality	3
SOC:3110	Race, Organizations, and Workplace	3
SOC:3215	Digital Footprints: Sociology in the Age of Social Media	3
SOC:3530	Social Psychology of Small Groups	3

SOC:3650	Education, Schools, and Society	3
SOC:4230	Sociology of Self-Improvement	3
SOC:4540	Political Sociology and Social Movements	3
CRIM:4440	Sociology of White-Collar Crime	3
Or select electives from these graduate courses, with approval of instructor:		
SOC:6610	Complex Organizations	3
SOC:7620	Social Networks: Theory and Sociological Applications	3
SOC:7820	Seminar: Selected Topics in Social Stratification (when topic is social capital)	3

Emphasis Areas

The following elective courses are grouped by emphasis for students who may want to cluster their electives according to one of the following areas of interest. The emphasis area courses are not tracks. See Courses [p. 1017] in this section of the catalog for a complete list of sociology courses.

Social Psychology

Course #	Title	Hours
SOC:1220	Principles of Social Psychology	3
SOC:3220	Sociology of Mental Health	3
SOC:3530	Social Psychology of Small Groups	3
SOC:4225	The Social Psychology of Leadership	3
SOC:4230	Sociology of Self-Improvement	3

Social and Political Organization

Course #	Title	Hours
SOC:2810	Social Inequality	3
SOC:2830	Race and Ethnicity	3
SOC:3610	Organizations and Modern Society	3
SOC:3650	Education, Schools, and Society	3
SOC:3880	The Sociology of Networks	3
SOC:4820	Sociology of Sexuality	3

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must maintain a grade-point average (GPA) of at least 3.33 in all University of Iowa courses and in all sociology courses. In order to graduate with honors in sociology, the following coursework must be completed.

Course #	Title	Hours
SOC:4997	Honors Seminar	1
SOC:4998	Honors Research (honors thesis)	2-3

The honors thesis is prepared under faculty supervision. It gives students the opportunity to conduct sociological research in close consultation with a faculty member of the student's choice.

Honors students must also take at least one sociology course numbered 3000 or above with honors designation, including graduate courses (honors designation requires instructor approval). Learn more about honors courses on the University of Iowa Honors Program website.

National Honor Society

The department sponsors a chapter of Alpha Kappa Delta International Sociology Honor Society. Students who have a cumulative GPA of 3.30, a sociology GPA of at least 3.00 (with four sociology courses), and have attained junior or higher standing are considered for membership. Consult the Alpha Kappa Delta faculty advisor for details.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the sociology major.

Career Advancement

The major provides background for employment in fields such as human services, criminal justice, corrections, sales, public relations, advertising, personnel, applied social research, community organization, and teaching social science in secondary schools. It also offers an integrated package of courses, research training, writing enhancement, international perspectives, and internships to provide graduates with impressive credentials.

The sociology degree provides a foundation for graduate or professional study in social work, urban planning, law, criminal justice, social policy, and similar areas. Finally, the major prepares students to work toward advanced degrees in sociology, which qualify them for college or university teaching and work in academia, private business, and governmental research or organizations.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Sequencing of coursework is important in meeting the four-year plan.

Before the fifth semester begins: SOC:1010 Introduction to Sociology or equivalent, and one sociology elective.

Before the seventh semester begins: SOC:2130 Sociological Theory, a required statistics course, one more sociology elective, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: SOC:2170 Research Methods and one more sociology elective.

During the eighth semester: enrollment in all remaining coursework in the major, including a capstone course, SOC:4909 Graduation Portfolio, and the last two sociology electives; all remaining GE CLAS Core courses; and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Sociology, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
SOC:1010	Introduction to Sociology [b]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [d]		3
	Hours	**14-16**
Spring		
Major: sociology elective/track course [e]		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [f]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
	Hours	**16-18**
Second Year		
Fall		
SOC:2130	Sociological Theory	3
Major: sociology elective/track course [e]		3
GE CLAS Core: Natural Sciences with Lab [f]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
Elective course [d]		2
	Hours	**16-17**
Spring		
Major: introductory statistics course - STAT:1020 Elementary Statistics and Inference recommended [b]		3
Major: sociology elective/track course [e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
Elective course [d]		2
	Hours	**15-16**
Third Year		
Fall		
SOC:2170	Research Methods	3
Major: upper-level sociology elective/track course [g]		3
GE CLAS Core: Values and Society [f]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
Major: capstone course [h]		3
Major: upper-level sociology elective/track course [g]		3
GE CLAS Core: Literary, Visual, and Performing Arts [f]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Fourth Year		
Fall		
Major: upper-level sociology elective/track course [g]		3
GE CLAS Core: Natural Sciences without Lab [f]		3
GE CLAS Core: Historical Perspectives [f]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
SOC:4909	Graduation Portfolio	0
Major: upper-level sociology elective/track course [g]		3
GE CLAS Core: International and Global Issues [f]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15**
	Total Hours	**121-127**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives;

International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Students have the option to choose one of two tracks in the major: family and health services, or human relations and business.

f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

g Upper-level sociology courses (prefix SOC) are numbered 3000 or above. Two of the upper-level electives must be taken after (and not concurrent with) the completion of SOC:2130, SOC:2170, and an approved introductory statistics course.

h May be taken as early as spring of the junior year, as long as students have completed SOC:2130, SOC:2170, and one of the approved statistics courses.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Criminology, Law, and Justice, BA

The criminology, law, and justice major examines issues related to race and ethnic diversity, gender, and poverty, heightening awareness of these important topics. Students learn about sociological explanations for crime and criminal justice; the operation of law and the criminal justice system, including their complex interplay with other institutions, such as the economy and politics; and important data sources on crime in the United States and internationally.

The department has an active undergraduate organization, the Sociology and Criminology Club, which is open to all interested students. The student-run group sponsors speakers, films, and career days; conducts study groups; and facilitates group volunteerism.

Learning Outcomes

Students will be able to:

- recognize the causes and consequences of crime at the micro and macro levels and match these with prominent criminological perspectives;
- describe the interrelated institutions and processes of the criminal justice system and legal systems;
- apply theories of crime, legal systems, and criminal justice systems to explain actual and hypothetical scenarios, behaviors, and trends;
- understand the role of formal law in advanced democracies;
- explain the various social science methods of inquiry and use these to test specific criminological research questions;
- recognize and explain social inequities in crime and criminal justice processes by race, social class, gender, region, and age; and
- evaluate the effectiveness of policy interventions for altering social behavior, including those deemed illegal or harmful.

Requirements

The Bachelor of Arts with a major in criminology, law, and justice requires a minimum of 120 s.h., including at least 39 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Transfer students must earn at least 24 s.h. in criminology, law, and justice coursework at the University of Iowa; transfer courses must be approved by a sociology advisor.

Students who earn the major in criminology, law, and justice may earn the major in sociology. No more than 9 s.h. of major coursework can be applied to both of the majors. Students who earn both majors may not complete a minor in either area.

Students may count up to 56 s.h. of coursework from the Department of Sociology and Criminology toward credit required for the Bachelor of Arts degree. BA students who are graduating with a double major in the department (criminology, law, and justice and sociology) may apply more than 56 s.h. from the department toward their degree, but they must earn at least 56 s.h. of credit in courses outside the department in order to graduate.

Students who earn the major in criminology, law, and justice may earn a minor in sociology. No more than 3 s.h. can count toward both the major and minor.

Students who earn the major in criminology, law, and justice may not earn the criminology, law, and justice minor.

Courses listed in more than one area may only be used toward one requirement.

The BA with a major in criminology, law, and justice requires the following coursework.

Requirements	Hours
Introductory Courses	6-7
Theory, Statistics, and Methods Courses	9-10
Upper-Level Sociology Requirement	3
Electives	18
Capstone Course	3
Graduation Portfolio Course	

Introductory Courses

Course #	Title	Hours
Two of these:		
CRIM:1410	Introduction to Criminology	3
CRIM:1447	Introduction to the Criminal Justice System	3
SOC:1010	Introduction to Sociology	3-4
or SOC:1030	Contemporary Social Problems	

Theory, Statistics, and Methods

Students should complete SOC:2130, and either CRIM:2470 or SOC:2170 as soon as possible.

Course #	Title	Hours
This course:		
SOC:2130	Sociological Theory	3
One of these:		
CRIM:2470	Research Methods in Criminology and Criminal Justice	3
SOC:2170	Research Methods	3
One of these:		
SOC:2160	Applied Statistics for Social Scientists	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
STAT:2010	Statistical Methods and Computing	3
STAT:3510/ IGPI:3510	Biostatistics	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Upper-Level Sociology Requirement

Course #	Title	Hours
3 s.h. from these:		
SOC:2064	African American Families: Urban and Suburban	3
SOC:2710	The American Family	3
SOC:2770	Black and White Community Politics	3
SOC:2810	Social Inequality	3
SOC:2830	Race and Ethnicity	3
SOC:3100	Critical Race Theory: Culture, Power, and Society	3
SOC:3171	Drugs and Society	3
SOC:3220	Sociology of Mental Health	3
SOC:3510	Medical Sociology	3
SOC:3530	Social Psychology of Small Groups	3
SOC:3610	Organizations and Modern Society	3
SOC:3630	The Racial Wealth Gap: Black Debt, White Debt	3
SOC:3650	Education, Schools, and Society	3
SOC:3750	Born in the USA: Fertility and Reproduction	3
SOC:3880	The Sociology of Networks	3
SOC:4000	Data Science for Social Good	3
SOC:4200	Sociology of Religion	3
SOC:4225	The Social Psychology of Leadership	3
SOC:4230	Sociology of Self-Improvement	3
SOC:4540	Political Sociology and Social Movements	3
SOC:4680	Corruption: The Social Scientific Perspectives	3
SOC:4820	Sociology of Sexuality	3

Electives

Students complete 18 s.h. of elective coursework in criminology, law, and justice (prefix CRIM). Four of the required electives must be advanced, chosen from criminology, law, and justice courses numbered 3000–4901 or CRIM:4998 Honors Research. Two of the four advanced electives must be taken after (and not concurrent with) the completion of SOC:2130 Sociological Theory and CRIM:2470 Research Methods in Criminology and Criminal Justice or SOC:2170 Research Methods, and an additional approved course from the "Theory, Statistics, and Methods" list. With permission, students may use graduate courses in sociology (prefix SOC) numbered 5000 or above to satisfy the electives requirement.

Course #	Title	Hours
18 s.h. from these:		
CRIM:2210	Iowa Criminal Justice Policy and Reform	3
CRIM:2430	Comparative Criminal Justice Systems	3
CRIM:2460	Policing in Modern Society	3
CRIM:3110	Communities and Crime	3
CRIM:3250	Drugs, Deviance, and Social Control	3
CRIM:3260	Immigration and Crime	3
CRIM:3414	Criminology of Genocide	3
CRIM:3415	Global Criminology	3
CRIM:3416	Race, Crime, and Justice	3
CRIM:3417	Community Corrections	3
CRIM:3420	Juvenile Delinquency	3
CRIM:3421	Gangs and Gang Crime	3
CRIM:3422	A Critical History and Exploration of Mass Incarceration and Reentry	3
CRIM:3425	Women, Crime, and Justice	3
CRIM:3437	American Crime	3
CRIM:3450	Criminal Legal System	3
CRIM:3600	Crime and Public Policy	3
CRIM:4120	Environmental Criminology	3
CRIM:4300	Gender and Violence	3
CRIM:4420	Criminal Punishment	3
CRIM:4430	Interpersonal Violence in Society	3
CRIM:4440	Sociology of White-Collar Crime	3
CRIM:4450	Juvenile Justice: A Sociolegal Perspective	3
CRIM:4460	Sociology of Law	3
CRIM:4680	Corruption: The Social Scientific Perspectives	3
CRIM:4998	Honors Research	1-3
Students may apply one of the following 3 s.h. courses toward the elective requirement:		
CRIM:4400	Internship in Criminal Justice and Corrections	3
CRIM:4410	Treatment Interventions in Corrections	3

Capstone Course

All students complete a capstone course, which illustrates their accomplishments and includes assembling a portfolio. Students generally take the course during their last two semesters of coursework for the major, as long as they have completed an approved statistics course; CRIM:2470 Research Methods in Criminology and Criminal Justice or SOC:2170 Research Methods; one of the introductory courses in criminology, law, and justice; SOC:2130 Sociological Theory; and at least 6 s.h. of electives.

Course #	Title	Hours
One of these:		
CRIM:4400	Internship in Criminal Justice and Corrections	3
CRIM:4800	Research Practicum in Criminology	3
SOC:4910	Capstone Course in Sociology and Criminology	3

Graduation Portfolio

During their last semester, all students must enroll in the following course, in which they submit the portfolio they assembled in the capstone course.

Course #	Title	Hours
SOC:4909	Graduation Portfolio	0

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Departmental honors students must maintain a grade-point average (GPA) of at least 3.33 in all University of Iowa courses and in all criminology, law, and justice courses. In order to graduate with honors, the following coursework must be completed.

Course #	Title	Hours
CRIM:4998	Honors Research	1-3
SOC:4997	Honors Seminar (taken spring of junior year)	1

The honors thesis is prepared under faculty supervision. It gives students the opportunity to conduct research in close consultation with a faculty member of the student's choice.

Honors students also must take at least one criminology, law, and justice course numbered 3000 or above with honors designation, including graduate courses (honors designation requires instructor approval). Learn more about honors courses on the University of Iowa Honors Program website.

National Honor Program Society

The department sponsors a chapter of Alpha Phi Sigma Criminal Justice Honor Society. Students who have a cumulative GPA of 3.30, a criminology, law, and justice GPA of at least 3.00 (with four criminology courses), and have attained junior or higher standing are considered for membership. Consult the Alpha Phi Sigma faculty advisor for details.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the criminology, law, and justice major.

Career Advancement

The major in criminology, law, and justice provides a foundation for graduate or professional study in criminology, criminal justice, sociology, psychology, law, social work, urban planning, social policy, and similar areas. The major pairs well with majors in other disciplines, such as psychology and social work, and affords students a competitive edge when applying to graduate school in forensic psychology or social work with a corrections emphasis.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Sequencing of coursework is important in meeting the four-year plan.

Before the fifth semester begins: two introductory courses and a statistics course.

Before the seventh semester begins: both theory and methods courses, three additional introductory courses, two electives, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: a capstone course and two additional electives.

During the eighth semester: enrollment in all remaining coursework in the major, including SOC:4909 Graduation Portfolio; all remaining GE CLAS Core courses; and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Criminology, Law, and Justice, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
Major: introductory criminology, law, and justice course [b, c]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [e]		3
	Hours	**14-16**
Spring		
Major: introductory criminology, law, and justice course [b, c]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Natural Sciences with Lab [f]		4
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
Elective course [e]		2
	Hours	**16-18**

Second Year

Fall

Major: statistics course (STAT:1020 Elementary Statistics and Inference recommended) [c]		3
SOC:2130	Sociological Theory	3
GE CLAS Core: Understanding Cultural Perspectives [f, g]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
Elective course [e]		3
	Hours	**16-17**

Spring

CRIM:2470 or SOC:2170	Research Methods in Criminology and Criminal Justice or Research Methods	3
Major: criminology, law, and justice elective (prefix CRIM) [h]		3
GE CLAS Core: Social Sciences [f, i]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [e]		1 - 3
	Hours	**14-17**

Third Year

Fall

Major: advanced criminology, law, and justice elective (prefix CRIM) [j]		3
Major: criminology, law, and justice elective (prefix CRIM) [h]		3
GE CLAS Core: Historical Perspectives [f]		3
GE CLAS Core: Quantitative or Formal Reasoning [f, k]		3
Elective course [e]		3
	Hours	**15**

Spring

SOC:4910 or CRIM:4800 or CRIM:4400	Capstone Course in Sociology and Criminology or Research Practicum in Criminology or Internship in Criminal Justice and Corrections	3
Major: advanced criminology, law, and justice elective (prefix CRIM) [j]		3
GE CLAS Core: Literary, Visual, and Performing Arts [f]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**

Fourth Year

Fall

Major: advanced criminology, law, and justice elective (prefix CRIM) [j]		3
GE CLAS Core: Natural Sciences without Lab [f]		3
GE CLAS Core: Values and Society [f]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**

Spring

SOC:4909	Graduation Portfolio	0
Major: advanced criminology, law, and justice elective (prefix CRIM) [j]		3
Major: upper-level sociology requirement course [h]		3
GE CLAS Core: International and Global Issues [f]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**15**
	Total Hours	**120-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Take two courses from CRIM:1410, CRIM:1447, SOC:1010, SOC:1030; Note: CRIM:1410 and SOC:1010 satisfy the GE CLAS Core Social Sciences requirement and SOC:1030 satisfies the GE CLAS Core Understanding Cultural Perspectives requirement.

c Fulfills a major requirement and may fulfill a GE requirement.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

g Students who have previously completed SOC:1030 have already satisfied the GE CLAS Core Understanding Cultural Perspectives requirement.

h See the General Catalog for list of approved courses.

i Students who have previously completed CRIM:1410 or SOC:1010 have already satisfied the GE CLAS Core Social Sciences requirement.

j Choose courses numbered 3000-4901 or CRIM:4998. Two of the four advanced electives must be taken after (and not concurrent with) the completion of SOC:2130 and CRIM:2470 or SOC:2170, and an approved theory, statistics, and methods course.

k Students who have previously completed STAT:1020 or STAT:1030 or STAT:2010 have already satisfied the GE CLAS Core Quantitative or Formal Reasoning requirement.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Sociology, Minor

Requirements

The undergraduate minor in sociology requires a minimum of 15 s.h. in sociology courses, including 12 s.h. in courses taken at the University of Iowa. The minor must include SOC:2130 Sociological Theory and a minimum of 9 s.h. in sociology courses (prefix SOC) numbered 3000–4903. Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Students who earn the major in criminology, law, and justice may earn a minor in sociology. No more than 3 s.h. can count toward both the major and minor.

Students who earn the major in sociology may not earn the sociology minor.

A minor in sociology is a good complement to a number of majors, particularly other social sciences, business, elementary education, or health professions.

Criminology, Law, and Justice, Minor

Requirements

The undergraduate minor in criminology, law, and justice requires a minimum of 15 s.h., including 12 s.h. in courses taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Students who earn the major in sociology may earn a minor in criminology, law, and justice. No more than 3 s.h. can count toward both the major and minor.

Students who earn the major in criminology, law, and justice may not earn the criminology, law, and justice minor.

The minor in criminology, law, and justice requires the following coursework.

Course #	Title	Hours
One of these:		
CRIM:1410	Introduction to Criminology	3
CRIM:1447	Introduction to the Criminal Justice System	3
12 s.h. from these:		
CRIM:2210	Iowa Criminal Justice Policy and Reform	3
CRIM:2430	Comparative Criminal Justice Systems	3
CRIM:2460	Policing in Modern Society	3
CRIM:3110	Communities and Crime	3
CRIM:3250	Drugs, Deviance, and Social Control	3
CRIM:3260	Immigration and Crime	3
CRIM:3414	Criminology of Genocide	3
CRIM:3415	Global Criminology	3
CRIM:3416	Race, Crime, and Justice	3
CRIM:3417	Community Corrections	3
CRIM:3420	Juvenile Delinquency	3
CRIM:3421	Gangs and Gang Crime	3
CRIM:3425	Women, Crime, and Justice	3
CRIM:3437	American Crime	3
CRIM:3450	Criminal Legal System	3
CRIM:3600	Crime and Public Policy	3
CRIM:4120	Environmental Criminology	3
CRIM:4300	Gender and Violence	3
CRIM:4420	Criminal Punishment	3
CRIM:4430	Interpersonal Violence in Society	3
CRIM:4440	Sociology of White-Collar Crime	3
CRIM:4450	Juvenile Justice: A Sociolegal Perspective	3
CRIM:4460	Sociology of Law	3
CRIM:4680	Corruption: The Social Scientific Perspectives	3
May include one of these:		
CRIM:4400	Internship in Criminal Justice and Corrections	3
CRIM:4410	Treatment Interventions in Corrections	3

Sociology, MA

Graduate study in sociology focuses on the Doctor of Philosophy. Students are awarded the MA as they fulfill the requirements for the PhD.

Learning Outcomes

The graduate program in the Department of Sociology and Criminology develops professionals who are qualified to conduct original research in the field of sociology and serve the discipline and larger community through teaching and/or other applications of sociological and criminological knowledge.

Goals and Outcomes

- Develop the expertise to conduct original research in sociology and criminology that is publishable in scholarly outlets.
- Develop a professional skillset in research methodology commonly used in the social sciences, particularly sociology and criminology.
- Develop a professional skillset in social science theories pertaining to sociology and criminology.
- Develop professional expertise in substantive sociological and criminological research areas, which at a minimum includes graduate-level competence in both a major and minor area of research.
- Develop scholarly writing and communication skills.
- Serve the discipline and broader community as sociologists and criminologists.
- Be prepared to teach the field of sociology and/or criminology.
- Understand the goals, practices, and standards of research and applied professionals associated with the discipline of sociology and/or criminology. This includes developing a firm grasp of the principles of ethical research.

Requirements

The Master of Arts program in sociology requires 30 s.h. of graduate credit with a thesis or research paper and 38 s.h. of graduate credit without. Students must maintain a program grade-point average of at least 3.25. The program without a thesis is intended for students seeking a terminal degree and for whom a wider range of course content in sociology is appropriate.

All MA students must complete the following courses with grades of B-minus or higher.

Course #	Title	Hours
SOC:5110	History of Sociological Theory	3
SOC:5160	Research Design and Methods	3
SOC:6170	Introduction to Sociological Data Analysis	3
SOC:6180	Linear Models in Sociological Research	3
SOC:7270	Scholarly Professionalism and Integrity I	2
SOC:7271	Scholarly Professionalism and Integrity II	2

Teaching Assistantship Training

All new graduate teaching assistants (TAs) are expected to attend a three-day orientation before classes begin. In addition, SOC:7010 Teaching Sociology is required for students who wish to teach their own courses.

Admission

Admission to graduate study in sociology usually requires an undergraduate grade-point average of at least 3.25.

All applicants must complete the Graduate College application form, the supplemental sociology and criminology department application, and use the department's personal reference forms to obtain three letters of recommendation.

All application materials for fall admission must be received by Jan. 1. Evaluation of applications begins in early January.

Admission decisions are based on consideration of prior academic performance, personal reference letters, and the applicant's statement of reasons for pursuing advanced work in sociology at the University of Iowa. The department has no specific undergraduate course requirements for admission, but a background in the social sciences with some mathematical training is useful. A world language is not required for admission, and there is no world language requirement for a graduate degree in sociology. To inquire about admission, consult the director of graduate studies, Department of Sociology and Criminology.

Career Advancement

In addition to preparing students for careers in social service, criminal justice, and other areas, the sociology major offers an integrated package of courses, research training, writing enhancement, international perspective, and internships to provide graduates with impressive credentials. The degree also prepares students for further graduate or professional study in areas such as social work, urban and regional planning, law, criminal justice, and social policy. Teaching positions in colleges or universities and research positions in academic, private, and governmental organizations often require advanced degrees in sociology.

The Pomerantz Career Center and the Graduate College's Career Exploration and Planning website offer multiple resources to help students find internships and jobs.

Criminology, PhD

The PhD program in criminology provides students with comprehensive training in criminological theory, research methods, and data analysis. The program also promotes an advanced understanding of substantive issues related to criminology, including government policy and the justice system by providing students with well-rounded experiences as teachers, scholars, and researchers through rigorous interdisciplinary coursework, research training, and teaching opportunities. Paramount to the goals of the program is the formulation of critical thinking skills and the application of evidence-based reasoning and analytics to contemporary criminological issues.

The doctoral program has a research emphasis and primarily prepares criminologists for positions at colleges and universities or research positions in academic, private, and government institutions. For a summary of where the department's recent graduates have found employment, view Recent Student Placement on the Department of Sociology and Criminology website.

Graduate students work closely with faculty on collaborative research as well as developing independent research programs. In addition to valuable research experiences, students can also obtain substantial training and experience in undergraduate teaching, including online courses. The department training program includes an orientation workshop for new teaching assistants; a credited teaching seminar, SOC:7010 Teaching Sociology, for advanced graduate students; courses on instruction; and an opportunity for these graduate students to design and teach their own courses under the mentorship of faculty.

Learning Outcomes

The graduate program in the Department of Sociology and Criminology develops professionals who are qualified to conduct original research in the field of sociology and criminology and serve the discipline and larger community through teaching and/or other applications of sociological and criminological knowledge. The program's specific learning outcomes are outlined below.

Goals and Outcomes

- Develop the expertise to conduct original research in sociology and criminology that is publishable in scholarly outlets.
- Develop a professional skillset in research methodology commonly used in the social sciences, particularly sociology and criminology.
- Develop a professional skillset in social science theories pertaining to sociology and criminology.
- Develop professional expertise in substantive sociological and criminological research areas, which at a minimum includes graduate-level competence in both a major and minor area of research.
- Develop scholarly writing and communication skills.
- Serve the discipline and broader community as sociologists and criminologists.
- Be prepared to teach in the field of sociology and/or criminology.
- Understand the goals, practices, and standards of research and applied professionals associated with the discipline of sociology and/or criminology. This includes developing a firm grasp of the principles of ethical research.

Requirements

The Doctor of Philosophy program in criminology requires a minimum of 72 s.h. of graduate credit. This can include up to 30 s.h. of credit from a previous master's degree in criminology or sociology; a maximum of 3 s.h. of credit from CRIM:7030 Readings and Research Tutorial or its transferable equivalent at another institution will be counted as part of the 30 s.h. Students must maintain a program grade-point average of at least 3.25.

The PhD in criminology requires the following coursework.

Required Courses

All PhD students must complete the following courses with grades of B-minus or higher.

Course #	Title	Hours
All of these:		
CRIM:5120	Introduction to Criminal Justice Systems	3
CRIM:5410	Criminological Theory I	3
CRIM:6420	Criminological Theory II	3
SOC:5160	Research Design and Methods	3
SOC:6170	Introduction to Sociological Data Analysis	3
SOC:6180	Linear Models in Sociological Research	3

Professional Seminars

Course #	Title	Hours
Both of these:		
SOC:7270	Scholarly Professionalism and Integrity I	2
SOC:7271	Scholarly Professionalism and Integrity II	2

Research Methods and Statistics Courses

Students must complete the following courses with grades of B-minus or higher. They may substitute another course for those listed with approval from the director of graduate studies.

Course #	Title	Hours
Two of these:		
SOC:6175	Qualitative Methods	3
SOC:7170	Advanced Statistical Modeling of Data	3
SOC:7175	Social Science Research: Big Data	3

Elective Courses

Course #	Title	Hours
18 s.h. from these:		
CRIM:6430	Feminist Perspectives on Crime and Punishment	3
CRIM:6440	Crime and Health in the Life Course	3

CRIM:6450	Comparative Criminology	3
CRIM:6460	Criminal Punishment	3
CRIM:6490	Immigration and Crime	3
CRIM:6750	Race and Crime	3
CRIM:7400	Seminar: Selected Topics in Criminological Research	3
CRIM:7410	Communities and Crime	3
CRIM:7430	Gender and Violence	3
CRIM:7440	Social Psychology of Violence	3

Comprehensive Examination

The comprehensive examination consists of five questions prepared by the student's exam committee; each answer should contain no more than 2,500 words. The student should demonstrate mastery of the relevant research methods as well as the major, minor, or related fields of study for a given area. Students should pass the comprehensive examination before the start of their fourth year in the program.

Dissertation

All PhD candidates prepare a detailed prospectus of research for the dissertation within one year of the comprehensive examination. The prospectus is written in consultation with the student's dissertation committee members and should allow the committee to evaluate the feasibility of the dissertation research and make suggestions to improve it.

Students must pass an oral examination by their dissertation defense committee. The oral dissertation defense should be completed no later than five years after passing the comprehensive examination.

As students work on the dissertation they will typically be registered in CRIM:7030 Readings and Research Tutorial or CRIM:7090 PhD Dissertation.

For a detailed statement of graduate study rules, visit the Department of Sociology and Criminology website. Prospective doctoral students should examine this information carefully.

Teaching Assistantship Training

All new graduate teaching assistants (TAs) are expected to attend a three-day orientation before classes begin. In addition, SOC:7010 Teaching Sociology is required for students who wish to teach their own courses.

Admission

Admission to graduate study in criminology usually requires an undergraduate grade-point average of at least 3.25.

All applicants must complete the Graduate College application form, the supplemental sociology and criminology department application, and use the department's personal reference forms to obtain three letters of recommendation.

All application materials for fall admission must be received by Jan. 1. Evaluation of applications begins in early January.

Admission decisions are based on consideration of prior academic performance, personal reference letters, and the applicant's statement of reasons for pursuing advanced work in criminology at the University of Iowa. The department has no specific undergraduate course requirements for admission, but a background in the social sciences with some mathematical training is useful. A world language is not required for admission, and there is no world language requirement for a graduate degree in criminology. To inquire about admission, consult the director of graduate studies, Department of Sociology and Criminology.

Career Advancement

The program of study for the PhD primarily aims to prepare criminologists for academic positions in colleges and universities or for research positions in academic, private, and government institutions.

In addition to preparing students for careers in social service, criminal justice, and other areas, this major offers an integrated package of courses, research training, writing enhancement, international perspective, and internships to provide graduates with impressive credentials.

The Pomerantz Career Center and the Graduate College Career Exploration and Planning website offer multiple resources to help students find jobs.

Sociology, PhD

The graduate program in sociology provides rigorous training in theory and methods as well as in these substantive areas: crime, law, and social control; gender and family; social and political organizations (stratification, political sociology, complex organizations); and social psychology, which is ranked #3 in the country in *U.S. News and World Report*).

The doctoral program has a research emphasis and primarily prepares sociologists for positions at colleges and universities or research positions in academic, private, and government institutions. For a summary of where the department's recent graduates have found employment, view Recent Student Placement on the Department of Sociology and Criminology website.

Graduate students work closely with faculty on collaborative research as well as developing independent research programs. In addition to valuable research experiences, students also can obtain substantial training and experience in undergraduate teaching, including online courses. The department training program includes an orientation workshop for new teaching assistants; a credited teaching seminar, SOC:7010 Teaching Sociology, for advanced graduate students; courses on instruction; and an opportunity for these graduate students to design and teach their own courses under the mentorship of the faculty.

Learning Outcomes

The graduate program in the Department of Sociology and Criminology develops professionals who are qualified to conduct original research in the field of sociology and serve the discipline and larger community through teaching and/or other applications of sociological and criminological knowledge. The program's specific learning outcomes are as follows.

Goals and Outcomes

To develop the expertise to conduct original research in sociology and criminology that is publishable in scholarly outlets.

- Develop a professional skillset in research methodology commonly used in the social sciences, particularly sociology and criminology.
- Develop a professional skillset in social science theories pertaining to sociology and criminology.
- Develop professional expertise in substantive sociological and criminological research areas, which at a minimum includes graduate-level competence in both a major and minor area of research.
- Develop scholarly writing and communication skills.
- Serve the discipline and broader community as sociologists and criminologists.
- Be prepared to teach in the field of sociology and/or criminology.
- Understand the goals, practices, and standards of research and applied professionals associated with the discipline of sociology and/or criminology. This includes developing a firm grasp of the principles of ethical research.

Requirements

The Doctor of Philosophy program in sociology requires a minimum of 72 s.h. of graduate credit.

The PhD in criminology requires the following coursework.

Required Courses

All PhD students must complete the following courses with grades of B-minus or higher.

Course #	Title	Hours
SOC:5110	History of Sociological Theory	3
SOC:5160	Research Design and Methods	3
SOC:6170	Introduction to Sociological Data Analysis (required for the MA)	3
SOC:6180	Linear Models in Sociological Research (required for the MA)	3
Two elective courses in methods/statistics numbered 5000 or above		
One advanced theory course such as SOC:6110		

Professional Seminars

Course #	Title	Hours
Both of these:		
SOC:7270	Scholarly Professionalism and Integrity I	2
SOC:7271	Scholarly Professionalism and Integrity II	2

Comprehensive Examination

The comprehensive examination consists of five questions prepared by the student's exam committee; each answer should contain no more than 2,500 words. The student should demonstrate mastery of relevant research methods as well as the major, minor, or related fields of study for a given area. Students should pass the comprehensive examination before the start of their fourth year in the program.

Dissertation

All PhD candidates prepare a detailed prospectus of research for the dissertation within one year of the comprehensive examination. The prospectus is written in consultation with the student's dissertation committee members and should allow the committee to evaluate the feasibility of the dissertation research and make suggestions to improve it.

Students must pass an oral examination by their dissertation defense committee. The oral dissertation defense should be completed no later than five years after passing the comprehensive examination.

As students work on the dissertation they will typically be registered for SOC:7030 Readings and Research Tutorial or SOC:7090 PhD Dissertation.

For a detailed statement of graduate study rules, visit the Department of Sociology and Criminology website. Prospective doctoral students should examine this information carefully.

Teaching Assistantship Training

All new graduate teaching assistants (TAs) are expected to attend a three-day orientation before classes begin. In addition, SOC:7010 Teaching Sociology is required for students who wish to teach their own courses.

Admission

Admission to graduate study in sociology usually requires an undergraduate grade-point average of at least 3.25.

All applicants must complete the Graduate College application form, the supplemental sociology and criminology department application, and use the department's personal reference forms to obtain three letters of recommendation.

All application materials for fall admission must be received by Jan. 1. Evaluation of applications begins in early January.

Admission decisions are based on consideration of prior academic performance, personal reference letters, and the applicant's statement of reasons for pursuing advanced work in sociology at the University of Iowa. The department has no specific undergraduate course requirements for admission, but a background in the social sciences with some mathematical training is useful. A world language is not required for admission, and there is no world language requirement for a graduate degree in sociology. To inquire about admission, consult the director of graduate studies, Department of Sociology and Criminology.

Career Advancement

The program of study for the PhD primarily aims to prepare sociologists for academic positions in colleges and universities or for research positions in academic, private, and government institutions.

In addition to preparing students for careers in social service, criminal justice, and other areas, this major offers an integrated package of courses, research training, writing enhancement, international perspective, and internships to provide graduates with impressive credentials.

The Pomerantz Career Center and the Graduate College Career Exploration and Planning website offer multiple resources to help students find jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Sociology, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
SOC:5110	History of Sociological Theory [c]	3
SOC:6170	Introduction to Sociological Data Analysis [c]	3
SOC:7270	Scholarly Professionalism and Integrity I	2
Elective course [d]		3
	Hours	**11**
Spring		
SOC:5160	Research Design and Methods [c]	3
SOC:6180	Linear Models in Sociological Research [c]	3
SOC:7271	Scholarly Professionalism and Integrity II	2
Elective course [d]		3
	Hours	**11**
Second Year		
Fall		
Final Exam (MA Defense)		
SOC:6080	Master's Thesis	3
Elective course [d]		3
Elective course [d]		3
	Hours	**9**
Spring		
Theory course numbered 5000 or above [c, e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**9**
Third Year		
Fall		
Methods/Statistics course numbered 5000 or above [c, e]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**9**
Spring		
SOC:7030	Readings and Research Tutorial	3
Methods/Statistics course numbered 5000 or above [c, e]		3
Elective course [d]		3
	Hours	**9**
Fourth Year		
Any Semester		
Comprehensive Exam		
	Hours	**0**
Fall		
Prospectus Defense		
SOC:7030	Readings and Research Tutorial	6
Elective course [d]		3
	Hours	**9**
Spring		
SOC:7090	PhD Dissertation	5
Final Exam [f]		
	Hours	**5**
	Total Hours	**72**

a The graduate program provides rigorous training in theory and methods as well as in these substantive areas: Crime, Law, and Social Control; Gender and Family; Social and Political Organizations; Social Psychology. Students will work with a faculty advisor to determine an area of concentration according to the individual student's interests.

b Students must complete specific requirements in the University of Iowa Graduate College after program

admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Grade of B-minus or better is required.

d Work with faculty advisor to determine appropriate graduate level elective coursework and sequence.

e May not count SOC:7030 or any other independent study or research course towards this requirement; selected course must be approved by director of graduate studies.

f Dissertation defense.

Spanish and Portuguese

Chair

- Amber E. Brian

Undergraduate major: Spanish (BA)

Undergraduate minors: Latin American studies; Spanish; Portuguese

Undergraduate certificate: Latin American studies

Graduate degrees: MA in Spanish; MFA in Spanish creative writing; PhD in Spanish

Faculty: https://spanish-portuguese.uiowa.edu/people

Website: https://spanish-portuguese.uiowa.edu/

The Department of Spanish and Portuguese offers courses for the GE CLAS Core world language requirement, an undergraduate major, minors, and certificate, and three graduate degree programs: MA and PhD in Spanish and MFA in Spanish Creative Writing.

Faculty in the Department of Spanish and Portuguese specialize in language pedagogy, literary and cultural studies, creative writing, linguistics, and Spanish for the professions. Coursework prepares students to be multilingual global citizens, providing them with diverse cultural perspectives; critical and creative thinking skills; opportunities to develop language abilities; and awareness of contemporary and historical issues related to the Hispanic world. Spanish and Portuguese language courses are open to any student who has satisfied the course prerequisites. Beyond the GE CLAS Core world language courses, the department offers a wide range of courses on literature, writing, linguistics, and culture that serve as the foundation for the Spanish major. Additionally, the department offers a wide range of elective courses on topics such as Spanish for the professions (medicine and business), translation, and interpretation. The department also participates in multiple study abroad programs.

Undergraduate students in all majors may satisfy the World Languages requirement of the GE CLAS Core [p. 22] with courses in Spanish or Portuguese; see Language for GE CLAS Core [p.]. The department also offers courses taught in English that are approved for GE CLAS Core and a First-Year Seminar designed for undergraduates in their first year at the university.

Related Certificates and Minors

Minor: Translation for Global Literacy

The minor in translation for global literacy encourages undergraduate students to explore translation as a crucial dimension of global literacy and communication. The Department of Spanish and Portuguese offers several courses that count toward the minor. See the minor in translation for global literacy [p. 745] in the catalog for more information.

Certificate: International Business

The College of Liberal Arts and Sciences and the Tippie College of Business offer the Certificate in International Business. The program includes requirements for global business; political, environmental, and cultural contexts; and cultural immersion, which can be satisfied with a fourth semester-level world language course. For more information, see the Certificate in International Business [p. 1230] in the catalog.

Study Abroad

The department strongly encourages its students to seek opportunities for summer language study and study abroad to accelerate the language acquisition process. Many students participate in summer, semester, and year-long study abroad programs in Latin America, South America, and the Iberian Peninsula offered through other U.S. universities. In many cases, credit is transferable, and it is possible for a student to study abroad and still complete the Four-Year Graduation Plan. There are many resources available to fund research and study abroad. It may also be possible for students to apply University of Iowa financial aid to their study abroad programs. Interested students should contact a study abroad advisor at International Programs Study Abroad or see Study Abroad [p. 2215] (University College) in the catalog.

Latin America

The department highly recommends but does not require that students with a minor or certificate in Latin American studies have an in-depth Latin American cultural experience, usually through study abroad, before completing their undergraduate requirements.

In cooperation with International Programs Study Abroad, faculty members facilitate student participation in programs in many Latin American countries. University of Iowa students may enroll in programs in Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, Honduras, Mexico, and Uruguay. Programs range from intensive language study to group programs with a special focus. The University of Iowa cosponsors these programs through various consortiums.

Study abroad courses may be counted toward requirements for the certificate and the minor with prior approval from the department.

Programs

Undergraduate Programs of Study

Majors

- Major in Spanish (Bachelor of Arts) [p. 1053]

Minors

- Minor in Latin American Studies [p. 1059]
- Minor in Spanish [p. 1061]
- Minor in Portuguese [p. 1063]

Certificates

- Certificate in Latin American Studies [p. 1064]

Graduate Programs of Study

- Master of Arts in Spanish [p. 1066]
- Master of Fine Arts in Spanish Creative Writing [p. 1068]
- Doctor of Philosophy in Spanish [p. 1070]

Facilities

Center for Language and Culture Learning

The Center for Language and Culture Learning provides a wide variety of facilities and services, including a 24-computer Instructional Technology Center (ITC) and five All-In-One Studios/small group study rooms equipped with video production and editing software, a Computer Assisted Language Learning Lab with 25 computers integrated with Sanako software for language practice, and virtual reality hardware and development space.

The center provides spaces for quiet study as well as for group meetings. Departments, programs, and student organizations are welcome to host conversation hours, film nights, study groups, workshops, and more. Peer education services include peer tutoring programs in many languages, with both in-person and online availability, as well as Independent Language Study, through which faculty, staff, or students can be paired with a tutor to learn a language not taught at the university. Tutors are trained to use the Three Ms for Effective Learning, including developing a growth mindset, using memory strategies to retain knowledge, and reflecting on learning gains.

Courses

- Spanish Courses [p. 1044]
- Portuguese Courses [p. 1050]
- Latin American Studies [p. 1051]

Spanish and Portuguese language courses are open to all students who have satisfied the specified course prerequisites.

Spanish Course Levels

Basic Spanish Courses

These courses are included in the number range 1000–1900.

Spanish Level 1

These courses are included in the number range 2000–2999. Students should take these courses at the start of the Spanish major and minor.

Spanish Level 2

These courses are included in the number range 3000–3999. Students should have at least one Spanish Level 1 course before starting these courses. Some courses have additional prerequisites.

- Language skills courses are numbered 3000–3099.
- Hispanic linguistics courses are numbered 3100–3199.
- Spanish American literature and culture courses are numbered 3200–3599.
- Spanish literature and culture courses are numbered 3600–3899.

Spanish Level 3

These courses are included in the number range 4000–4999. Undergraduates should take these courses during their last semesters of enrollment. These courses also are open to MA students. All of these courses require a research paper. Prerequisites vary.

Spanish Graduate Level

These courses are included in the number range 5000–7600.

Spanish Courses

SPAN:1000 First-Year Seminar 1-2 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first- or second-semester standing.

SPAN:1001 Elementary Spanish I 4 s.h.
Emphasis on oral and written skills. Taught in Spanish. Recommendations: no previous study of Spanish. GE: World Languages First Level Proficiency.

SPAN:1002 Elementary Spanish II 4 s.h.
Continuation of SPAN:1001; emphasis on oral and written skills. Taught in Spanish. Requirements: SPAN:1001. GE: World Languages Second Level Proficiency.

SPAN:1003 Elementary Spanish Review 5 s.h.
Intensive treatment of material presented in SPAN:1001 and SPAN:1002. Taught in Spanish. Requirements: two years of secondary school Spanish. GE: World Languages Second Level Proficiency.

SPAN:1070 Language Attitudes: Is How You Sound How You Are Seen? 3 s.h.
Pretend that you are making a phone call to ask about ordering a textbook and the person who answers is a stranger to you; you will immediately start to form opinions about that person (and about any other talkers you interact with) based upon the way they speak—where they are from, whether they are a native speaker of English, and even how well educated they are—and whether you are aware or not, these opinions and impressions you have will influence your interaction with that person and are based in language ideologies that all people have regarding how others sound; students explore common language ideologies and reflect upon their own. Taught in English. GE: Understanding Cultural Perspectives. Same as LING:1070.

SPAN:1501 Intermediate Spanish I 4 s.h.
Communication in speaking and writing; cultural topics. Taught in Spanish. Requirements: SPAN:1002 or SPAN:1003. GE: World Languages Third Level Proficiency.

SPAN:1502 Intermediate Spanish II 4 s.h.
Continuation of SPAN:1501. Requirements: SPAN:1501. GE: World Languages Fourth Level Proficiency.

SPAN:1503 Accelerated Intermediate Spanish 6 s.h.
Course sequence SPAN:1501 and SPAN:1502 in one semester. Requirements: SPAN:1002 or SPAN:1003. GE: World Languages Fourth Level Proficiency.

SPAN:1505 Intermediate Spanish for Heritage Speakers 5 s.h.
Focus on communication and consolidation of skills acquired from listening to or speaking Spanish at home; development or improvement of Spanish through reading and writing; emphasis on four language skills—listening, speaking, reading, and writing—via cultural and community activities. Taught in Spanish. Requirements: Spanish placement test score of 401 or higher. GE: World Languages Fourth Level Proficiency.

SPAN:1700 Latina/o/x Literature in the United States **3 s.h.**
Introduction to growing cultural production of varied Latina/o/x communities (e.g., Chicano, Puerto Rican American/Nuyorican, Cuban American) that have a strong presence in the United States; recent cultural production from borderland transcultural spaces with physical, cultural, economic, political, and mythical elements; visions of the United States from contemporary Latin American writers who recently have become U.S. residents. Taught in English. GE: Literary, Visual, and Performing Arts; Values and Society. Same as LATS:1700.

SPAN:1800 Writing and Writers From Latin America **3 s.h.**
Introduction to representative fiction and non-fiction texts from Latin America. Exploration of historical and contemporary themes from multiple regions and cultures. Readings in English translation. Taught in English. GE: World Language and Cultural Exploration.

SPAN:1810 Writing and Writers From Spain **3 s.h.**
Introduction to representative fiction and non-fiction texts from Spain. Exploration of historical and contemporary themes. Readings in English translation. Taught in English.

SPAN:2000 Spanish Language Skills: Writing **4 s.h.**
Bridge from second-year Spanish to more advanced courses in Spanish language, linguistics, and literature; emphasis on skill development in writing, critical reading in Spanish, and oral communication. Taught in Spanish. Requirements: SPAN:1502 or SPAN:1503.

SPAN:2005 Writing Global Spanish **3 s.h.**
Spanish in the digital age; linguistic varieties of Spanish spoken globally; emphasis on skill development in writing, critical reading in Spanish, and oral communication. Taught in Spanish. Requirements: SPAN:1502 or SPAN:1503.

SPAN:2010 Spanish Language Skills: Speaking **3 s.h.**
Development of conversational proficiency and cultural competence through action learning; strategic role playing and creative language use based on everyday situations in Hispanic cultures; composition skills and grammar review. Requirements: SPAN:1502 or SPAN:1503.

SPAN:2020 Hispanic Institute: Language **3 s.h.**
Grammar essentials, written exercises, short compositions, conversational activities. Requirements: SPAN:1502 or SPAN:1503.

SPAN:2030 Study of Language: Myths and Concepts **3 s.h.**
How linguists look at language; basic concepts of linguistics and grammar. Requirements: SPAN:1502 or SPAN:1503.

SPAN:2040 Spanish for Heritage Speakers **3 s.h.**
Emphasis on reading and writing skills for bilingual students who have acquired Spanish listening and speaking skills at home and in their communities; focus on literacy development and registers of use; designed specifically for native or heritage speakers of Spanish. Taught in Spanish.

SPAN:2050 Spanish in the United States **3 s.h.**
Issues related to Spanish in the United States; aspects of linguistics and sociolinguistics inherent to the existence and proliferation of Spanish in the United States. Taught in English. GE: Understanding Cultural Perspectives.

SPAN:2060 Spanish Pronunciation **4 s.h.**
Pronunciation as a key element of communication in a second language; self-evaluation of pronunciation in Spanish; how sounds differ between English and Spanish; analysis of pronunciation; production exercises. Requirements: SPAN:1502 or SPAN:1503.

SPAN:2080 Business Spanish **4 s.h.**
Effective written and oral communication in Spanish in the business world; emphasis on linguistic and cultural proficiency. Taught in Spanish. Requirements: SPAN:1502 or SPAN:1503.

SPAN:2090 Medical Spanish in Contemporary Society **4 s.h.**
Vocabulary related to medicine; grammatical concepts; health-related cultural competence; discussion of health issues concerning Hispanic communities in the U.S. and abroad. Taught in Spanish. Requirements: SPAN:1502 or SPAN:1503. Same as GHS:2090.

SPAN:2095 Activities Attendance for Spanish Majors **1 s.h.**
Attendance at Spanish literary readings, scholarly presentations, and Hispanic cultural events on the University of Iowa campus and in Iowa City, featuring visiting, local, and University of Iowa writers, filmmakers, artists, scholars, and community members. Taught in Spanish. Requirements: SPAN:1502 or SPAN:1503.

SPAN:2200 Introduction to Spanish American Cultures **3 s.h.**
Introduction to study of cultural history of Spanish America; topics range from pre-Colombian times to present; for students who are just starting work on the Spanish major or minor. Requirements: SPAN:1502 or SPAN:1503. Same as LAS:2200.

SPAN:2300 Spanish Language Skills: Reading **4 s.h.**
Close readings of literary texts from Spain and Spanish America; basic concepts of genre (narrative, poetry, theater, essay); writing about literature. Requirements: SPAN:1502 or SPAN:1503.

SPAN:2400 Readings in Spanish Literature **3 s.h.**
Tools for improving reading skills; basic concepts for textual understanding; historical overview of literary works, with focus on literature of Spain. Requirements: SPAN:1502 or SPAN:1503.

SPAN:2500 Readings in Spanish American Literature **3 s.h.**
Tools for improving reading skills; basic concepts for textual understanding; historical overview of literary works, with focus on Spanish American literature. Requirements: SPAN:1502 or SPAN:1503. Same as LAS:2500.

SPAN:2700 Introduction to Latin American Studies **3 s.h.**
Cultures of Latin American countries with emphasis on cultural history and cultural production; interdisciplinary survey. Taught in English. GE: World Language and Cultural Exploration. Same as IS:2700, LAS:2700, PORT:2700.

SPAN:2800 Screening Latin America **3 s.h.**
Basic introduction to contemporary Latin American societies and cultures through fiction feature films (i.e., comedies, dramas) and documentaries by major filmmakers; previous knowledge of film analysis not required. Taught in Spanish. Requirements: SPAN:1502 or SPAN:1503. Same as LAS:2800.

SPAN:2850 Brazilian Narrative in Translation **3 s.h.**
Representative readings of modern and contemporary novels, short stories, and other narrative forms; cultural background; focus on major writers. Taught in English. GE: Literary, Visual, and Performing Arts. Same as LAS:2850, PORT:2850.

SPAN:2900 Music of the Hispanic World 3 s.h.
Introduction to music of Spain and Latin America, including the United States; listening skills, music appreciation, continuing development of Spanish language skills. Taught in Spanish. Requirements: SPAN:1502 or SPAN:1503. Same as LAS:2900.

SPAN:2901 Diversity and Cultures in Spain 3 s.h.
Introduction to diversity of cultures within Spain; political, social, and economic background, cultural movements. Taught in English. GE: Values and Society.

SPAN:2905 Ecotourism and Culture in Costa Rica 3 s.h.
Based in Monteverde, Costa Rica. Explores the relationship between ecotourism and cultural preservation, examines the principles of ecotourism, its impact on local cultures and the environment, and its role in Costa Rican national identity and linguistic landscape. Critically assess sustainable tourism practices and develop culturally sensitive communication skills. Taught in English. Requirements: one semester of college-level Spanish or one year of high school-level Spanish.

SPAN:2910 Hispanic Institute: Study/Life in Spain 1 s.h.

SPAN:3000 Cultural Narratives for Heritage Speakers 3 s.h.
Development of writing skills in Spanish, focus on expository writing for academic purposes. Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3010 Advanced Spanish Speaking and Writing 3 s.h.
Development of oral proficiency; secondary emphasis on continuing development of writing skills; cultural knowledge of several Spanish-speaking countries. Requirements: two courses taught in Spanish at the 2000 level or above.

SPAN:3015 Fast Fixes: Improved Spanish in Six Weeks 1 s.h.
Varied topics focused on improving common problems with Spanish grammar; emphasis on written and oral expression. Requirements: SPAN:2000 or SPAN:2005 or SPAN:3000 or SPAN:3020 or SPAN:3060.

SPAN:3020 Journalistic Writing in Spanish 3 s.h.
Spanish writing skills; introduction to style and practice of journalistic reporting and writing. Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above. Same as JMC:3445, LAS:3020.

SPAN:3030 Translation Workshop: English to Spanish 3 s.h.
Introduction to translation theory and effective translation processes; examination of potential translation problems in specific areas of English to Spanish translation; primary focus on nonfiction. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3035 Translation Practicum: English to Spanish 1 s.h.
Students develop a plan of work in consultation with instructor and submit a community outreach translation project (English to Spanish) for a local nonprofit organization of their choice, periodical translation reports, and a final portfolio of their work. Taught in Spanish. Prerequisites: SPAN:3030 with a minimum grade of B.

SPAN:3050 Translation Workshop: Spanish to English 3 s.h.
Spanish to English literary translation; meaning, form and equivalence, authenticity; questions of untranslatability. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3060 Introductory Workshop on Creative Writing in Spanish 3 s.h.
Development of writing skills in Spanish through creative writing. Taught in Spanish. Requirements: one course numbered SPAN:2000 or above.

SPAN:3080 Spanish for International Business 3 s.h.
Tools for effective business communication; linguistic, sociolinguistic, and practical skills for effective oral and written communication developed through discussion of business case studies, presentations, and meetings; selected Spanish and Latin American companies examined through varied media including news and internet; role of transaction intermediaries in international trade. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3090 Spanish at Work 1 s.h.
Uses for a Spanish degree; knowledge and skills gained as a Spanish major that are in high demand among a wide variety of employers; important steps taken as a student that translate unique career dreams into reality; includes work with Pomerantz Career Center staff. Requirements: at least two courses numbered SPAN:2000 or above.

SPAN:3092 Spanish in the Community 3 s.h.
Students work directly with Spanish speakers through community-based service learning; focus on issues of interest to the local Latina/o/x community, develop oral proficiency, and enhance their civil engagement. Requirements: two courses numbered SPAN:2000 or above. Same as GHS:3092.

SPAN:3093 Teaching Spanish Heritage Speakers 3 s.h.
Focus on cutting-edge research and methods to develop suitable language curriculum for Spanish heritage speakers (SHS); topics include bilingual development, sociolinguistics, language teaching, and heritage speakers' affective needs; use of these theories to help understand and apply best practices in teaching SHS; topics also help create best practices in teaching mixed language courses for second language and heritage students. Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above. Same as EDTL:3492.

SPAN:3095 Spanish Composition and Grammar 3 s.h.
Development of three types of compositions; selected readings and comprehension activities; vocabulary expansion; grammar review with exercises. Requirements: proficiency in written and oral Spanish, based on several university Spanish classes (about half the coursework towards a Spanish major), plus study abroad experience in a Hispanic country.

SPAN:3099 Spanish Linguistics Lab I 1 s.h.
Hands-on research experience collecting and analyzing linguistic data.

SPAN:3100 Structures of Spanish: Words and Sentences 3 s.h.
Basic concepts and methods for analysis of linguistics as applied to Spanish patterns of word formation (morphology) and sentence formation (syntax). Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3105 Linguistic Aspects of the Lusophone World 3-4 s.h.
Introduction to Portuguese incorporating formal (theoretical), historical, and sociolinguistic perspectives; linguistic analysis of phonetics/phonology, morphology, and syntax; origins of Portuguese and its expansion to Africa, Asia, and Latin America. Taught in English. Same as LING:3105, PORT:3105.

SPAN:3110 Spanish Sound Structure 3 s.h.
Articulation of Spanish sounds—description and practice; how Spanish sounds are organized into classes, relations among the different classes, how they are implemented in context, patterns they exhibit. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3120 Foundations in Sociolinguistics 3 s.h.
Dialects, speech communities, variation, choosing a code, solidarity and politeness, language and gender, language planning. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3130 Introduction to Bilingualism 3 s.h.
Psycholinguistic and sociolinguistic aspects of bilingualism; language usage, maintenance, attitudes, shift, transfer, loss; code-switching. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3151 Spanish Applied Linguistics 3 s.h.
Concepts of linguistic analysis applied to Spanish; focus on problematic areas of Spanish grammar, lexicon, semantics; introduction to cross-cultural pragmatics; connections between language learning, technology, and assessment; for future teachers of Spanish. Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3205 Spanish Health Narratives 3 s.h.
Narratives are the central communicative act through which humans make sense of wellness and illness, life and death, always within contexts of language and culture; students focus on reading and analyzing narratives about health and health care, and opportunities to create their own narratives; particular emphasis on health care disparities and issues they present for Spanish-language communities in the United States and abroad as context for individual narratives. Taught in Spanish. Requirements: one course numbered SPAN:2000 or above. Same as GHS:3045.

SPAN:3215 Medellin 3 s.h.
Medellin, Colombia has been transformed from one of the most violent places on Earth to an award-winning city of innovation in only 20 years; introduction to the city and its people through literature, music, and a digital map project. Taught in Spanish. Requirements: at least one course numbered SPAN:2000 or above. Same as LAS:3215.

SPAN:3225 Latin American Women Writers 3 s.h.
Focus on long tradition of strong female writers in Latin America; materials may include poetry, theater, fiction, and essay from the Spanish-speaking countries of Mexico, Central America, South America, and Brazil. Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above. Same as LAS:3225.

SPAN:3230 Modern Mexico 3 s.h.
Twentieth-century Mexican cultural history, including nationalism, gender relations, Indigenous cultures, border issues, and popular culture; materials range from journalistic and literary writing to film, music, images, and television. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3240 Mexico City 3 s.h.
Broad historical survey of Mexico City as center of cultural life in Mexico and Latin America and city of global importance; conquest and contemporary narratives, visual culture, music, and film. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3250 Buenos Aires 3 s.h.
Broad historical survey of Buenos Aires as center of cultural life in Argentina with emphasis on how the city has been portrayed in the arts; interdisciplinary approaches to the study of city life. Taught in Spanish. Requirements: one course taught in Spanish at the 2000 level or above.

SPAN:3290 Topics in Cinema and Society 3 s.h.
Film and cultural history of one Latin American nation. Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above. Same as LAS:3290.

SPAN:3310 Spanish American Short Story 3 s.h.
Works by 19th- and 20th-century Spanish American writers; emphasis on reading strategies and historical, cultural, literary backgrounds. Requirements: at least one course taught in Spanish at the 2000 level or above. Same as LAS:3310.

SPAN:3320 Spanish American Poetry 3 s.h.
Poetry as a literary genre, short history of its development, early forms in Spanish America, poets from Modernism to present; readings from writers including Rubén Darío, Pablo Neruda, César Vallejo, Octavio Paz, J.L. Borges. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3350 Contemporary Spanish American Literature 3 s.h.
Comprehensive view of 20th-century literature from Spanish-speaking countries in the Americas, including narrative and poetry; examination of issues related to texts and contexts through written and oral analysis. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3370 Topics in Literatures and Cultures 3 s.h.
Literature and culture of specific regions, countries, or cities of Latin America. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3500 Topics in Culture of the Hispanic World 3 s.h.
Specific topics; culture of different parts of Spanish-speaking world, or cross-regional or cross-national cultural phenomenon. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3520 Introduction to Film Studies 3 s.h.
Introduction to film analysis and theory; focus on Latin American and Spanish cinemas in context of international film history. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3600 Cultures of Spain 3 s.h.
Political, religious, social, economic background; important cultural, literary movements. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3610 Hispanic Institute: Culture 3 s.h.
Overview of geography, history (political, economic, social), architecture, painting, music of Spain; readings, slides, video and audio cassettes, visits to local sites of cultural significance. Requirements: SPAN:1502 or SPAN:1503.

SPAN:3620 Madrid 3 s.h.
Contemporary Madrid as one of the premier capital cities of the European Union; history and present day reality of the city; examination of paintings, descriptions, movies, fashion, and customs from several historical periods. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3630 Spanish Youth Culture 3 s.h.
Literary texts, films, and music produced by young people in Spain from 1939 to present; gender issues and relationships between market, popular culture, and high culture. Requirements: one course taught in Spanish at the 2000 level or above.

SPAN:3650 Fitness Culture in Spain 3 s.h.
Fitness as a cultural practice; how Spanish fitness practices reflect quite different values, economics, and public infrastructures than those of the U.S.; comparative cultural studies approach to fitness cultures; topics include fitness and Spanish cultural norms, nutrition and gastronomy, and active tourism in Spain. Taught in Spanish. Requirements: at least one course numbered SPAN:2000 or above.

SPAN:3750 Literature in the Time of Cervantes 3 s.h.
Introduction to literary questions of 15th to 17th centuries in Spain; understanding of literary Spanish and cultural issues of the period—end of the feudal mind, beginning of individualism, poetry, emergence of theater, crisis of empire. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3790 Hispanic Institute: Literature 3 s.h.
Introduction to poetry, narrative, and theater in Spanish literature; textural commentary and critical interpretations of major representative works of selected historical periods. Requirements: SPAN:1502 or SPAN:1503.

SPAN:3820 Modern and Contemporary Spanish Literature 3 s.h.
Works of the last 30 years of the 19th century, up to the outbreak of the Spanish Civil War; Realism, Naturalism, generation of 1898, generation of 1913, generation of 1927. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3840 Contemporary Spanish Short Story 3 s.h.
Contemporary short stories from 20th- and 21st-century Spain; emphasis on reading strategies and interpretation skills; focus on historical and social contexts. Requirements: at least one course taught in Spanish at the 2000 level or above.

SPAN:3903 Introduction to Medical Spanish-English Interpretation 1,3 s.h.
Introduction to Spanish-English language interpretation; focus on history, techniques, types, and practice with emphasis on the medical field. Prerequisites: SPAN:2090 with a minimum grade of B+ or SPAN:2040 with a minimum grade of B +. Requirements: advanced level of oral proficiency and familiarity with basic medical terminology.

SPAN:4100 Introduction to Spanish Phonology 3 s.h.
Sound patterns of Spanish; how various theoretical approaches solve basic problems in Spanish phonology; identification of linguistic universals, how they are manifested in the sound structure of Spanish. Taught in Spanish.

SPAN:4150 Introduction to Spanish Syntax 3 s.h.
Basic principles of generative syntax as applied to analysis of Spanish syntactic structure; extensive syntactic analysis. Taught in Spanish. Prerequisites: SPAN:3100. Same as SLA:4300.

SPAN:4170 Second Language Acquisition 3 s.h.
Linguistic approaches to acquisition of Spanish as a second language. Taught in Spanish. Prerequisites: LING:3001 or CSD:3117 or CSD:3118 or PSY:2601 or EDTL:4410 or EDTL:4417 or SPAN:3130 or SPAN:3100 or SPAN:3110 or SPAN:3120.

SPAN:4190 Topics in Hispanic Linguistics 3 s.h.
Prerequisites: SPAN:3100 or SPAN:3110 or SPAN:3120 or SPAN:3130. Requirements: completion of at least one Hispanic linguistics course.

SPAN:4195 Spanish Linguistics Lab II 3 s.h.
Hands-on research experience collecting and analyzing linguistic data. Requirements: at least one linguistics course.

SPAN:4205 Culture, Language, and Health 3 s.h.
Exploration of health, wellness, and illness from a perspective of language and culture; languages we use to describe our mental and physical health that are situated within culture-specific ideas of human bodies, minds, disease, and wellness; understanding where beliefs about health and wellness come from and exploring other systems of belief on their own terms prepares students to be better informed health care practitioners, more aware patients within health care systems, and more sensitive caregivers in health related settings; emphasis on observation, asking questions, and analyzing health care worlds. Taught in Spanish. Requirements: two courses in Spanish numbered 3000 or above. Same as GHS:4205.

SPAN:4330 Colonial Spanish American Literature 3 s.h.
Readings from the formative period of Spanish American culture; may include discovery and conquest, ethnicity and gender, dissent and popular resistance. Requirements: one literature course taught in Spanish numbered SPAN:3200 or above.

SPAN:4390 Topics in Spanish American Literature 3 s.h.
Taught in Spanish. Requirements: one literature course in Spanish numbered SPAN:3200 or above. Same as LAS:4390.

SPAN:4650 Don Quijote 3 s.h.
Exploration of Cervantes' *Don Quijote*; sociohistorical context, questions of human existence, literary tradition, metafiction, influence of *Don Quijote* on novelists and filmmakers, critical reception of the text. Requirements: two literature courses in Spanish, at least one of which must be numbered SPAN:3300 or above.

SPAN:4690 Topics in Spanish Literature 3 s.h.
Requirements: two literature courses in Spanish, at least one of which must be numbered SPAN:3300 or above.

SPAN:4805 Chicano Cinema 3 s.h.
History of Chicano independent and industry film and television production since the Chicano political and cultural movement began in the 1960s. Taught in English. Requirements: one Spanish literature or culture course numbered SPAN:3200 or above, or one film studies course numbered above CINE:2100. Same as CINE:4705, LATS:4805.

SPAN:4815 Lost Childhoods: Marginal Children of Latin America 3 s.h.
Focus on lost childhoods from a cultural studies perspective; analysis of marginal perspectives that emerge from a globalized urban landscape; evolution of literary, artistic (art, photography, comics), and film productions about dispossessed children, the construction of childhood by nongovernmental and nonprofit organizations, and how these cultural productions denounce social violence. Taught in Spanish. Requirements: two courses numbered SPAN:3000 or above. Same as LAS:4815.

SPAN:4850 Topics in Cultural Studies 3 s.h.
Requirements: one literature or culture course taught in Spanish numbered SPAN:3200 or above.

SPAN:4880 Comic Books and Graphic Novels in the Hispanic World 3 s.h.
Analysis of comics and graphic novels from Hispanic world; diverse Hispanic representational perspectives on creativity, humor, storytelling, culture, politics, nationality, and ethnicity; opportunity for students to express their own creativity with comics. Recommendations: two literature or culture courses taught in Spanish, at least one of which must be numbered SPAN:3200 or above.

SPAN:4900 Latin American Studies Seminar 3-4 s.h.
Examination of past, present, and future of Latin America; interdisciplinary. Taught in English. Same as ANTH:4700, HIST:4504, LAS:4700, PORT:4700.

SPAN:4925 Topics in Film Narrative 3 s.h.
Exploration of relationship between film narratives and social systems. Taught in English. Same as LAS:4925.

SPAN:4950 Advanced Workshop on Creative Writing in Spanish 3 s.h.
In-depth consideration of characters, dialog, conflict, setting, point of view, other fundamentals of fiction; experience writing short stories and other pieces, with class discussion; fictional texts by renowned writers, authors' essays on their own creative process; narrative strategies of short stories, songs, painting, films. Requirements: one creative writing course in Spanish and one literature course in Spanish numbered SPAN:3300 or above, or two literature courses in Spanish numbered SPAN:3300 or above.

SPAN:4998 Honors: Research and Thesis 2-3 s.h.
Requirements: honors standing.

SPAN:4999 Special Work 1-3 s.h.

SPAN:5000 Teaching and Learning Languages 3 s.h.
Readings in pedagogical theory and practice, second language acquisition; experience designing activities for teaching and assessment with critiques based on current theories and approaches; development of reflective practices toward one's language teaching. Taught in English. Same as FREN:5000, GRMN:5001, SLA:5000, WLLC:5000.

SPAN:5002 Pedagogical Practicum 2 s.h.
Practice in lesson design, classroom management techniques, evaluation skills during work with faculty. Requirements: PhD standing.

SPAN:5003 Professional Training and Development 1 s.h.
Professional training and preparation for a variety of professional opportunities within and outside of academia. Requirements: Spanish PhD standing.

SPAN:5005 Heritage and Dual Language Teaching 3 s.h.
Theoretical issues (e.g., ideological, educational, linguistic) of heritage language teaching and learning; pedagogical issues including curriculum development and assessment for dual language programs in the United Statues; focus on teaching heritage language learners (those who learned a language other than English at home) or dual language education (those who develop academic skills in their native language while building skills in a different language) in the United States. Taught in English. Same as WLLC:5005.

SPAN:6110 Spanish Phonology 3 s.h.
Modern approaches to synchronic phonology as applied to Spanish; focus on traditional descriptive problems, recent generative analyses. Taught in Spanish. Requirements: phonology or linguistics course.

SPAN:6120 Spanish Syntax 3 s.h.
Spanish syntactic constructions examined in framework of selected syntactic theory; emphasis on development of syntactic argumentation. Taught in Spanish. Requirements: one course in syntax.

SPAN:6150 Topics in Spanish Language Acquisition 3 s.h.
Theoretical linguistic approaches to monolingual, bilingual, and second language acquisition of Spanish and Portuguese; varied topics. Taught in Spanish. Requirements: at least one course in linguistics (e.g., general introduction to linguistics).

SPAN:6180 Topics in Hispanic Linguistics 3 s.h.
Taught in Spanish or English.

SPAN:6190 Topics in Comparative Romance Linguistics 3 s.h.
Comparative study of phonology, morphology, or syntax of the main Romance languages as informed by linguistic theory; diachronic or synchronic perspective. Taught in English. Recommendations: additional graduate coursework in linguistics. Same as LING:6190.

SPAN:6210 Fiction Workshop 4 s.h.
Craft of writing short stories; underlying principles examined through lectures, readings, craft analysis, discussions, exercises, and workshops; activities linked with International Writing Program. Requirements: admission to MFA Spanish Creative Writing program.

SPAN:6220 Poetry Workshop 4 s.h.
Construction and recognition of poetic voice through readings, analysis, and exercises from different poets and by students; poetic voice in three spaces (diary of poetic prose, collection of poems, object poem). Requirements: admission to MFA Spanish Creative Writing program.

SPAN:6235 Film Script/Theater Workshop 4 s.h.
Basic steps to developing plays; different styles and ways to develop plays and characters; reading main authors and their plays; student work on a possible play. Requirements: admission to MFA in Spanish Creative Writing program.

SPAN:6241 Creative Project Development 4 s.h.
Development of creative project. Requirements: admission to MFA Spanish Creative Writing program.

SPAN:6251 Workshop on Editing a Literary e-Journal 4 s.h.
Plan, produce, write, and edit a literary digital magazine; manage and write for *Iowa Literaria*. Requirements: admission to MFA in Spanish Creative Writing program.

SPAN:6280 Nonfiction Workshop 4 s.h.
Practice of self narrative and construction of the self in literature; readings of self-narrated texts in different literary forms and cultural traditions (from autobiography to testimonial narratives); various ways in which the narrating self is formed and deformed by literary conventions that define him/her; readings as springboards for thinking on ways to write the self; series of autobiographical sketches. Requirements: admission to MFA Spanish Creative Writing program.

SPAN:6290 Topics in Spanish Creative Writing 4 s.h.
Examination of special issues related to craft, context, and practice of Spanish creative writing.

SPAN:6295 Practicum Editing a Literary e-Journal arr.
Practice in planning, producing, and editing *Iowa Literaria*. Recommendations: SPAN:6251.

SPAN:6299 Thesis: Creative Writing arr.
Continuation of work on student manuscript. Requirements: admission to MFA Spanish Creative Writing program.

SPAN:6300 Colonial Spanish American Literature 3 s.h.
Chronicles of the conquest: close reading with focus on role of writing and operations of "othering"; balance between critical secondary sources and primary sources.

SPAN:6320 Contemporary Spanish American Narrative 3 s.h.
Narrative from mid-20th century to present; emphasis on the Boom, post-Boom.

SPAN:6330 Spanish American Narrative: Modern and Regional 3 s.h.

SPAN:6390 Topics in Spanish American Literature 3 s.h.

SPAN:6600 Medieval Spanish Literature 3 s.h.
Critical reading of canonical medieval texts in their cultural context; application of modern theory to medieval texts; works such as *El Poema del Cid, El Romancero Viejo, Milagros de Nuestra Señora, El Conde Lucanor, El Libro de Buen Amor*.

SPAN:6620 Spanish Renaissance and Baroque Literature 3 s.h.
Critical analysis of social, moral, political function of literature in early modern Spain; Renaissance and Baroque poetry; *La Celestina*; pastoral literature; *Don Quijote*; narratives of the court; modern subjectivity; the question of genre.

SPAN:6660 Contemporary Spanish Fiction 3 s.h.
The post-Franco novel in Spain; literary "postmodernism" and relationships between Spanish literature, politics, and society since 1975; representative significant works.

SPAN:6670 Contemporary Spanish Poetry 3 s.h.
Poetry on the Spanish literary scene circa 1968; authors' reactions to predecessors, their connections with foreign traditions, metapoetry, the aesthetics of culturalism.

SPAN:6680 Contemporary Non-Castilian Narrative Spain 3 s.h.
Readings in Spanish of novels and short stories written in another language of the Spanish state or by a member of one of Spain's non-Castilian historic nationalities.

SPAN:6690 Topics in Spanish Literature 3 s.h.

SPAN:6850 Topics in Literary Studies 3 s.h.

SPAN:6860 Topics in Cultural Studies 3 s.h.

SPAN:6998 Special Work arr.

SPAN:6999 Thesis arr.

SPAN:7000 Seminar: Spanish Linguistics 3 s.h.
Taught in Spanish. Same as LING:7000.

SPAN:7001 Language Justice: Multilingual Community Engagement and Scholarship 3 s.h.
Application of language justice to lived experiences of multilingual individuals; exploration of how communities can incorporate language justice into shared spaces and interactions within those spaces; engagement with local community groups that support multilingual Iowans whose personal language practices are less valued than the default monolingual English norm. Taught in English. Same as WLLC:7001.

SPAN:7200 Seminar: Literary Studies 3 s.h.
Specific topics on aspects of Spanish and/or Spanish American literature.

SPAN:7505 Readings: Latin American History arr.
Introduction to historiography in the field of Latin American history; students deepen their understanding of the region's history and become acquainted with trends in topical concerns, sources, and methods that are shaping historical research on Latin America's past. Taught in English. Same as HIST:7505.

Portuguese Courses

PORT:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first-semester standing.

PORT:2000 Accelerated Elementary Portuguese 5 s.h.
First-year course in one semester; comprehending, speaking, reading, writing modern Portuguese; emphasis on speaking; previous knowledge of Portuguese not required. GE: World Languages Second Level Proficiency.

PORT:2015 Elementary Portuguese II 3 s.h.
Emphasis on oral and written skills; second in a series. Requirements: PORT:2010. GE: World Languages Second Level Proficiency.

PORT:2500 Accelerated Intermediate Portuguese 5 s.h.
Second-year course in one semester; reading comprehension, oral and writing skills; grammar review. Requirements: PORT:2000. GE: World Languages Fourth Level Proficiency.

PORT:2700 Introduction to Latin American Studies 3 s.h.
Cultures of Latin American countries with emphasis on cultural history and cultural production; interdisciplinary survey. Taught in English. GE: World Language and Cultural Exploration. Same as IS:2700, LAS:2700, SPAN:2700.

PORT:2850 Brazilian Narrative in Translation 3 s.h.
Representative readings of modern and contemporary novels, short stories, and other narrative forms; cultural background; focus on major writers. Taught in English. GE: Literary, Visual, and Performing Arts. Same as LAS:2850, SPAN:2850.

PORT:3050 Intensive Portuguese for Spanish Speakers 4 s.h.
Compare and contrast Spanish and Portuguese; development of basic communicative skills in Portuguese. Taught in Spanish and Portuguese. Requirements: undergraduate Spanish native speaker, Spanish heritage speaker, or two courses in Spanish numbered SPAN:4000 or above, or graduate standing.

PORT:3100 Writing and Speaking 3 s.h.
Speaking and writing skills through discussion, oral presentations, grammar and vocabulary review, composition. Taught in Portuguese. Requirements: PORT:2500.

PORT:3105 Linguistic Aspects of the Lusophone World 3-4 s.h.
Introduction to Portuguese incorporating formal (theoretical), historical, and sociolinguistic perspectives; linguistic analysis of phonetics/phonology, morphology, and syntax; origins of Portuguese and its expansion to Africa, Asia, and Latin America. Taught in English. Same as LING:3105, SPAN:3105.

PORT:3150 Topics in Portuguese Language 3 s.h.
Various aspects of Portuguese language use. Taught in Portuguese. Requirements: one course numbered PORT:2500 or above.

PORT:4700 Latin American Studies Seminar 3-4 s.h.
Examination of past, present, and future of Latin America; interdisciplinary. Taught in English. Same as ANTH:4700, HIST:4504, LAS:4700, SPAN:4900.

PORT:4995 Portuguese Senior Project 3 s.h.
Voluntary student-initiated projects outside the classroom; designed or executed during senior year; similar to independent study, but based on research and completed in close consultation with a faculty mentor. Requirements: at least one course taught in Portuguese numbered PORT:4000 or above.

PORT:4998 Special Work 1-3 s.h.
Independent study arranged between student and a faculty member to complete requirements for the major in Portuguese.

PORT:4999 Honors Research and Thesis 2-3 s.h.
Requirements: honors standing.

Latin American Studies

LAS:1150 Brazilian Culture and Carnival 3 s.h.
Dance, music, historical, and social contents of Brazilian Carnival production, critical theories of performance, religious backgrounds, and theatre making in carnival parades. GE: Engineering Be Creative; Values and Society. Same as DANC:1150.

LAS:2200 Introduction to Spanish American Cultures 3 s.h.
Introduction to study of cultural history of Spanish America; topics range from pre-Colombian times to present; for students who are just starting work on the Spanish major or minor. Requirements: SPAN:1502 or SPAN:1503. Same as SPAN:2200.

LAS:2220 The Olmec, Maya, and Aztecs: Archaeology of Mesoamerica 3 s.h.
Archaeological data related to the evolution of civilization in Mesoamerica; sequence from hunter-gatherers to A.D. 1519; emphasis on Central Mexico, Maya area, Oaxaca. Same as ANTH:2220.

LAS:2311 Music of Latin America and the Caribbean 3 s.h.
Folk and popular musical traditions and their social contexts in Latin America, the Caribbean; listening skills; video/film screenings. GE: Literary, Visual, and Performing Arts; Values and Society. Same as MUS:2311.

LAS:2415 Latin American Politics 3 s.h.
Governmental institutions, major interest groups; focus on area as a whole. GE: International and Global Issues. Same as POLI:2415.

LAS:2500 Readings in Spanish American Literature 3 s.h.
Tools for improving reading skills; basic concepts for textual understanding; historical overview of literary works, with focus on Spanish American literature. Requirements: SPAN:1502 or SPAN:1503. Same as SPAN:2500.

LAS:2700 Introduction to Latin American Studies 3 s.h.
Cultures of Latin American countries with emphasis on cultural history and cultural production; interdisciplinary survey. Taught in English. GE: World Language and Cultural Exploration. Same as IS:2700, PORT:2700, SPAN:2700.

LAS:2800 Screening Latin America 3 s.h.
Basic introduction to contemporary Latin American societies and cultures through fiction feature films (i.e., comedies, dramas) and documentaries by major filmmakers; previous knowledge of film analysis not required. Taught in Spanish. Requirements: SPAN:1502 or SPAN:1503. Same as SPAN:2800.

LAS:2850 Brazilian Narrative in Translation 3 s.h.
Representative readings of modern and contemporary novels, short stories, and other narrative forms; cultural background; focus on major writers. Taught in English. GE: Literary, Visual, and Performing Arts. Same as PORT:2850, SPAN:2850.

LAS:2900 Music of the Hispanic World 3 s.h.
Introduction to music of Spain and Latin America, including the United States; listening skills, music appreciation, continuing development of Spanish language skills. Taught in Spanish. Requirements: SPAN:1502 or SPAN:1503. Same as SPAN:2900.

LAS:3020 Journalistic Writing in Spanish 3 s.h.
Spanish writing skills; introduction to style and practice of journalistic reporting and writing. Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above. Same as JMC:3445, SPAN:3020.

LAS:3104 Immigration Politics 3 s.h.
United States immigration policy and political consequences of Latina/o/x population growth; contrast of political experiences of Latina/o/x with groups and ideals of democratic political systems; analyses of past immigration policies; studies of public opinion, voter turnout, and campaign tactics. Same as LATS:3104, POLI:3104.

LAS:3215 Medellin 3 s.h.
Medellin, Colombia has been transformed from one of the most violent places on Earth to an award-winning city of innovation in only 20 years; introduction to the city and its people through literature, music, and a digital map project. Taught in Spanish. Requirements: at least one course numbered SPAN:2000 or above. Same as SPAN:3215.

LAS:3217 Latina/o/x Immigration 3 s.h.
Immigration experiences of people arriving in the United States from other regions of the Americas (e.g., Mexico, Central America, the Caribbean, South America); what has fueled immigration—social, political, and economic developments in the United States and other nations; territorial conquest, colonialism, real and imagined borders, chain migration, formation of immigrant communities, acculturation, circular migration, social networks; how migration restructures gender relations; immigrant communities and pan-Latina/o/x identity in the United States. Same as HIST:3217, LATS:3217.

LAS:3225 Latin American Women Writers 3 s.h.
Focus on long tradition of strong female writers in Latin America; materials may include poetry, theater, fiction, and essay from the Spanish-speaking countries of Mexico, Central America, South America, and Brazil. Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above. Same as SPAN:3225.

LAS:3290 Topics in Cinema and Society 3 s.h.
Film and cultural history of one Latin American nation. Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above. Same as SPAN:3290.

LAS:3310 Spanish American Short Story 3 s.h.
Works by 19th- and 20th-century Spanish American writers; emphasis on reading strategies and historical, cultural, literary backgrounds. Requirements: at least one course taught in Spanish at the 2000 level or above. Same as SPAN:3310.

LAS:3501 Rebel Island: A History of Cuba 3 s.h.
Cuban society and revolutionary movements since the late colonial period, including the years since 1959. Same as HIST:3501.

LAS:3502 History of Mexico 3 s.h.
Mexican history since the eve of the Spanish invasion, with focus on the national period; indigenous groups, conquest and demographic disaster, Native survival, labor and migration, social protest and rebellions, nationhood, revolution, regional differences, religions, popular culture, economic growth and distribution, state building, environmental change, international relations; survey. Same as HIST:3502, NAIS:3502.

LAS:3508 Disease and Health in Latin American History 3 s.h.
Survey of major topics in Latin American history in relation to development of medicine and public health. Same as GHS:3508, HIST:3508.

LAS:3515 Introduction to Modern Latin America 3 s.h.
Introduction to modern history of Latin America from independence movements of the early 19th century to present; topics include race and ethnicity, slave emancipation, gender, labor relations, and foreign interventions; exploration of relationship between economic, social, and political structures over time to explain difference and commonality between Latin American people and societies; focus on topics pertaining to histories of Mexico, Central America, the Caribbean, and South America. Same as HIST:3515.

LAS:3535 Topics in Literature and Culture of the Americas 3 s.h.
Selected topics in literature and cultures of the Americas. Same as ENGL:3535.

LAS:4216 Mexican American History 3 s.h.
Survey of Chicana/o (Mexican American) history from 18th century to present; Mexican American society's diverse nature, explored through class, ethnic, gender, and regional divisions. Same as HIST:4216.

LAS:4390 Topics in Spanish American Literature 3 s.h.
Taught in Spanish. Requirements: one literature course in Spanish numbered SPAN:3200 or above. Same as SPAN:4390.

LAS:4700 Latin American Studies Seminar 3-4 s.h.
Examination of past, present, and future of Latin America; interdisciplinary. Taught in English. Same as ANTH:4700, HIST:4504, PORT:4700, SPAN:4900.

LAS:4815 Lost Childhoods: Marginal Children of Latin America 3 s.h.
Focus on lost childhoods from a cultural studies perspective; analysis of marginal perspectives that emerge from a globalized urban landscape; evolution of literary, artistic (art, photography, comics), and film productions about dispossessed children, the construction of childhood by nongovernmental and nonprofit organizations, and how these cultural productions denounce social violence. Taught in Spanish. Requirements: two courses numbered SPAN:3000 or above. Same as SPAN:4815.

LAS:4925 Topics in Film Narrative 3 s.h.
Exploration of relationship between film narratives and social systems. Taught in English. Same as SPAN:4925.

LAS:4990 Independent Project in Latin American Studies arr.
Independent work completed under the supervision of Latin American studies faculty.

Spanish, BA

The goal of the major is twofold: to study content areas related to the Spanish language, such as literature, culture, and linguistics; and to develop proficiency in the Spanish language in all four skills—speaking, listening, reading, and writing.

Learning Outcomes

By graduation, Spanish majors will have the following.

Proficiency

Increased Spanish language proficiency in speaking, writing, listening, and reading.

Analytical Skills

Acquired the skills to engage critically with one or more of the following areas.

- Spanish, Spanish American, and U.S. Latino literatures and cultures
- Hispanic linguistics
- Creative and/or journalistic writing
- Spanish for the professions (e.g., health and business)
- Translation

Intercultural Knowledge

Gained intercultural knowledge of the diversity of the Hispanic world (Spain/Portugal, Latin America, and the United States) and its cultural, artistic, and linguistic history.

Advising

First-year students are initially advised by the Academic Advising Center. Second-year students are advised by the Spanish and Portuguese academic advisor. Third- and fourth-year students are advised by a faculty advisor and professional academic advisor who guides students regarding academic or career-focused experiences and opportunities.

Requirements

The Bachelor of Arts with a major in Spanish requires a minimum of 120 s.h., including at least 30–34 s.h. of work for the major. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major. A maximum of 15 s.h. of approved transfer credit may be counted toward the major. Students must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

All required and elective courses taken for the Spanish major must be numbered 2000 or above. A minimum of 12 s.h. for the major must be numbered 3000–3999. At least 6 s.h. for the major must be numbered 4000–4999. All courses at the 4000–4999 level must be taken at the University of Iowa in the Department of Spanish and Portuguese; no transfer credit or study abroad courses are accepted.

Students may apply up to 6 s.h. total of approved coursework taught in English or Portuguese toward the major. This includes coursework taught in the Department of Spanish and Portuguese or in another department, as approved by their advisor. All other courses for the major must be taught in Spanish. Acceptable courses taught in English are listed in the section "Spanish Courses Taught in English."

The BA with a major in Spanish requires the following coursework.

Requirements	Hours
Foundation Course	0-4
Required Core	12
Electives	18
Optional Concentration	

Foundation Course

Spanish majors must complete SPAN:1502 Intermediate Spanish II or the equivalent.

This requirement may be fulfilled through high school language study, transfer credit, or placement examination, or by completing one of the following courses.

Course #	Title	Hours
SPAN:1502	Intermediate Spanish II	4
SPAN:1503	Accelerated Intermediate Spanish (up to 4 s.h. may be applied to the major)	6
SPAN:1505	Intermediate Spanish for Heritage Speakers (Up to 4 s.h. may be applied to the major)	5

Required Core

Students must complete one course in Hispanic linguistics, two courses in Hispanic cultures, and one course in writing.

Hispanic Linguistics

Course #	Title	Hours
At least 3 s.h. from these:		
SPAN:3099	Spanish Linguistics Lab I	1
SPAN:3100	Structures of Spanish: Words and Sentences	3
SPAN:3105	Linguistic Aspects of the Lusophone World	3-4
SPAN:3110	Spanish Sound Structure	3
SPAN:3120	Foundations in Sociolinguistics	3
SPAN:3130	Introduction to Bilingualism	3
SPAN:3151	Spanish Applied Linguistics	3
SPAN:4100	Introduction to Spanish Phonology	3
SPAN:4150	Introduction to Spanish Syntax	3
SPAN:4170	Second Language Acquisition	3
SPAN:4190	Topics in Hispanic Linguistics	3
SPAN:4195	Spanish Linguistics Lab II	3
SPAN:4205	Culture, Language, and Health	3

Hispanic Cultures

Course #	Title	Hours
At least 6 s.h. from these:		
SPAN:2200	Introduction to Spanish American Cultures	3

SPAN:2300	Spanish Language Skills: Reading	4
SPAN:2400	Readings in Spanish Literature	3
SPAN:2500	Readings in Spanish American Literature	3
SPAN:2800	Screening Latin America	3
SPAN:2900	Music of the Hispanic World	3
SPAN:2901	Diversity and Cultures in Spain	3
SPAN:3205	Spanish Health Narratives	3
SPAN:3215	Medellin	3
SPAN:3225	Latin American Women Writers	3
SPAN:3230	Modern Mexico	3
SPAN:3240	Mexico City	3
SPAN:3250	Buenos Aires	3
SPAN:3290	Topics in Cinema and Society	3
SPAN:3310	Spanish American Short Story	3
SPAN:3320	Spanish American Poetry	3
SPAN:3350	Contemporary Spanish American Literature	3
SPAN:3370	Topics in Literatures and Cultures	3
SPAN:3500	Topics in Culture of the Hispanic World	3
SPAN:3520	Introduction to Film Studies	3
SPAN:3600	Cultures of Spain	3
SPAN:3610	Hispanic Institute: Culture	3
SPAN:3620	Madrid	3
SPAN:3630	Spanish Youth Culture	3
SPAN:3650	Fitness Culture in Spain	3
SPAN:3750	Literature in the Time of Cervantes	3
SPAN:3790	Hispanic Institute: Literature	3
SPAN:3820	Modern and Contemporary Spanish Literature	3
SPAN:3840	Contemporary Spanish Short Story	3
SPAN:4330	Colonial Spanish American Literature	3
SPAN:4390	Topics in Spanish American Literature	3
SPAN:4650	Don Quijote	3
SPAN:4690	Topics in Spanish Literature	3
SPAN:4805	Chicano Cinema	3
SPAN:4815	Lost Childhoods: Marginal Children of Latin America	3
SPAN:4850	Topics in Cultural Studies	3
SPAN:4880	Comic Books and Graphic Novels in the Hispanic World	3
SPAN:4900	Latin American Studies Seminar	3-4

Writing

Course #	Title	Hours
At least 3 s.h. from these:		
SPAN:2000	Spanish Language Skills: Writing	4
SPAN:2005	Writing Global Spanish	3
SPAN:3000	Cultural Narratives for Heritage Speakers	3
SPAN:3020	Journalistic Writing in Spanish	3
SPAN:3060	Introductory Workshop on Creative Writing in Spanish	3
SPAN:4950	Advanced Workshop on Creative Writing in Spanish	3

Electives

Students complete six elective courses in Spanish (prefix SPAN) numbered 2000 and above for a total of 18 s.h. Electives may include coursework in Spanish language skills as well as more advanced language courses that focus on specialized language functions and purposes. Related courses must be approved by the director of undergraduate studies.

A maximum of 3 s.h. earned in PORT:2500 Accelerated Intermediate Portuguese may be counted toward the major. PORT:2000 Accelerated Elementary Portuguese does not count toward the major and may not be used as elective credit.

Some Advanced Placement Program (AP) credit is considered to be equivalent to a Spanish course at the 2000 level. Students may count 3 s.h. from AP Spanish Language and Culture and/or AP Spanish Literature and Culture exams with a score of 4 or higher as elective credit.

Spanish Courses Taught in English

A maximum of 6 s.h. from courses taught in English may be applied to the major.

Course #	Title	Hours
SPAN:2050	Spanish in the United States	3
SPAN:2700	Introduction to Latin American Studies	3
SPAN:2850	Brazilian Narrative in Translation	3
SPAN:2901	Diversity and Cultures in Spain	3
SPAN:3105	Linguistic Aspects of the Lusophone World	3-4
SPAN:4805	Chicano Cinema	3
SPAN:4900	Latin American Studies Seminar	3
SPAN:4925	Topics in Film Narrative	3

Optional Concentrations

Students have the option to complete a 12–13 s.h. concentration. They choose four Spanish courses approved in one of the three concentrations: linguistics, cultures, or professional communication. These courses may be electives or they may fulfill requirements for the major.

Linguistics

Course #	Title	Hours
At least 12 s.h. from these:		
SPAN:3100	Structures of Spanish: Words and Sentences	3
SPAN:3105	Linguistic Aspects of the Lusophone World	3-4
SPAN:3110	Spanish Sound Structure	3
SPAN:3120	Foundations in Sociolinguistics	3
SPAN:3130	Introduction to Bilingualism	3
SPAN:3151	Spanish Applied Linguistics	3
SPAN:4100	Introduction to Spanish Phonology	3
SPAN:4150	Introduction to Spanish Syntax	3
SPAN:4170	Second Language Acquisition	3
SPAN:4190	Topics in Hispanic Linguistics	3
SPAN:4195	Spanish Linguistics Lab II	3
SPAN:4205	Culture, Language, and Health	3

Cultures

Course #	Title	Hours
At least 12 s.h. from these:		
SPAN:2200	Introduction to Spanish American Cultures	3
SPAN:2300	Spanish Language Skills: Reading	4
SPAN:2400	Readings in Spanish Literature	3
SPAN:2500	Readings in Spanish American Literature	3
SPAN:2800	Screening Latin America	3
SPAN:2850	Brazilian Narrative in Translation	3
SPAN:2900	Music of the Hispanic World	3
SPAN:2901	Diversity and Cultures in Spain	3
SPAN:3205	Spanish Health Narratives	3
SPAN:3215	Medellin	3
SPAN:3225	Latin American Women Writers	3
SPAN:3230	Modern Mexico	3
SPAN:3240	Mexico City	3
SPAN:3250	Buenos Aires	3
SPAN:3290	Topics in Cinema and Society	3
SPAN:3310	Spanish American Short Story	3
SPAN:3320	Spanish American Poetry	3
SPAN:3350	Contemporary Spanish American Literature	3
SPAN:3370	Topics in Literatures and Cultures	3
SPAN:3500	Topics in Culture of the Hispanic World	3
SPAN:3520	Introduction to Film Studies	3
SPAN:3600	Cultures of Spain	3
SPAN:3610	Hispanic Institute: Culture	3
SPAN:3620	Madrid	3
SPAN:3630	Spanish Youth Culture	3
SPAN:3650	Fitness Culture in Spain	3
SPAN:3750	Literature in the Time of Cervantes	3
SPAN:3790	Hispanic Institute: Literature	3
SPAN:3820	Modern and Contemporary Spanish Literature	3
SPAN:3840	Contemporary Spanish Short Story	3
SPAN:4330	Colonial Spanish American Literature	3
SPAN:4390	Topics in Spanish American Literature	3
SPAN:4650	Don Quijote	3
SPAN:4690	Topics in Spanish Literature	3
SPAN:4805	Chicano Cinema	3
SPAN:4815	Lost Childhoods: Marginal Children of Latin America	3
SPAN:4850	Topics in Cultural Studies	3
SPAN:4880	Comic Books and Graphic Novels in the Hispanic World	3
SPAN:4900	Latin American Studies Seminar	3-4

Professional Communication

Course #	Title	Hours
At least 12 s.h. from these:		
SPAN:2000	Spanish Language Skills: Writing	4
SPAN:2010	Spanish Language Skills: Speaking	3
SPAN:2040	Spanish for Heritage Speakers	3
SPAN:2080	Business Spanish	4
SPAN:2090	Medical Spanish in Contemporary Society	4
SPAN:3000	Cultural Narratives for Heritage Speakers	3
SPAN:3010	Advanced Spanish Speaking and Writing	3
SPAN:3020	Journalistic Writing in Spanish	3
SPAN:3030	Translation Workshop: English to Spanish	3
SPAN:3050	Translation Workshop: Spanish to English	3
SPAN:3060	Introductory Workshop on Creative Writing in Spanish	3
SPAN:3080	Spanish for International Business	3
SPAN:3092	Spanish in the Community	3
SPAN:3903	Introduction to Medical Spanish-English Interpretation	1,3
SPAN:4950	Advanced Workshop on Creative Writing in Spanish	3

Study Abroad

The department participates in study abroad programs in Spain and Latin America; most of these programs offer both summer and semester or yearlong programs. The programs in Spain include the Board of Regents Hispanic Institute program in Valladolid (summer only); Cultures of Spain (Madrid, summer only), University Studies Abroad Consortium (USAC) programs in Alicante, Bilbao, Madrid, and San Sebastián; and Council on International Educational Exchange (CIEE) programs in Alcalá de Henares, Alicante, Barcelona, Madrid, Palma de Mallorca, and Seville.

The programs in Latin America include USAC programs in Chile (Santiago), Uruguay (Montevideo), and Costa Rica (Heredia, Puntarenas, and San Ramón); CIEE programs in Argentina (Buenos Aires), Chile (Santiago and Valparaíso), Dominican Republic (Santiago), and Peru (Lima). For information about other international study programs in Spanish, contact International Programs Study Abroad.

Participation in a number of different programs allows the department to offer study abroad opportunities that take into account a variety of student interests and needs. Credit earned in these or other study abroad programs may be applied toward the requirements for the Spanish major. The amount of credit that may be accepted varies according to the program.

Interested students should contact the department's study abroad advisor. Credit earned in study abroad programs other than those listed counts as transfer credit and is subject to the 15 s.h. maximum allowed for the major.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. Advanced undergraduate students preparing to earn honors may enroll in graduate courses with the permission of their advisor, the instructor, and the department chair. Ordinarily, permission is granted only to students who have completed a minimum of 30 s.h. of work for the major and whose GPA in the major is 3.75 or higher.

Students must have a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.50 in the major in order to enter the honors program and are required to maintain the same grade-point average requirements to earn honors in the major.

Students must request honors designation for one course they take for the major (3 s.h.), in consultation with the department honors advisor. They must also register for 3 s.h. in SPAN:4998 Honors: Research and Thesis. To complete SPAN:4998 successfully, students must submit an honors thesis they have written in Spanish and must present it orally to a faculty committee in a meeting conducted in Spanish.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the Spanish major.

Career Advancement

Spanish majors combine their Spanish studies with other areas to prepare for career opportunities in international business, government, travel, health, journalism, law, or communication, where knowledge of another language and other cultures is essential. They may also go on to graduate study in areas such as Spanish and Spanish American literature, Hispanic or Spanish linguistics, cultural studies, film studies, translation, or comparative literature.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: SPAN:1501 Intermediate Spanish I (or equivalent second-year, first-semester competence in Spanish).

Before the fifth semester begins: two courses in Spanish beyond SPAN:1502 Intermediate Spanish II (or equivalent second-year, second-semester competence).

Before the seventh semester begins: four more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: nine courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Spanish, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**

First Year

Fall

SPAN:1001	Elementary Spanish I [b, c]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Values and Society [d]		3
Elective course [e]		3
CSI:1600	Success at Iowa	1
	Hours	**14-15**

Spring

SPAN:1002	Elementary Spanish II [b, c]	4
SPAN:2050	Spanish in the United States [f, g, h]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Historical Perspectives [d]		3
Elective course [e]		3
	Hours	**16-17**

Second Year

Fall

SPAN:1501	Intermediate Spanish I [b, c]	4
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: Quantitative or Formal Reasoning [d]		3
Elective course [e]		3
Elective course [e]		1
Elective course [e]		1
	Hours	**15**

Spring

SPAN:1502	Intermediate Spanish II [c]	4
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
Elective course [e]		3
Elective course [e]		1
	Hours	**15**

Third Year

Fall

Major: Spanish writing core course [g, i]		3
Major: Spanish elective course [f, g]		3
GE CLAS Core: Natural Sciences without Lab [d]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**

Spring

Major: Hispanic cultures core course [g, i]		3
Major: Hispanic linguistics core course [g, i]		3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**

Fourth Year

Fall

Major: Hispanic cultures core course [g, i]		3
Major: Spanish elective course [f, g]		3
Major: Spanish elective course [f, g]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**

Spring

Major: Spanish elective course [f, g]		3
Major: Spanish elective course [f, g]		3
GE CLAS Core: Social Sciences [d]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**120-122**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b SPAN:1001, SPAN:1002, and SPAN:1501 do not count for credit toward the major. Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin major level coursework and not be required to take semesters 1-4 of the language.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Students must complete six elective courses in Spanish (prefix SPAN) numbered 2000 and above for a total of 18 s.h.; may include coursework in Spanish language skills as well as more advanced language courses that focus on specialized language functions and purposes. Students have the option to complete a 12-13 s.h. concentration by choosing four Spanish courses from one of the three approved areas: linguistics, cultures, or professional communication. These courses may be electives or fulfill major requirements.

g All required and elective courses taken for the Spanish major must be numbered 2000 or above. A minimum of 12 s.h. for the major must be numbered 3000-3999. At least 6 s.h. for the major must be numbered 4000-4999. Students may apply up to 6 s.h. of approved coursework taught in English or Portuguese toward the major. All other courses for the major must be taught in Spanish, including study abroad courses.

h Fulfills a major requirement and may fulfill a GE requirement.

i Students must complete at least 3 s.h. in Hispanic linguistics, at least 6 s.h. in Hispanic cultures, and at least 3 s.h. in writing. See the General Catalog for list of approved courses.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Latin American Studies, Minor

Requirements

The undergraduate minor in Latin American studies requires a minimum of 15 s.h. in Latin American studies (prefix LAS) approved courses including at least 12 s.h. of credit earned at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Students may count a total of 6 s.h. earned for majors, certificates, and other minors toward the Latin American studies minor. Because the minor is interdisciplinary, it may include a maximum of 6 s.h. of credit from any single department or program. Students earning the minor in Latin American studies may not earn the Certificate in Latin American Studies.

Students are strongly encouraged to take either or both of these courses for the minor.

Course #	Title	Hours
LAS:2700	Introduction to Latin American Studies	3
LAS:4700	Latin American Studies Seminar	3

Associated Courses

The following courses are approved for the Latin American studies certificate and minor. Students may petition to include other courses that have significant Latin American content, consult the department.

Course #	Title	Hours
Anthropology		
LAS:2220/ ANTH:2220	The Olmec, Maya, and Aztecs: Archaeology of Mesoamerica	3
Communication Studies		
COMM:4171	Community Media	3
Dance		
LAS:1150/ DANC:1150	Brazilian Culture and Carnival	3
DANC:2150	Brazilian Social Dance: The Samba	3
English		
LAS:3535/ ENGL:3535	Topics in Literature and Culture of the Americas (when content is Latin America)	3
ENGL:3525	Literature and Culture of the Americas	3
History		
LAS:3217/ HIST:3217/ LATS:3217	Latina/o/x Immigration	3
LAS:3501/ HIST:3501	Rebel Island: A History of Cuba	3
LAS:3502/ HIST:3502/ NAIS:3502	History of Mexico	3
LAS:3508/ GHS:3508/ HIST:3508	Disease and Health in Latin American History	3
LAS:3515/ HIST:3515	Introduction to Modern Latin America	3
Music		
LAS:2311/ MUS:2311	Music of Latin America and the Caribbean	3
MUS:3163	Iowa Steel Band	1
Political Science		
LAS:2415/ POLI:2415	Latin American Politics	3
LAS:3104/ LATS:3104/ POLI:3104	Immigration Politics	3
Portuguese		
LAS:2850/ PORT:2850/ SPAN:2850	Brazilian Narrative in Translation	3
Spanish		
LAS:2200/ SPAN:2200	Introduction to Spanish American Cultures	3
LAS:2500/ SPAN:2500	Readings in Spanish American Literature	3
LAS:2800/ SPAN:2800	Screening Latin America	3
LAS:3020/ JMC:3445/ SPAN:3020	Journalistic Writing in Spanish	3
LAS:3215/ SPAN:3215	Medellin	3
LAS:3225/ SPAN:3225	Latin American Women Writers	3
LAS:3310/ SPAN:3310	Spanish American Short Story	3
LAS:4390/ SPAN:4390	Topics in Spanish American Literature	3
LAS:4815/ SPAN:4815	Lost Childhoods: Marginal Children of Latin America	3
SPAN:1800	Writing and Writers From Latin America	3
SPAN:3060	Introductory Workshop on Creative Writing in Spanish	3
SPAN:3230	Modern Mexico	3
SPAN:3240	Mexico City	3
SPAN:3320	Spanish American Poetry	3
SPAN:3350	Contemporary Spanish American Literature	3
SPAN:4330	Colonial Spanish American Literature	3
SPAN:4950	Advanced Workshop on Creative Writing in Spanish	3

Rotating Topics

The focus of these courses changes from semester to semester. With prior approval, students may use these courses to satisfy requirements for the Latin American studies certificate or minor when the course focuses on Latin America.

Course #	Title	Hours
CINE:4618	Topics in World Cinemas	3
COMM:4157	Advanced Topics in Communication Studies	3
ENGL:4000	English Honors Literature Seminar	3
HIST:2151	Introduction to the History Major	3
SPAN:3290	Topics in Cinema and Society	3
SPAN:3370	Topics in Literatures and Cultures	3
SPAN:4850	Topics in Cultural Studies	3

Spanish, Minor

Requirements

The undergraduate minor in Spanish requires a minimum of 18 s.h. in Spanish courses, including at least 15 s.h. in Department of Spanish and Portuguese courses (prefix SPAN) at the University of Iowa numbered 2000–4998. At least 6 s.h. must be numbered 3000–4998. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Students can count coursework toward the minor from study abroad programs that earn University of Iowa resident credit. At least one course for the minor must be from the lists "Hispanic Linguistics" or "Hispanic Cultures" with the prefix SPAN numbered 2200–2901, 3100–3901, or 4100–4901. For a list of courses, see Requirements [p. 1053] in the BA in Spanish section of the catalog and view the appropriate areas.

Students can apply one University of Iowa course taught in English toward the minor, but all other courses for the minor must be taught in Spanish. For a list of courses in English, see Requirements in the BA in Spanish section of the catalog and view the "Spanish Courses Taught in English" list.

Students are not assigned an advisor for minors, but they may consult with the Spanish academic advisor. In consultation with the advisor, students may also choose to count 3 s.h. toward their Spanish minor from:

- coursework in Spanish at the University of Iowa below the major level (SPAN:1502 Intermediate Spanish II–SPAN:1800 Writing and Writers From Latin America); or
- transfer credit approved by the department, including credit from study abroad programs sponsored by other universities; or
- Advanced Placement Program (AP) Spanish Language and Culture or Spanish Literature and Culture exams with a score of 4 or higher; or
- incentive credit earned from the Furthering Language Incentive Program (FLIP).

Study Abroad

The department participates in study abroad programs in Spain and Latin America; most of these programs offer both summer and semester or yearlong programs. The programs in Spain include the Board of Regents Hispanic Institute program in Valladolid (summer only); Cultures of Spain (Madrid, summer only), University Study Abroad Consortium (USAC) programs in Alicante, Bilbao, Madrid, and San Sebastián; and Council on International Educational Exchange (CIEE) programs in Alcalá de Henares, Alicante, Barcelona, Madrid, Palma de Mallorca, and Seville.

The programs in Latin America include USAC programs in Chile (Santiago), Uruguay (Montevideo), and Costa Rica (Heredia, Puntarenas, and San Ramón); CIEE programs in Argentina (Buenos Aires), Chile (Santiago and Valparaíso), Dominican Republic (Santiago), and Peru (Lima). For information about other international study programs in Spanish, contact International Programs Study Abroad.

Participation in a number of different programs allows the department to offer study abroad opportunities that take into account a variety of student interests and needs. Credit earned in these or other study abroad programs may be applied toward the requirements for the Spanish minor. The amount of credit that may be accepted varies according to the program.

Interested students should contact the department's study abroad advisor. Credit earned in study abroad programs other than those listed counts as transfer credit and is subject to the 3 s.h. maximum allowed for the minor.

Teacher Licensure

Students who plan to use their work toward a minor in Spanish as an academic background for earning teacher licensure should contact the Office of Student Services in the College of Education about requirements.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Spanish, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in Spanish requires a minimum of 18 s.h. in Spanish courses, including at least 15 s.h. in the Department of Spanish and Portuguese courses at the University of Iowa (prefix SPAN) at the University of Iowa numbered 2000-4998. At least 6 s.h. must be numbered 3000-4998.		
Students must maintain a GPA of at least 2.00 in all courses for the minor and in all UI courses for the minor.		
Coursework in the minor may not be taken pass/nonpass.		
Students can count coursework toward the minor in study abroad programs that earn University of Iowa resident credit.		
	Hours	**0**
First Year		
Fall		
SPAN:1001	Elementary Spanish I [a, b]	4
	Hours	**4**
Spring		
SPAN:1002	Elementary Spanish II [a, b]	4
	Hours	**4**
Second Year		
Fall		
SPAN:1501	Intermediate Spanish I [a, b]	4
	Hours	**4**
Spring		
SPAN:1502	Intermediate Spanish II [b, c]	4
	Hours	**4**
Third Year		
Fall		
Minor: Spanish elective (prefix SPAN) numbered 2000-4998 [d]		3

Minor: Spanish elective (prefix SPAN) numbered 2000-4998 [d]	3
Hours	**6**
Spring	
Minor: Hispanic linguistics or Hispanic cultures elective course (prefix SPAN) [d, e]	3
Hours	**3**
Fourth Year	
Fall	
Minor: Spanish elective (prefix SPAN) numbered 3000-4998 [d]	3
Hours	**3**
Spring	
Minor: Spanish elective (prefix SPAN) numbered 3000-4998 [d]	3
Hours	**3**
Total Hours	**31**

a This course is a prerequisite for the required minor courses.

b Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin coursework at that level and will not be required to take semesters 1-4 of the language.

c Students may choose to count 3 s.h. toward their Spanish minor from one of the following four choices: coursework below the major level (such as SPAN:1502); transfer credit approved by the department, including from study abroad programs sponsored by other universities; Advanced Placement Program (AP) Spanish Language and Culture or Literature and Culture exams with a score of 4 or higher; incentive credit earned from the Furthering Language Incentive Program (FLIP).

d Students can apply one University of Iowa course or one study abroad course (3 s.h.) taught in English toward the minor, but all other courses for the minor must be taught in Spanish. See General Catalog for list of approved courses.

e Choose a course numbered 2200-2901, 3100-3901, or 4200-4901.

Portuguese, Minor

Requirements

The undergraduate minor in Portuguese requires a minimum of 15 s.h. in Portuguese courses (prefix PORT), including 12 s.h. in University of Iowa courses numbered 2500 or above; credit earned in a University of Iowa study abroad program may also be counted toward the minor. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. A maximum of 3 s.h. of transfer credit may be applied toward the minor. Furthering Language Incentive Program (FLIP) credit may not be applied toward the minor.

Students may apply up to 3 s.h. from PORT:2500 Accelerated Intermediate Portuguese toward the minor. One 3 s.h. course taught in English in the Department of Spanish and Portuguese or one course taught in Spanish (prefix SPAN) numbered 2000 or above can be applied toward the minor, but not both. All other courses must be numbered 2500 or above. Students can identify courses taught in English by viewing the course description for each course; this restriction does not apply to PORT:3105 or PORT:4700 when they are taken with an additional semester hour in Portuguese.

All students planning to complete a minor in Portuguese are strongly encouraged to consult with Portuguese faculty advisors.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Portuguese, Minor

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate minor in Portuguese requires a minimum of 15 s.h. in Portuguese courses (prefix PORT), including 12 s.h. in University of Iowa courses numbered PORT:2500 Accelerated Intermediate Portuguese or above.		
Study Abroad: credit earned in a University of Iowa study abroad program may be counted toward the Portuguese minor.		
A maximum of 3 s.h. of transfer credit may be applied toward the Portuguese minor.		
Students must maintain a GPA of at least 2.00 in all courses for the Portuguese minor and in all UI courses for the minor.		
Coursework in the Portuguese minor may not be taken pass/nonpass.		
Furthering Language Incentive Program (FLIP) credit may not be applied toward the Portuguese minor.		
Students planning to minor in Portuguese are strongly encouraged to consult with a Portuguese faculty advisor.		
	Hours	**0**
First Year		
Fall		
PORT:2000	Accelerated Elementary Portuguese [a, b, c]	5
	Hours	**5**
Spring		
PORT:2500	Accelerated Intermediate Portuguese [c, d]	5
	Hours	**5**
Second Year		
Fall		
Minor: Portuguese course (prefix PORT) numbered 2500 or above [e]		3
	Hours	**3**
Spring		
Minor: Portuguese course (prefix PORT) numbered 2500 or above [e]		3
	Hours	**3**
Third Year		
Fall		
Minor: Portuguese course (prefix PORT) numbered 2500 or above [e]		3
	Hours	**3**
Spring		
Minor: Portuguese course (prefix PORT) numbered 2500 or above [e]		3
	Hours	**3**
	Total Hours	**22**

a This course is a prerequisite for the required minor courses.
b Alternately, students may substitute PORT:2015 for PORT:2000.
c Language level placement will be determined by placement exam score and/or oral interview. Students who place into the 5th semester level of the language will begin coursework at that level and will not be required to take semesters 1-4 of the language.
d Students may apply up to 3 s.h. from PORT:2500 toward the minor.
e One 3 s.h. course taught in English in the Department of Spanish and Portuguese or one course taught in Spanish numbered SPAN:2000 or above can be applied toward the minor, but not both. All other courses must be numbered above PORT:2500. Students can identify courses taught in English by viewing the course description for each course.

Latin American Studies, Certificate

Requirements

The undergraduate Certificate in Latin American Studies requires a minimum of 18 s.h. The 18 s.h. required for the certificate must be earned in Latin American studies approved courses (see "Associated Courses" in the Latin American studies minor "Requirements" section [p. 1059]), including at least 12 s.h. of credit earned at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in certificate courses.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary. Students earning the Certificate in Latin American Studies may not earn the minor in Latin American studies.

All students develop an individual certificate plan of study in close cooperation with a departmental advisor. In some cases, students may be able to count certificate courses toward certain GE CLAS Core [p. 22] requirements.

The Certificate in Latin American Studies requires the following coursework.

Course #	Title	Hours
LAS:2700	Introduction to Latin American Studies	3
LAS:4700	Latin American Studies Seminar	3
Spanish and Portuguese courses (prefix SPAN and PORT)		6
Additional courses (excluding Spanish and Portuguese courses)		6
Total Hours		**18**

Students who complete the required 6 s.h. of Spanish and Portuguese coursework at the University of Iowa must choose courses from the "Associated Courses" list [p. 1059] on the Latin American Studies minor catalog page.. Students may also use 6 s.h. of Spanish or Portuguese language study at any level if those hours are earned through an approved study abroad program in Latin America. Contact the department for prior approval of a study abroad program.

The required 6 s.h. of additional courses must also be chosen from the "Associated Courses" and "Latin American Studies Courses" lists under Courses in this section of the catalog. They may not include Spanish or Portuguese courses (prefix SPAN or PORT).

Study Abroad

The program highly recommends study abroad in Latin America. Students must have prior approval to apply credit from a study abroad program toward the certificate requirements; contact the Department of Spanish and Portuguese.

Career Advancement

The Certificate in Latin American Studies prepares students for a range of careers and graduate programs related to Latin America, including bilingual/bicultural education, business, government, and international work.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Latin American Studies, Certificate

Course	Title	Hours
First Year		
Spring		
LAS:2700	Introduction to Latin American Studies	3
	Hours	**3**
Second Year		
Fall		
Certificate: Spanish or Portuguese course (prefix SPAN or PORT) from the Latin American Studies Program approved list in the General Catalog, or any level Spanish/Portuguese language credit through an approved study abroad program in Latin America		3
	Hours	**3**
Spring		
Certificate: Spanish or Portuguese course (prefix SPAN or PORT) from the Latin American Studies Program approved list in the General Catalog, or any level Spanish/Portuguese language credit through an approved study abroad program in Latin America		3
	Hours	**3**
Third Year		
Fall		
Certificate: additional course from the Latin American Studies Program approved list in the General Catalog (excluding Spanish or Portuguese courses) [a]		3
	Hours	**3**
Spring		
Certificate: additional course from the Latin American Studies Program approved list in the General Catalog (excluding Spanish or Portuguese courses) [a]		3
	Hours	**3**
Fourth Year		
Spring		
LAS:4700	Latin American Studies Seminar	3
	Hours	**3**
	Total Hours	**18**

a The 18 s.h. required for the Certificate in Latin American Studies must be earned in Latin American Studies Program-approved courses and must include at least 12 s.h. of credit earned at the University of Iowa. If all other coursework is

completed at the University of Iowa, then 6 s.h. of additional courses may be satisfied through coursework completed in a pre-approved study abroad program in Latin America. Contact the LASP academic advisor for pre-approval.

Spanish, MA

For the MA program in Spanish, students choose one of two emphases: literature, which provides training in literary analysis and broad knowledge of representative works in principal areas of Spanish literature; or linguistics, which provides training in linguistic analysis and argumentation and broad knowledge of the principal subfields of Spanish linguistics.

Learning Outcomes

Students will be able to demonstrate:

- basic understanding of primary source material in three of the following distribution fields—Spanish phonology, theory and analysis; Spanish syntax, theory and analysis; applied linguistics/pedagogy history of the Spanish language; language acquisition; sociolinguistics (linguistics) or medieval literature; Spanish Renaissance and Baroque literature; 18th and 19th centuries; 20th and 21st centuries; colonial Spanish American literature; Spanish American literature; 19th-century Spanish American literature; Spanish American Literature, 1900–1960; Spanish American literature, 1960 to the present; U.S. Latina/o/x literature; Brazilian literature; Portuguese literature; or Latin American film (literature);
- basic understanding of the methodology of their field;
- skill in textual analysis;
- sustained critical thinking, writing, and speaking abilities; and
- knowledge and skills necessary to be effective instructors for courses numbered 1000–1999.

Requirements

The Master of Arts program in Spanish requires 30 s.h. of graduate credit. A maximum of 6 s.h. of graduate credit in approved courses may be transferred from other institutions toward the 30 s.h. required for the MA degree. Students must maintain a UI cumulative grade-point average of at least 2.75.

The MA in Spanish requires the following 10 courses. Students choose one of two emphasis areas: literature or linguistics.

Literature Emphasis Courses

Course #	Title	Hours
All of these:		
WLLC:5000	Teaching and Learning Languages	3
One course in Spanish linguistics numbered 4000 or above		3
Two courses in Spanish (peninsular) literature numbered 4000 or above		6
Two courses in Spanish American literature numbered 4000 or above		6
One course in literary theory		3
Three electives		9

At least eight of the literature emphasis courses must be taken in Department of Spanish and Portuguese courses numbered 5000 or above. The remaining two may be taken in Department of Spanish and Portuguese courses numbered 4000 or above or in courses offered by related departments, subject to approval by the director of graduate studies.

Linguistics Emphasis Courses

Course #	Title	Hours
All of these:		
WLLC:5000	Teaching and Learning Languages	3
One course in Spanish or Spanish American literature numbered 4000 or above		3
Two courses in syntax		6
Two courses in phonetics/phonology		6
One course in history of the Spanish language or sociolinguistics/language variation		3
One course in applied linguistics or language acquisition		3
Two electives		6

At least six of the linguistics emphasis courses must be taken in Department of Spanish and Portuguese courses numbered 5000 or above. The remaining four may be taken in Department of Spanish and Portuguese courses numbered 4000 or above or in Department of Linguistics courses (prefix LING).

Language Tool Requirement

Students must complete the equivalent of one year of college-level study of any approved second world language; Portuguese is highly recommended. They may satisfy this requirement either by examination or through courses taken at the University of Iowa or another accredited university; such coursework does not count toward the 30 s.h. required for the degree.

Examinations

The final examination includes written and oral components. The written portion consists of a two-hour examination in each of three areas; an oral examination follows, usually lasting 90 minutes. The examining committee is composed of four departmental faculty members.

Students in the literature emphasis may choose to be examined in three literature areas or in two literature areas and one linguistics area. At least one literature area must be in Spanish literature and at least one must be in Spanish American literature. If three literature areas are chosen, at least one must represent literature written before 1700 (peninsular or Spanish American).

Students in the linguistics emphasis may choose to be examined in three linguistics areas or in two linguistics areas and one literature area. At least one of the linguistics areas must be in syntax or phonology. For students in both emphases, the third examination area may be a film area.

For reading lists, contact the Department of Spanish and Portuguese.

Graduate Study Loads

Maximum course registration for all graduate students is 15 s.h. of graduate-level coursework in fall or spring semesters and 12 s.h. of graduate-level work in summer sessions. Students with one-quarter-time and one-third-time teaching assistantships are permitted to register for the maximum study loads. Students who hold one-half-time assistantships are permitted to register for a maximum of 12 s.h. in fall and spring semesters and 6 s.h. in summer sessions. Students

must have approval from the Graduate College to register for additional semester hours.

The minimum course registration is 1 s.h. for all graduate students. Students who fail to register for 36 months must apply for readmission to the Graduate College.

Admission

Applicants to the MA program should have completed the equivalent of the undergraduate Spanish major with a grade-point average of at least 3.00 in coursework for the major.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Spanish, MA

Literature Emphasis

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; maximum of 6 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
Students must complete the equivalent of one year of college-level study of any approved second world language; Portuguese is highly recommended. [d]		
	Hours	**0**
First Year		
Fall		
WLLC:5000	Teaching and Learning Languages	3
Spanish Linguistics course (SPAN prefix, numbered 4000 or above)		3
Spanish (Peninsular) Literature course (SPAN prefix, numbered 4000 or above)		3
	Hours	**9**
Spring		
Spanish (Peninsular) Literature course (SPAN prefix, numbered 4000 or above)		3
Spanish American Literature course (SPAN prefix, numbered 4000 or above)		3
Elective course		3
	Hours	**9**
Second Year		
Fall		
Spanish American Literature course (SPAN prefix, numbered 4000 or above)		3
Literary Theory course		3
Elective course		3
	Hours	**9**
Spring		
Elective course		3
Final Exam [e]		
	Hours	**3**
	Total Hours	**30**

a Two of the ten courses required for the degree may be taken in courses offered by related departments, subject to approval by the director of graduate studies.
b Work with faculty advisor to select appropriate graduate coursework.
c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
d This requirement can be satisfied either by examination or through courses taken at the University of Iowa or another accredited university; coursework does not count toward the 30 s.h. required for the degree.
e Comprehensive final exam which includes both written and oral components; see General Catalog and department website for more information.

Spanish Creative Writing, MFA

Learning Outcomes

Students will be able to demonstrate:

- skills and knowledge of Spanish creative writing practice;
- broad knowledge of the professional field of Spanish creative writing;
- understanding Spanish creative writing as a critical and reflective practice in the context of the history and critical discourse on literature written in Spanish;
- ability to independently complete a publishing-quality creative project in Spanish; and
- knowledge and skills necessary to be effective instructors for courses numbered 1000–1999.

Requirements

The Master of Fine Arts program in Spanish creative writing requires 48 s.h. of graduate credit earned over four semesters in residence at the University of Iowa. Students must maintain a UI cumulative grade-point average of at least 2.75.

Students complete courses in writing, including several workshops and other relevant coursework. They also are required to do a final public reading in the spring semester of their second year. Work toward the degree culminates in a creative thesis. They must enroll in SPAN:6210 Fiction Workshop and SPAN:6220 Poetry Workshop during each year of residence in the program. Groups of 8–12 students read and critique each other's work in these courses.

For more information, visit the Master of Fine Arts in Spanish Creative Writing website.

The MFA in Spanish creative writing requires the following coursework.

Required Courses

Course #	Title	Hours
Required Workshops		
All of these (16 s.h.):		
SPAN:6210	Fiction Workshop (taken twice for 4 s.h. each)	8
SPAN:6220	Poetry Workshop (taken twice for 4 s.h. each)	8
Additional Workshops		
12 s.h. from these:		
SPAN:6235	Film Script/Theater Workshop	4
SPAN:6241	Creative Project Development	4
SPAN:6251	Workshop on Editing a Literary e-Journal	4
SPAN:6280	Nonfiction Workshop	4
SPAN:6290	Topics in Spanish Creative Writing	4
Additional Coursework		
All of these (15 s.h.):		
Three courses offered by the Department of Spanish and Portuguese		9
Two courses offered by the Department of Spanish and Portuguese, or related areas in consultation with faculty advisor		6
Thesis		
Both of these (5 s.h.):		
SPAN:6299	Thesis: Creative Writing (taken in third semester)	2
SPAN:6299	Thesis: Creative Writing (taken in fourth semester)	3

Thesis

Students submit their graduate thesis, a manuscript of substantial length, during their last semester, and must enroll in SPAN:6299 Thesis: Creative Writing. The thesis committee is composed of at least three members: two faculty members in the Spanish creative writing program and a third Department of Spanish and Portuguese faculty member who could be part of the creative writing program or a faculty member from a related area—Center for the Book, the Creative Writing Program (Iowa Writers' Workshop), or the International Writing Program.

Graduate Study Loads

Maximum course registration for all graduate students is 15 s.h. of graduate-level coursework in fall or spring semesters and 12 s.h. of graduate-level coursework in summer sessions. Students with one-quarter-time and one-third-time teaching assistantships are permitted to register for the maximum study loads. Students who hold one-half-time assistantships are permitted to register for a maximum of 12 s.h. in fall and spring semesters and 6 s.h. in summer sessions. Students must have approval from the Graduate College to register for additional semester hours.

The minimum course registration is 2 s.h. for all graduate students. Students who fail to register for three consecutive academic sessions (including the spring, summer, and fall sessions but excluding the winter session) must apply for readmission to the Graduate College. See the Graduate College's Manual of Rules and Regulations for more information.

Admission

In order to receive full consideration for financial aid, applications to the program should be received from Oct. 1 to Jan. 15.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Spanish Creative Writing, MFA

Course	Title	Hours
Academic Career		
Any Semester		
48 s.h. must be graduate level coursework earned over four semesters in residence; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
SPAN:6210	Fiction Workshop [b]	4
SPAN:6220	Poetry Workshop [b]	4
Department elective [c]		3
	Hours	**11**
Spring		
Department elective [c]		3
Department elective [c]		3
Department elective [c]		3
Workshop elective [d]		4
	Hours	**13**
Second Year		
Fall		
SPAN:6210	Fiction Workshop [b]	4
SPAN:6220	Poetry Workshop [b]	4
SPAN:6299	Thesis: Creative Writing	2
Workshop elective [d]		4
	Hours	**14**
Spring		
SPAN:6299	Thesis: Creative Writing	3
Department elective [c]		3
Workshop elective [d]		4
Public Reading [e]		
Exam: Master's Final Exam [f]		
	Hours	**10**
	Total Hours	**48**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Taken twice for a total of 8 s.h.

c Students must complete 15 s.h. of additional elective coursework including three courses (9 s.h.) offered by the Department of Spanish and Portuguese, and two courses (6 s.h.) offered by either the Department of Spanish and Portuguese or related units in consultation with faculty advisor.

d Students must complete 12 s.h. of additional workshop courses. See the General Catalog for a list of approved courses.

e MFA students are required to do a final public reading in the spring semester of their second year.

f Submission of a graduate thesis during the last semester. See the General Catalog and department website for more information.

Spanish, PhD

The PhD program in Spanish offers courses in the literature of the Spanish-speaking world and Spanish linguistics. In the literature program, students may take courses in Spanish American or peninsular literature, culture, and cinema. The Department of Spanish and Portuguese also offers a creative track in literature for students who have graduated with an MFA in creative writing. In the Spanish linguistics program, students take courses in Spanish syntax, phonology, language acquisition, and sociolinguistics.

Learning Outcomes

Students will be able to:

- demonstrate understanding and application of research methods and methodological knowledge;
- demonstrate understanding of and ability to analyze theoretical concepts and research in their field of study;
- express ideas effectively in professional academic settings in written and spoken communication in English and Spanish;
- continue to demonstrate knowledge and skills necessary to be effective teaching assistants for courses numbered 1000–1999 and beyond;
- plan, conduct, report on, and disseminate original research; and
- develop the critical research and writing skills necessary to publish peer-reviewed articles.

Requirements

The Doctor of Philosophy program in Spanish requires a total of at least 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average of at least 3.00.

In this research-oriented degree, PhD students choose from two different tracks: literatures/cultures and Spanish linguistics. The literatures/cultures track trains students in textual analysis and literary history, criticism, and theory. The linguistics track provides training in linguistic analysis and theory. All courses taken to fulfill the semester hour requirement for the degree must be taken on an A–F graded basis; no graduate credit is awarded for a grade lower than C-minus.

Both tracks require a specified number of semester hours of coursework, of which up to, but not more than, 30 s.h. (10 courses) may be counted from the MA in Spanish or the MFA in Spanish creative writing at the University of Iowa or elsewhere, as approved by the director of graduate studies. The PhD also requires 3–15 s.h. for the thesis, SPAN:6999 Thesis, and the successful completion and defense of a dissertation representing original research or creative work.

No credit is awarded for coursework completed after the MA is granted and prior to entrance into the PhD program. If, in the course of doctoral study, the advisory committee recommends a student take coursework at another institution, the student may petition the director of graduate studies well in advance of undertaking the coursework, for approval of up to 9 s.h. of transfer credit. At least 39 s.h. of the 72 s.h. required for the degree must be in coursework taken at the University of Iowa.

Students who hold a teaching assistantship in the department are required to take WLLC:5000 Teaching and Learning Languages, a course in world language teaching methods. A student who has not earned the MA in Spanish or the MFA in Spanish creative writing at the University of Iowa may request that this requirement be waived because of previous coursework in world language teaching methods. The decision to waive the requirement is made by the Spanish CLAS Core director; no transfer credit is awarded toward the 72 s.h. required for the degree.

The Doctor of Philosophy in Spanish requires the following coursework.

Literatures/Cultures Track

Literatures/Cultures Track Courses

Students must complete at least 36 s.h. (12 courses) beyond the master's degree (or 22 courses beyond the bachelor's degree). The following courses are required; courses taken for the MA may be used to meet part of this requirement.

Course #	Title	Hours
All of these:		
SPAN:5002	Pedagogical Practicum	2
SPAN:6999	Thesis	3
Three courses in Spanish American literature or culture; at least one course must be in pre-1700 literature		9
Three courses in Spanish literature or culture; at least one course must be in pre-1700 literature		9
Six courses chosen in conjunction with advisor (students approved for a creative writing dissertation must take at least three graduate courses in Spanish creative writing, and students approved for a literary or cultural studies dissertation must take at least three graduate courses in Spanish or Spanish American literature or culture)		18

The specific plan of study for students, tailored to their area of emphasis, must be approved by their advisory committee by the end of the first semester in the PhD program. Coursework must be numbered between 5000 and 7000.

Students are encouraged to complete a graduate certificate. University of Iowa graduate certificates that complement the literatures/cultures track include the certificates in Book Arts and Book Studies [p. 1727]; College Teaching [p. 1732]; Gender, Women's, and Sexuality Studies [p. 486]; Literary Translation [p. 761]; Online Teaching [p. 1397]; and Public Digital Humanities. [p. 1803]

Literatures/Cultures Track Language Tool Requirement

Students in this track must complete the equivalent of three years of college-level study in one language.

Students who plan to write dissertations on topics in Spanish or Spanish American literature before 1700 are strongly encouraged to select Latin, Arabic, or an Amerindian language to satisfy this requirement; they should consult specialists in their field to determine which language is most appropriate. Students may take more than two languages if their coursework permits.

Language tool coursework below the third-year college level does not count toward the 72 s.h. required for the degree. Courses taken to fulfill the language tool requirements may be taken graded S/U, P/N, or by audit. If the language tool requirements are satisfied by examination, the exam results must be documented in a student's file.

Spanish Linguistics Track

Spanish Linguistics Track Courses

Students must earn at least 27 s.h. (9 courses) beyond the master's degree (or 19 courses beyond the bachelor's degree). The following courses are required; courses taken for the MA may be used to meet part of this requirement.

Course #	Title	Hours
All of these:		
SPAN:6110	Spanish Phonology	3
SPAN:6120	Spanish Syntax	3
SPAN:6150	Topics in Spanish Language Acquisition	3
SPAN:6999	Thesis	6
LING:3005	Articulatory and Acoustic Phonetics	3
LING:5010	Introduction to Syntax	3
LING:5020	Introduction to Phonology	3
LING:6010	Syntactic Theory	3
One additional course in the dissertation research area		3
One course in historical linguistics, sociolinguistics/language variation, or language acquisition/psycholinguistics		3
One Spanish linguistics seminar numbered 7000 or above		3
One of these:		
SPAN:6190	Topics in Comparative Romance Linguistics	3
LING:6050	Language Universals Linguistic Typology	3

The additional course in the dissertation research area (phonology, syntax, language acquisition, language variation) must be taken in the Department of Spanish and Portuguese or the Department of Linguistics.

The specific plan of study for students, tailored to their chosen area of emphasis, must be approved by their advisory committee by the end of the first semester in the PhD program. Coursework in Spanish (taken after the MA) must be numbered 6000 or above, except for some courses offered by the Department of Linguistics and the required third-year-level course in Portuguese (see "Spanish Linguistics Track Language Tool and Additional Requirements").

Spanish Linguistics Track Language Tool and Additional Requirements

Students in this track must complete the equivalent of three years of college-level study of Portuguese and the equivalent of one year of college-level study in each of two other languages. For students specializing in historical linguistics, one of those two languages must be Latin.

Students may satisfy the language tool requirement by examination or by coursework at the University of Iowa or at another accredited university. Courses taken to fulfill the language tool requirements may be taken on graded S/U, P/N, or by audit. If the language tool requirements are satisfied by examination, the exam results must be documented in the student's file. The language tool coursework does not count toward the 57 s.h. of pre-thesis coursework required for the degree, except for the third-year-level coursework in Portuguese, which may be counted with the faculty advisor's approval if a student completed the course on an A–F graded basis.

Students must also write two extended research papers and give two colloquium presentations based on these papers. The first paper must be in an area distinct from the intended dissertation research; it must be approved by a student's advisory committee by the end of fall semester of the second year of PhD coursework in order for the student to continue in the track. The second paper must be in the dissertation research area, of publishable quality, and approved by the student's advisory committee no later than the beginning of the semester in which the student takes the comprehensive exam.

Timeline: Post-MA/MFA

By the end of the fourth semester of enrollment, students should have completed all required coursework. They typically present their PhD comprehensive examination at the beginning of their fifth semester of enrollment. Students should develop the various parts of the comprehensive portfolio in conjunction with their PhD coursework. The two broad area reading lists can be developed while taking graduate-level courses in the department, and their article should be based on a research paper written in a graduate course in the department. Students are encouraged to complete their comprehensive examinations before Oct. 15 (in the fall semester) or March 15 (in the spring semester) and present and defend their dissertation prospectus before the end of the same semester. Some grants require students to have completed their doctoral examination and prospectus defense before they apply, so it is recommended that students finish the examinations early in the semester.

Comprehensive Examinations

The purpose of the comprehensive examination is to determine whether students have gained sufficient breadth and depth of research knowledge in Spanish literatures or linguistics to enter the profession as a teacher-scholar. The examining committee is composed of no fewer than four members of the graduate faculty. See the Manual of Rules and Regulations of the Graduate College for comprehensive exam policies.

Graduate students who plan to take the examination must file the departmental "Notification of Intent to Take MA or PhD Exams" form with the graduate student academic coordinator by the third week of the relevant semester; see the Graduate Program Manual on the Department of Spanish and Portuguese website. Students presenting the comprehensive exams cannot have more than one coursework requirement left to be completed, including courses for the fulfillment of the language tool requirements, after the semester in which the exams are presented. Generally, students either have finished their coursework requirements prior to presenting the comprehensive exams or they are completing them in the semester of their exams.

As with advisory committees, the student's advisor contacts the relevant faculty members to request their participation in the examining committee and then submits the proposed committee for approval by the director of graduate studies and the chair of the Department of Spanish and Portuguese. These individuals consult with the advisor as part of the approval process. This should be done as early as possible during the semester preceding the examinations, but not later than fifteen weeks prior to the start of examinations.

The research essay and position paper should be given to the Comprehensive Examination Committee at least one month before the oral exam, after approval by the faculty supervisors. The two written examinations are typically scheduled over a two-week period and must be finished at least one week before the oral exam. Between the time of the written exams and the oral exam, examining faculty individually evaluate and discuss the exams with the student. The information provided in the evaluation guides the student in final preparation for the oral component of the examination. However, it does not include specific questions to be asked in the oral exam nor does it limit the questions that may be asked.

The oral examination provides the opportunity for further development of the written examinations as well as a review of the position paper and research essay. At the end of the oral exam, the student is asked to leave the exam room in order for the committee to determine its evaluation. The student is then invited to return to the room to learn of the committee's evaluation, including an appraisal of specific areas of strength and/or weakness and recommendations for future academic work. The official evaluation of the exam is reported to the Graduate College as satisfactory, reservation, or unsatisfactory. If reservations are imposed, the examination committee must send a letter to the student specifying the reservations to be met and the deadline for their removal; copies are sent to the student's file, the director of graduate studies, and the Graduate College.

Students must be registered during the semester in which they take their comprehensive examinations. If all coursework has been completed prior to that semester, then students should register for 2 s.h. in SPAN:6998 Special Work with their advisor, on a satisfactory/unsatisfactory basis. Students may not register for SPAN:6999 Thesis during the semester of their comprehensive examination.

Literatures/Cultures Track Comprehensive Exams

The comprehensive examination has written and oral components. The written component includes four elements: two broad areas, one specialized area, and one article, each under the supervision of a committee member.

The elements of the written component are as follows.

- Two 2-hour written examinations, one for each of two broad areas of literary history, one Spanish and one Spanish American. The broad area lists should consist of approximately 35 readings. Selection of the two broad areas should be tied to a student's PhD coursework, particularly the courses taken after admission to the PhD program. The lists must be developed in consultation with the advisory committee and approved by the broad area supervisors before they are submitted to the rest of the committee for final approval. The written examination may include questions of textual analysis and aesthetics as well as historical periodization and literary criticism.
- One position paper in a specialized area related to the thesis. The specialized area list should include approximately 10–15 works that define the area. The narrow area is examined via a 10–15 page position paper that is a critical synthesis, particularly of the secondary readings. The list and position paper should be written in consultation with a faculty supervisor and must be approved by that supervisor at least one month before the date of the exam. The position paper is expected to form part of the introduction to the dissertation.
- One research essay. This part of the examination is a 20–25 page research essay. Typically, this essay is a substantially revised version of a paper written in one of the required graduate courses. The essay should be revised in consultation with the professor who taught the course for which the paper was originally written and with a second member of the exam committee. The research essay must be approved by both faculty members at least one month before the date of the exam.
- One oral examination. The oral examination lasts for approximately two hours. Approximately one-half of the oral exam is devoted to an examination of the two broad areas and the other half examines the research essay and position paper.

Spanish Linguistics Track Comprehensive Exams

The comprehensive exam includes written and oral components. The written component includes two weekend take-home exams consisting of linguistic analysis in two subdisciplines distinct from the subdiscipline of the intended dissertation research. The two-hour oral exam consists of one hour devoted to the discussion of the second research paper and the other hour devoted to follow-up questions on the written exams.

Dissertation

After the comprehensive examination is completed, a student submits a dissertation prospectus for the dissertation committee's approval. The dissertation committee is composed of no fewer than four graduate faculty members.

The dissertation, complete and in final form, must be submitted in the required electronic format to the Graduate College office by the deadline date of the session in which the degree is to be conferred. The approved dissertation in electronic format must be deposited at the office by the appropriate deadline in a student's graduation semester.

Students must adhere to the Graduate College regulations regarding the preparation of the dissertation copy; consult the Graduate College. For information on the dissertation and final examinations, see the Manual of Rules and Regulations on the Graduate College website.

Literatures/Cultures Track Dissertation

Dissertations can present a research project within literary/cultural history and/or theory in the form of a monographic study; present a research project within literary/cultural history and/or theory in the form of a set of journal article-style research essays, accompanied by an in-depth theoretical and critical reflection of 20–30 pages in length; offer a major creative project, accompanied by an in-depth theoretical and critical reflection; a critical edition of a literary work, accompanied by an in-depth theoretical and critical reflection; a translation of a literary work, accompanied by an in-depth theoretical and critical reflection. Theoretical and critical reflections for the major creative project, a critical edition of literary work, or the translation of a literary work options may be no less than 50 pages in length.

Dissertation Prospectus

The first step in the dissertation process is the submission and defense of the dissertation prospectus. The prospectus consists of these sections: a narrative that describes in detail the dissertation, the work done in the field previously, the research methodology and/or theoretical or creative approach, and a preliminary description of chapter divisions;

a preliminary bibliography; and a timetable for completion of the research and writing of the dissertation. Typically, the entire prospectus is 35–40 pages long.

Ideally, the prospectus should be approved by the dissertation committee by the end of the semester in which the comprehensive examination was successfully completed. In order to be considered to be making adequate progress toward the degree, a student should turn in the prospectus no later than the fourth week of the semester following the comprehensive exam.

Prospectus Defense

After the dissertation director has given preliminary approval of the prospectus, that faculty member schedules the prospectus defense. The defense is a meeting of the dissertation committee at which the student gives a brief oral presentation of the prospectus and answers questions that the committee members may have; the committee members should receive the written prospectus at least two weeks prior to the defense meeting. At this time, two members of the dissertation committee, in addition to the director, agree to read the dissertation on a chapter-by-chapter basis. Once approved, a copy of the prospectus and the departmental prospectus approval form are given to the graduate student academic coordinator by the dissertation director and placed in the student's file.

Additional Requirements

Independent Study

Only 3 s.h. earned for post-MA independent study may be applied toward the 72 s.h. required for the degree; the department discourages students from including independent study as a part of their coursework. Exceptions are made under extraordinary circumstances but must be preapproved by the director of graduate studies. For consideration of a request for independent study credit, students must complete the Department of Spanish and Portuguese Independent Study Contract for Graduate Students form obtained from the director of graduate studies, then secure the approval of the director of graduate studies and the chair of the department, and submit a copy of the form to the graduate student academic coordinator before the first day of the semester. Only students in good academic standing may enroll in an independent study course.

Graduate Study Loads

Maximum course registration for all graduate students is 15 s.h. of graduate-level coursework in fall or spring semesters and 12 s.h. of graduate-level work in summer sessions. Students with one-quarter-time and one-third-time teaching assistantships are permitted to register for the maximum study loads. Students who hold one-half-time assistantships are permitted to register for a maximum of 12 s.h. in fall and spring semesters and 6 s.h. in summer sessions. Students must have approval from the Graduate College to register for additional semester hours.

The minimum course registration is 1 s.h. for all graduate students. Doctoral students who have passed the comprehensive examinations typically register for 1 s.h. of thesis work to satisfy the minimum registration requirement. Students who fail to register for 36 months must apply for readmission to the Graduate College.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Spanish, PhD

Literatures/Cultures Track

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; maximum of 30 s.h. of graduate transfer credits taken for the master's from an accredited institution allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Students in the Literatures/Cultures track must possess the equivalent of three years of college-level study in one language.		
Completion of a graduate certificate that complements the Literatures/Cultures track is strongly encouraged. [c]		
	Hours	**0**
First Year		
Fall		
Spanish American literature course (pre-1700) [d]		3
Spanish literature course (pre-1700) [d]		3
Elective course [e]		3
	Hours	**9**
Spring		
Spanish American literature or culture course [d]		3
Spanish literature or culture course [d]		3
WLLC:5000	Teaching and Learning Languages [e]	3
	Hours	**9**
Second Year		
Fall		
Spanish American literature or culture course [d]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Spring		
Spanish literature or culture course [d]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**9**
Third Year		
Fall		
SPAN:5002	Pedagogical Practicum	2

Exam: Doctoral Comprehensive Exam [f]		
	Hours	**2**
Spring		
Dissertation Prospectus		
SPAN:6999	Thesis [g]	2
	Hours	**2**
Fourth Year		
Fall		
SPAN:6999	Thesis [g]	1
	Hours	**1**
Spring		
SPAN:6999	Thesis [g]	1
Exam: Doctoral Final Exam [h]		
	Hours	**1**
	Total Hours	**42**

a Students entering with fewer that 30 s.h. of coursework from the master's degree must work with their faculty advisor to complete the needed appropriate graduate coursework.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c Possible options include the certificates in Book Arts and Book Studies; College Teaching; Gender, Women's, and Sexuality Studies; Literary Translation; Online Teaching; and Public Digital Humanities. More information is included in the General Catalog and on department website.
d Work with faculty advisor to select appropriate graduate coursework.
e Complete six courses (at least 18 s.h.) chosen in consultation with faculty advisor. Depending on dissertation approval, students must take three courses in either Spanish creative writing, or in Spanish or Spanish American literature or culture.
f Includes both written and oral components.
g Complete at least 3 s.h. of thesis credit.
h Dissertation defense.

Statistics and Actuarial Science

Chair

- Kung-Sik Chan

Director of Undergraduate Studies, Actuarial Science

- Elias S. Shiu

Director of Undergraduate Studies, Data Science and Statistics

- Sanvesh Srivastava

Director of Graduate Studies

- Boxiang Wang

Undergraduate majors: actuarial science (BS); statistics (BS)

Undergraduate minor: statistics

Graduate degrees: MS in actuarial science; MS in statistics; PhD in statistics

Faculty: https://stat.uiowa.edu/people

Website: https://stat.uiowa.edu/

The Department of Statistics and Actuarial Science offers undergraduate majors, an undergraduate minor, and graduate degree programs. They partner with other departments to offer the BS in data science and the undergraduate Certificate in Social Science Analytics. The department offers courses that any undergraduate student may use to satisfy the GE CLAS Core [p. 22] Quantitative or Formal Reasoning requirement.

Probability and statistics are important scientific disciplines essential to all fields of study that rely on information obtained from data. In a world bombarded with numerical information, informed decisions rely on the ability to separate fact from fiction by applying valid statistical analyses and visualizations. Statisticians can provide crucial guidance in determining what information is reliable and which predictions may be trusted. They often help search for clues to the solution of a scientific mystery and sometimes keep investigators from being misled by false impressions.

The work of a statistician may range from the theoretical (developing new methodologies and statistical theory) to the applied (working with scientists and decision-makers to collect, analyze, and interpret data). Regardless of the areas in which they work, statisticians need strong mathematical, computational, and communication skills. Because uncertainty and data arise in many settings, statisticians have the opportunity to work on a variety of projects in industry, education, government, and research. Thousands of statisticians work in medicine, law, agriculture, business, finance, public policy, marketing, manufacturing, engineering, and other fields in the social and natural sciences. The diversity of applications is an exciting aspect of the field and is one reason why the demand for well-trained statisticians continues to be strong.

An actuary is a business executive, professionally trained in the mathematical sciences. Actuaries specialize in the evaluation of financial risk—most often in the context of life, health, and casualty insurance, where they design, analyze, and refine varied programs to meet the insurance needs of society. Many actuaries are employed by insurance companies, where they have responsibility for all phases of the development and maintenance of their company's products. They have considerable influence on the financial soundness of their company through work in pricing insurance policies and compiling data for financial statements.

Many actuaries are employed as consultants. Their actuarial services are used by smaller insurance companies and individual employers who need actuarial guidance in establishing insurance and retirement programs for their employees. A growing number of actuaries work in the areas of asset/liability management and risk management. Some of these actuaries are employed by investment and consulting firms; others are employed by insurance companies.

Actuaries have been called financial architects and social mathematicians because their combined analytical and business skills help solve a growing variety of financial and social problems. The actuarial profession is a demanding yet rewarding career choice.

Related Major and Certificate

Major: Data Science

The BS in data science produces graduates with the sophisticated analytical and computational skills required to thrive in a quantitative world where new problems are encountered at an ever-increasing rate. The major emphasizes the statistical/probabilistic and algorithmic methods that underlie the preparation, analysis, and communication of complex data. With a focus on technical foundations, the data science program promotes skills useful for creating and implementing new or special-purpose analysis and visualization tools. It also promotes a fundamental understanding of how to best handle uncertainty when making data-driven decisions.

Statistics majors may not earn a major in data science. The Department of Statistics and Actuarial Science and the Department of Computer Science collaborate to offer the major in data science. The BS in data science is administered by the Department of Statistics and Actuarial Science; see the BS in data science [p. 350] in the catalog.

Certificate: Social Science Analytics

The growth of big data and informatics calls for a new set of skills for social science students and an increased understanding of the logic of data collection and analysis. The certificate focuses on the application side of data analysis. It allows students to focus on the specific research methods and data-driven quantitative skills that are most effective for understanding an increasingly complicated social-political world. The certificate offers an opportunity for interdisciplinary training on how data can be used to address important questions in the social sciences. The Department of Statistics and Actuarial Science collaborates with the departments of Political Science and Sociology and Criminology and the School of Earth, Environment, and Sustainability to offer the undergraduate program in social science analytics; see the Certificate in Social Science Analytics [p. 996] in the catalog.

Programs

Undergraduate Programs of Study

Majors

- Major in Statistics (Bachelor of Science) [p. 1083]
- Major in Actuarial Science (Bachelor of Science) [p. 1087]

Minor

- Minor in Statistics [p. 1090]

Graduate Programs of Study

- Master of Science in Statistics [p. 1091]
- Master of Science in Actuarial Science [p. 1094]
- Doctor of Philosophy in Statistics [p. 1096]

Facilities

The Department of Statistics and Actuarial Science is housed in Schaeffer Hall, adjacent to the Old Capitol, a National Historic Landmark and the center of campus. The department operates two computer labs in Schaeffer Hall. One, which also is used as an electronic classroom, contains 28 Windows PCs. The second houses 18 high-end UNIX workstations. Students use these labs for classwork and research.

Courses

- Statistics Courses [p. 1076]
- Actuarial Science Courses [p. 1080]
- Data Science Courses [p. 1080]

Undergraduate Duplication and Regression Policy

Data science majors may not earn a major or minor in computer science or statistics, a major in computer science and engineering, or the Certificate in Social Science Analytics. Likewise, statistics majors may not earn a major in data science.

Undergraduate students should be aware of the duplication and regression policies concerning the following courses.

Students may earn credit for only two of these: STAT:1010 Statistics and Society, STAT:1015/DATA:1015 Introduction to Data Science, STAT:1020/PSQF:1020 Elementary Statistics and Inference, STAT:1030 Statistics for Business, and STAT:2010 Statistical Methods and Computing.

Credit for STAT:1010 Statistics and Society may be earned only if the course is taken before any of these: STAT:1015/DATA:1015 Introduction to Data Science, STAT:1020/PSQF:1020 Elementary Statistics and Inference, STAT:1030 Statistics for Business, and STAT:2010 Statistical Methods and Computing.

Students may receive credit for only one course from each of these pairs: STAT:2010 Statistical Methods and Computing and STAT:4200/IGPI:4200 Statistical Methods and Computing; STAT:3100/IGPI:3100 Introduction to Mathematical Statistics I and STAT:3120/DATA:3120/IGPI:3120 Probability and Statistics; STAT:3510/IGPI:3510 Biostatistics and STAT:4143/PSQF:4143 Introduction to Statistical Methods; STAT:4100 Statistical Inference I and STAT:5100 Statistical Inference I; and STAT:4101 Statistical Inference II and STAT:5101 Statistical Inference II.

Students may not take STAT:3101/IGPI:3101 Introduction to Mathematical Statistics II and STAT:4101/IGPI:4101 Statistical Inference II at the same time and get credit for both (nor go back to STAT:3101/IGPI:3101 after taking STAT:4101/IGPI:4101).

Statistics Courses

STAT:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

STAT:1010 Statistics and Society **3 s.h.**
Statistical ideas and their relevance to public policy, business, humanities, and the social, health, and physical sciences; focus on critical approach to statistical evidence. Requirements: one year of high school algebra or MATH:0100. GE: Quantitative or Formal Reasoning.

STAT:1015 Introduction to Data Science **3 s.h.**
In today's world, massive amounts of data are increasingly collected and leveraged for knowledge discovery, policy assessment, and decision-making across many fields, including business, natural sciences, social sciences, and humanities. Topics covered include data collection, visualization, and data wrangling; basics of probability and statistical inference; fundamentals of data learning, including regression, classification, prediction, and cross-validation; computing, learning, and reporting in the R environment; and literate programming and reproducible research. Requirements: one year of high school algebra or MATH:0100. GE: Quantitative or Formal Reasoning. Same as DATA:1015.

STAT:1020 Elementary Statistics and Inference **3 s.h.**
Graphing techniques for presenting data, descriptive statistics, correlation, regression, prediction, logic of statistical inference, elementary probability models, estimation and tests of significance. Requirements: one year of high school algebra or MATH:0100. GE: Quantitative or Formal Reasoning. Same as PSQF:1020.

STAT:1030 Statistics for Business **4 s.h.**
Descriptive statistics, graphical presentation, elementary probability, estimation and testing, regression, correlation; statistical computer packages. GE: Quantitative or Formal Reasoning.

STAT:2010 Statistical Methods and Computing **3 s.h.**
Methods of data description and analysis using SAS; descriptive statistics, graphical presentation, estimation, hypothesis testing, sample size, power; emphasis on learning statistical methods and concepts through hands-on experience with real data. Recommendations: undergraduate standing. GE: Quantitative or Formal Reasoning.

STAT:2020 Probability and Statistics for the Engineering and Physical Sciences **3 s.h.**
Probability, random variables, important discrete and continuous distributions, joint distributions, transformations of random variables, descriptive statistics, point and interval estimation, tests of hypotheses, regression. Prerequisites: MATH:1560 or MATH:1860.

STAT:3100 Introduction to Mathematical Statistics I 4 s.h.
Review of mathematical basics for mathematical statistics, descriptive statistics, probability, conditional probability, discrete and continuous univariate and multivariate distributions, and sampling distributions. Prerequisites: MATH:1860 or MATH:1560. Same as IGPI:3100.

STAT:3101 Introduction to Mathematical Statistics II 3 s.h.
Point and interval estimation, testing statistical hypotheses, simple regression, nonparametric methods. Prerequisites: STAT:3100. Same as IGPI:3101.

STAT:3120 Probability and Statistics 4 s.h.
Models, discrete and continuous random variables and their distributions, estimation of parameters, testing statistical hypotheses. Prerequisites: MATH:1560 or MATH:1860. Same as DATA:3120, IGPI:3120.

STAT:3200 Applied Linear Regression 3 s.h.
Regression analysis with focus on applications; model formulation, checking, and selection; interpretation and presentation of analysis results; simple and multiple linear regression; logistic regression; ANOVA; polynomial regression; tree models; bootstrapping; hands-on data analysis with computer software. Prerequisites: STAT:2020 or STAT:2010 or STAT:3120. Same as DATA:3200, IGPI:3200, ISE:3760.

STAT:3210 Experimental Design and Analysis 3 s.h.
Single- and multifactor experiments; analysis of variance; multiple comparisons; contrasts; diagnostics; fixed, random, and mixed effects models; designs with blocking and/or nesting; two-level factorials and fractions thereof; use of statistical computing packages. Prerequisites: STAT:3200.

STAT:3510 Biostatistics 3 s.h.
Statistical concepts and methods for the biological sciences; descriptive statistics, elementary probability, sampling distributions, confidence intervals, parametric and nonparametric methods, one-way ANOVA, correlation and regression, categorical data. Requirements: MATH:0100 or MATH:1005 or ALEKS score of 30 or higher. Same as IGPI:3510.

STAT:3620 Quality Control 3 s.h.
Basic techniques of statistical quality control; application of control charts for process control variables; design of inspection plans and industrial experimentation; modern management aspects of quality assurance systems. Offered fall semesters. Prerequisites: STAT:2020 or BAIS:9100 or (STAT:3100 and STAT:3101 and STAT:3200). Same as CEE:3142, ISE:3600.

STAT:4100 Statistical Inference I 3 s.h.
Review of probability, distribution theory (multiple random variables, moment-generating functions, transformations, conditional distributions), sampling distributions, order statistics, convergence concepts, generating random samples. Prerequisites: MATH:2850 and STAT:3101. Recommendations: undergraduate standing. Same as IGPI:4100.

STAT:4101 Statistical Inference II 3 s.h.
Continuation of STAT:4100; principles of data reduction, point estimation theory (MLE, Bayes, UMVU), hypothesis testing, interval estimation, decision theory, asymptotic evaluations. Prerequisites: STAT:4100. Recommendations: undergraduate standing. Same as IGPI:4101.

STAT:4143 Introduction to Statistical Methods 3 s.h.
Analysis, interpretation of research data; descriptive statistics; introduction to probability, sampling theory, statistical inference (binomial, normal distribution, t-distribution models); linear correlation, regression. Same as PSQF:4143.

STAT:4200 Statistical Methods and Computing 3 s.h.
Methods of data description and analysis using SAS; descriptive statistics, graphical presentation, estimation, hypothesis testing, sample size, power; emphasis on learning statistical methods and concepts through hands-on experience with real data. Recommendations: graduate standing in non-statistics or less quantitative major. Same as IGPI:4200.

STAT:4520 Bayesian Statistics 3 s.h.
Bayesian statistical analysis, with focus on applications; Bayesian and frequentist methods compared; Bayesian model specification, choice of priors, computational methods; hands-on Bayesian data analysis using appropriate software; interpretation and presentation of analysis results. Prerequisites: STAT:3200 and (STAT:3101 or STAT:4101 or STAT:3120). Same as IGPI:4522, PSQF:4520.

STAT:4540 Statistical Learning 3 s.h.
Introduction to supervised and unsupervised statistical learning, with a focus on regression, classification, and clustering; methods will be applied to real data using appropriate software; supervised learning topics include linear and nonlinear (e.g., logistic) regression, linear discriminant analysis, cross-validation, bootstrapping, model selection, and regularization methods (e.g., ridge and lasso); generalized additive and spline models, tree-based methods, random forests and boosting, and support-vector machines; unsupervised learning topics include principal components and clustering. Requirements: an introductory statistics course and a regression course. Recommendations: prior exposure to programming and/or software, such as R, SAS, and Matlab. Same as BAIS:4540, DATA:4540, IGPI:4540.

STAT:4560 Statistics for Risk Modeling I 3 s.h.
Simple linear regression, multiple linear regression, model diagnostics, linear models from a statistical learning perspective, generalized linear models, and implementations of these models on real data. Prerequisites: STAT:4101 with a minimum grade of C+ or STAT:5101 with a minimum grade of C+.

STAT:4561 Statistics for Risk Modeling II 3 s.h.
Regression-based time series models, decision trees, principal components analysis, cluster analysis, and implementations of these analytic techniques on real data. Prerequisites: STAT:4560 with a minimum grade of C+.

STAT:4580 Data Visualization and Data Technologies 3 s.h.
Introduction to common techniques for visualizing univariate and multivariate data, data summaries, and modeling results; how to create and interpret these visualizations and assess effectiveness of different visualizations based on an understanding of human perception and statistical thinking; data technologies for obtaining and preparing data for visualization and further analysis; students learn how to present results in written reports and use version control to manage their work. Requirements: an introductory statistics course and a regression course. Recommendations: prior exposure to basic use of statistical programming software (e.g., R or SAS) as obtained from a regression course strongly recommended. Same as DATA:4580, IGPI:4580.

STAT:4600 Causal Inference for Data Science 3 s.h.
Introduce methods for reasoning about causes, effects, and bias when analyzing experimental and observational data. Topics include the potential outcomes framework, counterfactuals, confounding, and missing data; the identification and estimation of causal effects via propensity score methods, marginal structural models, instrumental variables, and directed acyclic graphs; as well as applications of machine learning and Bayesian methods to causal inference. Prerequisites: (DATA:3120 or STAT:3120) and (DATA:3200 or STAT:3200). Requirements: familiarity with the R programming. Same as DATA:4600.

STAT:4740 Large Data Analysis 3 s.h.
Current areas that deal with problem of big data; techniques from computer science, mathematics, statistics; high performance and parallel computing, matrix techniques, cluster analysis, visualization; variety of applications including Google PageRank, seismology, Netflix-type problems, weather forecasting; fusion of data with simulation; projects. Prerequisites: (CS:1210 with a minimum grade of C- or ENGR:2730 with a minimum grade of C-) and (MATH:3800 or CS:3700) and (STAT:3200 or IE:3760 or IGPI:3200). Same as CS:4740, IGPI:4740, MATH:4740.

STAT:4750 Probabilistic Statistical Learning 3 s.h.
Essential machine learning and statistics ideas that are critical in analyzing modern complex and large data; supervised learning topics include linear models, deep neural networks, and nonparametric models; essential topics include nonlinear dimension reduction, clustering, and recommender systems. Prerequisites: (CS:1210 with a minimum grade of C- or ENGR:2730 with a minimum grade of C-) and (MATH:2700 or MATH:2550) and (STAT:2010 or STAT:2020 or STAT:4200) and STAT:4540. Same as DATA:4750.

STAT:5090 ALPHA Seminar 1 s.h.
Resources available to students, program requirements, tips for academic success, professional statistical organizations, library and career center resources, statistical computing, scientific document preparation, history of statistics. Requirements: graduate standing in statistics.

STAT:5091 Statistics Career Seminar 1 s.h.
Practical, hands-on approach to demystify the job search process and build essential career-readiness skills for roles in statistics, actuarial science, and data science across academia, industry, government, and non-profit sectors. Same as GRAD:5091.

STAT:5100 Statistical Inference I 3 s.h.
Review of probability, distribution theory (multiple random variables, moment-generating functions, transformations, conditional distributions), sampling distributions, order statistics, convergence concepts, generating random samples. Prerequisites: MATH:2850 and STAT:3101.

STAT:5101 Statistical Inference II 3 s.h.
Continuation of STAT:5100; principles of data reduction, point estimation theory (MLE, Bayes, UMVU), hypothesis testing, interval estimation, decision theory, asymptotic evaluations. Prerequisites: STAT:5100.

STAT:5120 Mathematical Methods for Statistics 3 s.h.
Real numbers, point set theory, limit points, limits, metric spaces, continuity, sequences and series, Taylor series (multivariate), uniform convergence, Riemann-Stieltjes integrals.

STAT:5200 Applied Statistics I 4 s.h.
Descriptive statistics, basic inferential methods (confidence intervals, chi-square tests); linear models (regression and ANOVA models—specification and assumptions, fitting, diagnostics, selection, testing, interpretation); nonlinear models, logistic regression. Prerequisites: STAT:3101. Corequisites: STAT:4100 or STAT:5100. Requirements: facility with matrix algebra. Same as IGPI:5199.

STAT:5201 Applied Statistics II 3 s.h.
Design of experiments and analysis of designed experiments; models for fixed and random effects; mixed models; design and analysis of complex plans; sample-size methods. Prerequisites: STAT:5200. Recommendations: prior exposure to SAS software.

STAT:5400 Computing in Statistics 3 s.h.
R; database management; graphical techniques; importing graphics into word-processing documents (e.g., LaTeX); creating reports in LaTeX; SAS; simulation methods (Monte Carlo studies, bootstrap, etc.). Prerequisites: CS:1210 and STAT:3200 and (STAT:3120 or STAT:3101 or STAT:4101). Corequisites: STAT:5100 and STAT:5200 if not already completed. Same as DATA:5400, IGPI:5400.

STAT:5610 Regression Modeling and ANOVA in the Health Sciences 3 s.h.
Continuation of BIOS:4120; correlation, simple and multiple linear regression, confounding, interactions, model selection, single and multiple factor ANOVA (analysis of variance) models, contrasts, multiple comparisons, nested and block designs; introduction to mixed models; for non-biostatistics majors. Offered spring semesters. Prerequisites: BIOS:4120. Same as BIOS:5120, IGPI:5120.

STAT:5810 Research Data Management 3 s.h.
Introduction to data management techniques and problems encountered in gathering and processing data from biomedical investigations; introduction to SAS, techniques taught in SAS; designed for non-biostatistics majors. Recommendations: prior programming experience with C, C++, Python, Java, or other. Same as BIOS:5310, IGPI:5310.

STAT:6200 Predictive Analytics 3 s.h.
Linear mixed models; generalized linear mixed models; generalized additive models; applications of these models using associated R packages. Prerequisites: STAT:4560. Corequisites: STAT:4561. Requirements: comfort working with R software environment. Same as ACTS:6200, DATA:6200.

STAT:6220 Consulting and Communication With Data 3 s.h.
Realistic supervised data analysis experiences, including statistical packages, statistical graphics, writing statistical reports, dealing with complex or messy data. Offered spring semesters. Prerequisites: (STAT:3200 and STAT:3210) or (STAT:5201 and STAT:5200). Requirements: for undergraduate majors—major GPA of 3.00 or above, and grades of B or higher in STAT:3200 and STAT:3210. Same as DATA:6220.

STAT:6300 Probability and Stochastic Processes I 3 s.h.
Conditional expectations; Markov chains, including random walks and gambler's ruin; classification of states; stationary distributions; branching processes; Poisson processes; Brownian motion. Prerequisites: STAT:4100.

STAT:6301 Probability and Stochastic Processes II 3 s.h.
Markov chains with continuous state space, Martingales, random walks, Brownian motion and other continuous-time Markov chains, simulation methods. Prerequisites: STAT:6300.

STAT:6513 Intermediate Statistical Methods 3 s.h.
Statistical inference and uncertainty estimation using general linear models (i.e., linear regression, analysis of variance); interpreting and conveying statistical results. Requirements: for PSQF:6243—PSQF:4143; for STAT:6513—STAT:4143. Same as PSQF:6243.

STAT:6514 Correlation and Regression 4 s.h.
Correlation techniques; selected bivariate procedures, multiple, partial, curvilinear correlation; multiple linear regression; sampling theory applied to regression analysis and correlation coefficients; simple causal models. Requirements: for PSQF:6244—PSQF:6243; for STAT:6514—STAT:6513. Same as PSQF:6244.

STAT:6516 Design of Experiments 3 s.h.
Theory and methods in the planning and statistical analysis of experimental studies; testing of hypotheses about linear contrasts among means in single-factor and multifactor, completely randomized, and repeated measurement designs. Requirements: for PSQF:6246—PSQF:6243; for STAT:6516—STAT:6513. Same as PSQF:6246.

STAT:6530 Environmental and Spatial Statistics 3 s.h.
Geostatistics kriging, variogram estimation, trend estimation, sampling design, extensions to river networks and the globe, lattice data analysis, analysis of spatial point patterns. Prerequisites: STAT:4101 and STAT:3200. Same as IGPI:6530.

STAT:6547 Nonparametric Statistical Methods 3 s.h.
Selected nonparametric methods; one- and two-sample location tests and estimation methods, measures of association, analyses of variance; emphasis on relationships to classical parametric procedures. Same as PSQF:6247.

STAT:6550 Introductory Longitudinal Data Analysis 3 s.h.
Introduction to statistical models and estimation methods for outcome variables (normal and non-normal) clustered or measured repeatedly in time or space; focus on applications and computer software methods for ANOVA based methods, hierarchical linear models, linear mixed models, correlated regression models, generalized estimating equations, and generalized linear mixed models. Offered fall semesters. Prerequisites: BIOS:5120 or STAT:3200. Same as BIOS:6310, IGPI:6310.

STAT:6560 Applied Time Series Analysis 3 s.h.
General stationary, nonstationary models, autocovariance autocorrelation functions; stationary, nonstationary autoregressive integrated moving average models; identification, estimation, forecasting in linear models; use of statistical computer packages. Offered spring semesters. Prerequisites: (STAT:5200 or STAT:3200) and STAT:3101.

STAT:6970 Topics in Statistics 3 s.h.
Selected advanced topics in statistics.

STAT:6990 Readings in Statistics arr.
Supervised reading and research in statistics.

STAT:7100 Advanced Inference I 3 s.h.
Concepts of convergence, asymptotic methods including the delta method, sufficiency, asymptotic efficiency, Fisher information and information bounds for estimation, maximum likelihood estimation, the EM-algorithm, Bayes estimation, decision theory. Prerequisites: STAT:5101 and STAT:5120.

STAT:7101 Advanced Inference II 3 s.h.
Hypothesis testing, asymptotics of the likelihood ratio test, asymptotic efficiency, statistical functionals, robustness, bootstrap and jackknife, estimation with dependent data. Prerequisites: STAT:7100.

STAT:7190 Seminar: Mathematical Statistics arr.
Selected advanced topics in mathematical statistics.

STAT:7200 Linear Models 4 s.h.
Linear spaces and selected topics in matrix algebra, full rank and non-full rank linear models, estimability, least squares and best linear unbiased estimation, multivariate normal distribution and distributions of quadratic forms, interval estimation, hypothesis testing, random and mixed models, best linear unbiased prediction, variance component estimation. Prerequisites: STAT:5101 and STAT:5200 and STAT:5201.

STAT:7290 Seminar: Applied Statistics arr.
Selected advanced topics in applied statistics.

STAT:7300 Advanced Probability 3 s.h.
Probability theory, with emphasis on constructing rigorous proofs; measure spaces, measurable functions, random variables and induced measures, distribution functions, Lebesque integral, product measure and independence, Borel Cantelli lemma, modes of convergence. Prerequisites: STAT:5120.

STAT:7390 Seminar: Probability arr.
Selected advanced topics in probability.

STAT:7400 Computer Intensive Statistics 3 s.h.
Computer arithmetic, random variate generation, numerical optimization, numerical linear algebra, smoothing techniques, bootstrap methods, cross-validation, MCMC, EM and related algorithms; other topics per student/instructor interests. Prerequisites: (BIOS:5710 or STAT:5200) and STAT:3101 and STAT:5400. Requirements: proficiency in Fortran or C or C++ or Java. Same as DATA:7400, IGPI:7400.

STAT:7500 Statistical Machine Learning 3 s.h.
Regularization methods for sparse models, computational algorithms for large scale problems, statistical inference in high-dimensional models, reproducing kernel Hilbert space, supervised learning, nonparametric density and conditional density estimation, neural networks and deep learning, optimal transport and generative learning, dimension reduction and representation learning. Prerequisites: STAT:5100 or STAT:5200. Same as BAIS:7500.

STAT:7510 Analysis of Categorical Data 3 s.h.
Distributions and inference for categorical data; descriptive and inferential methods for contingency tables; theory and application of generalized linear models including methods for parameter estimation and testing, model selection and assessment of model adequacy; models for binary, count, and multi-category outcomes; loglinear models for contingency tables; generalized additive models; generalized linear models for longitudinal and clustered data. Offered spring semesters of even years. Prerequisites: (BIOS:5720 or STAT:5200) and (STAT:5101 or STAT:4101). Same as BIOS:7410.

STAT:7520 Bayesian Analysis 3 s.h.
Decision theory, conjugate families, structure of Bayesian inference, hierarchical models, asymptotic approximations for posterior distributions, Markov chain Monte Carlo methods and convergence assessment, model adequacy and model choice. Prerequisites: STAT:5101 and STAT:5400 and STAT:5200.

STAT:7560 Time Series Analysis 3 s.h.
Stationary time series, ARIMA models, spectral representation, linear prediction inference for the spectrum, multivariate time series, state space models and processes, nonlinear time series. Prerequisites: STAT:4101 and (STAT:3200 or STAT:6560).

STAT:7570 Survival Data Analysis 3 s.h.
Types of censoring and truncation; survival function estimation; parametric inference using exponential, Weibull, and accelerated failure time models; nonparametric tests; sample size calculation; Cox regression with stratification and time-dependent covariates; regression diagnostics; competing risks; topics may include analysis of correlated survival data and/or recurrent events; designed for biostatistics and statistics majors. Offered fall semesters of odd years. Prerequisites: BIOS:5720 and ((STAT:4100 and STAT:4101) or (STAT:5100 and STAT:5101)). Same as BIOS:7210, IGPI:7210.

STAT:7990 Reading Research arr.
Supervised reading and research in statistics.

Actuarial Science Courses

ACTS:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

ACTS:1001 Introductory Seminar on Actuarial Science 1 s.h.
The actuarial profession, exam process, academic success, internships, resources for actuarial students, important skills for actuaries, and career paths in actuarial science.

ACTS:3080 Mathematics of Finance I 3 s.h.
Mathematics of compound interest, annuities certain, loan amortization schedules, bonds, yield rates, and introduction to interest rate risk management. Prerequisites: MATH:1860 with a minimum grade of B-. Requirements: calculus II or graduate standing.

ACTS:3110 Actuarial Exam P Preparation 1 s.h.
Preparation for the Society of Actuaries exam P. Corequisites: STAT:3100 or STAT:4100 or STAT:5100.

ACTS:3210 Actuarial Exam FM Preparation 1 s.h.
Preparation for the Society of Actuaries exam FM. Corequisites: ACTS:3080, if not taken as a prerequisite.

ACTS:4130 Quantitative Methods for Actuaries 3 s.h.
Survival distributions, life tables, life insurance, life annuities, and premiums. Offered fall semesters. Prerequisites: STAT:3100 with a minimum grade of B- and ACTS:3080 with a minimum grade of C+. Corequisites: STAT:4100 or STAT:5100. Requirements: multivariate calculus and linear algebra.

ACTS:4150 Fundamentals of Short-Term Actuarial Mathematics 3 s.h.
Severity, frequency, aggregate loss, estimation, credibility theory, pricing, and reserving for short-term insurance coverages; option pricing. Offered spring semesters. Prerequisites: STAT:4100 with a minimum grade of C+ or STAT:5100 with a minimum grade of C+. Corequisites: STAT:4101 or STAT:5101.

ACTS:4160 Topics in Actuarial Science arr.
Selected topics in actuarial science, financial mathematics, and quantitative risk management.

ACTS:4180 Life Contingencies I 3 s.h.
Reserves, multi-life models, multiple-decrement models, and Markov chains. Offered spring semesters. Prerequisites: ACTS:3080 with a minimum grade of C+ and ACTS:4130 with a minimum grade of C+ and (STAT:4100 with a minimum grade of C+ or STAT:5100 with a minimum grade of C+).

ACTS:4280 Life Contingencies II 3 s.h.
Multistate models, pension mathematics, emerging costs for traditional and equity-linked insurance, profit testing, profit measures, and embedded options. Offered fall semesters. Prerequisites: ACTS:4180 with a minimum grade of C+.

ACTS:4380 Mathematics of Finance II 3 s.h.
Derivatives markets, forwards, options, pricing models, and actuarial applications. Prerequisites: ACTS:3080 with a minimum grade of C+. Requirements: mathematical statistics, multivariate calculus, and linear algebra.

ACTS:4990 Readings in Actuarial Science arr.

ACTS:6160 Topics in Actuarial Science arr.
Selected topics in actuarial science, financial mathematics, and quantitative risk management.

ACTS:6200 Predictive Analytics 3 s.h.
Linear mixed models; generalized linear mixed models; generalized additive models; applications of these models using associated R packages. Prerequisites: STAT:4560. Corequisites: STAT:4561. Requirements: comfort working with R software environment. Same as DATA:6200, STAT:6200.

ACTS:6480 Loss Distributions 3 s.h.
Severity, frequency, and aggregate models and their modifications; risk measures; construction of empirical models. Offered spring semesters. Prerequisites: STAT:4101 or STAT:5101. Corequisites: ACTS:6580.

ACTS:6580 Credibility and Survival Analysis 3 s.h.
Construction and selection of parametric models, credibility, and simulation. Offered spring semesters. Prerequisites: STAT:4101 or STAT:5101. Corequisites: ACTS:6480.

ACTS:6990 Readings in Actuarial Science arr.
Supervised reading and research in actuarial science, financial mathematics, or quantitative risk management.

ACTS:7730 Advanced Topics in Actuarial Science/ Financial Mathematics arr.
Selected advanced topics in actuarial science, financial mathematics and quantitative risk management.

Data Science Courses

DATA:1015 Introduction to Data Science 3 s.h.
In today's world, massive amounts of data are increasingly collected and leveraged for knowledge discovery, policy assessment, and decision-making across many fields, including business, natural sciences, social sciences, and humanities. Topics covered include data collection, visualization, and data wrangling; basics of probability and statistical inference; fundamentals of data learning, including regression, classification, prediction, and cross-validation; computing, learning, and reporting in the R environment; and literate programming and reproducible research. Requirements: one year of high school algebra or MATH:0100. GE: Quantitative or Formal Reasoning. Same as STAT:1015.

DATA:3120 Probability and Statistics 4 s.h.
Models, discrete and continuous random variables and their distributions, estimation of parameters, testing statistical hypotheses. Prerequisites: MATH:1560 or MATH:1860. Same as IGPI:3120, STAT:3120.

DATA:3200 Applied Linear Regression 3 s.h.
Regression analysis with focus on applications; model formulation, checking, and selection; interpretation and presentation of analysis results; simple and multiple linear regression; logistic regression; ANOVA; polynomial regression; tree models; bootstrapping; hands-on data analysis with computer software. Prerequisites: STAT:2020 or STAT:2010 or STAT:3120. Same as IGPI:3200, ISE:3760, STAT:3200.

DATA:4540 Statistical Learning 3 s.h.
Introduction to supervised and unsupervised statistical learning, with a focus on regression, classification, and clustering; methods will be applied to real data using appropriate software; supervised learning topics include linear and nonlinear (e.g., logistic) regression, linear discriminant analysis, cross-validation, bootstrapping, model selection, and regularization methods (e.g., ridge and lasso); generalized additive and spline models, tree-based methods, random forests and boosting, and support-vector machines; unsupervised learning topics include principal components and clustering. Requirements: an introductory statistics course and a regression course. Recommendations: prior exposure to programming and/or software, such as R, SAS, and Matlab. Same as BAIS:4540, IGPI:4540, STAT:4540.

DATA:4580 Data Visualization and Data Technologies 3 s.h.
Introduction to common techniques for visualizing univariate and multivariate data, data summaries, and modeling results; how to create and interpret these visualizations and assess effectiveness of different visualizations based on an understanding of human perception and statistical thinking; data technologies for obtaining and preparing data for visualization and further analysis; students learn how to present results in written reports and use version control to manage their work. Requirements: an introductory statistics course and a regression course. Recommendations: prior exposure to basic use of statistical programming software (e.g., R or SAS) as obtained from a regression course strongly recommended. Same as IGPI:4580, STAT:4580.

DATA:4600 Causal Inference for Data Science 3 s.h.
Introduce methods for reasoning about causes, effects, and bias when analyzing experimental and observational data. Topics include the potential outcomes framework, counterfactuals, confounding, and missing data; the identification and estimation of causal effects via propensity score methods, marginal structural models, instrumental variables, and directed acyclic graphs; as well as applications of machine learning and Bayesian methods to causal inference. Prerequisites: (DATA:3120 or STAT:3120) and (DATA:3200 or STAT:3200). Requirements: familiarity with the R programming. Same as STAT:4600.

DATA:4610 Data Acquisition and Management 3 s.h.
Introduction to common techniques for manipulating relational databases for data analysis; SQL and PostgreSQL fundamentals: querying, data manipulation and transformation, joins and subqueries, aggregation and grouping, data types and management; advanced topics: window functions, subqueries, common table expressions, indexing strategies, performance optimization techniques, security considerations; database building. Prerequisites: DATA:3200 or STAT:3200. Recommendations: Familiarity with basic programming logic, e.g., variables, loops, conditional statements.

DATA:4620 Text Data Analysis 3 s.h.
Introduction to text analytics techniques for real-world applications; Python fundamentals for text data exploration and manipulation; text processing via NLP libraries (NLTK, spaCy, Gensim); feature engineering; sentiment analysis; topic modeling; text summarization, machine translation, and deep learning applications. Prerequisites: (CS:1210 or DATA:5400) and DATA:4540. Recommendations: Basic knowledge of Python programming.

DATA:4750 Probabilistic Statistical Learning 3 s.h.
Essential machine learning and statistics ideas that are critical in analyzing modern complex and large data; supervised learning topics include linear models, deep neural networks, and nonparametric models; essential topics include nonlinear dimension reduction, clustering, and recommender systems. Prerequisites: (CS:1210 with a minimum grade of C- or ENGR:2730 with a minimum grade of C-) and (MATH:2700 or MATH:2550) and (STAT:2010 or STAT:2020 or STAT:4200) and STAT:4540. Same as STAT:4750.

DATA:4880 Data Science Creative Component 1 s.h.
Readings, group discussions, and short-term projects in area of data science; emphasis on communication of ideas learned in student's data science coursework, data ethics, and potential bias in algorithms.

DATA:4890 Data Science Practicum 3 s.h.
On- or off-campus internship or group-based consulting project that provides experience in a real-world setting; application of knowledge and techniques learned in coursework; practice in communicating results to others.

DATA:5400 Computing in Statistics 3 s.h.
R; database management; graphical techniques; importing graphics into word-processing documents (e.g., LaTeX); creating reports in LaTeX; SAS; simulation methods (Monte Carlo studies, bootstrap, etc.). Prerequisites: CS:1210 and STAT:3200 and (STAT:3120 or STAT:3101 or STAT:4101). Corequisites: STAT:5100 and STAT:5200 if not already completed. Same as IGPI:5400, STAT:5400.

DATA:5890 MS Data Science Practicum 2 s.h.
On- or off-campus internship or group-based consulting project that provides experience in a real-world setting; application of knowledge and techniques learned in coursework and practice communicating results to others.

DATA:6200 Predictive Analytics 3 s.h.
Linear mixed models; generalized linear mixed models; generalized additive models; applications of these models using associated R packages. Prerequisites: STAT:4560. Corequisites: STAT:4561. Requirements: comfort working with R software environment. Same as ACTS:6200, STAT:6200.

DATA:6220 Consulting and Communication With Data 3 s.h.
Realistic supervised data analysis experiences, including statistical packages, statistical graphics, writing statistical reports, dealing with complex or messy data. Offered spring semesters. Prerequisites: (STAT:3200 and STAT:3210) or (STAT:5201 and STAT:5200). Requirements: for undergraduate majors—major GPA of 3.00 or above, and grades of B or higher in STAT:3200 and STAT:3210. Same as STAT:6220.

DATA:7350 High-Dimensional Probability for Data Science 3 s.h.
Nonasymptotic probability with a view towards applications in data science; concentration inequalities for functions of independent variables, martingale inequalities, entropy method, random matrices, matrix inequalities, suprema of random processes, and sparse recovery. Prerequisites: STAT:5101. Requirements: linear algebra course and familiarity with R or Python.

DATA:7400 Computer Intensive Statistics 3 s.h.
Computer arithmetic, random variate generation, numerical optimization, numerical linear algebra, smoothing techniques, bootstrap methods, cross-validation, MCMC, EM and related algorithms; other topics per student/instructor interests. Prerequisites: (BIOS:5710 or STAT:5200) and STAT:3101 and STAT:5400. Requirements: proficiency in Fortran or C or C++ or Java. Same as IGPI:7400, STAT:7400.

Statistics, BS

Learning Outcomes

Students will:

- be able to distinguish between observational studies and designed experiments and understand the issues related to the data collection method, including sampling bias, sampling error, sample size determination, statistical power, association versus causation, and the design and analysis of randomized experiments;
- use critical thinking skills to translate substantive questions into well-defined statistical problems and choose appropriate statistical methods and graphical summaries for a given problem;
- use computer software to manage data, carry out exploratory data analyses and computer simulations, produce numerical and graphical summaries of data, and apply basic statistical methodology;
- be able to clearly communicate study results to non-statisticians, and write accurate and meaningful reports that describe the statistical analyses and summarize important findings; and
- understand the mathematical tools underlying statistical methods, including distribution theory, uncertainty quantification via probability, estimation theory, and the probabilistic basis of formal statistical inference.

Requirements

The Bachelor of Science with a major in statistics requires a minimum of 120 s.h., including at least 51 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students who earn the major in statistics may not earn the major in data science.

Students complete 10 core courses that provide essential instruction in statistical methods, applications, and theory. In addition, they may concentrate on an interest area by selecting appropriate elective courses.

The BS with a major in statistics requires the following coursework.

Requirements	Hours
Core Courses	36
Electives	15

Core Courses

All students complete the following 10 core courses.

Course #	Title	Hours
STAT:2010	Statistical Methods and Computing	3
STAT:3100/ IGPI:3100	Introduction to Mathematical Statistics I	4
STAT:3101/ IGPI:3101	Introduction to Mathematical Statistics II	3
STAT:3200/ DATA:3200/ IGPI:3200/ISE:3760	Applied Linear Regression	3
STAT:3210	Experimental Design and Analysis	3
CS:1210	Computer Science I: Fundamentals	4
MATH:1850	Calculus I	4
MATH:1860	Calculus II	4
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4

Electives

Students complete 15 s.h. of electives with a maximum of 6 s.h. coming from domain electives.

Course #	Title	Hours
9-15 s.h. from these:		
STAT:1015/ DATA:1015	Introduction to Data Science	3
STAT:3620/ CEE:3142/ISE:3600	Quality Control	3
STAT:4100/ IGPI:4100	Statistical Inference I	3
STAT:4101/ IGPI:4101	Statistical Inference II	3
STAT:4520/ IGPI:4522/ PSQF:4520	Bayesian Statistics	3
STAT:4540/ DATA:4540/ BAIS:4540/ IGPI:4540	Statistical Learning	3
STAT:4580/ DATA:4580/ IGPI:4580	Data Visualization and Data Technologies	3
STAT:4750/ DATA:4750	Probabilistic Statistical Learning	3
STAT:5400/ DATA:5400/ IGPI:5400	Computing in Statistics	3
STAT:6220/ DATA:6220	Consulting and Communication With Data	3
STAT:6300	Probability and Stochastic Processes I	3
STAT:6301	Probability and Stochastic Processes II	3
STAT:6530/ IGPI:6530	Environmental and Spatial Statistics	3
STAT:6550/ BIOS:6310/ IGPI:6310	Introductory Longitudinal Data Analysis	3
STAT:6560	Applied Time Series Analysis	3
ACTS:4150	Fundamentals of Short-Term Actuarial Mathematics	3
BIOS:5130/ IGPI:5130	Applied Categorical Data Analysis	3
DATA:4600/ STAT:4600	Causal Inference for Data Science	3
DATA:4610	Data Acquisition and Management	3
DATA:4620	Text Data Analysis	3
Up to two courses from these domain electives:		

STAT:5120	Mathematical Methods for Statistics	3
ACTS:3080	Mathematics of Finance I	3
ACTS:4130	Quantitative Methods for Actuaries	3
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
MATH:3770	Foundations of Analysis	4
MATH:3800/ CS:3700	Introduction to Numerical Methods	3
MATH:4820/ CS:4720	Optimization Techniques	3
MATH:4840	Mathematics of Machine Learning	3

Combined Programs

BS/MS in Statistics

The combined Bachelor of Science/Master of Science in statistics is for eligible students who seek to complete both the BS and the MS at the University of Iowa in five years. Students in the combined program must complete all requirements for each degree. A traditional MS in statistics requires completion of 32 s.h. of graduate-level coursework. The BS/MS program permits students to count 12 s.h. of credit (four courses) toward the requirements for both degrees. To complete the MS, an additional 20 s.h. of coursework is required. The four courses that count toward both degrees must be taken during the fourth year of undergraduate study, after admission to the combined program, and must satisfy degree requirements of both the BS and the MS in statistics.

BS/MPH (Biostatistics Subprogram)

Students majoring in statistics who are interested in earning a Master of Public Health degree with a biostatistics subprogram may apply to the combined BS/MPH program offered by the College of Liberal Arts and Sciences and the College of Public Health. The program permits students to count 15 s.h. of credit toward the requirements for both degrees, enabling them to begin the study of public health before they complete the bachelor's degree. For information about the public health program, see the Master of Public Health, MPH [p. 2092] (biostatistics subprogram) section of the catalog.

BS/MS in Biostatistics

The combined BS in statistics/MS in biostatistics enables Bachelor of Science students majoring in statistics to begin work toward the MS while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the BS and the MS degree requirements. The combined program is offered by the Graduate College, the College of Liberal Arts and Sciences, and the College of Public Health; see the MS in biostatistics [p. 2111] in the catalog.

Honors

Honors in the Major

Students majoring in statistics have the opportunity to graduate with honors in the major. Departmental honors students must maintain a grade-point average (GPA) of at least 3.67 in their major and a cumulative University of Iowa GPA of at least 3.33.

To graduate with honors in the statistics major, students must complete an honors project or a suitable alternative. Statistics honors students should consult with the statistics undergraduate advisor.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the statistics major.

Career Advancement

Statistics and probability are vital to many fields, so the demand for well-trained statisticians is strong. Statisticians work in medicine, engineering, law, public policy making, marketing, manufacturing, engineering, agriculture, varied social and natural sciences, and numerous other areas.

When students graduate, they will be prepared to fill entry-level positions as statisticians or go on to graduate school. An advisor assists students in locating internship opportunities as well as the best-fitting graduate programs.

To learn more about job opportunities, see Your Career on the American Statistical Association website.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Much of the coursework in statistics is sequential, so students must begin requirements for the major as soon as possible. Individual study plans must be made carefully. Students who first enroll for a spring semester must consult their advisor to confirm a four-year plan.

Courses must be taken in sequence, so students must begin work early.

Before the fifth semester begins: at least four courses in the major, including MATH:1850 Calculus I, MATH:1860 Calculus II, and STAT:2010 Statistical Methods and Computing.

Before the seventh semester begins: seven or eight courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: nine or ten courses in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Statistics, BS

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
STAT:2010 Statistical Methods and Computing and STAT:3200 Applied Linear Regression are important prerequisites for advanced statistics classes and completing them earlier in the academic career provides for more elective options in later semesters.		
	Hours	**0**
First Year		
Fall		
MATH:1850	Calculus I [b]	4
STAT:2010	Statistical Methods and Computing	3
CSI:1600	Success at Iowa	1
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
Elective course [d]		2
	Hours	**14-15**
Spring		
MATH:1860	Calculus II	4
STAT:3200	Applied Linear Regression	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		1
	Hours	**15-17**
Second Year		
Fall		
MATH:2700	Introduction to Linear Algebra	4
STAT:3100	Introduction to Mathematical Statistics I [e]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
	Hours	**15-17**
Spring		
MATH:2850	Calculus III	4
STAT:3101	Introduction to Mathematical Statistics II [f]	3
GE CLAS Core: Understanding Cultural Perspectives [g]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
Elective course [d]		1
	Hours	**15-16**
Third Year		
Fall		
CS:1210	Computer Science I: Fundamentals [h]	4
Major: statistics advanced elective [i]		3
GE CLAS Core: International and Global Issues [g]		3
GE CLAS Core: Natural Sciences with Lab [g]		4
Elective course [d]		1
	Hours	**15**
Spring		
STAT:3210	Experimental Design and Analysis [f]	3
Major: statistics advanced elective [i]		3
GE CLAS Core: Literary, Visual, and Performing Arts [g]		3
GE CLAS Core: Social Sciences [g]		3
Elective course [d]		3
	Hours	**15**
Fourth Year		
Fall		
Major: statistics advanced elective [i]		3
GE CLAS Core: Historical Perspectives [g]		3
GE CLAS Core: Natural Sciences without Lab [g]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
Major: statistics advanced elective [i]		3
Major: statistics advanced elective [i]		3
GE CLAS Core: Values and Society [g]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**18**
	Total Hours	**122-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in math courses requires completion of a placement exam.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.
f Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
g GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
h Enrollment in this course requires completion of a placement exam.
i Statistics majors must complete 15 s.h. of electives in addition to the core course of study. At most, 6 s.h. of these may come from domain electives. Most advanced statistics elective courses are only offered once per year. Check MyUI for course availability since offerings are subject to change.
j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Actuarial Science, BS

Learning Outcomes

Students will:

- be able to bring to bear actuarial, financial, mathematical, and statistical techniques to model and analyze risks, particularly in the context of insurance and pension;
- have the knowledge and analytical ability to pass the initial professional actuarial examinations given by the Society of Actuaries and Casualty Actuarial Society, and develop the skills needed for successful self-study of the advanced professional examinations;
- be skillful in using and developing computer software to solve actuarial problems;
- be able to clearly communicate results from an actuarial analysis to all stakeholders, and write effective reports that describe the analysis and summarize important findings; and
- possess a basic understanding of insurance and business operations.

Requirements

The Bachelor of Science with a major in actuarial science requires a minimum of 120 s.h., including 52 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The program prepares students for careers as actuaries. It also helps them learn material that is included in professional examinations administered by professional organizations such as the Society of Actuaries and the Casualty Actuarial Society.

Students take a variety of actuarial science courses. They prepare for business aspects of the actuarial profession by studying accounting, law, finance, insurance, and economics. They also complete courses that enhance important communication skills, such as writing and speaking, as part of their GE CLAS Core requirements.

Courses Required for the Major

The BS with a major in actuarial science requires the following coursework. Permission to substitute coursework taken at another institution for required courses at the University of Iowa is decided case by case; students should contact the department.

Course #	Title	Hours
Computer Science		
This course:		
CS:1210	Computer Science I: Fundamentals	4
Mathematics		
All of these:		
MATH:1850	Calculus I	4
MATH:1860	Calculus II	4
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
MATH:3770	Foundations of Analysis	4
Statistics and Actuarial Science		
All of these:		
ACTS:3080	Mathematics of Finance I	3
ACTS:4130	Quantitative Methods for Actuaries	3
ACTS:4150	Fundamentals of Short-Term Actuarial Mathematics	3
ACTS:4180	Life Contingencies I	3
ACTS:4280	Life Contingencies II	3
STAT:3100/ IGPI:3100	Introduction to Mathematical Statistics I	4
STAT:3101/ IGPI:3101	Introduction to Mathematical Statistics II	3
STAT:4100/ IGPI:4100	Statistical Inference I	3
STAT:4101/ IGPI:4101	Statistical Inference II	3

In exceptional cases, the advisor may grant permission to waive STAT:3100 Introduction to Mathematical Statistics I and/or STAT:3101 Introduction to Mathematical Statistics II.

Students may choose to complete STAT:4560 Statistics for Risk Modeling I and STAT:4561 Statistics for Risk Modeling II (both courses) instead of ACTS:4280 Life Contingencies II, except honors students, who must complete all three courses.

Honors

Honors in the Major

Students majoring in actuarial science have the opportunity to graduate with honors in the major. They must maintain a UI cumulative grade-point average (GPA) of at least 3.33 and a GPA of at least 3.40 in all departmental courses. They also must complete the following five courses in addition to all courses required for the major.

Course #	Title	Hours
ACTS:6200	Predictive Analytics	3
FIN:3300	Corporate Finance	3
MATH:3600	Introduction to Ordinary Differential Equations	3
STAT:4560	Statistics for Risk Modeling I	3
STAT:4561	Statistics for Risk Modeling II	3

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the actuarial science major.

Career Advancement

Most actuaries are employed by insurance companies or employee benefits consulting firms. They have responsibilities related to all phases of product development and maintenance for their companies. Individual employers who need guidance in establishing employee insurance and retirement programs also hire actuarial science graduates. A growing number of actuaries work in asset/liability

management, some in investment firms and others in insurance companies.

Actuaries have always been in high demand and earn good salaries. Most University of Iowa graduates find work as actuaries, but some become financial managers or teachers. They take positions in locations all across the country, often in large metropolitan areas.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Much of the coursework is sequential, so students must begin requirements for the major as soon as possible. Individual study plans must be made carefully. Students who first enroll for a spring semester must consult their advisor to confirm a four-year plan.

Before the third semester begins: MATH:1860 Calculus II and MATH:2700 Introduction to Linear Algebra.

Before the fifth semester begins: MATH:2850 Calculus III, MATH:3770 Foundations of Analysis, STAT:3100 Introduction to Mathematical Statistics I, STAT:3101 Introduction to Mathematical Statistics II, and ACTS:3080 Mathematics of Finance I.

Before the seventh semester begins: STAT:4101 Statistical Inference II, ACTS:4130 Quantitative Methods for Actuaries, ACTS:4150 Fundamentals of Short-Term Actuarial Mathematics, ACTS:4180 Life Contingencies I, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: ACTS:4280 Life Contingencies II.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Actuarial Science, BS

Course	Title	Hours
Academic Career		
Any Semester		
Students who major in Actuarial Science BS program will have to perform well to make progress towards the degree. Many courses have minimum grade requirements in prerequisite courses. [a]		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
CS:1210	Computer Science I: Fundamentals [c]	4
MATH:1850	Calculus I [d]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
ACTS:1001	Introductory Seminar on Actuarial Science [e]	1
CSI:1600	Success at Iowa	1
Attend the Actuarial Science, Insurance and Risk Management Job Fair during the fall semester to apply for summer internships.		
	Hours	**13-14**
Spring		
MATH:1860	Calculus II	4
MATH:2700	Introduction to Linear Algebra	4
ACTS:1001	Introductory Seminar on Actuarial Science [e]	1
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [f]		3
	Hours	**15-16**
Second Year		
Fall		
ACTS:3110	Actuarial Exam P Preparation [e]	1
MATH:2850	Calculus III	4
STAT:3100	Introduction to Mathematical Statistics I [g]	4
GE CLAS Core: Natural Sciences without Lab [f]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
Attend the Actuarial Science, Insurance and Risk Management Job Fair during the fall semester to apply for summer internships.		
	Hours	**16-17**
Spring		
ACTS:3080	Mathematics of Finance I	3
ACTS:3210	Actuarial Exam FM Preparation [e]	1
MATH:3770	Foundations of Analysis	4
STAT:3101	Introduction to Mathematical Statistics II [i]	3
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
	Hours	**15-16**
Third Year		
Fall		
ACTS:4130	Quantitative Methods for Actuaries [g]	3
STAT:4100	Statistical Inference I [g]	3
GE CLAS Core: Natural Sciences with Lab [f]		4
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
Elective course [j]		3

Attend the Actuarial Science, Insurance and Risk Management Job Fair during the fall semester to apply for summer internships.		
	Hours	**17-18**
Spring		
ACTS:4150	Fundamentals of Short-Term Actuarial Mathematics [i]	3
ACTS:4180	Life Contingencies I [i]	3
STAT:4101	Statistical Inference II [i]	3
GE CLAS Core: Literary, Visual, and Performing Arts [f]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
	Hours	**16-17**
Fourth Year		
Fall		
ACTS:4280	Life Contingencies II [g, k]	3
STAT:4560	Statistics for Risk Modeling I [j, l]	3
GE CLAS Core: International and Global Issues [f]		3
GE CLAS Core: Social Sciences [f]		3
Elective course [j]		3
Attend the Actuarial Science, Insurance and Risk Management Job Fair during the fall semester.		
	Hours	**15**
Spring		
ACTS:6200	Predictive Analytics [j, l]	3
STAT:4561	Statistics for Risk Modeling II [j, l]	3
GE CLAS Core: Values and Society [f]		3
GE CLAS Core: Historical Perspectives [f]		3
Elective course [j]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**15**
	Total Hours	**122-128**

a The Academic Advising Center advises Actuarial Science students on prerequisite course planning. Students are advised for success, based on academic strength, not necessarily for a four-year plan. Prerequisites may take more than one and a half years to complete.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Enrollment in this course requires completion of a placement exam.

d Enrollment in math courses requires completion of a placement exam.

e This course is not required for the major but it is strongly encouraged to be taken as an elective.

f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

g Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

j Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

k Students may choose to complete STAT:4560 and STAT:4561 (both courses) instead of ACTS:4280, except honors students, who must complete all three courses.

l This course is a recommended elective, not a requirement. Students may choose another elective. Prerequisites may apply.

mPlease see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Statistics, Minor

Requirements

The undergraduate minor in statistics requires a minimum of 15 s.h. in statistics courses taken at the University of Iowa. At least 12 s.h. must be taken in courses numbered 3000 or above (selected from the following list). Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

The minor in statistics requires a minimum of 15 s.h. of coursework, as follows.

Course #	Title	Hours
One of these:		
STAT:2010	Statistical Methods and Computing	3
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences	3
STAT:4200/ IGPI:4200	Statistical Methods and Computing	3
One of these:		
STAT:3200/ DATA:3200/ IGPI:3200/ISE:3760	Applied Linear Regression	3
STAT:4560	Statistics for Risk Modeling I	3
A maximum of one of these:		
STAT:3100/ IGPI:3100	Introduction to Mathematical Statistics I	4
STAT:3120/ DATA:3120/ IGPI:3120	Probability and Statistics	4
STAT:4100/ IGPI:4100	Statistical Inference I	3
A maximum of one of these:		
STAT:3101/ IGPI:3101	Introduction to Mathematical Statistics II	3
STAT:4101/ IGPI:4101	Statistical Inference II	3
At least one of these:		
STAT:1015/ DATA:1015	Introduction to Data Science	3
STAT:3210	Experimental Design and Analysis	3
STAT:3620/ CEE:3142/ISE:3600	Quality Control	3
STAT:4520/ IGPI:4522/ PSQF:4520	Bayesian Statistics	3
STAT:4540/ BAIS:4540/ DATA:4540/ IGPI:4540	Statistical Learning	3
STAT:4580/ DATA:4580/ IGPI:4580	Data Visualization and Data Technologies	3
STAT:6530/ IGPI:6530	Environmental and Spatial Statistics	3
STAT:6550/ BIOS:6310/ IGPI:6310	Introductory Longitudinal Data Analysis	3
STAT:6560	Applied Time Series Analysis	3
BIOS:4510	Data Science Foundations in R	2

Statistics, MS

Learning Outcomes

Graduates will be able to:

- understand the mathematical and statistical theory that underlies commonly used statistical methods;
- choose appropriate statistical methods for data analysis;
- correctly and effectively implement descriptive and inferential statistical methods;
- identify and criticize inappropriate use of statistics;
- consult with non-statisticians to help collect and analyze data; and
- acquire effective communication skills for disseminating statistical findings.

Requirements

The Master of Science in statistics requires 32 s.h. of graduate credit. Students must earn a minimum Graduate College major program grade-point average of 3.00. It includes a solid foundation in statistical computing, statistical modeling, experimental design, and mathematical statistics plus electives in statistical methods and/or theory. Students have the opportunity to concentrate on theory or applications or a combination of the two.

Students must take a computer programming proficiency test during the first semester of study; those who display inadequate programming skills are assigned activities to build their proficiency. In addition to required coursework, students must pass a two-part graduate final examination.

All coursework must be taken on an A–F graded basis, with the exception of STAT:5090 and STAT:6990.

The MS in statistics requires the following coursework.

Requirements	Hours
Core Statistics Courses	23
Elective Courses	9
Final Examination	

Core Statistics Courses

Course #	Title	Hours
All of these:		
STAT:5090	ALPHA Seminar	1
STAT:5100	Statistical Inference I	3
STAT:5101	Statistical Inference II	3
STAT:5200/ IGPI:5199	Applied Statistics I	4
STAT:5201	Applied Statistics II	3
STAT:5400/ DATA:5400/ IGPI:5400	Computing in Statistics	3
STAT:6220/ DATA:6220	Consulting and Communication With Data	3
STAT:6300	Probability and Stochastic Processes I	3

Elective Courses

Students complete at least 9 s.h. in elective courses. A maximum of one course numbered 7000–7999 is permitted to apply toward the MS.

Course #	Title	Hours
STAT:4540/ BAIS:4540/ DATA:4540/ IGPI:4540	Statistical Learning	3
STAT:4580/ DATA:4580/ IGPI:4580	Data Visualization and Data Technologies	3
STAT:4750/ DATA:4750	Probabilistic Statistical Learning	3
STAT:5120	Mathematical Methods for Statistics	3
STAT:6301	Probability and Stochastic Processes II	3
STAT:6530/ IGPI:6530	Environmental and Spatial Statistics	3
STAT:6547/ PSQF:6247	Nonparametric Statistical Methods	3
STAT:6560	Applied Time Series Analysis	3
STAT:6970	Topics in Statistics	3
STAT:6990	Readings in Statistics (if taken, two enrollments of 1 s.h. each required)	2
STAT:7100	Advanced Inference I	3
STAT:7101	Advanced Inference II	3
STAT:7190	Seminar: Mathematical Statistics	arr.
STAT:7200	Linear Models	4
STAT:7290	Seminar: Applied Statistics	arr.
STAT:7300	Advanced Probability	3
STAT:7390	Seminar: Probability	arr.
STAT:7400/ DATA:7400/ IGPI:7400	Computer Intensive Statistics	3
STAT:7500/ BAIS:7500	Statistical Machine Learning	3
STAT:7510/ BIOS:7410	Analysis of Categorical Data	3
STAT:7520	Bayesian Analysis	3
STAT:7560	Time Series Analysis	3
STAT:7570/ BIOS:7210/ IGPI:7210	Survival Data Analysis	3

Readings in Statistics

All students are encouraged to complete 2 s.h. in STAT:6990 Readings in Statistics, engaging in a project that aligns with their application and career interests. Students typically register for the course in the fall and spring semesters of the second year for 1 s.h. each; they may complete it earlier if ready. Students must present orally in a Statistics Student Organization meeting and earn a satisfactory grade from the advisor's evaluation of the work and presentation.

If a student wishes to pursue the PhD in statistics, this course must be completed within one calendar year of passing the

MS final examination. It is highly advantageous that the advisor for this course becomes the PhD advisor.

PhD Preparation

Students interested in pursuing the PhD in statistics are encouraged to include STAT:5120 Mathematical Methods for Statistics, 2 s.h. of STAT:6990 Readings in Statistics, and one statistics course (prefix STAT) numbered 7000 or higher in their course selections. See the PhD in statistics [p. 1096] in this section of the catalog for more information.

Final Examination

The final examination consists of two parts. One covers the topics presented in STAT:5100 Statistical Inference I and STAT:5101 Statistical Inference II; the other covers the topics presented in STAT:5200/IGPI:5199 Applied Statistics I, STAT:5201 Applied Statistics II, and STAT:5400/DATA:5400/IGPI:5400 Computing in Statistics. Each part includes a few problems that test readiness for the PhD program.

Final examinations are offered the week before the fall semester begins in August. Study guides are available in the department office. Students who do not succeed the first time they take the exam may repeat it once, the week before the spring semester begins in January.

Students must complete all requirements and be granted the Master of Science degree within one calendar year of passing the MS final examination; those who do not meet this deadline are required to take the exam again.

Students entering the PhD program, who will choose either biostatistics, probability/mathematical statistics, or data science as their concentration area, and who already have taken the equivalent of the first-year courses, may take the MS final examination in statistics before beginning further studies.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Statistics and probability are vital to many fields, so the demand for well-trained statisticians is strong. Statisticians work in medicine, engineering, law, public policy making, marketing, manufacturing, engineering, agriculture, varied social and natural sciences, and numerous other areas.

The MS program prepares students for careers as professional statisticians or for entry into a PhD program. To learn more about job opportunities, see Your Career on the American Statistical Association website.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Statistics, MS

Course	Title	Hours
Academic Career		
Any Semester		
32 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Students interested in pursuing the PhD in statistics are encouraged to include STAT:5120 Mathematical Methods for Statistics, 2 s.h. of STAT:6990 Readings in Statistics, and one statistics course (prefix STAT) numbered 7000 or higher in their course selections.		
	Hours	**0**
First Year		
Fall		
STAT:5090	ALPHA Seminar	1
STAT:5100	Statistical Inference I	3
STAT:5200	Applied Statistics I	4
STAT:5400	Computing in Statistics	3
	Hours	**11**
Spring		
STAT:5101	Statistical Inference II	3
STAT:5201	Applied Statistics II	3
Elective course [b]		3
	Hours	**9**
Second Year		
Fall		
Exam: Master's Final Exam [c]		
STAT:6300	Probability and Stochastic Processes I	3
STAT:6990	Readings in Statistics [b, d]	1
Elective course [b]		2
	Hours	**6**
Spring		
STAT:6220	Consulting and Communication With Data	3
STAT:6990	Readings in Statistics [b, d]	1
Elective course [b]		2
	Hours	**6**
	Total Hours	**32**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Students must complete at least 9 s.h. in elective courses. A maximum of one course numbered 7000-7999 is permitted to apply toward the MS. See the General Catalog for list of approved courses.

c The two-part written final examination is offered the week before classes begin in August; it covers the material presented in STAT:5100, STAT:5101, STAT:5200, STAT:5201, and STAT:5400. Students who do not succeed the first time they take the exam may repeat it once the week before the spring semester begins in January.

d All students are encouraged to complete 2 s.h. in STAT:6990, engaging in a project that aligns with their

application and career interests. Students typically register for the course in the fall and spring semesters of the second year for 1 s.h. each.

Actuarial Science, MS

Learning Outcomes

Graduates will:

- be able to bring to bear actuarial, financial, mathematical, and statistical techniques to model and analyze risks, particularly in the context of insurance and pension;
- have the knowledge and analytical ability to pass the initial professional actuarial examinations given by the Society of Actuaries and Casualty Actuarial Society, and develop the skills needed for successful self-study of the advanced professional examinations;
- be skillful in using and developing computer software to solve actuarial problems;
- be able to clearly communicate results from an actuarial analysis to all stakeholders, and write effective reports that describe the analysis and summarize important findings; and
- possess a basic understanding of insurance and business operations.

Requirements

The Master of Science in actuarial science requires 36 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average of at least 3.00. The program prepares students for actuarial careers by emphasizing the theory that underlies risk processes and the application of this theory to practical problems of insurance pricing and management. It also helps them learn the material that is tested on professional examinations administered by professional organizations such as the Society of Actuaries and the Casualty Actuarial Society.

Students complete required courses and a final examination. All coursework must be taken on an A–F graded basis.

The MS in actuarial science requires the following coursework.

Required Courses

Course #	Title	Hours
All of these:		
ACTS:3080	Mathematics of Finance I	3
ACTS:4130	Quantitative Methods for Actuaries	3
ACTS:4150	Fundamentals of Short-Term Actuarial Mathematics	3
ACTS:4180	Life Contingencies I	3
ACTS:4280	Life Contingencies II	3
ACTS:6200/ DATA:6200/ STAT:6200	Predictive Analytics	3
STAT:4560	Statistics for Risk Modeling I	3
STAT:4561	Statistics for Risk Modeling II	3
STAT:5100	Statistical Inference I	3
STAT:5101	Statistical Inference II	3
STAT:6300	Probability and Stochastic Processes I	3
3 s.h. from these:		
ACTS:4160	Topics in Actuarial Science	arr.
ACTS:6160	Topics in Actuarial Science	arr.
ACTS:7730	Advanced Topics in Actuarial Science/Financial Mathematics	arr.
FIN:3300	Corporate Finance	3

Additional course with advisor approval

Final Examination

The final examination is offered in the spring semester of the second year of study. Students who do not succeed on their first attempt may retake the exam once.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Most actuaries are employed by insurance companies or employee benefits consulting firms. They have responsibilities related to all phases of product development and maintenance for their companies. Individual employers who need guidance in establishing employee insurance and retirement programs also hire actuarial science graduates. A growing number of actuaries work in asset/liability management, some in investment firms, and others in insurance companies.

Actuaries have always been in high demand and earn good salaries. Most University of Iowa graduates find work as actuaries, but some become financial managers and teachers. They take positions in locations all across the country, often in large metropolitan areas.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Actuarial Science, MS

Course	Title	Hours
Academic Career		
Any Semester		
36 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
ACTS:3080	Mathematics of Finance I	3
ACTS:4130	Quantitative Methods for Actuaries	3
STAT:5100	Statistical Inference I	3
	Hours	**9**

Spring		
ACTS:4150	Fundamentals of Short-Term Actuarial Mathematics	3
ACTS:4180	Life Contingencies I	3
STAT:5101	Statistical Inference II	3
	Hours	**9**
Second Year		
Fall		
ACTS:4280	Life Contingencies II	3
STAT:4560	Statistics for Risk Modeling I	3
STAT:6300	Probability and Stochastic Processes I	3
	Hours	**9**
Spring		
Exam: Master's Final Exam [c, d]		
ACTS:6200	Predictive Analytics	3
STAT:4561	Statistics for Risk Modeling II	3
Elective course [e]		3
	Hours	**9**
	Total Hours	**36**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Students must also satisfactorily complete all degree requirements.

d The final examination is offered in the spring semester of the second year of study. Students who do not succeed on their first attempt may retake the exam once.

e See the General Catalog for list of approved courses.

Statistics, PhD

Learning Outcomes

Graduates will be able to:

- have a solid understanding of the mathematical and statistical theory that underlies statistical methods;
- conduct literature reviews to summarize the state of the art for specific theoretical and applied topics;
- formulate, implement, and assess appropriate statistical models for analyzing data;
- identify limitations of existing methods and independently develop and assess novel methods (e.g., for analyzing new types of data);
- appreciate the issues of uncertainty, reproducibility, and computability in data analysis;
- collaborate with non-statisticians to help collect and analyze data; and
- acquire effective communication skills for disseminating statistical findings.

Requirements

The Doctor of Philosophy program in statistics requires a minimum of 76 s.h. of graduate credit, including work completed for the MS.

The Graduate College requires a minimum grade-point average (GPA) of 3.00 to graduate with a PhD; however, the Department of Statistics and Actuarial Science requires a higher GPA of at least 3.40 to earn the PhD in statistics. This includes all courses used to meet degree requirements plus additional courses that are relevant to a student's program.

PhD students complete required coursework, including four courses in one of four concentration areas: actuarial science/financial mathematics, biostatistics, data science, or probability/mathematical statistics (see the section titled "Concentration Areas" for area descriptions and course lists). They may take coursework or seminars in other departments to relate an area of specialization to other fields of knowledge, acquire the ability to use electronic digital computing equipment, or learn non-English language skills necessary for reading scientific journals and communicating with scholars in other languages.

PhD Qualifying Procedure

Statistics

After passing the MS final examination, a student who will choose biostatistics, probability/mathematical statistics, or data science as the selected concentration area can request to go through the PhD qualifying procedure. This request should be made by notifying the director of graduate studies. The qualifying procedure typically takes place in November or April each year. During the PhD qualifying procedure, the faculty evaluates the student's body of work, which includes the MS final examination in statistics, coursework, and evidence for research potential. Usually, a student needs to have demonstrated a high level of proficiency in their MS exam, earned a grade of A in at least one 7000-level course, completed at least 1 s.h. of STAT:6990 Readings in Statistics, and be enrolled in a second semester of STAT:6990. This evaluation and assessment results in one of three decisions: the student successfully passes the PhD qualifying procedure, the student must reapply to go through the PhD qualifying procedure after accumulating a larger body of work for evaluation, or the student fails to pass the PhD qualifying procedure and cannot continue in the PhD program.

In exceptional cases, a student may petition to go through the PhD qualifying procedure early or be admitted to the PhD program directly. However, passing the MS final exam is required before any student can take the PhD comprehensive exam (see the section below on PhD comprehensive exam/prospectus).

A student may be admitted directly to the PhD program. If direct admission is not granted, the student may petition to apply for PhD admission either after their MS examination or concurrently with the PhD qualifying procedure.

In exceptional cases, a student may petition to go through the PhD qualifying procedure early in their first year. However, passing the MS final exam is required before any student can go through the PhD qualifying procedure and take the PhD comprehensive exam.

Actuarial Science

After successfully passing the MS final examination in actuarial science (in exceptional cases, a student may petition to go through the PhD qualifying procedure early), a student who will choose actuarial science/financial mathematics as the selected concentration area, can request, by notifying the director of graduate studies, to go through the PhD qualifying procedure. Upon this request, the faculty evaluates the student's body of work and assesses the student's potential for research. The body of work will include the MS final examination in actuarial science, professional examinations passed, and coursework. This evaluation and assessment results in one of two decisions: the student is officially admitted into the PhD program in the actuarial science/financial mathematics concentration area, or the student is not admitted into the PhD program.

Students complete the program by passing the PhD final (comprehensive) examination and writing and defending a dissertation. Students usually complete the program three years after earning the MS.

A plan of study that does not conform to the requirements described as follows but is of high quality may be approved by the director of graduate studies.

Required Courses

The following course lists outline required courses for each concentration area.

Actuarial Science/Financial Mathematics Concentration Area

Actuarial science/financial mathematics emphasizes the theory of actuarial science, finance, and risk management. It is excellent preparation for academic positions in universities that offer actuarial science programs and for positions in the insurance, pension, and financial industries.

Course #	Title	Hours
All of these from the MS in actuarial science program:		
ACTS:4130	Quantitative Methods for Actuaries	3
ACTS:4180	Life Contingencies I	3
ACTS:4280	Life Contingencies II	3
STAT:5100	Statistical Inference I	3

STAT:5101	Statistical Inference II	3
STAT:6300	Probability and Stochastic Processes I	3
All of these:		
STAT:5120	Mathematical Methods for Statistics	3
STAT:6200	Predictive Analytics	3
STAT:7100	Advanced Inference I	3
STAT:7200	Linear Models	4
STAT:7300	Advanced Probability	3
STAT:7400/ DATA:7400/ IGPI:7400	Computer Intensive Statistics	3
STAT:7990	Reading Research	22
DATA:7350	High-Dimensional Probability for Data Science	3
Seminars chosen from STAT:7190, STAT:7290, and STAT:7390		2
At least four of these, with at least one numbered 7000 or above:		
ACTS:6200/ DATA:6200/ STAT:6200	Predictive Analytics	3
ACTS:7730	Advanced Topics in Actuarial Science/Financial Mathematics	3
FIN:7110	Finance Theory I	3
FIN:7130	Finance Theory II	3
STAT:4560	Statistics for Risk Modeling I	3
STAT:4561	Statistics for Risk Modeling II	3
STAT:6301	Probability and Stochastic Processes II	3
STAT:7560	Time Series Analysis	3

Biostatistics Concentration Area

Biostatistics emphasizes exposure to various biostatistical methods, such as survival analysis, categorical data analysis, and longitudinal data analysis. It prepares students for consulting and other positions in industry.

Course #	Title	Hours
All of these from the MS in statistics program:		
STAT:5090	ALPHA Seminar	1
STAT:5100	Statistical Inference I	3
STAT:5101	Statistical Inference II	3
STAT:5200/ IGPI:5199	Applied Statistics I	4
STAT:5201	Applied Statistics II	3
STAT:5400/ DATA:5400/ IGPI:5400	Computing in Statistics	3
STAT:6220/ DATA:6220	Consulting and Communication With Data	3
STAT:6300	Probability and Stochastic Processes I	3
STAT:6990	Readings in Statistics (two consecutive enrollments)	2
All of these:		
STAT:5120	Mathematical Methods for Statistics	3
STAT:7100	Advanced Inference I	3
STAT:7101	Advanced Inference II	3
STAT:7200	Linear Models	4
STAT:7300	Advanced Probability	3
STAT:7400/ DATA:7400/ IGPI:7400	Computer Intensive Statistics	3
STAT:7990	Reading Research	18
Seminars chosen from STAT:7190, STAT:7290, and STAT:7390		2
At least four of these, with at least one numbered 7000 or above:		
STAT:6530/ IGPI:6530	Environmental and Spatial Statistics	3
STAT:7510/ BIOS:7410	Analysis of Categorical Data	3
STAT:7570/ BIOS:7210/ IGPI:7210	Survival Data Analysis	3
BIOS:6650/ EPID:6655/ IGPI:6650	Causal Inference	3
BIOS:6720	Statistical Machine Learning for Biomedical and Public Health Data	3
BIOS:7240	High-Dimensional Data Analysis	3
BIOS:7310/ IGPI:7310	Longitudinal Data Analysis	3
DATA:7350	High-Dimensional Probability for Data Science	3

Data Science Concentration Area

The data science track emphasizes the theory, methodology, and application of techniques for working with and learning from data. This concentration area prepares students to develop new methods for visualizing and modeling data, managing reproducible data analysis workflows, and collaborating with scientists and other data stakeholders. It is excellent preparation for students interested in academic, industrial, or government positions that involve data visualization, modeling, and analysis.

Course #	Title	Hours
All of these from the MS in statistics program:		
STAT:5090	ALPHA Seminar	1
STAT:5100	Statistical Inference I	3
STAT:5101	Statistical Inference II	3
STAT:5200/ IGPI:5199	Applied Statistics I	4
STAT:5201	Applied Statistics II	3
STAT:5400/ DATA:5400/ IGPI:5400	Computing in Statistics	3
STAT:6220/ DATA:6220	Consulting and Communication With Data	3
STAT:6300	Probability and Stochastic Processes I	3
STAT:6990	Readings in Statistics (two consecutive enrollments)	2
All of these:		

STAT:4540/ BAIS:4540/ DATA:4540/ IGPI:4540	Statistical Learning	3
STAT:4580/ DATA:4580/ IGPI:4580	Data Visualization and Data Technologies	3
STAT:5120	Mathematical Methods for Statistics	3
STAT:7100	Advanced Inference I	3
STAT:7200	Linear Models	4
STAT:7400/ DATA:7400/ IGPI:7400	Computer Intensive Statistics	3
STAT:7500/ BAIS:7500	Statistical Machine Learning	3
STAT:7990	Reading Research	18
DATA:7350	High-Dimensional Probability for Data Science	3
Seminars chosen from STAT:7190, STAT:7290, and STAT:7390		2
At least two of these, with at least one numbered 7000 or above:		
STAT:4750/ DATA:4750	Probabilistic Statistical Learning	3
STAT:6200/ ACTS:6200/ DATA:6200	Predictive Analytics	3
STAT:6530/ IGPI:6530	Environmental and Spatial Statistics	3
STAT:6560	Applied Time Series Analysis	3
STAT:6970	Topics in Statistics	3
STAT:7101	Advanced Inference II	3
STAT:7300	Advanced Probability	3
STAT:7510/ BIOS:7410	Analysis of Categorical Data	3
STAT:7520	Bayesian Analysis	3
STAT:7560	Time Series Analysis	3

Probability/Mathematical Statistics Concentration Area

Probability/mathematical statistics emphasizes a broad, solid foundation in techniques and underpinnings of mathematical statistics. Its focus on breadth and depth is intended to produce well-rounded, knowledgeable scholars. It is excellent preparation for academic positions in mathematical statistics and industrial or government positions that require broadly trained statisticians with a strong understanding of statistical theory.

Course #	Title	Hours
All of these from the MS in statistics program:		
STAT:5090	ALPHA Seminar	1
STAT:5100	Statistical Inference I	3
STAT:5101	Statistical Inference II	3
STAT:5200/ IGPI:5199	Applied Statistics I	4
STAT:5201	Applied Statistics II	3
STAT:5400/ DATA:5400/ IGPI:5400	Computing in Statistics	3
STAT:6220/ DATA:6220	Consulting and Communication With Data	3
STAT:6300	Probability and Stochastic Processes I	3
STAT:6990	Readings in Statistics (two consecutive enrollments)	2
All of these:		
STAT:5120	Mathematical Methods for Statistics	3
STAT:7100	Advanced Inference I	3
STAT:7101	Advanced Inference II	3
STAT:7200	Linear Models	4
STAT:7300	Advanced Probability	3
STAT:7400/ DATA:7400/ IGPI:7400	Computer Intensive Statistics	3
STAT:7990	Reading Research	18
Seminars chosen from STAT:7190, STAT:7290, and STAT:7390		2
At least four of these, with at least one numbered 7000 or above:		
STAT:6301	Probability and Stochastic Processes II	3
STAT:7500/ BAIS:7500	Statistical Machine Learning	3
STAT:7520	Bayesian Analysis	3
STAT:7560	Time Series Analysis	3
BIOS:6650/ EPID:6655/ IGPI:6650	Causal Inference	3
BIOS:7240	High-Dimensional Data Analysis	3
DATA:7350	High-Dimensional Probability for Data Science	3

Committee

After admission to the PhD program and before taking the PhD comprehensive exam, the candidate chooses a committee of at least five members, which is approved by the advisor. At least three of the faculty members must be University of Iowa tenure-track faculty members. At least two of the faculty members must be from the major department (defined as faculty members who hold any appointment in the major department), and University of Iowa tenure-track faculty members.

The department may request the Graduate College dean's permission to replace one of the five committee members with a recognized scholar of professorial rank from another academic institution.

PhD Comprehensive Exam (Prospectus)

After passing the MS final exam and within 12 months of passing the PhD qualifying procedure, the candidate should present to the committee a written and oral prospectus, which serves as the PhD comprehensive exam. The prospectus describes the problems the student is considering for the thesis, an extensive review of relevant background materials, open problems of interest and ideas for solving problems, and any preliminary results. Failure to successfully complete the prospectus within 18 months of admittance to the PhD

program will jeopardize the continuation of a student's financial support.

Each PhD committee member will sign the examination report as satisfactory, reservations, or unsatisfactory. A vote of "Reservations" should only be used when a faculty member feels that the deficiencies displayed by the student were modest and can be readily rectified. In the event of a report with two or more votes of "Reservations," the committee's requirements of the student to correct the deficiencies must be recorded and submitted to the Graduate College with the examination report form. The statement must specify the time allotted for completion of the aforementioned actions. For example, if additional coursework is required, a list of suitable courses must be presented. If the candidate must rewrite their research prospectus, the deficient areas must be identified. If the candidate satisfies the required actions within the specified period of time, the comprehensive examination will be recorded as "Satisfactory" as of that date. If the actions are not satisfied on time, or if the actions are not of sufficient quality, the comprehensive examination will be recorded as "Unsatisfactory" as of that date. The candidate will not be admitted to the PhD final examination of the dissertation until a grade of "Satisfactory" has been recorded for the comprehensive exam.

In the case of a report of unsatisfactory on a comprehensive examination, the committee may grant the candidate permission to attempt a reexamination no sooner than four months after the first examination. The examination may be repeated only once, at the option of the department.

PhD Final Exam (Dissertation Defense)

Students should plan to defend their dissertation within 24–36 months of passing the PhD qualifying procedure. Failure to successfully defend the dissertation within 48 months of passing the PhD qualifying procedure or within five years of starting the graduate program at the University of Iowa, whichever comes first, will jeopardize the continuation of a student's financial support.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

Statistics and probability are vital to many fields, so the demand for well-trained statisticians is strong. Statisticians work in medicine, engineering, law, public policy making, marketing, manufacturing, engineering, agriculture, varied social and natural sciences, and numerous other areas.

The program prepares students for careers in research, applications, and teaching. To learn more about job opportunities, see Your Career on the American Statistical Association website.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Theatre Arts

Chair

- Mary Beth Easley

Undergraduate major: theatre arts (BA)

Undergraduate minor: theatre arts

Graduate degree: MFA in theatre arts

Faculty: https://theatre.uiowa.edu/people

Website: https://theatre.uiowa.edu/

The Department of Theatre Arts offers academic programs for undergraduate and graduate students. It also stages live performances throughout the academic year and during the summer. The department also administers the Certificate in Digital Arts [p. 358] and the Certificate in Social Justice and the Performing Arts [p. 993].

The department educates students who plan to enter other fields in which understanding of the arts and experience with theatre skills are useful. Some earn a major in theatre arts, sometimes with a second major in another discipline. Others earn a minor or take theatre classes as nonmajors. For information, view the minor in theatre arts [p. 1113] in the catalog or see "Courses for Nonmajors."

Several of the department's courses are approved for the GE CLAS Core; look for courses with the prefix THTR in the GE CLAS Core [p. 22] section of the catalog.

Courses for Nonmajors

Most theatre arts courses are open to all students, regardless of their majors, and are appropriate for nonmajors interested in theatre. The following courses are designed specifically for nonmajors.

Course #	Title	Hours
THTR:1140	Basic Acting	3
THTR:1141	Basic Acting II	3
THTR:1400	Theatre and Society: Ancients and Moderns	3
THTR:1401	Theatre and Society: Romantics and Rebels	3
THTR:1410	Musical Theatre History	3
THTR:1411	Comedy and Society	3
THTR:1412	The Arts in Performance	3
THTR:2301	Playwriting I	3
THTR:2320	Playwriting in a Global World	3
THTR:2405	Staging Americans: U.S. Cultures Through Theatre and Performance	3
THTR:2605	Monsters, Victims, and Villains: Changing Perceptions	3
THTR:2610	Acting for Success	3
THTR:2620	Improvisation for Engineers, Scientists, and the Curious	3
THTR:2690	Sound Excursions: The Evolving Soundscape and the Reverberations of Human Activity	3
THTR:3210	Makeup Design for the Stage	3
THTR:3301	Playwriting II	3
THTR:3510	Introduction to Arts Management	3
THTR:3615	Action! Engage! Art! Creative Placemaking for the Public Good	3

Productions and Auditions

The Department of Theatre Arts presents around 20–25 public productions each year. These include a mainstage series of five plays, a festival of new works, and other productions, most of them new plays written by students.

Special attention is given to the process of developing new works and to the collaborative process that involves writers, directors, designers, dramaturgs, stage managers, and actors. Graduate and undergraduate students, faculty, and visiting guest artists work together on large and small projects throughout the year.

Auditions for Theatre Arts Productions

Auditions for theatre arts productions are open to everyone. For academic considerations, priority is given to theatre arts majors first, and then all other University of Iowa students and members of the local community. There are many excellent roles available throughout the year and many nonmajors and actors from the surrounding community are cast each season. Occasionally, professional guest actors are employed.

General auditions are held at the beginning of the fall semester. Additional general auditions are usually scheduled in early November and in March. Information about auditions is available on the Department of Theatre Arts website. Notices of auditions are posted on the department's online call board.

Programs

Undergraduate Programs of Study

Major

- Major in Theatre Arts (Bachelor of Arts) [p. 1107]

Minor

- Minor in Theatre Arts [p. 1113]

Graduate Program of Study

- Master of Fine Arts in Theatre Arts [p. 1114]

Facilities

The University of Iowa has one of the finest educational theatre complexes in the country. The Theatre Building offers three theatres and up-to-date facilities for classroom, laboratory, shop, and performance work.

The E.C. Mabie Theatre, a continental-style, 457-seat proscenium playhouse, is one of the finest theatres of its type in the United States. The David Thayer Theatre is a "black box" production space; its flexible seating units accommodate from 140 to 225 people and allow modification of space and audience relationships. The Alan MacVey Theatre, which seats 137, is an open-stage theatre dedicated primarily to the production of new and experimental works.

In addition to classrooms for acting and directing, several spaces are designed for teaching particular aspects of dramatic studies. The Cosmo Catalano Acting Studio is for the study of movement and motion by acting students. It also serves as an intimate theatre for readings. The Arnie Gillette Design Studio serves as a classroom and studio workshop for design students.

To support its production schedule and to provide students with an appropriate range of experience, the department maintains shops for building, painting, maintaining, and storing scenery, costumes, and properties. Using these shops, students learn to work in metal, plastics, canvas, and wood.

Courses

Theatre Arts Courses

THTR:1000 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

THTR:1140 Basic Acting 3 s.h.
Concentration, relaxation, imagination, observation, communication, sensory awareness; development of theatrical creativity through objectives, obstacles, action, conflict, spontaneity; development of a scene from scripts. Requirements: non-theatre arts major. GE: Engineering Be Creative; Literary, Visual, and Performing Arts.

THTR:1141 Basic Acting II 3 s.h.
Continuation of THTR:1140; emphasis on development of scenes. Prerequisites: THTR:1140. Requirements: non-theatre arts major.

THTR:1400 Theatre and Society: Ancients and Moderns 3 s.h.
Representative plays as performed in social contexts of ancient Egypt; classical Greece, Rome, India, and Japan; and medieval and early modern Europe. GE: Historical Perspectives; Literary, Visual, and Performing Arts.

THTR:1401 Theatre and Society: Romantics and Rebels 3 s.h.
Representative plays as performed in social contexts of revolutionary and modern Europe and postwar United States. GE: Historical Perspectives; Literary, Visual, and Performing Arts.

THTR:1410 Musical Theatre History 3 s.h.
American musical theatre's form, function, evolution; major composers (Berlin, Gershwin, Rodgers and Hammerstein, Sondheim), lesser-known and contemporary writers; roots of the rock musical, future of musical theatre, how musicals reflect their own eras and cultural attitudes of their times; readings, recordings, videos. Ability to read music not required.

THTR:1411 Comedy and Society 3 s.h.
How comedy reflects, comments upon, and intersects with western culture, society, and identity; roots of western comedy, satire, censorship; stand-up comedians, improv and sketch troupes, satirists; race, gender and sexuality, class perception; how portrayals of African Americans in popular culture evolved from 19th century to present; videos, readings, live performances. GE: Values and Society.

THTR:1412 The Arts in Performance 3 s.h.
GE: Literary, Visual, and Performing Arts; Values and Society. Same as DANC:1412.

THTR:1834 Modes of Film and Video Production 4 s.h.
Introduction to filmmaking; how to shoot and edit short works of cinematic art; exposure to various working methods including nonfiction, fiction, and experimental modes of video production. GE: Engineering Be Creative. Same as CINE:1834.

THTR:2000 Orientation to Theatre Arts 1 s.h.
Introduces students to the Department of Theatre Arts production process and the eight BA roadmaps: acting, comedy studies, design, directing, dramaturgy, playwriting, screenwriting and writing for television, and stage management. Requirements: declared major in theatre arts.

THTR:2120 Movement: Special Topics 2-3 s.h.
Specialized study in movement techniques and movement styles for body conditioning; development of yoga techniques; varied topics.

THTR:2140 Acting I 3 s.h.
Development of creativity, imagination, and openness through exercises to engage mind, body, and voice in theatrical play and scene work. Requirements: theatre arts major, or theatre arts minor and THTR:1140.

THTR:2170 Acting for Musical Theatre 3 s.h.
Students focus on acting technique for musical theatre; within the framework of song, students learn to work truthfully with a partner, find the action of the piece, mine a piece of music for acting clues from the composer, and connect authentically while being larger than life. Prerequisites: THTR:1140 or THTR:2140. Requirements: any one of the courses listed as prerequisites, or one semester of applied lessons in vocal performance.

THTR:2175 Musical Theatre Performance: Special Topics 3 s.h.
Specialized, practical study in a specific area related to development of musical theatre knowledge and performance skills; topics vary. Corequisites: THTR:2140. Requirements: audition.

THTR:2190 Improvisation for the Stage 3 s.h.
Survey of American improvisation, including both history and practice, offering students an opportunity to understand improv from a historical perspective as well as participate in in-class games and performances.

THTR:2215 Theatre Technology 3 s.h.
Theatrical production; technology and backstage operations including sound, projections, lighting, scenery, costumes, stage management. GE: Engineering Be Creative.

THTR:2220 Production Lab 1-3 s.h.
Practical experience in physical construction and operation of live theatre; theatre department productions provide lab experiences for applied learning in technical theatre and run crew opportunities in scenery, costumes, lighting, sound, and stage management. GE: Engineering Be Creative.

THTR:2301 Playwriting I 3 s.h.
Elements of playwriting; emphasis on analysis and discussion of original student writing. GE: Engineering Be Creative; Literary, Visual, and Performing Arts.

THTR:2320 Playwriting in a Global World 3 s.h.
Students read and analyze the works of a diverse range of American and international playwrights and documentarians; fundamental skills of reading, hearing, imagining, and writing for local and global stages; emphasis on a broad range of voices, styles, and stories. GE: Understanding Cultural Perspectives.

THTR:2402 Script Analysis 3 s.h.
Basic skills in critical reading and close analysis of dramatic texts, with focus on dramatic structure, challenges of putting texts into production.

THTR:2405 Staging Americans: U.S. Cultures Through Theatre and Performance 3 s.h.
Role of American theatre as a complex tapestry of race, gender, sexuality, and disability; examination of plays and performance outside primarily white-male canon; contemporary social practice and cultural politics in local and national contexts. GE: Understanding Cultural Perspectives.

THTR:2410 History of Theatre and Drama I 3 s.h.
Major developments in Anglo-European, Indian, Asian, and African theatre and drama, 3000 B.C.E. to C.E. 1700; sociopolitical, economic, and cultural circumstances of original productions. GE: Historical Perspectives; Literary, Visual, and Performing Arts.

THTR:2411 History of Theatre and Drama II 3 s.h.
Continuation of THTR:2410; 1700 to 1960; revolutionary and modern European theatre and culturally diverse postwar U.S. theatre. Offered fall semesters. GE: Historical Perspectives; Literary, Visual, and Performing Arts.

THTR:2605 Monsters, Victims, and Villains: Changing Perceptions 3 s.h.
Introduction to implementation of performance opportunities for special populations (defined as those with cognitive or physical disability) and underrepresented populations; students gain skills necessary to create radical opportunities for and implementation of performances including individuals with disabilities in theatre, dance, and music; students from different backgrounds experience collaborative artistic excellence while redefining audience expectations; historic background for perceptions of disability. GE: Understanding Cultural Perspectives. Same as EDTL:2963.

THTR:2610 Acting for Success 3 s.h.
How skills learned by actors in the theatre world can be applied to presentations and interactions in business, education, and beyond; how to connect with others on a personal level; ability to stand out as a team player and a leader; acting techniques traditionally used in theatre to open up communication dynamics; how to display an authentic self in everyday situations. Corequisites: RHET:1030 or RHET:1040 or RHET:1060. GE: Engineering Be Creative. Same as RHET:2610.

THTR:2620 Improvisation for Engineers, Scientists, and the Curious 3 s.h.
Use of theatrical exercises and improvisation techniques to help students develop their imaginations, stimulate creativity, and approach practical projects from a fresh point of view; emphasis on working in teams and using improvisational techniques to solve problems. GE: Engineering Be Creative.

THTR:2690 Sound Excursions: The Evolving Soundscape and the Reverberations of Human Activity 3 s.h.
How human activity impacts sustainability and diversity of interconnected ecosystems: bioacoustics research, evolution of sound and mechanics for sound production of and between species, biomechanics of human hearing and sound production, expanding capacity to deeply listen; experiential learning/projects-based course includes lectures, discussions, field recordings, and sound excursions; final project may be creative (e.g., 10-minute play about sonic inequity, geolocated sound experience) or research-based.

THTR:2800 Digital Arts: An Introduction 3 s.h.
Introduction to potential of integrating art with technology to provide a foundation of skills and concepts through hands-on experimentation; lectures and demonstrations introduce key concepts and ideas as well as the history of digital arts; students develop skills that form a foundation for future investigation through labs; work may include using an Arduino, programming, and developing an interface to control a software project; final project is shared with the public in some way; critical discourse in the form of writing assignments allows for reflection and evaluation. GE: Engineering Be Creative. Same as ARTS:2800, CINE:2800, CS:2800, DANC:2800, DIGA:2800, MUS:2800.

THTR:2880 Installations and Interactive Performance 3 s.h.
Introduction to aesthetics, techniques, and practical possibilities of fusing together theatre, dance, music/sound, art, design, cinema, gaming, human computer interaction, and engineering; foundations of creating interactive experiences that use digital photos, video, text, real-world objects, sensor data, live bodies moving in space, Kinect 2 sensors, cameras, and multiple video outputs (e.g., projectors, LED displays); use of Isadora, an interactive, node-based programming software, to create immersive mediated performances, interactive installations, embodied user-based experiences, and user-manipulated virtual environments. GE: Engineering Be Creative. Same as DANC:2880, DIGA:2880.

THTR:2890 Producing and Directing Digital Video 3 s.h.
Introduction to basic concepts, theories, and practical applications of digital video production for multiple distribution streams, with focus on aesthetic and technical principles; development of proficiency in contemporary approaches to digital media production by understanding the production pipeline from ideation to preproduction, production, postproduction, and through to distribution. GE: Engineering Be Creative. Same as DANC:2890, DIGA:2890.

THTR:3110 Voice for the Actor 3 s.h.
Progressive development of voice for theatre; physical awareness, breath, freeing and amplifying sound, range and resonance, articulation; application of voice work through classical and contemporary theatre texts.

THTR:3120 Theatre Movement 3 s.h.
The body as a tool for dramatic expression; basic principles and practices of stage movement; approaches to physical technique.

THTR:3140 Acting II 3 s.h.
Extension of work begun in THTR:2140; scene study, with focus on contemporary realism and development of collaborative dynamic. Prerequisites: THTR:1141 or THTR:2140.

THTR:3151 Voice for the Actor II 3 s.h.
Further development of voice for theatre with emphasis on acquisition of accents and dialects. Prerequisites: THTR:3110.

THTR:3160 Movement Styles 3 s.h.
Intensive study of a selected movement style (e.g., mask, clown, commedia dell'arte). Prerequisites: THTR:3120.

THTR:3165 Stage Combat 3 s.h.
Fundamental principles of stage combat in a specialized area of study—unarmed combat, rapier and dagger techniques, and hand-to-hand and knife techniques.

THTR:3202 Graphic Design for the Entertainment Industry 2-3 s.h.
Series of projects focusing on developing graphic design skill sets and using the Adobe Creative Suite and other programs. GE: Engineering Be Creative.

THTR:3205 Concepts in Drawing 3-4 s.h.
Intermediate-level topics; observation, theory, media, form, content; emphasis on personal direction. Prerequisites: DRAW:2310. Same as DRAW:3310.

THTR:3208 Mask and Puppet Crafts 3 s.h.
Mask and puppet design; paper mache, plaster gauze, thermal plastics, and soft sculpture techniques. GE: Engineering Be Creative.

THTR:3210 Makeup Design for the Stage 3 s.h.
Techniques in design and application of stage makeup: development of conceptual, research, hands-on skills through projects in fantasy, period, and character makeup, simple prosthetics. GE: Engineering Be Creative.

THTR:3211 Period Styles 3 s.h.
A global design survey that explores the historical intersections of fashion, architecture (both interior and exterior), fine art, and cultural movements.

THTR:3215 Sewing Techniques for Theatre Costuming 3 s.h.
Students learn and improve sewing skills for theatre costuming; lab oriented with focus primarily based on a variety of sample sewing techniques; collaboration and individual work; final project consists of a costume sample from a chosen show and reflects student's skill and experience.

THTR:3230 Scenic Design I 3 s.h.
Development of theatre scenery; how to research, conceptualize, and express ideas in 3D models, simple sketches, and drafting. GE: Engineering Be Creative. Same as ARTS:3230.

THTR:3235 Production Design for Film, Television, and New Media 3 s.h.
Explores the processes of production design, art direction, and lighting direction as related to design for narrative films, television, and new media. Provides an initial understanding of the production design process in practice to gain a better understanding of the production design process and the narrative filmmaking process.

THTR:3240 Costume Design I 3 s.h.
Introduction to theatre costumes; how to conceptualize and express ideas through rendering and 3D mannequin projects; may be taken after THTR:4240. GE: Engineering Be Creative.

THTR:3250 Lighting Design I 3 s.h.
How to research, conceptualize, and express ideas through light plots, other design paperwork, and theatre lighting design projects. GE: Engineering Be Creative.

THTR:3260 Sound Design for the Theatre 3 s.h.
Introduction to concepts of theatre aurality, sound dramaturgy, and basic sound reinforcement; provides project-based instruction for practice, process, and mechanics of recording, designing, and manipulating sound for plays and contemporary theatrical experiences. GE: Engineering Be Creative.

THTR:3270 Entertainment Design 3 s.h.
Introduction to entertainment design and technology; primary focus on contemporary approaches to design and delivery of content in entertainment industry; assignment of practical projects using media servers, projection, LED arrays, video editing software, and moving light technologies. GE: Engineering Be Creative.

THTR:3276 Medieval Drama 3 s.h.
Study of drama in the Medieval period. Same as ENGL:3276.

THTR:3277 English Renaissance Drama 3 s.h.
Dramatic literature of the English Renaissance. Same as ENGL:3277.

THTR:3301 Playwriting II 3 s.h.
Application of fundamental skills learned in THTR:2301 to more advanced study of dramatic structure and style; reading of plays, weekly writing assignments; focus on writing one-act play. Prerequisites: THTR:2301.

THTR:3310 Undergraduate Playwriting Workshop 3 s.h.
Workshop discussion of original full-length plays, collaborative creation of new plays, work with guest artists. Prerequisites: THTR:2301 and THTR:3301.

THTR:3315 Standup Comedy Practicum 3 s.h.
Writing and performing standup comedy; emphasis less on creating a comic persona and more on pulling from and articulating personal truth; analysis of contemporary comedians and joke structure; performing original work for multiple audiences in classroom and out in community.

THTR:3320 Writing for Film 3 s.h.
Rigorous writing for film; focus on feature-length screenplay; for students with experience in dramatic writing, fiction, or screenwriting. Requirements: completion of at least 60 s.h. or graduate standing.

THTR:3325 Iowa Writers' Room 3 s.h.
Experiential learning in television writing field; first-hand experience as part of a traditional television writers' room—selecting material and show topics, pitching ideas, collaboratively breaking story, and writing and workshopping scripts for a limited series television show of student's choosing; includes instruction and class visits by acclaimed industry insiders. Same as WRIT:3325.

THTR:3401 Topics in Dramatic Literature 3 s.h.
Topics in dramatic literature, including specific authors, periods, and movements; sample topics include Ibsen and Strindberg, Chekov, Brecht and the Brechtian, and avant-garde theatre.

THTR:3402 Shakespeare the Dramatist 3 s.h.
Exploration of a number of Shakespeare's greatest works; close textual analysis supplemented with historical, theoretical, theatrical, and philosophical considerations; special attention given to Shakespeare's dramatic method and relation of his dramaturgy to profession of theater-making.

THTR:3421 Performing Autobiography 3 s.h.
Advanced seminar and workshop; immersive readings in genre of contemporary autobiographical work, scholarship and criticism, and performance texts and videos as established artists have developed them; students write and perform their own original pieces stemming from personal experiences and interests. Recommendations: RHET:1030. Same as GWSS:3421.

THTR:3430 Women on Stage 3 s.h.
Examination of how and why women in the United States have expressed themselves through theatre and performance from 1776 to present; students study plays as performed events in specific times and places for specific audiences through works by African American, Asian American, European American, Latina, Native American, and lesbian/queer writers; what the theater—as a public, embodied art form—offers female writers; how stakes differ for women of diverse backgrounds in using this often suspect and uniquely powerful medium in particular historical moments; how changing definitions of gender and sexuality come into play; prior background in theater not required. Same as AMST:3430, GWSS:3430.

THTR:3440 American Drama Since 1900 3 s.h.
American playwrights and plays after 1900. Same as ENGL:3440.

THTR:3462 African American Drama 3 s.h.
African American dramatic literature. Same as AFAM:3462, ENGL:3462.

THTR:3501 Stage Management I 3 s.h.
Duties and procedures of stage management; focus on development of production from preparatory work through performance; role of stage manager in collaboration.

THTR:3510 Introduction to Arts Management 3 s.h.
Nonprofit performing arts management and administrative principles; practical applications, trends in the field; focus on arts organizations and their key administrative positions. Same as INTD:3510.

THTR:3530 Musical Theatre Workshop 2 s.h.
Development of musical theatre performance skills through participation; students learn how to project intentions, attitudes, and personality traits of characters they portray; fundamentals of stagecraft, acting, movement, relaxation, and concentration; accurate musical coaching, including clear diction and solidly built dramatic musical interpretation. Same as MUS:3530.

THTR:3610 Drama in the Classroom 3 s.h.
Theories of community, culture, identity in relation to language arts teaching and learning; emphasis on incorporating multiple literacies, both oral and print, into language arts curricula; action research involving oral literacy. Same as EDTL:3180.

THTR:3615 Action! Engage! Art! Creative Placemaking for the Public Good 3 s.h.
Best practices for community projects; students in any discipline partner with artists to make change in the world; topics and activities include how to collaborate with creative partners and be a strong partner, develop ethical community partnerships, cultural competency, how to work for sustainable goals, team leadership skills, prepare social justice skills portfolios, investigate established projects, and develop individual or team projects for future semesters and beyond.

THTR:3630 Special Topics in Theatre Arts 3 s.h.
Specialized study in a specific aspect of theatre arts of interest to actors, directors, playwrights, dramaturgs, designers, and stage managers.

THTR:3875 Topics in Digital Performing Arts 3 s.h.
Advanced techniques in performing with established and new technologies including live cameras in performance, controlling digital avatars, motion capture, virtual and augmented reality, and more. Same as DANC:3875.

THTR:3876 Projection Design 3 s.h.
Introduction to the aesthetics and practical applications of projection design for live performance, including content creation, system design, media servers, projectors, cameras, and related professional equipment. Students learn how to create digital artwork with professional content/animation/effects software Adobe After Effects, Illustrator, Photoshop, Premiere Pro, Audition, etc. Through the media server QLab students learn how to integrate digital artwork and live video cameras into live performance via projectors and digital displays. GE: Engineering Be Creative. Same as CINE:3876, DANC:3876, DIGA:3876, INTM:3876.

THTR:3895 Performance, Art, and New Technologies in Society 3 s.h.
Students pitch projects and work in interdisciplinary groups to create original live performances and installations based on major technological innovations that have deeply impacted society and live performance in late 20th and early 21st centuries; daily hands-on making; examination of theoretical texts and performances that address impact of technology on human condition to contextualize students' own art/technology projects; exploration and adaptation of technologies/aesthetics for live performance and art including telepresence and liveness, artificial intelligence and big data, augmented and virtual reality. Prerequisites: MUS:2800 or THTR:2880 or CS:1110 or CS:1210 or SCLP:4835. Same as DANC:3895, DIGA:3895.

THTR:4144 Acting: Special Topics 3 s.h.
Specialized study in a specific aspect or theory of acting.

THTR:4180 Directing I 3 s.h.
Basic elements of stage direction; exercises in composition, emphasis, movement, rhythm, directorial analysis; director's role in production process; short scenes, projects, papers. Prerequisites: THTR:2140 and (THTR:2402 or CINE:1601 or CINE:1602).

THTR:4185 Directing: Special Topics 3 s.h.
Specialized study in a specific aspect or theory of stage directing. Prerequisites: (THTR:2140 or THTR:3120) and (THTR:2402 or CINE:1601 or CINE:1602).

THTR:4230 Scenic Design II 3 s.h.
Design and execution of increasingly complex projects in a variety of formats, including perspective sketching, detailed drafting, and color models. Prerequisites: THTR:3230.

THTR:4240 Costume Design II 3 s.h.
Immersion in the essential skills needed for developing costumes for theater, film, and television. Emphasis on blending creative work, technical skills, and collaboration. Recommendations: may be taken before THTR:3240.

THTR:4250 Lighting Design II 3 s.h.
Development of advanced lighting artistry; preparation for mainstage lighting assignments through a series of hands-on projects and practicals; emphasis on process of design, communicating design concept, acclimating to University of Iowa venues, advanced moving light programming, 3D modeling, previsualization techniques, and organizing plot and paperwork in accordance with professional lighting practices. Prerequisites: THTR:3250.

THTR:4270 Scenic Art 3 s.h.
Basic techniques in scenic art for the theatre; classical scene painting, color theory, drawing, using nontraditional tools and materials, foam carving, and finishes. Offered every other year. GE: Engineering Be Creative. Same as ARTS:4270.

THTR:4290 Design: Special Topics 1-3 s.h.
Specialized study in a specific aspect or theory of theatrical design.

THTR:4420 Dramatic Theory 3 s.h.
Theoretical questions of interest to dramatists and philosophers in western and nonwestern traditions; metaphysics of play; theories of character, psyche, self; narrative and nonnarrative dramatic forms. Prerequisites: THTR:2402 and THTR:2410 and THTR:2411.

THTR:4510 Arts Leadership Seminar 3 s.h.
Performing arts management and administrative principles, practical applications, trends in arts leadership and advocacy. Same as ENTR:4510, INTD:4510.

THTR:4605 Undergrad Career Preparation 1-3 s.h.
Business aspects of the actor's career; entrepreneurial tools for the professional world; topics include agents, managers, taxes, fees, résumés, head shots, unions, similarities and differences between the three major markets (New York, Chicago, Los Angeles), and particular needs for television, film, and theatre.

THTR:4630 London Performance Study 3 s.h.
Performance studies. Same as ENGL:4172.

THTR:4691 Projects in Theatre arr.

THTR:4692 Honors Theatre Arts arr.
Development of a focused, large-scale project that aligns with and deepens a student's interest in theatre arts. Project generally includes both a written portion and a public presentation.

THTR:4693 Independent Study arr.

THTR:4695 Performance Practicum 1-2 s.h.
Perform as an actor or serve as an assistant stage manager in a production of at least an hour's length, rehearsed for at least four weeks, directed by a faculty member or guest artist or graduate student, and produced by the Department of Theatre Arts.

THTR:5200 Graduate Design Seminar arr.
Graduate design in set, lighting, and costume design; teamwork; meetings with design faculty in specific disciplines; short-term projects in the theatre department; long-term projects, including summer design work, internships, and other professional opportunities during the three-year program and beyond. Prerequisites: THTR:4230 or THTR:4240 or THTR:4250.

THTR:5230 Scenic Design III 3 s.h.
Complex assignments; documentation skills, scenic design preparation. Prerequisites: THTR:3230 and THTR:4230.

THTR:5240 Costume Design III 3 s.h.
Advanced projects in costume design and portfolio development. Prerequisites: THTR:4240.

THTR:5250 Lighting Design III 3 s.h.
Advanced projects in venues such as dance, opera, industrials; preparation of lighting designs for production. Prerequisites: THTR:4250.

THTR:5300 The Collaborative Process 3 s.h.
Development of new plays, collaboratively created works.

THTR:5410 Dramaturgy 3 s.h.
Overview of history, theory, and practice of dramaturgy and dramaturg in Europe and the United States including relationship to dramatic criticism, dramaturgical research, analysis and conceptualization of texts for production, audience outreach, and new play development; may focus intensively on one of these topics and workshop creative work related to the topic.

THTR:5420 Dramaturgy Practicum arr.
Supervision of ongoing dramaturgical work in Department of Theatre Arts and the Playwrights Workshop; workshopping elements of dramaturgical work (e.g., script reports, program essays, lobby displays); examination of special topics including history of dramaturgy, dramatic criticism, dramaturgical writing (documenting the production process), dramaturgy and dramatic theory. Requirements: admission to MFA dramaturgy program.

THTR:5500 Stage Management: Special Topics 3 s.h.
Topics in stage management, arts production, and their professional practice. Requirements: admission to MFA stage management program.

THTR:5510 Production Management 3 s.h.
Organization and supervision of theatre productions; resources, procedures for successfully mounting a theatre production or season; personnel, equipment, facility and budget management, scheduling, communication. Requirements: stage management MFA enrollment.

THTR:5600 Orientation to Graduate Studies 1-2 s.h.
Introduction to the department's six graduate programs, production program, facilities, and UI library system; raises issues that will be considered throughout students' graduate careers; exploration of creative process and application of critical thinking to that process; for first-year theatre arts MFA students. Requirements: admission to MFA in theatre arts.

THTR:5880 Installations and Interactive Performance 3 s.h.
Introduction to creating interactive experiences with technology; aesthetics, techniques, and practical possibilities of fusing together theatre, dance, music/sound, art, design, cinema, gaming, human-computer interaction, and engineering through use of Isadora, an interactive, node-based programming software; students create immersive performances, interactive installations, embodied user experiences, and user-manipulated virtual environments. Same as DANC:5880.

THTR:5890 Producing and Directing Digital Video 3 s.h.
Introduction to basic concepts, theories, and practical applications of digital video production for multiple distribution streams with focus on aesthetic and technical principles; development of proficiency in contemporary approaches to digital media production by understanding the production pipeline from ideation to preproduction, production, postproduction, and through to distribution. Same as DANC:5890.

THTR:6140 Advanced Acting 3 s.h.
Preprofessional training; may include psychophysical training in impulse, openness and the "mask," individual and group dynamics, improvisation, repetition, characterization and scene work, Shakespeare and style, on-camera, development of professional work habits and skills, audition and interview. Requirements: admission to MFA acting program.

THTR:6150 Vocal Technique 3 s.h.
Skills training; voice and speech for the actor, phonetics, dialects, sound exploration, contemporary and classical text analysis. Requirements: admission to MFA acting program.

THTR:6160 Movement Technique 3 s.h.
Fundamental principles and practices required for physical acting technique; basic stage movement, stage combat, mime technique, Lecoq-based improvisation; a new works project. Requirements: admission to MFA acting program.

THTR:6170 Graduate Acting: Special Topics 3 s.h.
Specialized study in one aspect or theory of acting. Requirements: admission to MFA acting program.

THTR:6180 Director's Seminar 1-3 s.h.
Preprofessional training in stage direction; the art and craft of directing; research, practical experience; development of new pieces; approaches to a variety of theatrical materials through concept, type, style. Requirements: admission to the MFA directing program.

THTR:6300 Guest Seminar arr.
Playwriting workshops and script conferences led by visiting professional playwrights, directors, and dramaturgs. Requirements: admission to MFA playwriting program.

THTR:6310 Special Topics in Playwriting 3 s.h.
Special topics of interest to MFA playwrights and dramaturgs including fundamentals for experts, designing audience experiences, structural approaches to playwriting, and writing for film; also may focus on dramatic genres (e.g., docudrama, history play).

THTR:6500 Stage Management Seminar 1-2 s.h.
Practice and techniques of stage management. Requirements: admission to MFA stage management program.

THTR:6605 Graduate Career Preparation 1-3 s.h.
Preparation for professional showcase produced in student's final year; business aspects of the actor's career; entrepreneurial tools for the professional world; topics include agents, managers, taxes, fees, résumés, head shots, unions, similarities and differences between three major markets (New York, Chicago, and Los Angeles), and particular needs for television, film, and theatre. Requirements: admission to MFA acting program.

THTR:6691 Projects in Theatre Advanced arr.
Create a special project under the mentorship of a faculty member; projects may include performing in a main stage production, writing, directing, or designing a play performed in the department, developing a research project that intersects production.

THTR:7300 Playwrights Workshop 1,3 s.h.
Development of works by Iowa Playwrights Workshop members. Requirements: admission to MFA playwriting or dramaturgy program.

THTR:7601 MFA Thesis 0-3 s.h.
Work related to MFA thesis projects in theatre arts.

Theatre Arts, BA

The undergraduate program in theatre arts is based on the philosophy that the best way to develop future artists is to expose them to rigorous professional practice within the framework of a liberal arts and sciences education.

Department of Theatre Arts students take workshop courses in acting, directing, design, technical theatre, stage management, and playwriting and complement them with classes in dramatic literature, history, and criticism. Students are also encouraged to explore a range of courses throughout the university. Around 20 public productions are staged each year, providing additional opportunities to learn the theatre craft and to develop a personal artistic vision.

Student Auditions for Theatre Arts Productions

Theatre arts majors are encouraged to audition for the department's productions in general auditions at the beginning of the fall semester. Students normally present a three-minute audition consisting of two contrasting pieces. From this audition, callback lists are posted for fall productions. Additional general auditions are typically scheduled in early November and in March.

Students in other majors are welcome to audition for the department's productions, as are community members (see "Productions and Auditions" in the Department of Theatre Arts [p. 1100] section of the catalog). For academic considerations, theatre arts majors are given first consideration for roles.

Materials and information about general auditions are available from the Department of Theatre Arts. Notices of auditions for all subsequent productions are posted on the department's online call board.

Learning Outcomes

All theatre students have special interests they want to pursue—acting, writing, design, and more. To make this possible, the department offers beginning and advanced courses in every theatrical area.

No matter which theatre arts area is chosen, the overall experience as a theatre student will give each major the ability to:

- apply knowledge of theatre's role in society throughout history to creative and/or scholarly work;
- explore and apply understanding of a dramatic script to creative and/or scholarly work;
- collaborate with others to produce a play;
- talk about and assess a student's work and the work of others;
- articulate an emerging artistic vision that starts to inform a student's work and thinking about the arts; and
- write well about theatre.

Requirements

The Bachelor of Arts with a major in theatre arts requires a minimum of 120 s.h., including at least 37 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22]. Students can add the music theatre focus area to their theatre arts degree; see the section titled "Music Theatre Track."

The curriculum for the theatre arts major constitutes the basic experience for all undergraduate theatre arts students. Registration in some courses for the major requires special permission. Contact the Department of Theatre Arts for details.

Students who transfer to the university from other accredited two- or four-year institutions may fulfill theatre arts major requirements with equivalent courses taken at those institutions. To have a course considered for equivalency, students should submit the syllabus from their completed course. If a student completes the courses listed for the approved 2 Plus 2 Plan theatre arts program at Kirkwood Community College, Iowa Central Community College, Eastern Iowa Community College District, or Indian Hills Community College in Iowa, those courses are automatically counted toward requirements for the theatre arts major at the University of Iowa. Students must earn a minimum of 24 s.h. in the UI departments of Theatre Arts or Dance, or the School of Music. Consult the theatre arts department's director of undergraduate studies for more information.

In planning coursework, especially electives, students should be guided by the College of Liberal Arts and Sciences maximum hours rule: students earning a BA may apply a maximum of 56 s.h. earned in one department to the minimum 120 s.h. required for graduation, whether or not the coursework is accepted toward the requirements for the major. Students who earn more than 56 s.h. from one department may use the additional semester hours to satisfy requirements for the major (if the department accepts them), and the grades they earn become part of their grade-point average, but they cannot apply the additional semester hours to the minimum 120 s.h. required for graduation.

Students must complete a course's prerequisites before registering for the course. They normally complete THTR:2140 Acting I, THTR:2402 Script Analysis, THTR:2410 History of Theatre and Drama I, and THTR:2411 History of Theatre and Drama II within their first four semesters in the major.

Students who complete THTR:1400 Theatre and Society: Ancients and Moderns or THTR:1401 Theatre and Society: Romantics and Rebels before declaring a major in theatre arts must consult the undergraduate director before they may register for THTR:2410 History of Theatre and Drama I or THTR:2411 History of Theatre and Drama II.

The BA with a major in theatre arts requires the following coursework.

Requirements	Hours
Theatre Foundation Courses	16
Design Course	3
Dramatic Literature Course	3
Production Lab	3
Theatre Arts Electives	12

Theatre Foundation Courses

Course #	Title	Hours
All of these:		
THTR:2000	Orientation to Theatre Arts	1
THTR:2140	Acting I	3
THTR:2215	Theatre Technology	3
THTR:2402	Script Analysis	3

THTR:2410	History of Theatre and Drama I	3
THTR:2411	History of Theatre and Drama II	3

Design Course

Course #	Title	Hours
One of these:		
THTR:3230	Scenic Design I	3
THTR:3240	Costume Design I	3
THTR:3250	Lighting Design I	3
THTR:3260	Sound Design for the Theatre	3
THTR:4240	Costume Design II	3

Dramatic Literature

Course #	Title	Hours
One of these:		
THTR:1410	Musical Theatre History	3
THTR:2320	Playwriting in a Global World	3
THTR:2405	Staging Americans: U.S. Cultures Through Theatre and Performance	3
THTR:3401	Topics in Dramatic Literature	3
THTR:3402	Shakespeare the Dramatist	3
THTR:3421	Performing Autobiography	3
THTR:4420	Dramatic Theory	3
THTR:4630	London Performance Study	3

Production Lab

Students must earn a total of 3 s.h. in the required production lab course, THTR:2220 Production Lab. The course requires students to work backstage on a department production. All students must serve as a crew member on at least one production (normally earning 1 s.h. per production). They have options to earn 2 s.h. for serving as a crew captain or taking on other advanced responsibilities.

With the instructor's approval, students who enroll in the elective production course (THTR:3501 Stage Management I) may also enroll in the required production lab course THTR:2220 during the same semester or session and may complete an additional project, earning 1 s.h. for THTR:2220 in addition to the credit they earn for the elective course. Students may earn a maximum of 1 s.h. of required production course credit for THTR:2220 this way.

Theatre Arts Electives

Theatre arts students must earn a total of 12 s.h. in theatre arts elective coursework, or a total of 9 s.h. if they select the music theatre track. Students may not use a course to fulfill more than one requirement for the major, so in selecting the additional elective coursework, they may not choose a course they have already used to fulfill another requirement.

At least 9 s.h. in elective courses must be numbered 3000 or above; the other 3 s.h. may be from any level. A minimum of 6 s.h. must be selected from one of the following areas: Acting, Directing, and Music Theatre; Design; Playwriting, Dramatic Literature, and Dramaturgy; or Stage Management, Engagement, and Digital Media.

Acting, Directing, and Music Theatre

Course #	Title	Hours
THTR:2170	Acting for Musical Theatre (unless music theatre track student selects this course as musical theatre foundation course)	3
THTR:2175	Musical Theatre Performance: Special Topics (unless music theatre track student selects this course as musical theatre foundation course)	3
THTR:2880	Installations and Interactive Performance	3
THTR:2890	Producing and Directing Digital Video	3
THTR:3110	Voice for the Actor	3
THTR:3120	Theatre Movement	3
THTR:3140	Acting II	3
THTR:3151	Voice for the Actor II	3
THTR:3160	Movement Styles	3
THTR:3165	Stage Combat	3
THTR:3315	Standup Comedy Practicum	3
THTR:3421	Performing Autobiography	3
THTR:3530	Musical Theatre Workshop	2
THTR:3615	Action! Engage! Art! Creative Placemaking for the Public Good	3
THTR:3630	Special Topics in Theatre Arts	3
THTR:3876	Projection Design	3
THTR:3895	Performance, Art, and New Technologies in Society	3
THTR:4144	Acting: Special Topics	3
THTR:4180	Directing I	3
THTR:4185	Directing: Special Topics	3

Design

Course #	Title	Hours
THTR:2880	Installations and Interactive Performance	3
THTR:2890	Producing and Directing Digital Video	3
THTR:3202	Graphic Design for the Entertainment Industry	2-3
THTR:3208	Mask and Puppet Crafts	3
THTR:3211	Period Styles	3
THTR:3230	Scenic Design I	3
THTR:3235	Production Design for Film, Television, and New Media	3
THTR:3240	Costume Design I	3
THTR:3250	Lighting Design I	3
THTR:3260	Sound Design for the Theatre	3
THTR:3270	Entertainment Design	3
THTR:3876	Projection Design	3
THTR:3895	Performance, Art, and New Technologies in Society	3
THTR:4230	Scenic Design II	3

THTR:4240	Costume Design II	3
THTR:4250	Lighting Design II	3
THTR:4270	Scenic Art	3

Playwriting, Dramatic Literature, and Dramaturgy

Course #	Title	Hours
THTR:3301	Playwriting II	3
THTR:3310	Undergraduate Playwriting Workshop	3
THTR:3315	Standup Comedy Practicum	3
THTR:3320	Writing for Film	3
THTR:3401	Topics in Dramatic Literature	3
THTR:3402	Shakespeare the Dramatist	3
THTR:3421	Performing Autobiography	3
THTR:3430	Women on Stage	3
THTR:3630	Special Topics in Theatre Arts	3
THTR:4420	Dramatic Theory	3
THTR:5420	Dramaturgy Practicum	arr.

Stage Management, Engagement, and Digital Media

Course #	Title	Hours
THTR:2880	Installations and Interactive Performance	3
THTR:2890	Producing and Directing Digital Video	3
THTR:3501	Stage Management I	3
THTR:3510	Introduction to Arts Management	3
THTR:3615	Action! Engage! Art! Creative Placemaking for the Public Good	3
THTR:3876	Projection Design	3
THTR:3895	Performance, Art, and New Technologies in Society	3
THTR:5500	Stage Management: Special Topics	3
THTR:5510	Production Management	3

Music Theatre Track

Students have the option of adding a focus to their study plan by completing a specialized track in music theatre. This optional track provides a gateway for students to develop and enhance the basic performance skills necessary for a music theatre performer to be successful. Students are not required to audition to enter the track, but auditions are required to enroll in music theatre performance courses. The track requires a minimum of 53 s.h. of coursework. Each student's program of study may culminate in a final presentation, to be determined in consultation with the track advisor. To enroll in the music theatre track, contact the music theatre track advisor in the Department of Theatre Arts.

The BA with a major in theatre arts with the music theatre track requires the following coursework.

Requirements	Hours
Theatre Foundation Courses (see "Theatre Foundation Courses" list)	16
Design Course (see "Design Course" list)	3
Production Lab (see "Production Lab" list)	3
Dramatic Literature Requirement	3
Theatre Arts Elective Courses	9
Musical Theatre Foundation Courses	5-6
Dance Courses	9
Music Courses	5

Dramatic Literature Requirement

Course #	Title	Hours
THTR:1410	Musical Theatre History	3

Theatre Arts Elective Courses

Course #	Title	Hours
All of these:		
THTR:3110	Voice for the Actor	3
THTR:3120	Theatre Movement	3
THTR:3140	Acting II	3

Musical Theatre Foundation Courses

Course #	Title	Hours
This course:		
THTR:2170	Acting for Musical Theatre	3
One of these:		
THTR:2175	Musical Theatre Performance: Special Topics	3
MUS:3530	Musical Theatre Workshop	2

Dance Courses

Course #	Title	Hours
Two of these:		
DANC:1020	Beginning Jazz	3
DANC:1120	Continuing Jazz	3
DANC:2020	Intermediate Jazz	3
One of these:		
DANC:1010	Beginning Tap	3
DANC:1025	Beginning Hip Hop Dance	3
DANC:1030	Beginning Ballet	3
DANC:1040	Beginning Modern Dance	3
DANC:1130	Continuing Ballet	3
DANC:2020	Intermediate Jazz (if not used to satisfy the preceding requirement)	3
DANC:2025	Intermediate Hip Hop Dance	3
DANC:2030	Majors Intermediate Ballet	3
DANC:2040	Majors Intermediate Contemporary Movement Practices	3
DANC:3030	Major Ballet I	3
DANC:3040	Major Contemporary Movement Practices I	3
DANC:3530	Major Ballet II	3
DANC:3540	Major Contemporary Movement Practices II	3
DANC:4030	Major Ballet III	3
DANC:4040	Major Contemporary Movement Practices III	3

Music Courses

Course #	Title	Hours
This course (when topic is voice):		
MUS:1020	Performance Instruction for Nonmajors (taken four times for 1 s.h. each)	4
One of these:		
MUS:1001	Group Piano I: Non-Music Majors	1
MUS:1002	Group Piano II: Non-Music Majors	1

Honors

Honors in the Major

Students majoring in theatre arts have the opportunity to graduate with honors in the major. Students who wish to graduate with honors should declare their intention to the department's honors advisor. To graduate with honors in the major, students must maintain a minimum University of Iowa grade-point average (GPA) of 3.33; a GPA of at least 3.50 in the major; complete at least 6 s.h. of work in Department of Theatre Arts honors courses, of which 3 s.h. must be a course numbered 3000 or above; and complete THTR:4692 Honors Theatre Arts.

Students who elect to give a creative presentation or performance must have senior standing and must complete at least one honors course before their proposed project may be approved. If they wish to include their project in the department's production season as a workshop production, they must submit an application form to the director of theatre for approval of their project by April 1 of the year before the project is to be scheduled (projects are not guaranteed a production slot). They must also enroll in THTR:4692 during the semester in which they complete their presentation or performance.

For more information about theatre arts honors requirements, contact the honors advisor in the Department of Theatre Arts.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the theatre arts major.

Career Advancement

The National Association of Colleges and Employers lists the top skills employers look for in college graduates; these include communication skills, strong work ethic, teamwork skills, initiative, interpersonal skills, problem-solving skills, analytical skills, and flexibility/adaptability. Theatre is an excellent way to learn these skills. As theatre majors, students learn to think critically, read carefully, write well, and present themselves in front of others—skills vital for many careers.

Theatre graduates find work as actors, directors, designers, critics, stage managers, writers, producers, and agents. Some work in film and TV, some decide to teach, and some combine scholarship with production or performance with teaching. Others go into business or law.

After graduating, many students move to a metropolitan area to find work. In theatre, there are no guarantees. Success takes talent, patience, hard work, and a bit of luck, yet most graduates who want to work in this exciting profession find a way to do so.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the fifth semester begins: three courses in the major chosen from THTR:2140 Acting I, THTR:2215 Theatre Technology, THTR:2402 Script Analysis, THTR:2410 History of Theatre and Drama I, and THTR:2411 History of Theatre and Drama II.

Before the seventh semester begins: three more courses in the major, two semesters of production credit, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: two more courses in the major and one more semester of production credit.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Iowa Degree in Three

University of Iowa majors who are strongly motivated can graduate with a degree in three years under the Iowa Degree in Three. The program is available to students who can complete more semester hours each term than they would on the Four-Year Graduation Plan.

Students sign an agreement during their first semester of enrollment; meet with an advisor at least once a semester to review their plans and progress; take courses during summer sessions, if necessary; meet specific course checkpoints; and maintain the grade-point average required for the major.

Students are allowed to bring Advanced Placement (AP), College Level Examination Program (CLEP), or transfer credit upon admission to reduce the number of semester hours required for their degree. They should consult their advisor about the program.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Theatre Arts, BA

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**

First Year

Fall

THTR:2000	Orientation to Theatre Arts	1
THTR:2220	Production Lab [b]	1
THTR:2402	Script Analysis	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [c]		3
GE CLAS Core: Social Sciences [c]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**

Spring

THTR:2140	Acting I	3
THTR:2220	Production Lab [b]	1
THTR:2410	History of Theatre and Drama I [d, e]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences with Lab [c]		4
Elective course [f]		2
	Hours	**16-17**

Second Year

Fall

THTR:2220	Production Lab [b]	1
THTR:2411	History of Theatre and Drama II [d, e]	3
Major: theatre arts design course [g]		3
GE CLAS Core: Quantitative or Formal Reasoning [c]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
Elective course [f]		2
	Hours	**16-17**

Spring

THTR:2215	Theatre Technology	3
GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
Elective course [f]		2
Elective course [f]		3
	Hours	**15-16**

Third Year

Fall

Major: theatre arts elective course [i]		3
GE CLAS Core: Natural Sciences without Lab [c]		3
GE CLAS Core: Values and Society [c]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
Elective course [f]		2
	Hours	**15-16**

Spring

Major: theatre arts dramatic literature course [g]		3
Major: theatre arts elective course (prefix THTR, numbered 3000 or above) [i]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
Elective course [f]		3
Elective course [f]		3
	Hours	**16-17**

Fourth Year

Fall

Major: theatre arts elective course (prefix THTR, numbered 3000 or above) [i]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**

Spring

Major: theatre arts elective course (prefix THTR, numbered 3000 or above) [i]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**123-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students must earn a total of 3 s.h. in THTR:2220.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students who complete THTR:1400 or THTR:1401 before declaring a major in theatre arts must consult the undergraduate director before they may register for THTR:2410 or THTR:2411.

e Fulfills a major requirement and may fulfill a GE requirement.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g See the General Catalog for list of approved courses.

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i Students must earn a total of 12 s.h. in theatre arts elective coursework. Students may not use a course to fulfill more than one requirement for the major. Three of the four elective courses must be numbered 3000 or above; the other course may be from any level. A minimum of two courses must be selected from one of the following areas: Acting, Directing, and Music Theatre; Design;

Playwriting, Dramatic Literature, and Dramaturgy; or Stage Management, Engagement, and Digital Media.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Theatre Arts, Minor

Requirements

The undergraduate minor in theatre arts requires 15 s.h. in theatre arts coursework, including 12 s.h. in courses numbered 2000 or above taken at the University of Iowa. Students may count THTR:1141 Basic Acting II as one of the courses included in the 12 s.h. previously mentioned. Students must maintain a cumulative grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. Students must complete all prerequisites for the courses they choose for the minor. A maximum of 3 s.h. of equivalent transfer or study abroad credit may be applied toward the minor.

All theatre arts courses are available to students who minor in theatre. Students who wish to take THTR:2140 Acting I must request permission through the Department of Theatre Arts office. Minors who are interested in acting may also take THTR:1140 Basic Acting and THTR:1141 Basic Acting II, and then may ask for permission to enroll in THTR:3140 Acting II.

Contact the Department of Theatre Arts for more information about how to meet the requirements for the minor.

Theatre Arts, MFA

Learning Outcomes

Acting Subprogram

Graduates must demonstrate:

- the ability to employ a broad range of acting knowledge and skills in the creation and presentation of roles;
- the ability to perform in plays and roles of various types, and from various periods;
- the acquisition of advanced understanding and capabilities in voice and speech, movement, and play analysis;
- a working knowledge of historical, critical, and theoretical content and the ways they inform playwriting and dramatic writing, the creation of roles, and other aspects of production;
- the ability to utilize digital media as a creative platform for self-promotion and in live performance;
- a working knowledge of skill sets and business-related tools to manage a professional acting career; and
- the ability to collaborate at a professional level with actors, directors, designers, playwrights, dramaturgs, and stage managers in the processes of production.

Design Subprogram

Graduates must demonstrate:

- development of new work and new artists through a creative, collaborative process; and advanced abilities in the unification of all design elements used in professional production through effective collaboration with diverse groups of artists and technicians with a range of life experiences and perspectives;
- thorough knowledge of health and safety practices associated with theatre production;
- with respect for the great global traditions, the ability to push the boundaries of theatre, using sophisticated tools and technologies; the ability to exhibit advanced knowledge in and to integrate the history of décor/fashion and cultural modes; skills drawing, color theory, lighting; analog and digital facility in 2D and 3D design in tactile, lighting and audio arts; and aesthetic, theoretical, and/or technical approaches to creating compelling stories and experiences that incorporate new technologies and digital art-making practices in live performance, interactive art installations, and user-based live events;
- creative and technical ability to develop the design of a production from concept to finished product, and produce full design packages for at least two realized productions;
- the capacity to provide space for diversity and foster social responsibility and change through a working knowledge of script analysis, which includes the ways that historical, critical, cultural, and theoretical perspectives and content inform playwrights, actors, stage managers, directors, and designers; and
- the ability to work with theatre professionals in their processes of production.

Directing Subprogram

Graduates must demonstrate advanced professional competence in directing including, but not limited to:

- the ability to integrate advanced understanding and capabilities in play analysis, performance, and design in creating the concept of a production;
- the ability to develop and guide fully mounted productions of a wide variety of performance styles and plays from statement of concept through public performance;
- a broad knowledge of dramatic literature and/or theatre history, including a demonstrated ability to undertake inquiry, investigation, or research associated with various aspects of performance and production;
- the ability to work with collaborators (actors/performers, playwrights/dramaturgs, and designers) in the processes of production, including the ability to conduct rehearsals effectively;
- an understanding of basic design principles and of aural and visual comprehension in the theatre and other dramatic media;
- an understanding of all the theatre arts and crafts at a sufficient level of knowledge to communicate with other artists and producers and to make informed critical judgments in all areas of the theatre;
- a basic understanding of the aesthetic, theoretical, and/or technical approaches to create compelling stories and experiences that incorporate new technologies and digital artmaking practices in live performance, interactive art installations, and user-based live events;
- the ability to develop and direct various forms of new work that engage diverse writers with multiple life experiences and perspectives; and
- directing at least two full-length, public productions, one of which must receive full technical support.

Dramaturgy Subprogram

Graduates must demonstrate:

- a broad knowledge of the various elements of theatrical production;
- a broad knowledge of theatre history, theory, criticism, and performance studies;
- awareness of current issues and developments in the fields of theatre, playwriting, and dramaturgy;
- advanced skills in the practice of production dramaturgy, including dramaturgical research and writing, and script analysis;
- advanced skills in the practice of new play dramaturgy, including awareness of the creative and dramaturgical potential of digital media in the making of new work; and
- advanced competence in theatrical collaboration, including evidence of collaborating successfully with playwrights, directors, actors, designers, and stage managers in the development and production of new work; an understanding of professional ethics and practice; and awareness of issues of diversity, equity, and inclusion as they relate to collaboration.

Playwriting Subprogram

Graduates must demonstrate advanced professional competence in playwriting and dramatic writing including, but not limited to:

- advanced technical skills in dramatic construction;
- the ability to employ and integrate a broad range of knowledge and skills in the various elements of theatrical production;

- the acquisition of advanced understanding and abilities to use theories and methods of script analysis, criticism, and dramaturgy in the development of theatrical and dramatic works;
- the ability to develop a work from concept to finished product and working knowledge of theatre history and theory, as well as of the creative and dramaturgical potential of digital media and various ways each may influence the creative process;
- an original full-length or equivalent work for their MFA thesis; and
- advanced competence in theatrical collaboration, including evidence of collaborating successfully with directors, dramaturgs, actors, designers, and stage managers in the development and production of new work; an understanding of professional ethics and practice; and awareness of issues of diversity, equity, and inclusion as they relate to collaboration.

Stage Management Subprogram

Graduates must demonstrate:

- advanced knowledge of all production elements and the ways they can be combined and integrated, including digital media;
- advanced ability to coordinate multiple aspects of production both in rehearsal and in performance, including digital media;
- an understanding of stage management for a broad range of genres including drama, musical theatre, dance, opera, and special events;
- the ability to collaborate with actors, designers, directors, musical directors, dramaturgs, choreographers, and special events planners (all other artists) in their processes of creation, performance, and planning; and provide space for diversity and foster social responsibility and change; and
- an understanding of union rules and industry policies and procedures relevant to the field.

Requirements

The Master of Fine Arts in theatre arts requires a minimum of 64–70 s.h. of graduate credit. Students must maintain a graduate program grade-point average of 3.00. The degree offers subprograms in acting, design, directing, dramaturgy, playwriting, and stage management. A thesis is required for all subprograms. Typically students complete six semesters in residence (internships may be substituted).

The graduate program is dedicated to the creative development of theatre artists. Graduates have a solid background in major performance theories, dramatic literature, and practices of the past and present as well as in the craft of their chosen specialties.

Special attention is given to understanding the role and importance of live theatre in society. Interactions among the various theatre disciplines are emphasized, both in classes and through the department's extensive production program. Particular emphasis is placed on the development of new works for the theatre.

Students must maintain consistent academic and artistic growth throughout their six semesters as MFA students in the department. Students who fail to make this progress are placed on academic probation and given one additional semester to demonstrate their qualifications for earning the degree.

Contact the Department of Theatre Arts for specific information on any of the MFA specialty areas.

Common Requirements

Core Requirements

Students in all subprograms complete the following coursework. Students in the stage management subprogram must earn a grade of B-minus or above in THTR:7601 MFA Thesis.

Course #	Title	Hours
Both of these:		
THTR:5600	Orientation to Graduate Studies	1
THTR:7601	MFA Thesis	3

Dramatic Literature

Students in the acting, design, directing, playwriting, and stage management subprograms must complete 9 s.h. from the following course list. Students in the dramaturgy subprogram must complete 18 s.h. from the course list. Playwriting and dramaturgy students must earn a B-minus or above in all dramatic literature courses.

Course #	Title	Hours
THTR:3401	Topics in Dramatic Literature	3
THTR:3402	Shakespeare the Dramatist	3
THTR:3421	Performing Autobiography	3
THTR:3430	Women on Stage	3
THTR:3440	American Drama Since 1900	3
THTR:3462	African American Drama	3
THTR:4420	Dramatic Theory	3
THTR:4630	London Performance Study	3
ENGL:3287	Shakespeare	3
ENGL:3288	Shakespeare's Romans: The Ancient World Meets the Elizabethan Stage	3
ENGL:3320	Modern British Drama	3

Acting Subprogram

The MFA in theatre arts with a subprogram in acting requires 64 s.h. of graduate credit. In addition to the common requirements, the acting subprogram requires the following coursework.

Students must earn a grade of B-minus or above each time they take THTR:6140, THTR:6150, and THTR:6160.

Course #	Title	Hours
All of these (51 s.h.):		
THTR:3875	Topics in Digital Performing Arts	3
THTR:4695	Performance Practicum	1
THTR:5890	Producing and Directing Digital Video	3
THTR:6140	Advanced Acting (taken three times for 3 s.h. each)	9
THTR:6150	Vocal Technique (taken five times for 3 s.h. each)	15

THTR:6160	Movement Technique (taken five times for 3 s.h. each)	15
THTR:6170	Graduate Acting: Special Topics	3
THTR:6605	Graduate Career Preparation	2

Design Subprogram

The MFA in theatre arts with a subprogram in design requires 70 s.h. of graduate credit. In addition to the common requirements, the design subprogram requires the following coursework.

Students must earn a grade of B-minus or above in all subprogram courses, with the exception of THTR:5200 Graduate Design Seminar.

Design Required Courses

Course #	Title	Hours
Both of these:		
THTR:3211	Period Styles	3
THTR:4270	Scenic Art	3

Design Primary Area

Course #	Title	Hours
Three courses (9 s.h.) from one area:		
Scenic Design		
THTR:3230	Scenic Design I	3
THTR:4230	Scenic Design II	3
THTR:5230	Scenic Design III	3
Costume Design		
THTR:3240	Costume Design I	3
THTR:4240	Costume Design II	3
THTR:5240	Costume Design III	3
Lighting Design		
THTR:3250	Lighting Design I	3
THTR:4250	Lighting Design II	3
THTR:5250	Lighting Design III	3

Design Secondary Area

Students take two courses (6 s.h.) from scenic design, costume design, lighting design, sound design, or media design.

Scenic Design

Course #	Title	Hours
This course:		
THTR:3230	Scenic Design I	3
One of these:		
THTR:3235	Production Design for Film, Television, and New Media	3
THTR:4230	Scenic Design II	3

Costume Design

Course #	Title	Hours
This course:		
THTR:3240	Costume Design I	3
One of these:		
THTR:3208	Mask and Puppet Crafts	3
THTR:3210	Makeup Design for the Stage	3
THTR:4240	Costume Design II	3

Lighting Design

Course #	Title	Hours
This course:		
THTR:3250	Lighting Design I	3
One of these:		
THTR:3270	Entertainment Design	3
THTR:4250	Lighting Design II	3

Sound Design

Course #	Title	Hours
Both of these:		
THTR:3260	Sound Design for the Theatre	3
THTR:3630	Special Topics in Theatre Arts (when topic is audio plays)	3

Media Design

Course #	Title	Hours
Two of these:		
THTR:3270	Entertainment Design	3
THTR:3875	Topics in Digital Performing Arts	3
THTR:3876	Projection Design	3
THTR:3895	Performance, Art, and New Technologies in Society	3
THTR:5880	Installations and Interactive Performance	3
THTR:5890	Producing and Directing Digital Video	3

Design Additional Courses

Students take 36 s.h. of additional coursework, including THTR:5200 Graduate Design Seminar, THTR:6691 Projects in Theatre Advanced, and electives.

Students must take THTR:5200 each semester in which they are enrolled (six times total). They enroll for a minimum of 1 s.h. per semester for a minimum of 6 s.h. total. Students are permitted to enroll in the course for a maximum total of 12 s.h.

Students are required to enroll in THTR:6691 each semester in which they are enrolled (six times total). They enroll for a minimum of 16 s.h. total, a maximum of 5 s.h. per semester.

Students complete additional electives from the following list to total 36 s.h. in additional courses. Additional courses may be used for this requirement with advisor approval.

Course #	Title	Hours
THTR:3208	Mask and Puppet Crafts	3
THTR:3210	Makeup Design for the Stage	3
THTR:3215	Sewing Techniques for Theatre Costuming	3
THTR:3230	Scenic Design I	3
THTR:3235	Production Design for Film, Television, and New Media	3
THTR:3240	Costume Design I	3
THTR:3250	Lighting Design I	3
THTR:3260	Sound Design for the Theatre	3
THTR:3270	Entertainment Design	3

THTR:3510	Introduction to Arts Management	3
THTR:3615	Action! Engage! Art! Creative Placemaking for the Public Good	3
THTR:3630	Special Topics in Theatre Arts	3
THTR:3875	Topics in Digital Performing Arts	3
THTR:3876	Projection Design	3
THTR:3895	Performance, Art, and New Technologies in Society	3
THTR:4230	Scenic Design II	3
THTR:4240	Costume Design II	3
THTR:4250	Lighting Design II	3
THTR:4290	Design: Special Topics	1-3
THTR:4510	Arts Leadership Seminar	3
THTR:4630	London Performance Study	3
THTR:5230	Scenic Design III	3
THTR:5240	Costume Design III	3
THTR:5250	Lighting Design III	3
THTR:5880	Installations and Interactive Performance	3
THTR:5890	Producing and Directing Digital Video	3

Directing Subprogram

The MFA in theatre arts with a subprogram in directing requires 69 s.h. of graduate credit. In addition to the common requirements, the directing subprogram requires the following coursework.

Directing Required Courses

Students must earn a grade of B-minus or above each time they take THTR:6180 Director's Seminar.

Course #	Title	Hours
All of these (32 s.h.):		
THTR:5410	Dramaturgy	3
THTR:5880	Installations and Interactive Performance	3
THTR:6180	Director's Seminar (taken six times for 3 s.h. each)	18
THTR:7300	Playwrights Workshop (taken six times, once for 3 s.h. and five times for 1 s.h.)	8

Directing Design Courses

Course #	Title	Hours
Two of these (6 s.h.):		
THTR:3208	Mask and Puppet Crafts	3
THTR:3230	Scenic Design I	3
THTR:3235	Production Design for Film, Television, and New Media	3
HOLD for new costume design course		
THTR:3250	Lighting Design I	3
THTR:3260	Sound Design for the Theatre	3
THTR:3270	Entertainment Design	3
THTR:3615	Action! Engage! Art! Creative Placemaking for the Public Good	3
THTR:3875	Topics in Digital Performing Arts	3
THTR:3876	Projection Design	3
THTR:3895	Performance, Art, and New Technologies in Society	3
THTR:4270	Scenic Art	3
THTR:4290	Design: Special Topics	3
THTR:5890	Producing and Directing Digital Video	3
May include one of these:		
THTR:3240	Costume Design I	3
THTR:4240	Costume Design II	3

Directing Acting and Voice Courses

Course #	Title	Hours
Two of these (6 s.h.):		
THTR:3120	Theatre Movement	3
THTR:3110	Voice for the Actor	3
THTR:3151	Voice for the Actor II	3
THTR:3160	Movement Styles	3
THTR:4144	Acting: Special Topics	3
THTR:6140	Advanced Acting	3
THTR:6150	Vocal Technique	3
THTR:6160	Movement Technique	3
THTR:6170	Graduate Acting: Special Topics	3

Directing Electives

Students take 12 s.h. in electives from four theatre arts courses (prefix THTR) numbered 3000 or above. Additional courses from outside the department may be reviewed and approved by the student's advisor.

Dramaturgy Subprogram

The MFA in theatre arts with a subprogram in dramaturgy requires 67 s.h. of graduate credit. In addition to the common requirements, the dramaturgy subprogram requires the following coursework.

Dramaturgy Required Courses

Students must earn a grade of B-minus or above in THTR:5410 Dramaturgy. They must earn a grade of B-minus or above each time they take THTR:5420 Dramaturgy Practicum.

Course #	Title	Hours
All of these (39 s.h.):		
THTR:5410	Dramaturgy	3
THTR:5420	Dramaturgy Practicum (taken six times for 3 s.h. each)	18
THTR:7300	Playwrights Workshop (taken six times for 3 s.h. each)	18

Dramaturgy Electives

Students take 6 s.h. in elective coursework. Though they may select any theatre arts course (prefix THTR) numbered 3000 or above, students are strongly encouraged to select from the following list as these courses enhance the dramaturgy

subprogram with coursework in playwriting, writing for film or television, directing, and digital arts. Courses numbered 3000 or above from outside the department may be used with an advisor's approval.

Course #	Title	Hours
THTR:3320	Writing for Film	3
THTR:3325	Iowa Writers' Room	3
THTR:3615	Action! Engage! Art! Creative Placemaking for the Public Good	3
THTR:3875	Topics in Digital Performing Arts	3
THTR:4180	Directing I	3
THTR:4185	Directing: Special Topics	3
THTR:5880	Installations and Interactive Performance	3
THTR:5890	Producing and Directing Digital Video	3
THTR:6180	Director's Seminar	3
THTR:6310	Special Topics in Playwriting	3
TRNS:7460	Translation Workshop	3

Playwriting Subprogram

The MFA in theatre arts with a subprogram in playwriting requires 67 s.h. of graduate credit. In addition to the common requirements, the playwriting subprogram requires the following coursework.

Playwriting Required Courses

Course #	Title	Hours
All of these (45 s.h.):		
THTR:6300	Guest Seminar (taken three times for 3 s.h. each)	9
THTR:6310	Special Topics in Playwriting (taken six times for 3 s.h. each)	18
THTR:7300	Playwrights Workshop (taken six times for 3 s.h. each)	18

Playwriting Electives

Students take 9 s.h. in elective coursework. Though they may select any theatre arts course (prefix THTR) numbered 3000 or above, students are strongly encouraged to select from the following course list. Courses numbered 3000 or above from outside the department may be substituted with an advisor's approval.

Course #	Title	Hours
THTR:3320	Writing for Film	3
THTR:3325	Iowa Writers' Room	3
THTR:3615	Action! Engage! Art! Creative Placemaking for the Public Good	3
THTR:3875	Topics in Digital Performing Arts	3
THTR:4180	Directing I	3
THTR:4185	Directing: Special Topics	3
THTR:5410	Dramaturgy	3
THTR:5420	Dramaturgy Practicum	3
THTR:5880	Installations and Interactive Performance	3
THTR:5890	Producing and Directing Digital Video	3
THTR:6180	Director's Seminar	3
THTR:6310	Special Topics in Playwriting (may be repeated)	3
TRNS:7460	Translation Workshop	3

Stage Management Subprogram

The MFA in theatre arts with a subprogram in stage management requires 69 s.h. of graduate credit. In addition to the common requirements, the stage management subprogram requires the following coursework.

Stage Management Required Courses

Students must earn a grade of B-minus or above in THTR:3501 and THTR:5510. They must earn a grade of B-minus or above each time they take THTR:5500, THTR:6500, and THTR:6691.

Course #	Title	Hours
All of these (41 s.h.):		
THTR:3501	Stage Management I	3
THTR:3510	Introduction to Arts Management	3
or THTR:4510	Arts Leadership Seminar	
THTR:4180	Directing I	3
THTR:5500	Stage Management: Special Topics (taken three times for 3 s.h. each)	9
THTR:5510	Production Management	3
THTR:6500	Stage Management Seminar (taken six times for 2 s.h. each)	12
THTR:6691	Projects in Theatre Advanced (taken six times, four times for 1 s.h. each and two times for 2 s.h. each)	8

Stage Management Design Courses

Course #	Title	Hours
Two of these (6 s.h.):		
THTR:3208	Mask and Puppet Crafts	3
THTR:3210	Makeup Design for the Stage	3
THTR:3211	Period Styles	3
THTR:3215	Sewing Techniques for Theatre Costuming	3
THTR:3230	Scenic Design I	3
THTR:3235	Production Design for Film, Television, and New Media	3
THTR:3240	Costume Design I	3
THTR:3250	Lighting Design I	3
THTR:3260	Sound Design for the Theatre	3
THTR:3270	Entertainment Design	3
THTR:3510	Introduction to Arts Management	3
THTR:3615	Action! Engage! Art! Creative Placemaking for the Public Good	3
THTR:3630	Special Topics in Theatre Arts	3

THTR:3875	Topics in Digital Performing Arts	3
THTR:3876	Projection Design	3
THTR:3895	Performance, Art, and New Technologies in Society	3
THTR:4230	Scenic Design II	3
THTR:4240	Costume Design II	3
THTR:4250	Lighting Design II	3
THTR:4290	Design: Special Topics	3
THTR:4510	Arts Leadership Seminar	3
THTR:5230	Scenic Design III	3
THTR:5240	Costume Design III	3
THTR:5250	Lighting Design III	3
THTR:5880	Installations and Interactive Performance	3
THTR:5890	Producing and Directing Digital Video	3

Stage Management Electives

Students take three elective courses for a total of 9 s.h. They may select theatre arts courses (prefix THTR) numbered 3000 or above, or courses from the following list.

Course #	Title	Hours
DANC:3060	Western Concert Dance History: Romantic to Contemporary	3
EALL:7475	ePortfolio in College Teaching	3
MUS:6540	Survey of Operatic Literature	3
GRAD:6217	Seminar in College Teaching	3
GRAD:7385	Teaching and Learning in Higher Education	3
GRAD:7400	Practicum in College Teaching	3
MBA:8120	Management in Organizations	3
MGMT:3500	Nonprofit Organizational Effectiveness I	3
MGMT:4600	Nonprofit Ethics and Governance	3
MGMT:9230	Managing and Preventing Conflict	3
MGMT:9240	Inclusive Leadership	3

Admission

Students who demonstrate exceptional ability in acting, directing, dramaturgy, playwriting, design, or stage management may apply for admission to the program of study and production leading to the MFA degree. Admission is based on an interview, audition, and/or a portfolio of relevant work, the undergraduate record or other proof of artistic accomplishment, and letters of recommendation.

Submission of playscripts is the most important element in gaining admission to the Playwrights Workshop.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

The graduate program in theatre develops not only talent but discipline, self-confidence, and personal vision. Through their work in courses and productions, through teaching and production assistantships, and through the intensive, individual mentoring they receive from faculty, graduate students prepare themselves to contribute to the nation's culture. They can then enter the profession, joining hundreds of other University of Iowa graduates who have made their mark in theatre, film, TV, and the entertainment industry.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Theatre Arts, MFA

- Acting Subprogram [p. 1119]
- Design Subprogram [p. 1120]
- Directing Subprogram [p. 1121]
- Dramaturgy Subprogram [p. 1122]
- Playwriting Subprogram [p. 1123]
- Stage Management Subprogram [p. 1123]

Acting Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
Minimum of 64 s.h. of graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
MFA actors are required to audition for all mainstage productions presented by the department and to perform as cast. Every student is required to perform a minimum of one role each semester.		
	Hours	**0**
First Year		
Fall		
THTR:5600	Orientation to Graduate Studies	1
THTR:5890	Producing and Directing Digital Video	3
THTR:6140	Advanced Acting [c, d]	3
THTR:6150	Vocal Technique [d, e]	3
THTR:6160	Movement Technique [d, e]	3
	Hours	**13**
Spring		
THTR:6140	Advanced Acting [c, d]	3
THTR:6150	Vocal Technique [d, e]	3
THTR:6160	Movement Technique [d, e]	3
Dramatic literature course [f]		3
	Hours	**12**

Second Year		
Any Semester		
MFA Qualifying Evaluation [g]		
	Hours	**0**
Fall		
THTR:6140	Advanced Acting [c, d]	3
THTR:6150	Vocal Technique [d, e]	3
THTR:6160	Movement Technique [d, e]	3
Dramatic literature course [f]		3
	Hours	**12**
Spring		
THTR:4695	Performance Practicum	1
THTR:6150	Vocal Technique [d, e]	3
THTR:6160	Movement Technique [d, e]	3
THTR:6605	Graduate Career Preparation	2
	Hours	**9**
Third Year		
Fall		
THTR:3875	Topics in Digital Performing Arts	3
THTR:6160	Movement Technique [d, e]	3
THTR:6170	Graduate Acting: Special Topics	3
	Hours	**9**
Spring		
THTR:6150	Vocal Technique [d, e]	3
THTR:7601	MFA Thesis [h]	3
Dramatic literature course [f]		3
Exam: Master's Final Exam [i]		
	Hours	**9**
	Total Hours	**64**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Take three times for 3 s.h. each.

d Students must earn a grade of B-minus or above each time they take THTR:6140, THTR:6150, and THTR:6160.

e Take five times for 3 s.h. each.

f Complete at least 9 s.h. for the requirement; see the General Catalog for list of approved courses.

g Usually completed at the end of the second year. Students need to complete a special assignment designed by each program and meet with their Graduate Committee for an evaluation of work to date. This evaluation will determine whether the student will continue their work into the third year and proceed to do a thesis.

h Consists of a written analysis of the actor's personal creative process and an annotated resume of roles performed at Iowa.

i Thesis defense.

Design Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
Minimum of 70 s.h. of graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
	Hours	**0**
First Year		
Fall		
THTR:5200	Graduate Design Seminar [d]	1
THTR:5600	Orientation to Graduate Studies	1
THTR:6691	Projects in Theatre Advanced [e]	2
Design primary area course [f]		3
Design secondary area course [g]		3
	Hours	**10**
Spring		
THTR:3211	Period Styles [h]	3
THTR:5200	Graduate Design Seminar [d]	1
THTR:6691	Projects in Theatre Advanced [e]	2
Design primary area course [f]		3
Dramatic literature course [i]		3
	Hours	**12**
Second Year		
Any Semester		
MFA Qualifying Evaluation [j]		
	Hours	**0**
Fall		
THTR:4270	Scenic Art [h]	3
THTR:5200	Graduate Design Seminar [d]	1
THTR:6691	Projects in Theatre Advanced [e]	3
Design primary area course [f]		3
Elective course [k]		3
	Hours	**13**
Spring		
THTR:5200	Graduate Design Seminar [d]	1
THTR:6691	Projects in Theatre Advanced [e]	3
Design secondary area course [g]		3
Dramatic literature course [i]		3
Elective course [k]		3
	Hours	**13**
Third Year		
Fall		
THTR:5200	Graduate Design Seminar [d]	2
THTR:6691	Projects in Theatre Advanced [e]	3
Elective course [k]		3
Elective course [k]		3
	Hours	**11**
Spring		
THTR:5200	Graduate Design Seminar [d]	2
THTR:6691	Projects in Theatre Advanced [e]	3
THTR:7601	MFA Thesis [l]	3
Dramatic literature course [i]		3

Exam: Master's Final Exam [m]	
Hours	**11**
Total Hours	**70**

a Students must earn a grade of B-minus or above in all subprogram courses, with the exception of THTR:5200.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.
d Take THTR:5200 each semester of enrollment (six times total), for a minimum of 1 s.h. per semester and a minimum of 6 s.h. total. Students are permitted to enroll in the course for a maximum total of 12 s.h.
e Take THTR:6691 each semester of enrollment (six times total) for a maximum of 5 s.h. per semester and a minimum of 16 s.h. total.
f Take three courses (9 s.h.) from one of the following areas: 1) Scenic Design: THTR:3230, THTR:4230, THTR:5230; 2) Costume Design: THTR:3240, THTR:4240, THTR:5240; 3) Lighting Design: THTR:3250, THTR:4250, THTR:5250.
g Take two courses (6 s.h.) from scenic design, costume design, lighting design, sound design, or media design. See the General Catalog for list of approved courses.
h THTR:3211 and THTR:4270 are both typically offered only once every three years.
i Complete at least 9 s.h. for the requirement; see the General Catalog for list of approved courses.
j Usually completed at the end of the second year. Students need to complete a special assignment designed by each program and meet with their Graduate Committee for an evaluation of work to date. This evaluation will determine whether the student will continue their work into the third year and proceed to do a thesis.
k See the General Catalog for list of approved courses and work with faculty advisor to determine appropriate coursework and sequence.
l The thesis is the culmination of the body of production work created at the University of Iowa over a three year period. This work includes designs for the Mainstage, Gallery, and Iowa New Play Festival seasons. The thesis begins with a personal design philosophy and is supplemented with written analysis and supporting photographs for each production. The format of the document must comply with the guidelines as outlined by the program committee and the Thesis Manual of the Graduate College.
mThesis defense.

Directing Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
Minimum of 69 s.h. of graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
Students are required to direct at least two plays or workshops every year.		
	Hours	**0**
First Year		
Fall		
THTR:5410	Dramaturgy	3
THTR:5600	Orientation to Graduate Studies	1
THTR:5880	Installations and Interactive Performance	3
THTR:6180	Director's Seminar [c]	3
THTR:7300	Playwrights Workshop [d]	3
	Hours	**13**
Spring		
THTR:6180	Director's Seminar [c]	3
THTR:7300	Playwrights Workshop [d]	1
Design course [e]		3
Dramatic literature course [f]		3
Elective course [g]		3
	Hours	**13**
Second Year		
Any Semester		
MFA Qualifying Evaluation [h]		
	Hours	**0**
Fall		
THTR:6180	Director's Seminar [c]	3
THTR:7300	Playwrights Workshop [d]	1
Acting and voice course [i]		3
Design course [e]		3
Elective course [g]		3
	Hours	**13**
Spring		
THTR:6180	Director's Seminar [c]	3
THTR:7300	Playwrights Workshop [d]	1
Dramatic literature course [f]		3
Elective course [g]		3
	Hours	**10**
Third Year		
Fall		
THTR:6180	Director's Seminar [c]	3
THTR:7300	Playwrights Workshop [d]	1
THTR:7601	MFA Thesis [g, j]	3
Acting and voice course [i]		3
	Hours	**10**
Spring		
THTR:6180	Director's Seminar [c]	3
THTR:7300	Playwrights Workshop [d]	1
THTR:7601	MFA Thesis [g, j]	3
Dramatic literature course [f]		3
Exam: Master's Final Exam [k]		
	Hours	**10**
	Total Hours	**69**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes

more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Take six times for 3 s.h. each. Students must earn a grade of B-minus or above each time they take THTR:6180.

d Take six times, once for 3 s.h. and fives times for 1 s.h.

e Complete two design courses (at least 6 s.h.); see the General Catalog for list of approved courses.

f Complete at least 9 s.h. for the requirement; see the General Catalog for list of approved courses.

g Students take 12 s.h. in electives from four theatre arts courses (prefix THTR) numbered 3000 or above. Additional courses from outside the department may be reviewed and approved by the student's advisor.

h Usually completed at the end of the second year. Students need to complete a special assignment designed by each program and meet with their Graduate Committee for an evaluation of work to date. This evaluation will determine whether the student will continue their work into the third year and proceed to do a thesis.

i Complete two acting and voice courses (at least 6 s.h.); see the General Catalog for list of approved courses.

j Thesis typically consists of a full-length work presented by the department and a written document; includes analysis and preparation materials. The production and the written document form the basis of the student's final evaluation.

k Thesis defense.

Dramaturgy Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
Minimum of 67 s.h. of graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
THTR:5420	Dramaturgy Practicum [c]	3
THTR:5600	Orientation to Graduate Studies	1
THTR:7300	Playwrights Workshop [d]	3
Dramatic literature course [e]		3
	Hours	**10**
Spring		
THTR:5420	Dramaturgy Practicum [c]	3
THTR:7300	Playwrights Workshop [d]	3
Dramatic literature course [e]		3
Elective course [f]		3
	Hours	**12**
Second Year		
Any Semester		
MFA Qualifying Evaluation [g]		
	Hours	**0**
Fall		
THTR:5410	Dramaturgy [h]	3
THTR:5420	Dramaturgy Practicum [c]	3
THTR:7300	Playwrights Workshop [d]	3
Dramatic literature course [e]		3
	Hours	**12**
Spring		
THTR:5420	Dramaturgy Practicum [c]	3
THTR:7300	Playwrights Workshop [d]	3
Dramatic literature course [e]		3
	Hours	**9**
Third Year		
Fall		
THTR:5420	Dramaturgy Practicum [c]	3
THTR:7300	Playwrights Workshop [d]	3
Dramatic literature course [e]		3
Elective course [f]		3
	Hours	**12**
Spring		
THTR:5420	Dramaturgy Practicum [c]	3
THTR:7300	Playwrights Workshop [d]	3
THTR:7601	MFA Thesis [i]	3
Dramatic literature course [e]		3
Exam: Master's Final Exam [j]		
	Hours	**12**
	Total Hours	**67**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Take six times for 3 s.h. each. Students must earn a grade of B-minus or above each time they take THTR:5420.

d Take six times for 3 s.h. each.

e Complete at least 18 s.h. for the requirement and earn a grade of B-minus or above in all dramatic literature courses. See the General Catalog for list of approved courses.

f Complete at least 6 s.h. of elective coursework. See the General Catalog for list of approved courses.

g Usually completed at the end of the second year. Students need to complete a special assignment designed by each program and meet with their Graduate Committee for an evaluation of work to date. This evaluation will determine whether the student will continue their work into the third year and proceed to do a thesis.

h Students must earn a grade of B-minus or above in THTR:5410.

i Should consist of a significant piece of dramaturgical research that, with subsequent revision and editing, would be publishable in a journal of dramaturgy, history, theory, or criticism.

j Thesis defense.

Playwriting Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
Minimum of 67 s.h. of graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
THTR:5600	Orientation to Graduate Studies	1
THTR:6310	Special Topics in Playwriting [c]	3
THTR:7300	Playwrights Workshop [c]	3
Dramatic literature course [d]		3
	Hours	**10**
Spring		
THTR:6300	Guest Seminar [e]	3
THTR:6310	Special Topics in Playwriting [c]	3
THTR:7300	Playwrights Workshop [c]	3
Dramatic literature course [d]		3
	Hours	**12**
Second Year		
Any Semester		
MFA Qualifying Evaluation [f]		
	Hours	**0**
Fall		
THTR:6310	Special Topics in Playwriting [c]	3
THTR:7300	Playwrights Workshop [c]	3
Dramatic literature course [d]		3
Elective course [g]		3
	Hours	**12**
Spring		
THTR:6300	Guest Seminar [e]	3
THTR:6310	Special Topics in Playwriting [c]	3
THTR:7300	Playwrights Workshop [c]	3
Elective course [g]		3
	Hours	**12**
Third Year		
Fall		
THTR:6310	Special Topics in Playwriting [c]	3
THTR:7300	Playwrights Workshop [c]	3
Elective course [g]		3
	Hours	**9**
Spring		
THTR:6300	Guest Seminar [e]	3
THTR:6310	Special Topics in Playwriting [c]	3
THTR:7300	Playwrights Workshop [c]	3
THTR:7601	MFA Thesis [h]	3
Exam: Master's Final Exam [i]		
	Hours	**12**
	Total Hours	**67**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Take six times for 3 s.h. each.

d Complete at least 9 s.h. for the requirement and earn a grade of B-minus or above in all dramatic literature courses. See the General Catalog for list of approved courses.

e Take three times for 3 s.h. each.

f Usually completed at the end of the second year. Students need to complete a special assignment designed by each program and meet with their Graduate Committee for an evaluation of work to date. This evaluation will determine whether the student will continue their work into the third year and proceed to do a thesis.

g Complete at least 9 s.h. of elective coursework. See the General Catalog for list of approved courses.

h Consists of a full-length play along with a short (4-6 pages) Introduction placing the work in the context of the student's work in THTR:7300. The thesis play must represent substantial creative work undertaken in the third year of enrollment, and may consist of a play newly written in the third year or a major revision of a play that was read and/or produced in the first two years.

i Thesis defense.

Stage Management Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
Minimum of 69 s.h. of graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
THTR:3501	Stage Management I [c]	3
THTR:5500	Stage Management: Special Topics [d, e]	3
THTR:5600	Orientation to Graduate Studies	1
THTR:6500	Stage Management Seminar [d, f]	2
THTR:6691	Projects in Theatre Advanced [d, g]	1
Design course [h]		3
	Hours	**13**
Spring		
THTR:4180	Directing I	3
THTR:5510	Production Management [i]	3
THTR:6500	Stage Management Seminar [d, f]	2
THTR:6691	Projects in Theatre Advanced [d, g]	1
Dramatic literature course [j]		3
	Hours	**12**

Second Year		
Any Semester		
MFA Qualifying Evaluation [k]		
	Hours	**0**
Fall		
THTR:3510 or THTR:4510	Introduction to Arts Management or Arts Leadership Seminar	3
THTR:5500	Stage Management: Special Topics [d, e]	3
THTR:6500	Stage Management Seminar [d, f]	2
THTR:6691	Projects in Theatre Advanced [d, g]	2
Elective course [l]		3
	Hours	**13**
Spring		
THTR:6500	Stage Management Seminar [d, f]	2
THTR:6691	Projects in Theatre Advanced [d, g]	1
Design course [h]		3
Dramatic literature course [j]		3
Elective course [l]		3
	Hours	**12**
Third Year		
Fall		
THTR:5500	Stage Management: Special Topics [d, e]	3
THTR:6500	Stage Management Seminar [d, f]	2
THTR:6691	Projects in Theatre Advanced [d, g]	1
THTR:7601	MFA Thesis [m]	1
Elective course [l]		3
	Hours	**10**
Spring		
THTR:6500	Stage Management Seminar [d, f]	2
THTR:6691	Projects in Theatre Advanced [d, g]	2
THTR:7601	MFA Thesis [m]	2
Dramatic literature course [j]		3
Exam: Master's Final Exam [n]		
	Hours	**9**
	Total Hours	**69**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Students must earn a grade of B-minus or above in THTR:3501.

d Students must earn a grade of B-minus or above each time they take THTR:5500, THTR:6500, and THTR:6691.

e Take three times for 3 s.h. each.

f Take six times for 2 s.h. each.

g Take six times, four times for 1 s.h. each and two times for 2 s.h. each.

h Complete two stage management design courses (at least 6 s.h.); see the General Catalog for list of approved courses.

i Students must earn a grade of B-minus or above in THTR:5510.

j Complete at least 9 s.h. for the requirement; see the General Catalog for list of approved courses.

k Usually completed at the end of the second year. Students need to complete a special assignment designed by each program and meet with their Graduate Committee for an evaluation of work to date. This evaluation will determine whether the student will continue their work into the third year and proceed to do a thesis.

l Complete at least 9 s.h. of elective coursework. See the General Catalog for list of approved courses.

mStudents must complete a thesis during the third year that will identify and describe their stage management philosophy which they have developed during their time in the program at Iowa.

n Thesis defense.

Tippie College of Business

Dean

- Amy L. Kristof-Brown

Senior Associate Dean

- Kang Zhao

Associate Dean, Research and PhD Programs

- Nick Street

Associate Dean, Undergraduate Programs

- Charles W. Keene

Undergraduate majors: BA; BBA; BS

Undergraduate minors: business administration; economics

Undergraduate certificates: entrepreneurial management; international business; risk management and insurance

Professional degree: MBA

Professional certificates: artificial intelligence and technology management; business communication; business fundamentals; corporate finance; finance; financial decision-making; innovation; investment management; leadership; marketing; responsible resource management; risk management and insurance; strategy

Graduate degrees: MA; MAc; MS; PhD

Graduate certificates: artificial intelligence and machine learning; business analytics

Website: https://tippie.uiowa.edu/

The Tippie College of Business is composed of six academic departments: accounting, business analytics, economics, finance, management and entrepreneurship, and marketing.

The college's undergraduate and graduate programs are accredited by AACSB International—the Association to Advance Collegiate Schools of Business.

Research, executive development, and education activities are supported by these centers and institutes: America's Small Business Development Center, Emmett J. Vaughan Institute of Risk Management and Insurance, Experimental Economics Interdisciplinary Research Group, Frank Business Communication Center, Hawkinson Institute of Business Finance, Institute for International Business, Iowa Electronic Markets Institute, John Pappajohn Entrepreneurial Center, Marketing Institute, Pomerantz Career Center, RSM Institute of Accounting Education and Research, the Tippie Analytics Cooperative, the Tippie Leadership Collaborative, and Tippie Undergraduate Career Services.

Integrity and honesty are essential to success in all facets of life. The purpose of the undergraduate Tippie Honor Code and the MBA and Master's Honor Code is to promote honorable and ethical behavior. Students admitted to the college or enrolled in courses offered by the college are required to uphold the honor code.

Facilities and Resources

The Tippie College of Business is located in the John Pappajohn Business Building, at the heart of the campus. The Pappajohn Business Building contains seminar and conference rooms, a computer laboratory, two auditoriums, two computer classrooms, a behavioral laboratory, a restaurant (Pat's Diner), a café and study space called Biz Hub, the Marvin A. Pomerantz Business Library, and a variety of classroom facilities.

The computer laboratory in the John Pappajohn Business Building serves the instructional programs of the college, and the staff maintains a current library of computational programs to accommodate users' needs. Business students also have access to the full range of services offered by the university's Information Technology Services and the extensive research materials and other resources of the University of Iowa Libraries.

Alumni Relations

The Tippie College of Business alumni network boasts 59,000 graduates worldwide. The Alumni Engagement Office maintains relationships with alumni on behalf of the college and its programs and departments, including graduate-level degrees. The Alumni Engagement Office also hosts many annual events both in-person and virtually, which allow alumni nationwide and around the world to connect to the college and to each other.

By providing an up-to-date email address, alumni and friends receive electronic communications regarding Tippie College of Business events and virtual programs. Alumni who have updated their home mailing address with the college within the past two years receive copies of the biannual alumni publication, Tippie Magazine. Current undergraduate students can interview to become members of the Business Student Ambassadors Organization (BSAO). Those students often serve as hosts and guides for alumni who visit the college. The Tippie Young Alumni Board works to strengthen ties between the college and more recent graduates.

To learn more about alumni programs or to update contact information, please visit Alumni on the college website.

Programs

Undergraduate Programs of Study

The Tippie College of Business offers the Bachelor of Arts (BA), Bachelor of Business Administration (BBA), and Bachelor of Science (BS) with majors in accounting, business analytics and information systems, economics, entrepreneurship, finance, management, marketing, and risk management and insurance. View the Tippie College of Business departments in the catalog for information about the college's degrees and majors.

The college also offers combined undergraduate degrees with the College of Education, the College of Engineering, and the College of Liberal Arts and Sciences, as well as the 3+3 program with the College of Law. The John Pappajohn Entrepreneurial Center also collaborates with the College of Liberal Arts and Sciences to offer the Bachelor of Arts in enterprise leadership [p. 453], which is offered both on campus and online.

The college offers the undergraduate Certificate in Entrepreneurial Management [p. 1258] and the Certificate in Risk Management and Insurance [p. 1224]. It collaborates with the College of Engineering to offer the Certificate in Technological Entrepreneurship [p. 1681] and with the College of Liberal Arts and Sciences to offer the Certificate in International Business [p. 1230]. It also collaborates with the School of Journalism and Mass Communication in the College of Liberal Arts and Sciences to offer the Certificate in Nonprofit Leadership and Philanthropy, awarded by University College.

The college also offers a minor in business administration [p. 1156] and a minor in economics [p. 1204].

Graduate and Professional Programs of Study

The Tippie College of Business offers several graduate and professional degree programs: the Master of Accountancy (MAc), the Master of Business Administration (MBA), the Master of Science in business analytics, the Master of Science in finance, the Doctor of Philosophy in business administration, and the Doctor of Philosophy in economics. The MA in business administration is a terminal degree; students are admitted into the PhD in business administration degree program. For information about the MAc and the PhD in economics, see Master of Accountancy [p. 1149] and PhD in economics [p. 1206] in the catalog.

For information about the graduate Certificate in Business Analytics, graduate Certificate in Artificial Intelligence and Machine Learning, and MS in business analytics, administered jointly by the Department of Business Analytics and Graduate and Professional Programs, see Certificate in Business Analytics [p. 1177], Certificate in Artificial Intelligence and Machine Learning [p. 1176], MS in business analytics [p. 1169] (Artificial Intelligence and Machine Learning), MS in business analytics [p. 1169] (Artificial Intelligence and Technology Management), MS in business analytics [p. 1169] (Finance Analytics), and MS in business analytics (professional) [p. 1169] in the catalog.

To view more about the Master of Science in finance, administered jointly by the Department of Finance and Graduate and Professional Programs, see MS in finance [p. 1226] in the catalog.

For information on MBA programs and professional certificates, see Master of Business Administration Program [p. 1272] in the catalog.

For a description of the PhD in business administration, see PhD in business administration [p. 1179] in the catalog. The PhD is an interdepartmental degree; programs leading to the degree are offered by the departments of Accounting [p. 1140], Business Analytics [p. 1158], Finance [p. 1208], Management and Entrepreneurship [p. 1236], and Marketing [p. 1261].

CIMBA Italy

CIMBA Italy offers semester and summer study abroad programs for undergraduate and graduate students in Paderno del Grappa, an hour northwest of Venice. Students who attend the programs come from a variety of public and private universities worldwide.

At CIMBA, students immerse themselves in a wide range of rigorous courses, including innovative leadership and development programming, while living amidst the Venetian countryside in one of the most popular travel and study destinations in the world. Business and cultural immersions begin for students the minute they arrive on campus. All courses are taught in English by professors from top universities throughout the United States and Europe. CIMBA programs offer unparalleled amounts of travel time for students to explore Italy and beyond, as well as cultural exploration opportunities. For more information, see the CIMBA Italy website.

Centers and Institutes

America's Small Business Development Center

Since 1981, America's Small Business Development Center at the University of Iowa has played an important role in helping enterprising Iowans manage or start their own successful businesses. The center provides support for small business owners and entrepreneurs. Its personnel are trained to meet the varied needs of small business management, including marketing, financing, human resource planning, cash flow analysis, product commercialization, market research and analysis, strategic planning, international trade, and advertising. Services are free and confidential.

Emmett J. Vaughan Institute of Risk Management and Insurance

The Emmett J. Vaughan Institute of Risk Management and Insurance prepares students for risk management careers. The institute is part of the finance department and offers both a major and a Certificate in Risk Management and Insurance. The certificate program is open to undergraduate students pursuing any major. In addition to the coursework, the institute provides professional development, including networking events with industry speakers, scholarships, a mentorship program with young alumni, and a job fair.

There are great career opportunities in risk management and insurance. The industry accounts for 11% of Iowa's gross domestic product, Chicago is a regional insurance hub, and approximately 60 other risk management and insurance programs in the country meet less than 10% of the national demand for talent.

Graduates of the program begin their careers as corporate risk managers, risk management consultants, employee benefits managers, insurance brokers, underwriters, personal banking wealth managers, asset managers, financial analysts, claims adjusters, producers (sales), actuaries, and auditors.

In addition to its teaching mission, the Vaughan Institute provides innovative research and thought leadership on contemporary risk management practice and insurance markets. In 2016, the Vaughan Institute was labeled a Global Center of Insurance Excellence; only 12 universities and colleges in the United States have been awarded this honor.

Experimental Economics Interdisciplinary Research Group

The Experimental Economics Interdisciplinary Research Group (EEIR) provides researchers with an umbrella protocol along with a common subject pool for human participants, with many opportunities for students to become involved. The research is tied together by a common experimental research method using real money payments to incentivize behavior in economic situations.

Frank Business Communication Center

The Frank Business Communication Center is the hub for all Tippie College of Business communication initiatives. The center provides individual and team tutoring for written, oral, and visual communication assignments for all Tippie class assignments, as well as for résumés, cover letters, and interview preparation. It develops, directs, and delivers all undergraduate and specialty master's communication courses in the college. At the graduate level, the center supports MBA communication curriculum development and engages with PhD students through extensive wrap-around summer programming in writing instruction and job talk/presentation preparation.

The Frank Center partners with Tippie academic departments to establish departmental communication plans and initiatives that develop discipline-specific communication skills. It also oversees the Department of Accounting's writing and communications program, which integrates communication assignments across the required accounting curriculum courses. The Frank Center facilitates communication skill development in over 60 Tippie classes at the undergraduate, master's, and doctoral levels.

The center delivers Tippie's core undergraduate communications class, BUS:3000 Business Communication and Professionalism, as well as advanced communication courses at the master's level. These classes focus on tie-breaking communication skills that are critical for professional success in any field. Tippie's communication classes also include storytelling elements and opportunities to use AI to communicate in the workplace.

The Frank Center helps undergraduate students prepare for nationwide competitions, such as the annual National Diversity Case Competition and the Eller Ethics in Business Case Competition. The center's staff facilitates the annual Mary Thomas Prappas Business Ethics Essay Competition and the Norman J. Kallaus Business Communication Scholarship Competition.

Hawkinson Institute of Business Finance

The Hawkinson Institute of Business Finance facilitates career opportunities in investment banking, private equity, and related fields for students in the Tippie College of Business. The institute prepares high-achieving undergraduates for interviews, internships, and full-time jobs in the industry. Criteria for admission to the institute include a strong academic record, involvement in campus and community activities, high motivation, strong interpersonal skills, and demonstrated interest in business and financial markets.

Hawkinson Scholars participate in a course taught by former investment bankers that features guest speakers from leading banks, private equity firms, and related sectors. Hawkinson Scholars also receive intensive education in equity valuation, financial market dynamics, soft skills, and more. An extensive network of dedicated Hawkinson alumni serve as mentors.

The institute has worked to broaden entry-level employment opportunities for Iowa graduates, who land jobs at prestigious firms such as Goldman Sachs, Barclays, Bank of America, Evercore, and JP Morgan. Graduating Hawkinson Scholars enjoy a 100% placement rate.

Institute for International Business

The Institute for International Business (IIB) is the international education and engagement arm of the University of Iowa Tippie College of Business. While promoting entrepreneurship as a tool to empower people in developing countries and frontier markets, the IIB develops and delivers international business programs that provide students, faculty, and staff with opportunities to connect with the world. The IIB is committed to educating students and marginalized communities about entrepreneurship, encouraging innovation, fostering a global mindset, and growing start-ups. The IIB team has leveraged its years of combined experience in cross-cultural networking, economic development, and international development to develop new initiatives. The Institute for International Business has made a name for itself at home and abroad with programs such as the African Innovators Internship program for UI students, graduate-level Global Learning Opportunities, Mandela Washington Fellowship, Venture School International, and the Hawkeyes in Haiti program.

The IIB connects locally while engaging globally through international business research, entrepreneurship, and consulting resources. The key attributes that set IIB apart are:

- unique opportunities for Tippie students at all levels to gain real-world and impactful international experience;
- connection to resources in and outside of the University of Iowa;
- growing network in Sub-Saharan Africa and other developing and emerging markets;
- an industry-experienced advisory board that develops mentor relationships with students and provides unique coaching opportunities;
- sustained relationships with entrepreneurs in developing and emerging markets that provide solid business consulting experience to students; and
- experience in building programs and highlighting faculty expertise for international markets.

Iowa Electronic Markets Institute

The Iowa Electronic Markets Institute supports scholarship in prediction markets and experimental economics. It operates the Iowa Electronic Markets (IEM), a small-scale, real-money online futures market where contract payoffs are based on real-world events such as political outcomes, the U.S. federal funds rate, companies earnings per share, and stock price returns. Known internationally as the genesis of modern prediction markets, the Iowa Electronic Markets are used as tools for research and teaching.

Jacobson Institute for Youth Entrepreneurship

The Jacobson Institute for Youth Entrepreneurship is a nationally recognized program built around teacher education, innovative curricula, and outreach that enriches K–12 students' lives. As the K–12 outreach arm of the John Pappajohn Entrepreneurial Center, the Jacobson Institute supports the university's broader economic development efforts by providing educators with professional development and curriculum resources, equipping them to teach the "entrepreneurial mindset"—that is, to encourage creativity,

innovation, critical thinking, and problem-solving—and to prepare students for success in their chosen career path.

John Pappajohn Entrepreneurial Center

The John Pappajohn Entrepreneurial Center (Iowa JPEC) serves as the hub for entrepreneurship education and outreach at the University of Iowa. Iowa JPEC prepares entrepreneurial-minded leaders and innovators through interdisciplinary academic programs that integrate applied classroom learning, community and international engagement, and extensive cocurricular experiences. It also supports students, faculty, and community members seeking to launch a business by providing training, mentoring, technical assistance, capital, and physical space to help them move from idea to enterprise.

The Bachelor of Business Administration with a major in entrepreneurship is specifically designed to prepare students to apply entrepreneurship and innovation approaches and strategies to successfully lead teams and accelerate career success. Students have multiple opportunities to work on real-world challenges facing Iowa-based companies, learn from business leaders and entrepreneurial faculty who have built successful companies, and be introduced to alumni and executives to help develop a strong professional network.

Students working toward any bachelor's degree at the University of Iowa may earn the Certificate in Entrepreneurial Management [p. 1258]. The major and certificate programs are offered on campus at the Tippie College of Business. The certificate is also offered online through Distance and Online Education [p. 2194]. Students may earn the Certificate in Entrepreneurial Management in addition to their undergraduate degree unless they are currently pursuing the BBA in entrepreneurship or the BA in enterprise leadership.

Graduate and professional students may earn a Certificate in Innovation in addition to their graduate degrees or enroll in advanced entrepreneurship courses; see the Certificate in Innovation [p. 1284] or the Master of Business Administration Program [p. 1272] in the catalog.

Students in the College of Liberal Arts and Sciences may earn a Bachelor of Arts degree with a major in enterprise leadership [p. 453]. Students develop a solid foundation in entrepreneurial management as well as leadership and communication skills that prepare them for a variety of professional career opportunities or position them to start their own businesses. Students are able to apply their innovative problem-solving and critical thinking skills to contemporary issues, develop strategies to seize upon opportunities, and build and lead successful teams. The major presents a unique blend of skills, theory, and content, encouraging students to apply their knowledge and skills to entrepreneurial concepts and ventures. Offering a combination of business and liberal arts approaches, the major allows students to enhance their skills in communication, leadership, innovation, and critical thinking. The major in enterprise leadership is offered jointly by the John Pappajohn Entrepreneurial Center and the College of Liberal Arts and Sciences; the degree is awarded by the College of Liberal Arts and Sciences. The degree is offered on campus and online.

Iowa JPEC and the Department of Management and Entrepreneurship offer the Entrepreneurial Leadership Academy (ELA) for select undergraduate students earning the BBA in management, the BA in enterprise leadership, or one of the entrepreneurship certificates. The ELA is a two-course program designed to help students develop advanced leadership and project management skills and then apply them to a strategic entrepreneurial management consulting project. Students work closely with alumni and business experts to build their professional network and receive assistance in pursuing high-quality professional career opportunities.

The center offers the Technology Innovation Academy for select undergraduate students earning the BA in enterprise leadership or one of the entrepreneurship certificates. The Technology Innovation Academy is a two-course advanced entrepreneurial practicum designed to teach students the latest tools in innovation, design thinking, entrepreneurship, and business modeling. Students experience what entrepreneurs and corporate innovators go through when advancing ideas in the business world. Students also work closely with alumni and entrepreneurial leaders to build their professional network and position themselves for success.

College of Engineering students may earn the Certificate in Technological Entrepreneurship [p. 1681] in addition to their undergraduate degree. The certificate allows students to develop a competitive advantage in the professional workplace by developing their business strategy, entrepreneurship, innovation, and leadership skills. Students also learn how to commercialize their innovations—critical for working in industry as well as for pursuing entrepreneurial ventures. Students learn from a select group of faculty who have built and led successful ventures. The program combines engineering technology, entrepreneurship, and business education to position students for success in today’s competitive work environment.

Iowa JPEC also offers students additional opportunities to develop their professional skills and network with entrepreneurial leaders and industry experts through business consulting projects and internships, sponsorship of applied workshops and seminars, coordination of company visits, support of student participation at regional and national conferences, and fostering global awareness through international trips and consulting. It also sponsors several entrepreneurial student organizations designed to support students’ professional and career development.

For students who may want to pursue the creation of a new business and/or develop a new product or software application while at the University of Iowa, Iowa JPEC is dedicated to training and supporting student entrepreneurs. Welcoming both individual students and teams, the Startup Incubator program is located in the Bedell Entrepreneurship Learning Laboratory (BELL), providing a physical home for student businesses on campus. Participants have access to a variety of resources including collaborative workspace and equipment, one-on-one mentoring from experienced professionals, workshops, training, networking, and funding opportunities.

The Hawkeye Summer Accelerator program is designed to help student teams conduct a detailed assessment of their entrepreneurial opportunity and develop a plan to successfully launch a new venture. Students receive advanced training and mentoring as well as financial support to focus on their start-up during this advanced summer program.

Iowa JPEC also hosts several events for students to experience entrepreneurship without a significant time commitment. Iowa Startup Games is a weekend event where student teams come together to identify a new venture opportunity and complete a business model in one weekend. IdeaStorm is a

quick pitch competition for students to pitch ideas to receive cash prizes and coaching on how to move their concepts forward. Game Changer is another short program that focuses on social entrepreneurship opportunities. All of these are open to students from across the campus regardless if they are pursuing formal education in entrepreneurship.

Iowa JPEC also hosts the Iowa Innovation Challenge, a campus-wide innovation funding competition to provide capital for university-affiliated start-ups and early-stage ventures. In addition, Iowa JPEC leads the Iowa Venture Mentoring Service, a program to connect entrepreneurial start-ups with leading mentors to help provide strategic input and assist in growth planning for the companies. Iowa JPEC has an impressive menu of programs and services available for students, faculty, and community members seeking to start and grow entrepreneurial ventures.

Iowa JPEC offers programs and services to community members to enhance the region and state's entrepreneurial ecosystem. Venture School is an innovative training program focused on real-world experimentation, customer discovery, and Lean LaunchPad methodologies. Iowa JPEC also offers student consulting services led by faculty members through business consulting courses and the Institute for International Business, as well as business advising and mentoring through the Iowa Small Business Development Center, numerous workshops, and networking events. Iowa JPEC partners with entrepreneurial service organizations, economic development organizations, and private sector businesses to advance entrepreneurship and economic development across Iowa. The Jacobson Institute is committed to infusing the entrepreneurial mindset with 21st-century skills in K–12 students through teacher professional development and innovative curricula.

Marketing Institute

The Marketing Institute prepares students for today's diverse and competitive job market in many areas of marketing, including marketing strategy, market research, marketing analytics, advertising, and sales.

The Marketing Institute is a three-semester marketing elective program in which students earn 6 s.h. of elective credit. Students can focus their marketing major by combining the Marketing Institute courses (MKTG:3700 Marketing Institute Seminar I, MKTG:3701 Marketing Institute Field Studies, and MKTG:3702 Marketing Institute Seminar II) with the two suggested foundational courses in a concentration of their choosing. Students also fulfill both the research and experiential course components of Tippie RISE by successfully completing the program.

Entry to the Marketing Institute requires undergraduate students to apply in the fall, and 20 students are admitted. Admission criteria include academic performance, leadership, interpersonal skills, and executive potential. Field immersion projects are a major component of the program. Field projects include student consultant work for a variety of clients, including start-ups, multimillion- or billion-dollar businesses, or nonprofits. Students gain hands-on experience in identifying and solving marketing-related issues and providing recommendations to their assigned clients. In addition, students are mentored by an advisory board of top executives from companies that include ASM Global, Chicago Blackhawks, Dot Dash Meredith Corporation, Google, HON, Hormel, John Deere, McGraw Hill, Mayo Clinic, Medtronic, Newell Brands, Reckitt Benckiser, SC Johnson, Principal Financial Group, and United Health One. The Marketing Institute and its advisory board work together to foster networking opportunities and provide career guidance that helps students use their skills and talents to develop rewarding careers.

Pomerantz Career Center

Career development and campus recruiting services are provided by the Marvin A. and Rose Lee Pomerantz Career Center. Professional career coaches and online resources provide university undergraduate students with assistance on résumés, cover letters, internship and job searches, employer research, interviewing skills, negotiation of job offers, graduate school personal statements, as well as drop-in sessions with trained student career peer advisors. The center helps students choose a major and identify careers related to industry interests through online assessment tools and customized advising. Career coaches specialize in specific career interest communities to assist students. The center also presents multiple fall and spring semester career fairs and networking events. Campus recruitment is facilitated through Handshake, where students can search and apply for full-time employment, internships, and student employment positions. Students may participate in mock interviews and on-campus interviews for full-time positions and internships during the academic year. Additionally, the center offers career-related and professional development courses such as LS:2002 Career Leadership Academy Part 1: Leadership in Practice, LS:3002 Career Leadership Academy Part 2: Leadership in Action, CCP:1300 Major and Career Explorations, and CCP:1303 Successful Teamwork for the Workplace. For more information, contact the Pomerantz Career Center.

RSM Institute of Accounting Education and Research

The RSM Institute of Accounting Education and Research fosters educational excellence in accounting at the University of Iowa, promotes high-quality research by Iowa accounting faculty members, and facilitates the development of doctoral students in accounting. The institute sponsors an annual national speaker series, an educational initiative that allows accounting students to expand their perspectives of accounting by bringing in external thought leaders and experts in different fields of accounting. The director of the institute also coordinates various research activities, including the ongoing PwC Accounting Research Workshops, the biennial Sidney Winter Lecture Series, and the accounting department's Sullivan Scholar in Residence series.

Tippie Analytics Cooperative

The Tippie Analytics Cooperative works with national and international brands to creatively solve some of the most challenging problems facing business today. Their clients come from nearly every industry vertical and represent organizations of all sizes.

Tippie Leadership Collaborative

The Tippie Leadership Collaborative is a nationally recognized resource hub for organizations seeking management expertise and an affordable, flexible learning and development partner. Housed in Tippie's Department of Management and Entrepreneurship, they have some of the world's most sought-after experts in the areas of leadership, change management, team development, employee engagement, diversity and inclusion, and talent management. These experts share that knowledge through speaking engagements and custom executive education programs. Revenues from

these programs are reinvested to create and deliver content-rich resources such as the Tippie Leads podcast, and high-impact learning experiences for students, such as Story Lab.

Tippie Undergraduate Career Services

Tippie Undergraduate Career Services provides Tippie College of Business students with personalized career support, job leads, and other useful career information. The office supplements the existing career support provided by the Pomerantz Career Center by offering helpful, timely information and a personalized space where Tippie undergraduates can find answers to their career questions.

Through targeted job opportunity research and outreach, Tippie Undergraduate Career Services distributes up-to-the-minute information that is personalized to the student's major and the number of semesters completed. Students access this information on the Undergraduate Career Services website, on LinkedIn, in a biweekly lead sheet email and circular, and live on interactive monitors outside the Tippie Undergraduate Career Services office. Outreach efforts are designed to fit in with students' busy schedules and provide them with accessible, relevant career leads and professional development opportunities.

Tippie Undergraduate Career Services also aids students in their job and internship searches by tracking their first destinations after graduation in real time and giving personalized attention to students who are still seeking their first job or internship. This initiative aims to improve overall student outcomes across the board at Tippie, as well as drive higher traffic to placement surveys for reporting to rankings institutions.

In addition to these services, Tippie students enrolled in or taking Professional Preparation (ProPrep) courses can schedule 1:1 career meetings through MyUI, providing individualized guidance to help them achieve their career goals. With on-staff specialists in career preparation and research, student-centered outreach, and data science, the Tippie Undergraduate Career Services office is the central hub for career information for Tippie undergraduates.

Courses

Most Tippie College of Business courses are offered by the college's departments and programs. They are listed and described in the corresponding catalog sections.

The college also offers the following nondepartmental courses for undergraduate students.

Tippie College of Business Courses

BUS:1000 Study Abroad for BBA International Students 0 s.h.
Reflection on study abroad experience in the United States. Requirements: current BBA enrollment and at least one semester of BBA coursework.

BUS:1200 Tippie College Direct Admit Seminar 1 s.h.
Facilitates an introduction to the undergraduate student experience in the Tippie College of Business; discussions of transition issues, academic skill acquisition, and professional goal setting. Requirements: admitted to the direct admission program.

BUS:1250 Global Business Seminar 1 s.h.
Facilitates an introduction to global business opportunities in the Tippie College of Business; discussions of international business, study abroad, and cultural exploration.

BUS:1300 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities and local businesses).

BUS:1400 Pre-Business First-Year Seminar 1 s.h.
Connection to Tippie College of Business resources; support for student's pathway to admission to the Tippie College of Business; transition to college life, academic skill acquisition, and professional goal setting; for pre-business students. Requirements: pre-business standing.

BUS:1999 Introduction to Research in Business 1 s.h.
Introduction to research in business including scope and methods of business research, questions for which business research seeks answers, and impact of business research on society; weekly seminars include discussion and exploration and serve as preparation for engaging in mentored research.

BUS:2013 Introduction to Sustainability 3 s.h.
Introduction to sustainability knowledge, skills, and habits as a means to shape one's vision of a sustainable citizen; emphasis on basic skills of literacy, applied math, and finding information; traditional sustainability knowledge areas related to society, economy, and environment; intersecting themes (e.g., informed consumerism, eco-economics, and livable environments). GE: Sustainability. GE: Social Sciences; Sustainability. Same as SEES:2013, URP:2013.

BUS:2200 Discover Business at Tippie 1 s.h.
Learn and apply foundational skills for navigating the business student experience including academic advising and major exploration, student involvement and leadership opportunities, and professionalism and career skills including internship and early career exploration.

BUS:2300 Searching for Business Information 1 s.h.
Search concepts and sources specific to business information; subscription and government online research sites.

BUS:2360 Introduction to Global Business: Northern Italy 3 s.h.
Virtual exploration of the business and culture of Italy; instructor based in Italy; examination of business, social, financial, and political happenings in Italy and the European Union; hands-on cultural events using virtual reality headsets for city visits, live tours with interactive guides, hands-on cooking class, language lesson, and more; features industry speakers and opportunity to network with Italian students. Prerequisites: ECON:1100. Requirements: admission to global business Northern Italy study abroad program.

BUS:2370 Introduction to Global Business 3 s.h.
Provide students with a thorough understanding and firsthand look at globalization through the lenses of business and leadership; introduce the business and leadership challenges that organizations face when working globally; learn how other nations and regions present the world with exciting opportunities for business, educational, and cultural sectors; and learn how to meaningfully impact the global economy and geopolitics in the foreseeable future. Prerequisites: ECON:1100. Requirements: admission to the introduction to global business study abroad program.

BUS:2550 International Business in Asia Pacific 3 s.h.
International business in the Asia Pacific region and related management issues confronting small-medium enterprises and multinational enterprises in that region; topics include rise of the Association of Southeast Asian Nations (ASEAN), challenges and opportunities for trade growth and collaboration, and practical guidance on how to develop and sustain a competitive advantage in a fast growing and dynamic environment; offered by the international business in Sydney, Australia study abroad program through Tippie College of Business. Prerequisites: MGMT:2100. Requirements: admission to international business in Sydney, Australia study abroad program.

BUS:2900 Business Case Competitions Alternate Preparation arr.
Alternates prepare skills in research, reasoning, case and team development, and competition performance in national business case competitions; practice problem-solving techniques and presentation skills for team competitions; strategize for competition presentations in areas of content structuring, visual design of PowerPoint slides, and vocal and physical delivery; deal with a real-world problem in real time, speak clearly, use gestures appropriately, and engage the audience during the presentation and in question-and-answer sessions. Corequisites: BUS:3000, if not taken as a prerequisite.

BUS:3000 Business Communication and Professionalism 3 s.h.
Foundation in business communication and protocol; composing business messages, organizing and reporting workplace data, developing business presentation and team-building skills, exploring issues pertaining to professional behavior. Prerequisites: RHET:1030 or (RHET:1040 and RHET:1060). Requirements: admission to Tippie College of Business and 30 s.h. earned.

BUS:3050 Business, Culture, and Society 3 s.h.
International business environment and interpersonal traits and skills expected of successful international businessperson; interdisciplinary overview of issues related to business in Western Europe; important cultural differences, the code of business and professional etiquette, business protocol, Italian business history, cultural appreciation, and executive legal/ethical concerns in the workplace; series of lectures, workshops, speakers, plant tours, and cultural events.

BUS:3100 Academic Internship or Cooperative Education 0 s.h.
Participation in an internship or cooperative education; fulfills Tippie College of Business experiential learning requirement.

BUS:3200 Advanced Business Presentation Workshop: Strategy and Implementation 3 s.h.
Advanced oral business presentation skills for solo, paired, and team presentations; suitable for students considering participating in case competitions; emphasis on articulating a particular strategy for an oral presentation and three areas of implementation—content structuring, visual design of PowerPoint slides, and vocal and physical delivery; how to integrate presentation technologies effectively, evaluate other speakers, speak clearly, use gestures appropriately, and engage the audience during the presentation and in question-and-answer sessions. Prerequisites: BUS:3000 with a minimum grade of B.

BUS:3500 Tippie Senate 1 s.h.
For elected student representatives on the Tippie Senate.

BUS:3600 Mentored Research arr.
Business research conducted by undergraduate students under faculty supervision.

BUS:3800 Business Writing 3 s.h.
Series of practical projects; development of effective and persuasive business communication and analytical skills in public relations context.

BUS:3900 Business Communication Internship I 3 s.h.
Opportunity for students to earn academic credit for serving as a peer tutor, an orientation and training assistant, or an administrative intern in the Judith R. Frank Business Communications Center.

BUS:3910 Business Communication Internship II 1-3 s.h.
Continuation of BUS:3900; opportunity for students to earn academic credit for serving as a peer tutor, an orientation and training assistant, or an administrative intern in the Judith R. Frank Business Communications Center. Prerequisites: BUS:3900.

BUS:3920 Business Case Competitions Professional Preparation arr.
Case competitions offer a chance to hone skills in specific topics while practicing teamwork and communication skills; most competitions include industry sponsors and thus offer a chance to improve professional skills and can open full-time or internship employment opportunities; designed to help students flourish at these competitions. Prerequisites: BUS:3000. Requirements: . Recommendations: completion or concurrent enrollment in BUS:3200.

BUS:4001 Senior Seminar: Life After Tippie 1 s.h.
Reflection on one's personal college experience and how to apply the knowledge and skills developed towards future careers in business. Essential skills for transitioning from college life to a professional career. Requirements: admission to Tippie College of Business and completion of 90 s.h.

BUS:4900 Academic Internship arr.
Professional internship experience with associated academic content (e.g., paper, coursework).

BUS:4999 Honors Thesis in Business arr.
Independent student project directed by faculty or staff advisor; culminates in thesis that conforms to University of Iowa Honors Program guidelines; may include empirical research, library research, applied projects. Prerequisites: BUS:1999.

Undergraduate Programs

Degrees and Majors

The Tippie College of Business offers Bachelor of Arts (BA), Bachelor of Business Administration (BBA), and Bachelor of Science (BS) degrees with majors in accounting (BBA), business analytics and information systems (BBA), economics (BA, BBA, BS), entrepreneurship (BBA), finance (BBA), management (BBA), marketing (BBA), and risk management and insurance (BBA).

This catalog section provides information about requirements that all Tippie students must fulfill, regardless of their degree program, as well as admission information and academic rules and procedures. For information about the individual majors, see the departments of Accounting [p. 1140], Business Analytics [p. 1158], Economics [p. 1185], Finance [p. 1208], Management and Entrepreneurship [p. 1236], and Marketing [p. 1261] in the catalog.

Students may earn multiple degrees and majors in Tippie; they may also combine a Tippie degree with a degree in the colleges of Education, Engineering, or Liberal Arts and Sciences. Many Tippie students earn one or more minors and certificates offered in disciplines across the university; see the following sections, "Minors" and "Certificates."

The Tippie College of Business's undergraduate and graduate programs are accredited by AACSB International, the Association to Advance Collegiate Schools of Business.

Minors

The Tippie College of Business offers a minor in business administration [p. 1156] and a minor in economics [p. 1204].

Tippie students may earn minors in a number of disciplines outside of the Tippie College of Business. For example, students interested in international business might choose to earn a minor in a second language. For a list of minors and links to the departments and programs that offer them, see Find Your Program on the General Catalog website and select undergraduate minors.

Students may declare a minor on MyUI. To have the minor recorded on their transcripts, students must complete the minor section on their application for degree which they submit through MyUI in the session they intend to graduate.

Certificates

Tippie students may earn certificates offered by the Tippie College of Business as well as by other colleges at the University of Iowa. The Tippie College of Business offers the Certificate in Entrepreneurial Management [p. 1258], the Certificate in Risk Management and Insurance [p. 1224] and the Certificate in International Business [p. 1229].

The colleges of Liberal Arts and Sciences and Public Health, and University College offer a wide range of certificates open to all undergraduates. Many pair exceptionally well with a Tippie major. See Find Your Program on the General Catalog website and select undergraduate certificates for a complete list of certificates and links to their catalog sections.

Undergraduate Advising

All students enrolled in the Tippie College of Business are advised at the business college's Undergraduate Program Office. Pre-business students are enrolled in the College of Liberal Arts and Sciences and are advised at the university's Academic Advising Center. Drop-in hours and scheduled appointments are available at both offices. For more information on advising, contact the college's Undergraduate Program Office or the university's Academic Advising Center.

Honor Code

Integrity and honesty are essential to success in all facets of life. The purpose of the Tippie Honor Code is to promote honorable and ethical behavior. Students admitted to the college or enrolled in courses offered by the college are required to uphold the honor code

Programs

Undergraduate Programs of Study

Majors

- Major in Accounting (Bachelor of Business Administration) [p. 1143]
- Major in Business Analytics and Information Systems (Bachelor of Business Administration) [p. 1164]
- Major in Economics (Bachelor of Arts) [p. 1189]
- Major in Economics (Bachelor of Business Administration) [p. 1197]
- Major in Economics (Bachelor of Science) [p. 1193]
- Major in Entrepreneurship (Bachelor of Business Administration) [p. 1245]
- Major in Finance (Bachelor of Business Administration) [p. 1213]
- Major in Management (Bachelor of Business Administration) [p. 1251]
- Major in Marketing (Bachelor of Business Administration) [p. 1265]
- Major in Risk Management and Insurance (Bachelor of Business Administration) [p. 1219]

Minors

- Minor in Business Administration [p. 1156]
- Minor in Economics [p. 1204]

Certificates

- Certificate in Entrepreneurial Management [p. 1258]
- Certificate in International Business [p. 1230]
- Certificate in Risk Management and Insurance [p. 1224]

Academic Rules and Procedures

Academic Recognition

Dean's List

Undergraduate students in the Tippie College of Business who achieve a grade-point average (GPA) of 3.50 or higher on 12 s.h. or more of University of Iowa graded coursework during a given semester or summer session and who have no semester hours of I (incomplete) or O (no grade reported) during the same semester are recognized by inclusion on the Dean's List for that semester.

President's List

Undergraduate students in the Tippie College of Business who achieve a GPA of 4.00 on 12 s.h. or more of University of Iowa graded coursework and who have no semester hours of I (incomplete) or O (no grade reported) for two consecutive semesters (excluding summer sessions) are recognized by inclusion on the President's List.

Graduation With Distinction

Graduation with distinction recognizes high academic achievement based on grades. See Grading [p. 17] in the "Academics at Iowa" section of the catalog.

Graduation With Honors in the Major

Graduation with honors in the major recognizes high scholastic achievement based on grades and on completion of a research project that enables students to gain expertise in a topic related to their field of study. The requirements to graduate with honors in the major at the Tippie College of Business are the following:

- GPA of at least 3.50 in cumulative, University of Iowa, business, and University of Iowa business coursework at the time of graduation;
- completion of BUS:1999 Introduction to Research in Business;
- two-semester research project with a Tippie College of Business faculty member that results in a written thesis; and
- a poster presentation of research at the Undergraduate Research Festival.

To learn more, see Tippie Honors on the Tippie College of Business website.

Credit and Grading

Credit by Examination

Students may earn up to 30 s.h. of credit by examination by taking selected tests from the College-Level Examination Program (CLEP) and the Advanced Placement (AP) program of the College Board or the International Baccalaureate Program (IB). The University of Iowa is a testing center for CLEP tests. For information about when and how to take CLEP tests, see Testing Services on the Admissions website. The Tippie College of Business Undergraduate Program Office has information on scores, credit, and course duplicates for all CLEP, Advanced Placement, and IB tests accepted by the college.

Maximum Schedule

Students may register for a maximum of 18 s.h. in the fall and spring semesters, a maximum of 12 s.h. in the summer session, and a maximum of 3 s.h. in the winter session. Course schedules of more than 18 s.h. for a fall or spring semester, more than 12 s.h. for the summer session, or more than 3 s.h. for the winter session require approval from the Undergraduate Program Office. Approval is based on a review of past academic performance. Permission for more than 12 s.h. in the summer session is granted only in extraordinary circumstances and permission for more than 3 s.h. in the winter session is never granted.

Adding and Dropping Courses

Students may add or drop courses, except College of Law courses, any time before the deadline published in the university's academic deadline calendar. Deadlines are different for regular and off-cycle courses. See the Academic Calendar and Course Deadlines for course-specific deadlines at the University of Iowa on the Office of the Registrar website. Students must obtain approval from the college that offers the course in order to add or drop a course after these deadlines.

To request a late add of a Tippie College of Business course, students must obtain both the authorization of the instructor and the authorization of the Undergraduate Program Office.

To request a late drop of a Tippie College of Business course before the term is over, or a retroactive drop of any University of Iowa course after a term is over, students should meet with an advisor in the Undergraduate Program Office to discuss the petition process to drop the course after the deadline. To request permission, students must submit a written petition. The petition is granted only with documentation of extenuating circumstances beyond the student's control.

Prerequisites and Restrictions

Undergraduate students must complete a course's prerequisites. When a student registers, the MyUI course registration system reads a student's record, and if there is no evidence that a prerequisite has been completed or is in progress, enrollment for the course is blocked. See the Tippie College of Business Prerequisites webpage for more information about prerequisite policies and procedures.

Departments also restrict some of their courses based on students’ programs of study or other criteria. Students who find that a course from another major can fulfill a requirement for their declared major may still find that the course is subject to prerequisites or restricted to students who have declared the major within the offering department. Tippie students should speak with their advisor about the availability of restricted courses and students outside Tippie can request access to restricted undergraduate courses, but that access is not guaranteed.

Administrative Drops for Nonattendance

Instructors have the option to drop a student who has missed the first two class periods of a course unless the student has offered an acceptable reason for beginning the course late. Administrative drops must be processed by the first eight calendar days of the semester or the first two calendar days of the winter session, each summer session, or the start of an off-cycle course. Administrative drops are made without the assignment of a W (withdrawn). Students who are dropped from a course are notified. Students should not assume that they have been dropped from a course because they have not attended.

Auditing Courses

Students may register to audit a course with the approval of the course instructor. Students must obtain the required authorizations and register for 0 s.h. of credit in the course to be audited. The mark of AUS (audit successful) is assigned if a student's attendance and performance are satisfactory; if they are unsatisfactory, the mark of AUU (audit unsuccessful) is assigned. Courses completed with a mark of AUS do not meet any college requirement and carry no credit toward graduation. Auditing may not be used as a second-grade-only option. Tuition and fees will still be assessed for audited courses.

Pass/Nonpass

Up to 15 s.h. of coursework required for the degree may be taken pass/nonpass with the consent of an advisor and the instructor. Students must be in good academic standing to be eligible for the pass/nonpass option. A maximum of two pass/nonpass courses may be taken in one semester or session.

Courses taken pass/nonpass may not be used to satisfy general education, prerequisite, core, or major business requirements; major business requirements include any course that fulfills a business major course requirement or is offered by a business major department, regardless of the business major of the student seeking to take the course pass/nonpass.

Pass/nonpass registration must be completed by the last day to add a course without the dean's permission. For full-length courses during the fall or spring semesters, that is the first ten days of the semester. For summer or off-cycle courses, see the Office of the Registrar's Course Deadline webpage for the last day to add a course without dean's permission.

For courses taken pass/nonpass, an earned grade of D-minus or higher is recorded as a P; an earned grade of F is recorded as an N. Pass/nonpass credit is not included in GPA calculations.

Satisfactory/Fail and Satisfactory/Unsatisfactory

Certain courses are offered satisfactory/fail (S/F) or satisfactory/unsatisfactory (S/U). All students registered for these courses receive one of these marks.

Special forms are not necessary to register for S/F or S/U courses, since all students enrolled in such courses automatically receive an S, an F, or a U.

Semester hours of S or U graded coursework are not used in computing GPAs, but hours of F graded coursework are used.

Semester hours of S graded coursework are counted as semester hours earned toward graduation; semester hours of F or U graded coursework do not count as semester hours earned toward graduation.

A maximum of 15 s.h. of S credit from the University of Iowa is accepted toward a bachelor's degree.

Second-Grade-Only Option

Students admitted to the Tippie College of Business may use a Second-Grade-Only (SGO) option to retake a course and have only the second grade used in GPA calculations and counted as hours earned.

Policies

- Students may apply the SGO option to a maximum of three different courses while they are enrolled at the University of Iowa; any SGO options used before entry to the Tippie College of Business count toward the maximum of three allowed.
- Students in combined degree programs are allowed a combined maximum of three SGO options.
- The SGO option may be used only once per course. Once placed on the record, the option may not be retracted.
- A course taken at another college or university may not be repeated at the University of Iowa under the SGO option.
- A University of Iowa course may not be repeated at another institution under the UI SGO option.
- If the course was taken for a grade the first time, it must be taken for a grade the second time.
- If the course was taken pass/nonpass the first time, a student may choose to take the course for a grade or as pass/nonpass the second time.
- Any University of Iowa course taken in any mode of delivery—during a regular semester, a summer session, an intensive session, or through distance learning and Distance and Online Education [p. 2194]—may be repeated in the same mode of delivery or in any other mode of delivery.
- Students who have been awarded a degree from the University of Iowa may not use the SGO option on a course taken before the degree was awarded.
- Graduate or professional colleges may recalculate GPAs using all grades visible on the permanent record.

Procedures

- Students must register as usual for the course that is to be repeated.
- After the session in which the course is being repeated has begun, students must request the SGO option by completing the Request a Second-Grade-Only Option form.
- The permanent record is adjusted by placing a pound symbol (#) next to the first grade to indicate that it is no longer being included in the GPA calculation, and only the semester hours from the second registration have been counted as semester hours earned.

Incomplete Grades

Instructors may report a mark of I (incomplete) only if the unfinished part of a student's work in a course other than research, thesis, or independent study is small; if the work is unfinished for reasons acceptable to the instructor; and if a student's standing in the course is satisfactory.

Students should not re-enroll in a course for which they have an incomplete. Incomplete grades must be removed by completing the unfinished part of the work. Faculty and students are encouraged to state clearly in a written agreement how the incomplete is to be completed. Both the faculty member and the student should keep a record of the written agreement.

Failure to remove the incomplete before the end of the next full semester, excluding summer and winter sessions, results in the replacement of the I with a grade of F, regardless of whether a student is enrolled during that semester. A grade change may be submitted to convert a grade of F to another letter grade, with the instructor's approval.

Probation and Dismissal

Students are placed on academic probation when their GPA in any of the following categories falls below 2.00:

- all coursework taken;
- all coursework taken at the University of Iowa;
- all business coursework taken (when applicable);
- all business coursework taken at the University of Iowa (when applicable);
- all coursework taken to satisfy requirements for the major(s); or
- all coursework taken at the University of Iowa to satisfy requirements for the major(s).

In probation decisions, a 3 s.h. minimum is used to calculate the GPA for all coursework taken to satisfy requirements for

the major(s), and all coursework taken at the University of Iowa to satisfy requirements for the major(s).

Students on probation are required to meet with an academic advisor and cannot register for the next session's classes before doing so. Students on academic probation who withdraw registration after the deadline for dropping courses may be dismissed.

Students on probation with more than one declared business major may be required to drop one or more majors in order to pursue one business major only.

Students may be dismissed from the college at any time for unsatisfactory scholarship. While some probationary period usually precedes a dismissal, students in good academic standing who complete a session with extremely unsatisfactory grades may be placed on academic probation or dismissed immediately. To appeal a dismissal, students may submit a written appeal as described in their dismissal letter. Students dropped from the college for poor scholarship may petition for permission to be reinstated, but usually only after one year following the end of the session in which they were dismissed, and only in accordance with the instructions as described in their dismissal letter; see "Reinstatement."

When all of the GPAs previously outlined equal or surpass 2.00, students are removed from probation. Students usually are allowed only one session to return to good academic standing.

Reinstatement

Students dismissed for unsatisfactory scholarship for the first time are not permitted to register again for one year. Students dismissed for the second time may or may not be granted a second reinstatement. Requests for reinstatement must be made in writing and should be addressed to the Associate Dean, Undergraduate Program Office. Arrangements for a reinstatement interview must be made with the Undergraduate Program Office in the Tippie College of Business. The interview must take place between March 1 and June 15 for reinstatement for fall semester, or between October 1 and November 15 for reinstatement to spring semester. Late requests are deferred to the following semester. Students who are permitted to register following dismissal are registered on academic probation and ordinarily are allowed two semesters to achieve good standing. Most reinstatements include a limit on the number of semester hours the student may take upon reinstatement. Very poor academic work in the first semester of a reinstatement, however, may result in dismissal at the close of that semester.

ReStart

The undergraduate colleges at the University of Iowa offer an academic forgiveness policy, referred to as ReStart.

If students were previously enrolled in the Tippie College of Business and are returning, or have returned, to the University of Iowa after an extended absence (four consecutive years or more), they may use the ReStart option to request the removal of one or more previously completed academic sessions at the Tippie College of Business (i.e., semesters or winter/summer enrollments) from future GPAs and satisfaction of degree requirements.

If students have already graduated from the University of Iowa, they are not eligible to use the ReStart option whether for a second degree or any other purpose.

Students are strongly advised to contact the director of undergraduate enrollment to discuss the ReStart option before submitting a ReStart application. Contact the Undergraduate Program Office to schedule an in-person or telephone appointment.

Returning for Baccalaureate Degrees

Returning for a Second Business Major

Individuals who have already completed a major in the Tippie College of Business may return to complete the requirements for another Tippie major. Students who return to the University of Iowa to complete another Tippie major must meet the requirements for that major; they do not have to meet the Tippie College of Business residence requirement. It is their responsibility to notify the Office of the Registrar once they complete the requirements for the second major so that a notation can be placed on their permanent record. Returning students are held to the requirements that are published in the University of Iowa General Catalog for the session in which they reenter.

Returning for an Additional Bachelor's Degree

Individuals who hold a bachelor's degree from the Tippie College of Business or another college at the University of Iowa may return to earn an additional bachelor's degree from the Tippie College of Business. They must satisfy all requirements for undergraduate admission to the degree program. Once admitted, they must satisfy all requirements for the degree program in their chosen major. Returning students are held to the requirements that are published in the University of Iowa General Catalog for the session in which they reenter.

Combined Programs

Undergraduate Programs

Undergraduate students may earn combined undergraduate degrees from the Tippie College of Business and the colleges of Education, Engineering, or Liberal Arts and Sciences. The following rules apply to all students in combined degree programs.

- To enter a combined degree program, students must have approval from the Tippie College of Business and must be admitted to both colleges. Interested students should see an advisor in the college's Undergraduate Program Office.
- Students in combined degree programs are allowed a combined maximum of three second-grade-only options.
- All students in combined programs must meet all requirements for both degrees, including all General Education Program requirements.
- Students are assigned two advisors (one for each major).
- Students in combined degree programs are assessed tuition only for the primary (first) major.

Tippie College of Business/College of Liberal Arts and Sciences

The Tippie College of Business and the College of Liberal Arts and Sciences offer a combined degree program in which students earn two bachelor's degrees: a Bachelor of Arts (BA), Bachelor of Business Administration (BBA), or Bachelor of Science (BS) from the Tippie College of Business and a Bachelor of Arts (BA), Bachelor of Science (BS), Bachelor of

Fine Arts (BFA), or Bachelor of Music (BM) from the College of Liberal Arts and Sciences.

Students in this combined degree program must declare the Tippie College of Business program of study as their primary (first) major.

To learn about liberal arts and sciences majors, see the College of Liberal Arts and Sciences [p. 20] section of the catalog.

Tippie College of Business/College of Education

The Tippie College of Business and the College of Education offer a combined degree program in which students earn two bachelor's degrees: a Bachelor of Arts (BA), Bachelor of Business Administration (BBA), or Bachelor of Science (BS) from the Tippie College of Business and a Bachelor of Arts (BA) from the College of Education. The combined degree program is limited in the College of Education to either the BA in education studies and human relations or the BA in elementary education.

Students in this combined degree program must declare the Tippie College of Business program of study as their primary (first) major.

To learn about the BA in education studies and human relations or the BA in elementary education, see the College of Education [p. 1335] section of the catalog.

Tippie College of Business/College of Engineering

The Tippie College of Business and the College of Engineering offer a combined degree program in which students earn two bachelor's degrees: a Bachelor of Arts (BA), Bachelor of Business Administration (BBA), or Bachelor of Science (BS) from the Tippie College of Business and a Bachelor of Science in Engineering (BSE) from the College of Engineering. Students in this combined degree program must declare the College of Engineering program of study as their primary (first) major. They must also enroll in appropriate mathematics and engineering courses early in their course of study in order to complete the program in a timely manner. Because courses in natural sciences, mathematics, humanities, and social sciences count toward the BBA and the BSE, students may be able to count certain courses toward both degrees.

Combined degree students in this program usually meet the degree requirements of both colleges in about five years; the time required depends on a student's choice of major study areas.

For information about engineering majors, see Bachelor of Science in Engineering [p. 1527] in the catalog. To learn more about the requirements for the combined business/engineering degree, consult the Undergraduate Program Office in the Tippie College of Business and the Student Development Center in the College of Engineering.

Graduate Programs

Master of Science

Tippie College of Business students may begin work toward a Master of Science (MS) degree while completing their undergraduate degree. This program allows students to count a limited amount of credit toward both degrees.

Students typically apply to the Master of Science program in their third year of undergraduate study and begin masters-level work in their fourth year of undergraduate study. For information on these graduate programs, see MS in business analytics [p. 1169] and MS in finance [p. 1226] in the catalog.

Juris Doctor (JD)

The Tippie College of Business 3+3 agreement with the University of Iowa College of Law allows well-prepared students the opportunity to apply for admission to the College of Law during their third year, and if accepted, begin work on the Juris Doctor degree during their fourth year of study. Students participating in the 3+3 program apply to the College of Law and are required to submit a Law School Admission Test (LSAT) score. If a student is admitted into the JD program, the Tippie College of Business accepts up to the 30 hours of credit earned during the first year of law school to satisfy any remaining elective hours required for their undergraduate degree.

The 3+3 option is open to students in all undergraduate programs. Students who wish to pursue this opportunity are required to plan early in their undergraduate career, as all degree requirements except elective hours must be completed in the first three years of BBA study.

For more information, see the 3+3 Program for Undergraduates on the College of Law website.

Honors

Honors in the Major

Outstanding students in the college have an opportunity to undertake independent research under the supervision of a faculty member. To graduate with honors in the major, students must complete an honors thesis under the supervision of a Tippie College of Business faculty member. Students begin by completing BUS:1999 Introduction to Research in Business prior to the commencement of their thesis work. This course introduces students to research in the college and provides an opportunity to develop thesis questions and meet faculty members engaged in research.

Students then identify a faculty thesis advisor and complete their research and thesis writing over the course of two semesters, registering for the appropriate honors thesis course for both semesters from the following list. With faculty permission, students may elect to complete the thesis with another Tippie College of Business student.

Course #	Title	Hours
ACCT:4999	Honors Thesis in Accounting	arr.
BAIS:4999	Honors Thesis in Business Analytics	arr.
BUS:4999	Honors Thesis in Business	arr.
ECON:4999	Honors Thesis in Economics	arr.
FIN:4999	Honors Thesis in Finance	arr.
MGMT:4999	Honors Thesis in Management	arr.
MKTG:4999	Honors Thesis in Marketing	arr.

To earn honors in the major, students must successfully complete all college requirements with a grade-point average of at least 3.50 in all courses taken at Iowa, all business courses taken at Iowa, all courses taken (including transfer courses), and all business courses taken (including transfer courses). Students must also present their research in a

poster format at the spring or fall Undergraduate Research Festival.

See Tippie Honors on the Tippie College of Business website to learn more.

University of Iowa Honors Program

Completing the honors in the major requirements also satisfies the experiential learning requirement for the University of Iowa Honors Program. To learn more about graduating with university honors through the University of Iowa Honors Program, visit the Honors at Iowa website.

Pre-business students interested in honors study are encouraged to participate in the University of Iowa Honors Program until they are admitted to the business college. Visit Honors at Iowa to learn about the university's honors program.

Admission

Admission to the Tippie College of Business

All students admitted to the Tippie College of Business must follow the Tippie Honor Code. Students who meet the admission requirements may subsequently be denied admission upon evidence of postsecondary academic misconduct or other violations of the honor code. Students may be required to meet with the associate dean of undergraduate programs to discuss incidents of academic misconduct. Prospective students must accept their offer of admission and submit all transcripts showing coursework that satisfies the Tippie College of Business admission requirements to University of Iowa Admissions by the appropriate deadline. Letters of recommendation are not accepted. Students granted admission to Tippie College of Business are eligible to apply for a limited pool of donor-funded scholarship dollars.

Admission to the BA and BS Programs

Students who meet the high school course requirements and the Regent Admission Index (RAI) score based on their residency are eligible to gain admission to the Bachelor of Arts or Bachelor of Science programs in the Tippie College of Business. Students may also seek admission to the Bachelor of Arts or Bachelor of Science programs in the Tippie College of Business after matriculating to the University of Iowa or by transferring from another institution of higher education. For more information about admission, see Undergraduate Program Admissions on the Tippie College of Business website.

Early Admission to the BBA Program

Students who meet the high school course requirements and the Regent Admission Index (RAI) score based on their residency and additionally have a composite ACT score of 26 or higher (or SAT equivalent) and a high school grade-point average (GPA) of 3.60 or higher (on a 4.00 scale) are eligible to gain early admission (or Direct Admission) to the BBA program in the Tippie College of Business. Applicants who meet one of the two additional criteria will be pooled for review for early admission to the BBA program with final decisions published by March 15.

High school students who do not gain early admission to the BBA program may pursue admission to the Bachelor of Arts or Bachelor of Science programs in the Tippie College of Business or to the pre-business program of study in the College of Liberal Arts and Sciences. For more information about admission, see Undergraduate Program Admissions on the Tippie College of Business website.

Admission to the BBA Program

Students who have completed at least 24 s.h. of college credit, including a collection of five prerequisite courses and have a GPA of at least 2.75 on those prerequisite courses, on all college coursework completed, and on all University of Iowa coursework are eligible for admission (or Standard Admission) to the BBA program in the Tippie College of Business. Students transferring from another institution of higher education must only meet the GPA requirement on the prerequisite courses and on all college coursework completed.

Students typically apply for admission to the BBA program in the term they are completing their final prerequisite course(s). Admission is not granted for the summer session or the winter session. Grades from the winter session do not count toward admission for the following spring semester, but grades from the summer session may count toward admission for the following fall semester. Students who are denied admission may file an appeal of their denial of admission to Tippie and must provide documentation of extenuating circumstances that affected their academic performance. For more information about admission, see Undergraduate Program Admissions on the Tippie College of Business website.

Nondegree Admission

Students visiting from another institution who wish to enroll in undergraduate courses in order to earn credit that they can transfer to their home institution may be granted admission as undergraduate nondegree students. Nondegree students are not guaranteed access to specific courses; they must have the approval of the Undergraduate Program Office and may earn no more than 9 s.h. in nondegree status.

Reentry Policy

All students who have been enrolled in another college or university since leaving the University of Iowa are required to submit official transcripts along with an application for reentry. Completed application materials must be received at least two weeks before the opening of classes. Reentry students are held to the requirements that are published in the University of Iowa General Catalog for the session in which they reenter.

Absent for Fewer Than 12 Months in Good Standing

Students absent for fewer than 12 months are not required to file an application for reentry. Students who were in good standing when they left the university should contact the Tippie College of Business Undergraduate Program Office for advising before registration. Reentry is approved regardless of any admission requirement changes.

Absent for Fewer Than 12 Months Not in Good Standing

Students absent for fewer than 12 months are not required to file an application for reentry. Students who were not in good standing when they left the university must consult with an advisor in the Tippie College of Business; the student may be readmitted on probation. Readmitted students should contact the Tippie College of Business Undergraduate Program Office for advising before registration. Reentry is approved regardless of any admission requirement changes. Not in good standing is defined as being on probation or having been dismissed from the Tippie College of Business due to unsatisfactory scholarship, academic misconduct at the University of Iowa or at another institution, or a violation of the Tippie College Undergraduate Honor Code. Students who have been officially dismissed follow the procedures for reinstatement.

Absent for 12 Months or More in Good Standing

Students absent from the University of Iowa for 12 months or more who left in good standing must apply to University of Iowa Admissions as returning students and must contact the Tippie College of Business Undergraduate Program Office for advising before registration. Good standing is defined as not on probation and not dismissed for any reason.

Absent for 12 Months or More Not in Good Standing

Students absent from the University of Iowa for 12 months or more who were not in good standing when they left the university must file a petition with the Tippie College of Business Undergraduate Program Office to be reinstated. If the petition is approved, the student must apply to University of Iowa Admissions as a returning student; the Undergraduate Program Office notifies Admissions that a student's petition for reinstatement has been approved. The student also must schedule an appointment to see an advisor in the Tippie College of Business for advising before registration. Not in good standing is defined as being on probation or having been dismissed from the Tippie College of Business due to unsatisfactory scholarship, academic misconduct at the University of Iowa or at another institution, or a violation of the Tippie College Undergraduate Honor Code. Students who have been officially dismissed follow the procedures for reinstatement.

Career Advancement

Tippie College of Business graduates enjoy a high placement rate. Over 90% of students reported that they found permanent employment, were pursuing graduate degrees, or were not seeking employment six months after graduation.

Tippie Undergraduate Career Services supports Tippie students with targeted career support and seeks to improve the job search experience and outcomes for Tippie undergraduate students. Visit their website or the Pomerantz Career Center website for more information.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

The following checkpoints are designed for students who enter the university with the goal of earning a BBA. In order to stay on the plan, pre-business students must maintain the grade-point averages required for admission to the BBA program in the Tippie College of Business and must apply for admission to the BBA program in the semester that the five prerequisite courses will be completed, but no later than before the fifth semester begins. The Four-Year Graduation Plan is not available to students who choose to pursue a double major in the college or to those enrolled in a combined degree program.

Before the third semester begins: RHET:1030 Rhetoric: Writing and Communication, ECON:1100 Principles of Microeconomics, MATH:1350 Quantitative Reasoning for Business, STAT:1030 Statistics for Business, and BAIS:1500 Business Computing Essentials, or equivalents; and at least one-quarter of the semester hours required for graduation.

Before the fifth semester begins: ACCT:2100 Introduction to Financial Accounting and ECON:1200 Principles of Macroeconomics, or equivalents; business core courses that satisfy prerequisites in a student's intended major; three-quarters of general education requirements; and at least half of the semester hours required for graduation.

Before the seventh semester begins: three-quarters of business core requirements, approximately half of the coursework in the major (varies by major), and three-quarters of the semester hours required for graduation.

Before the eighth semester begins: approximately three-quarters of coursework in the major (varies by major).

During the eighth semester: all remaining coursework in the BBA degree and a sufficient number of semester hours to graduate.

Iowa Degree in Three

Iowa Degree in Three is designed for BBA students who are academically prepared to complete more semester hours per term than average or who come to the University of Iowa with completed college credits. It is a flexible, affordable option developed to meet the needs of highly motivated students. Students sign an agreement during their first semester of enrollment; meet with an advisor at least once a semester to review their plans and progress; take courses during summer sessions, if necessary; meet specific course checkpoints; and maintain the grade-point average required for the major.

The Tippie College makes several assumptions about candidates for the Iowa Degree in Three:

- students are prepared to enroll in MATH:1350 Quantitative Reasoning for Business during their first enrollment at the University of Iowa;
- students have fulfilled the general education World Languages requirement before matriculation;
- students are early admits to the BBA program in the Tippie College of Business;
- students have earned at least 15 s.h. of college credit before matriculation; and

- students are not held for more than two English as a Second Language classes.

The Iowa Degree in Three is available for any of the BBA majors offered by the Tippie College of Business.

Accounting

Chair

- Ryan J. Wilson

Director, Undergraduate Program

- Greg Hall

Director, Master of Accountancy

- Kevin J. Den Adel

Director, PhD Program

- Jaron Harp Wilde

Director, RSM Institute of Accounting Education and Research

- Scott Asay

Undergraduate major: accounting (BBA)

Graduate degrees: MAc; accounting subprogram for the PhD in business administration

Faculty: https://tippie.uiowa.edu/people?department=Accounting&cohort=538101

Website: https://tippie.uiowa.edu/about/accounting-department

The Department of Accounting offers a broad education that prepares undergraduate and graduate students for careers in auditing, corporate accounting, management consulting, taxation, government, not-for-profit organizations, and academia.

The department also collaborates with the College of Law to offer the combined MAc/JD program; see Combined Programs [p. 1151] under Master of Accountancy in this section of the catalog. It also participates in the MBA program; see the Master of Business Administration Program [p. 1272] in the catalog.

Accounting Program

The accounting program draws on curricula that provide a strong base of traditional technical subject matter and the skills needed for solving complex business problems. This framework of study enables students to continue professional growth over the entire span of their careers. The program emphasizes communication skills and provides the academic background required for leadership positions in business, government, and public accounting. It can also qualify students to take the Certified Public Accountant (CPA) examination.

The accounting program leads to a Bachelor of Business Administration with a major in accounting, which requires 120 s.h. of credit and the Master of Accountancy, which requires 30 s.h. of graduate credit. Students are granted the BBA upon successful completion of the third and fourth years; they are granted the MAc after successful completion of 30 s.h. beyond the BBA.

Programs

Undergraduate Program of Study

Major

- Major in Accounting (Bachelor of Business Administration) [p. 1143]

Graduate Programs of Study

- Master of Accountancy [p. 1149]
- Accounting subprogram for the Doctor of Philosophy [p. 1154] in Business Administration

Courses

Accounting Courses

ACCT:1300 First-Year Seminar 1 s.h.
Small discussion class taught by faculty member; topics chosen by instructor; may include outside activities (e.g., films, readings, visits to research facilities).

ACCT:2100 Introduction to Financial Accounting 3 s.h.
Accounting and financial reporting procedures used by business and not-for-profit entities; emphasis on accounting concepts and use of accounting information in making economic decisions.

ACCT:2200 Managerial Accounting Analytics and Data Visualization 3 s.h.
Basic topics in cost behavior, measurement, accumulation; use of cost data for relevant analysis, budgeting, performance evaluation. Prerequisites: ECON:1100 and ACCT:2100 and (MATH:1850 or MATH:1550 or MATH:1460 or MATH:1860 or MATH:1350).

ACCT:3020 Financial Accounting and Reporting 3 s.h.
External financial reporting practices in context of decisions by management, current and potential stockholders, financial analysts; emphasis on interpretation, use of financial statements. Prerequisites: ACCT:2200.

ACCT:3100 Professional Accounting Seminar 1 s.h.
Seminar topics, including accounting careers, curriculum, MAc program, internships, CPA examination and other professional certificates, Beta Alpha Psi, ethics, and global standards. Offered fall semesters. Corequisites: ACCT:2200 or ACCT:3200.

ACCT:3200 Income Measurement and Asset Valuation 3 s.h.
Accounting rules that determine how economic events and transactions are described in published financial reports; emphasis on revenue and expense recognition, asset valuation, accrual accounting model. Prerequisites: ACCT:2100.

ACCT:3300 Valuation of Financial Claims 3 s.h.
Current and long-term liabilities and stockholders' equity, off-balance sheet financing, cash flow statement, earnings-per-share, financial instruments. Prerequisites: ACCT:3100 and ACCT:3200.

ACCT:3400 Introduction to Taxation 3 s.h.
Federal income taxation of individuals and businesses, including corporations, partnerships, and sole proprietorships; emphasis on developing a broad perspective on structure, administration, and rationale of federal income tax system. Prerequisites: ACCT:2100.

ACCT:3420 Taxes and Business Strategy 3 s.h.
Effect of taxes on business decisions, including investment strategies, capital structure decisions, compensation policies, international business, mergers and acquisitions, and financial reporting. Prerequisites: ACCT:2100.

ACCT:3450 Tax Practicum (VITA) I 0,2 s.h.
Transformative opportunity to work on real world tax problems with real clients; application of skills learned in classroom to real world problems; development of crucial accounting career soft skills including communication (explaining complicated ideas in simple language), moving out of one's comfort zone, working as a team, and having an appreciation for the importance of community service.

ACCT:3451 Tax Practicum (VITA) II 1 s.h.
Transformative opportunity to work on real world tax problems with real clients; application of skills learned in classroom to real world problems; development of crucial accounting career soft skills including communication (explaining complicated ideas in simple language), moving out of one's comfort zone, working as a team, and having an appreciation for importance of community service. Prerequisites: ACCT:3450. Requirements: successful completion of ACCT:3450 and certification on the most recent Internal Revenue Service certification tests.

ACCT:3500 Advanced Tax Topics 3 s.h.
Taxation of corporations and partnerships from organization through liquidation; relative merits of conducting business as C corporation, partnership, S corporation; the alternative minimum tax; introduction to tax research. Prerequisites: ACCT:3400.

ACCT:3550 Financial Statement Analysis 3 s.h.
How to analyze published financial statements; practical experience using financial statement information to assess accounting quality, historical performance, forecasted performance, credit risk, firm value. Prerequisites: ACCT:3020 or ACCT:3200.

ACCT:3600 Accounting Systems and Analytics 3 s.h.
Application of computer technology and internal controls to accounting and transaction processing systems; auditing of information systems; information systems infrastructure and trends; problem solving with Python and databases; accounting cycle operations. Prerequisites: ACCT:2200 and ACCT:2100 and (BAIS:3005 or CS:2110). Same as BAIS:3100.

ACCT:4000 Special Topics in Accounting 1-3 s.h.

ACCT:4001 Continuing Education: Special Topics in Accounting arr.
Independent study topics determined by faculty member.

ACCT:4050 Directed Readings in Accounting arr.
Individual guided readings in accounting topics. Requirements: admission to Professional Program in Accounting.

ACCT:4100 Auditing 3 s.h.
General framework underlying auditing, role of audit standards in planning and conduct of audits, effect of regulation, ethics, liability on audit practices. Prerequisites: ACCT:3300 and (BAIS:2800 or ECON:4800 or STAT:2020).

ACCT:4200 Advanced Managerial Accounting Analytics 3 s.h.
Advanced topics in cost estimation, measurement, accumulation; use of cost data for decision-making, performance evaluation in multi-unit organizations. Prerequisites: (STAT:2020 or ECON:4800 or STAT:4101 or BAIS:2800) and (CS:2110 or BAIS:3005) and ACCT:2100 and ACCT:2200.

ACCT:4220 Design and Use of Cost Management Systems 3 s.h.
Development of cost accumulation and reporting systems that complement a firm's strategy and structure; how activity-based cost management systems increase competitiveness by helping a firm manage its costs, processes, and people. Prerequisites: ACCT:4200.

ACCT:4280 Cybersecurity 3 s.h.
High-level view of computer security and fostering a cybersecurity mindset which is in demand across all industries; frequent change of perspective from employee to CEO, casual home user, and hacker; broad range of topics; actionable items to make daily digital interactions more secure. Prerequisites: BAIS:3005 or CS:1210 or CS:2110 or CS:2230 or CS:3330 or ENGR:2730. Same as BAIS:4280.

ACCT:4300 Accounting Ethics and Law 3 s.h.
Integration of ethics with study of legal topics for accountants (e.g., contracts, debtor-creditor law, agency law, employment law, securities law, accountant's legal liability, business entities); selections from American Institute of Certified Public Accountants (AICPA) Code of Professional Conduct; students analyze ethical considerations of essential topics (e.g., fraud, fiduciary duties). Prerequisites: ACCT:2100 and ACCT:2200.

ACCT:4400 Advanced Financial Accounting 3 s.h.
Accounting and reporting standards for business combinations, including mergers, consolidations, and multinational enterprises; accounting for partnerships, business segments, transactions denominated in foreign currency, including hedges using foreign currency derivate instruments; reporting standards for interim financial statements and fund accounting applied to government and nonprofit entities. Prerequisites: ACCT:3300.

ACCT:4500 Accounting Measurement: Research and Analysis 3 s.h.
How uncertainty and risk influence accounting judgments, estimates, and forecasts that underlie reported financial statement amounts; applications drawn from familiar accounting measurement challenges and those unique to industries (e.g., airline transportation, healthcare, insurance, gaming, oil and gas exploration). Prerequisites: ACCT:3300. Corequisites: ACCT:4100.

ACCT:4600 Research Seminar for Tax Professionals 2 s.h.
Understanding of the methodology used by tax professionals to research the Internal Revenue Code, Treasury Regulations, and case law; emphasis on evaluation and application of tax law to specific facts and circumstances to address tax compliance and tax planning opportunities faced by tax practitioners and their clients. Prerequisites: ACCT:3500.

ACCT:4999 Honors Thesis in Accounting arr.
Independent student project directed by faculty or staff advisor; culminates in thesis that conforms to University of Iowa Honors Program guidelines; may include empirical research, library research, applied projects. Prerequisites: BUS:1999.

ACCT:7850 Seminar in Accounting Research arr.
Forum on current research in accounting, related disciplines; faculty, student, guest papers, PhD dissertation proposals. Requirements: PhD enrollment.

ACCT:7900 Seminar in Selected Accounting Topics arr.
Individual study, research paper preparation. Requirements: PhD enrollment.

ACCT:7950 Directed Readings in Accounting arr.
Individual guided readings in accounting topics.

ACCT:7975 Thesis: Accounting arr.
Requirements: PhD enrollment.

ACCT:9020 Strategic Cost Analysis 2-3 s.h.
Introduction to cost accumulation, reporting, cost management systems; managerial and divisional performance evaluation; appropriate use of cost data for short- and long-run decisions; product costing in manufacturing and service industries. Prerequisites: MBA:8140.

ACCT:9030 Financial Accounting Standards and Analysis 2-3 s.h.
Accounting model, underlying measurement concepts, valuation rules for assets, liabilities, related issues of income determination; emphasis on economic substance of transactions, evaluation and interpretation of financial data. Prerequisites: MBA:8140.

ACCT:9040 Financial Statement Analysis and Forecasting 3 s.h.
Use of corporate financial statements for investment and lending decisions; emphasis on financial analysis techniques, valuation, business analysis, cash flow projections, credit scoring, related research evidence. Prerequisites: MBA:8140 or (ACCT:3200 and ACCT:3300). Recommendations: for Iowa MBA majors, MBA:8180 or prior undergraduate finance course.

ACCT:9050 Taxes and Business Strategy 2-3 s.h.
Effect of taxes on business decisions, including investment strategies, capital structure decisions, compensation policies, international business, mergers and acquisitions, and financial reporting. Prerequisites: ACCT:3020 or ACCT:3500 or MBA:8140 or LAW:8194. Requirements: graduate standing in business.

ACCT:9110 Special Topics in Taxation 3 s.h.
Timely and relevant topics in taxation and/or topics related to taxation not covered in ACCT:3400 and ACCT:3500. Prerequisites: ACCT:3500 or LAW:8194.

ACCT:9120 Design and Use of Cost Management Systems 3 s.h.
Development of cost accumulation and reporting systems that complement a firm's strategy and structure; how activity-based cost management systems increase competitiveness by helping a firm manage its costs, processes, people. Prerequisites: ACCT:4200 or ACCT:9020.

ACCT:9130 Financial Reporting: Theory and Practice 3 s.h.
Corporate accounting choices in framework of traditional accounting theory, economic consequences, firm valuation. Prerequisites: ACCT:3300. Requirements: graduate standing in business.

ACCT:9140 Advanced Auditing 3 s.h.
Advanced issues such as ethics, internal control audits, forensic auditing, and fair value auditing. Prerequisites: ACCT:4100. Requirements: graduate standing in business.

ACCT:9150 Research Seminar for Tax Professionals 3 s.h.
Understanding of the methodology used by tax professionals to research the Internal Revenue Code, Treasury Regulations, and case law; emphasis on evaluation and application of tax law to specific facts and circumstances to address tax compliance and tax planning opportunities faced by tax practitioners and their clients. Prerequisites: ACCT:3500. Requirements: admission to MAc program.

ACCT:9170 Advanced Accounting Analytics 3 s.h.
Application of the latest business intelligence software packages to real world problems from auditing, managerial, financial, and tax accounting; how to use Big Data to make better business decisions and identify potential risks and opportunities. Prerequisites: ACCT:4100 and ACCT:4200. Corequisites: BAIS:9210.

Accounting, BBA

The accounting program draws on curricula that provide a strong base of traditional technical subject matter and the skills needed for solving complex business problems. This framework of study enables students to continue professional growth over the entire span of their careers. The program emphasizes communication skills and provides the academic background required for leadership positions in business, government, and public accounting. It can also qualify students to take the Certified Public Accountant (CPA) examination.

Students who wish to earn the Bachelor of Business Administration with a major in accounting must be admitted to the Tippie College of Business. Undergraduate accounting majors are subject to the probation and dismissal rules described in the Undergraduate Programs [p. 1132] section of the catalog and are governed by the Tippie Honor Code.

Common BBA Requirements

The Bachelor of Business Administration (BBA) requires a minimum of 120 s.h. of credit, including at least 48 s.h. earned in business courses and at least 52 s.h. earned in non-business courses.

BBA students must earn 45 s.h. at the University of Iowa following admission to the BBA program. At least 24 s.h. in business courses must be earned with Tippie College of Business coursework. At least two-thirds of the semester hours in a student's major must be earned in the student's major department at the Tippie College of Business. Nonresident instruction includes coursework at colleges and universities other than the University of Iowa.

To graduate, BBA students must have a cumulative grade-point average of at least 2.00 in all college-level coursework attempted, all college-level business coursework attempted, all college-level major coursework attempted, all college-level coursework attempted at the University of Iowa, all college-level business coursework attempted at the University of Iowa, and all college-level major coursework attempted at the University of Iowa.

Common BBA Requirements

BBA students must fulfill the following common requirements or approved equivalents. For approved equivalents, consult the college's Undergraduate Program Office.

General Education

Students may not count courses taken to fulfill General Education Program requirements toward other course requirements for the BBA.

Course #	Title	Hours
Historical Perspectives		3
International and Global Issues		3
Interpretation of Literature		3
Natural Sciences (without lab)		3
Rhetoric		4
Social Sciences (excluding ECON:1100 and ECON:1200)		3
Understanding Cultural Perspectives		3
Values and Society		3
World Languages		0-10

World Languages

Tippie College of Business students may complete the World Languages requirement using one of three options. One year of high school language study is generally equivalent to one semester of college language study.

Option One

Attain fourth level proficiency in a single world language. Students attain fourth level proficiency in a single world language by completing four years of that language in high school or four semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at fourth level proficiency.

Option Two

Attain third level proficiency in a single world language and complete a World Language and Cultural Exploration course. Students attain third-level proficiency in a single world language by completing three years of that language in high school or three semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at third-level proficiency. Option two does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Option Three

Attain second level proficiency in each of two world languages. Students attain second level proficiency in each of two world languages by completing two years of each language in high school or two semesters of each language in college, or an equivalent combination of high school and college coursework, or pass achievement tests and/or evaluations at second-level proficiency in each language. Option three does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Prerequisites for Admission to the BBA Program

Course #	Title	Hours
BAIS:1500	Business Computing Essentials	2
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business	4
RHET:1030	Rhetoric: Writing and Communication	4
STAT:1030	Statistics for Business	4

Prerequisites for Declaring a BBA Major

Course #	Title	Hours
ACCT:2100	Introduction to Financial Accounting	3
ECON:1200	Principles of Macroeconomics	4

BBA Core

Course #	Title	Hours
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:2800	Foundations of Business Analytics	3

BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
BUS:2200	Discover Business at Tippie	1
BUS:3000	Business Communication and Professionalism	3
FIN:3000	Introductory Financial Management	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
MKTG:3000	Introduction to Marketing Strategy	3

Experiential Learning Requirement: Tippie RISE

RISE is an acronym for hands-on experiential learning in the form of research with faculty, internship course, study abroad, and experiential course. All BBA students in the Tippie College of Business students must successfully complete at least one of these four experiences. Courses that satisfy Tippie RISE are as follows.

Research With Faculty

Working closely with a faculty mentor, students explore a research question of interest for a semester or more. By conducting academic research, students enhance their critical thinking skills, learn techniques to collect and analyze data, and apply their findings to business practices. These skills are highly useful for a variety of businesses and graduate programs.

Course #	Title	Hours
ACCT:4999	Honors Thesis in Accounting	arr.
BAIS:4999	Honors Thesis in Business Analytics	arr.
BUS:3600	Mentored Research	arr.
BUS:4999	Honors Thesis in Business	arr.
ECON:4999	Honors Thesis in Economics	arr.
FIN:4999	Honors Thesis in Finance	arr.
MGMT:4999	Honors Thesis in Management	arr.
MKTG:3702	Marketing Institute Seminar II	2
MKTG:4999	Honors Thesis in Marketing	arr.
URES:3992	Undergraduate Research and Creative Projects	0
URES:3993	Undergraduate Research and Creative Projects	1-4
URES:3994	Undergraduate Research and Creative Projects	1-4
URES:3995	Independent Creative Research by Undergraduates Summer Internship	0

Internship Course

As students gain valuable hands-on work experience in a professional internship, they complete one of the approved internship courses to assist them in having a meaningful learning experience. The internship courses encourage students to take on relevant job responsibilities, outline strategies to meet internship goals, regularly communicate with their supervisors, explore the career field, and reflect on their growth throughout the experience.

Course #	Title	Hours
BUS:3100	Academic Internship or Cooperative Education	0
BUS:3900	Business Communication Internship I	3
BUS:4900	Academic Internship	arr.
CCP:1201	Academic Internship	1-3
CCP:2020	Washington Center Internship Program	arr.
CCP:2202	International Student Full-Time Academic Internship	9
ENTR:4300	Launching an Entrepreneurial Venture	arr.
ENTR:4900	Academic Internship	arr.
EVNT:2110	Internship in Event Management	3
LS:3011	Leadership Certificate Capstone	0-2
SRM:4199	Independent Sport and Recreation Field Experience	arr.

Study Abroad

By taking advantage of short-term, summer, semester, or academic year programs, students can expand their worldview and learn alternative business and cultural practices outside of the United States. Students can participate in Tippie RISE study abroad programs such as London Winter, International Business in Sydney, CIMBA Italy, Global Internships, spring break programs through the John Pappajohn Entrepreneurial Center, or any of the many UI study abroad programs in over 40 countries. Any study abroad program is accepted for credit, including virtual programs, short-term faculty-led programs, and summer, semester, or year-long programs. These courses may be study abroad courses (prefix ABRD) or select study abroad international activities courses (prefix INTL) but are not required to be; see Study Abroad [p. 2215] in the catalog.

Experiential Course

In approved experiential courses, students improve their understanding of academic concepts by applying them to a class project with a company or nonprofit organization. Using real circumstances and issues, students engage with the organization to make a lasting impact. Students have support from classmates and guidance from their instructor throughout the duration of the project. Experiential courses are offered in many BBA majors and as business and non-business electives. Courses must be taken at the University of Iowa to satisfy Tippie RISE.

Course #	Title	Hours
ACCT:3451	Tax Practicum (VITA) II (spring only)	1
BAIS:4150	Business Analytics and Information Systems Capstone	3
BUS:3920	Business Case Competitions Professional Preparation	arr.
ECON:3360	Experimental Economics	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3

FIN:4250	Applied Equity Valuation	3
FIN:4310	Advanced Corporate Finance	3
FIN:4350	Applied Wealth Management	3
FIN:4410	Enterprise Risk Management	3
FIN:4420	Property and Liability Insurance	3
FIN:4460	Insurer Operations and Captive Management	3
LS:1024	Hawkeye Service Breaks (spring only)	3
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3
MGMT:3600	Nonprofit Organizational Effectiveness II	3
MGMT:3850/ ENTR:3850	Entrepreneurial Leadership Academy II	3
MGMT:4600	Nonprofit Ethics and Governance	3
MKTG:3100	Marketing Research	3
MKTG:3103	Advanced Marketing Research	3
MKTG:3700	Marketing Institute Seminar I	2
MKTG:3701	Marketing Institute Field Studies	2
MKTG:4250	Marketing and Sustainability	3
MKTG:4800	Marketing Consulting Project	3
SRM:4197	Sport and Recreation Field Experience (not fans first section)	arr.

Major Area of Study

All BBA students must complete a major area of study. The college offers BBA majors in accounting [p. 1140], business analytics and information systems [p. 1158], economics [p. 1185], entrepreneurship, finance [p. 1208], management [p. 1236], marketing [p. 1261], and risk management and insurance [p. 1219]. The requirements for each major are established by the department that offers the major.

Students With Associate of Arts Degrees

Students who have been granted an Associate of Arts (AA) from a community college participating in the Iowa and Illinois Community College/Regents Articulation Agreements are considered to have met all high school unit requirements for admission to the BBA and all of the General Education Program requirements listed under "General Education Requirements," except the Understanding Cultural Perspectives and World Languages requirements. The program of study for which a student was awarded the AA must have included:

- a minimum of 60 s.h. (or 90 quarter hours) of credit acceptable toward graduation from the University of Iowa;
- completion of the agreed-upon group of courses at the community college; and
- a GPA of at least 2.00.

Mathematics courses comparable to MATH:0100 Basic Algebra I are not accepted toward graduation. Completion of an Associate of Arts does not guarantee admission to the BBA program in the Tippie College of Business. See Admission in Undergraduate Programs [p. 1132] for a complete list of requirements for admission to the BBA.

Students who use the provisions of the articulation agreement are granted a maximum of 60 s.h. of transferable credit from two-year colleges toward the 120 s.h. required for a BBA. Credit earned for the AA beyond the 60 s.h. transferable maximum is used in computing a student's grade-point average, and it may be used to satisfy course requirements, but it does not count toward the BBA. Transfer credit for business courses taken during the first and second years is counted toward the BBA only if such courses are usually offered as lower-division courses at the University of Iowa.

Transfer Courses

Students who have taken courses at another institution that are similar to those approved for the common business requirements at Iowa may request that these courses be evaluated for transfer credit. Students who transfer fewer hours than needed to meet a common business requirement may use only approved courses to complete the remainder of the requirement. Only courses taken at accredited four-year institutions may be used to satisfy business course requirements numbered 3000 or above. Students must complete a minimum of 24 s.h. of business coursework at Iowa and at least two-thirds of the coursework in the major in the department awarding the major. They must also meet the 45 s.h. residence requirement of the Tippie College of Business. Credit earned through online courses may be counted toward all requirements for graduation, subject to approval by a student's major department.

Multiple Majors in Business

Students may earn the BBA degree with more than one major; they may also combine the BBA degree with the Bachelor of Arts or Bachelor of Science in economics (except for the BBA in economics). The Four-Year Graduation Plan is not available to students earning more than one major or degree. Students have access to degree audits in MyUI for all of the programs of study they have officially declared. They also have access to all program courses, with some limitations, during early registration. A student must be in good academic standing in order to declare more than one major. See Double Majors and Joint Degrees on the Tippie College of Business website.

Requirements

The Bachelor of Business Administration with a major in accounting requires a minimum of 120 s.h., including at least 24–25 s.h. of work for the major. All required major coursework must be taken at the University of Iowa. Students must have a cumulative grade-point average (GPA) of at least 2.00 in all college coursework attempted, all college coursework attempted in business, all college coursework attempted in the major, all coursework attempted at the University of Iowa, all business coursework attempted at the University of Iowa, and all coursework in the major attempted at the University of Iowa.

Students must complete certain prerequisite courses for admission to the college as well as courses required to declare a major in accounting. Students usually spend the first and second year completing prerequisites and other coursework required for all BBA students.

Coursework provides concentrated coverage of professional accounting subjects and closely related topics in commercial law, business, and information systems.

The Bachelor of Business Administration with a major in accounting requires the following coursework. Students may choose to complete the major with no subprogram or with the corporate subprogram.

Requirements	Hours
Accounting Common Required Courses	10
Additional Accounting Requirements	14-15

Accounting Common Required Courses

Course #	Title	Hours
All of these:		
ACCT:3100	Professional Accounting Seminar	1
ACCT:3200	Income Measurement and Asset Valuation	3
ACCT:3300	Valuation of Financial Claims	3
ACCT:4200	Advanced Managerial Accounting Analytics	3

Accounting Major With No Subprogram

The major in accounting with no subprogram is the best option for students who plan to take the Certified Public Accountant (CPA) exam and work in the public accounting sector.

Students who major in accounting with no subprogram complete an additional 15 s.h. from the following.

Course #	Title	Hours
All of these:		
ACCT:3400	Introduction to Taxation	3
ACCT:3600/ BAIS:3100	Accounting Systems and Analytics	3
ACCT:4100	Auditing	3
ACCT:4300	Accounting Ethics and Law	3
And one accounting elective from these:		
ACCT:3500	Advanced Tax Topics (offered fall only)	3
ACCT:4280/ BAIS:4280	Cybersecurity (offered spring only)	3
ACCT:4400	Advanced Financial Accounting (offered spring only)	3

Certified Public Accountant (CPA) Exam and Licensure

A significant percentage of accounting graduates pursue the CPA license. Requirements to sit for the CPA exam and for CPA licensure vary by state. Each state requires 150 s.h. to become a licensed CPA, including specific courses and a minimum number of accounting hours. In many states, the required accounting hours exceed the minimum requirements of the BBA. Students should review their state's educational requirements at the National Association of State Boards of Accountancy (NASBA) website and consult with the director of the Master of Accountancy program as needed.

Optional Accounting Electives

Course #	Title	Hours
ACCT:3420	Taxes and Business Strategy	3
ACCT:3450	Tax Practicum (VITA) I	0,2
ACCT:3451	Tax Practicum (VITA) II	1
ACCT:3550	Financial Statement Analysis	3
ACCT:4000	Special Topics in Accounting	1-3
ACCT:4220	Design and Use of Cost Management Systems	3
ACCT:4600	Research Seminar for Tax Professionals	2

Accounting Major With Corporate Subprogram

The corporate subprogram equips students with skills tailored for corporate finance, management accounting, financial analysis, and strategic planning.

Students who major in accounting with the corporate subprogram complete at least an additional 14 s.h. from the following.

Corporate Subprogram Required Courses

Course #	Title	Hours
This course:		
ACCT:3550	Financial Statement Analysis (offered spring only)	3
One of these:		
ACCT:3400	Introduction to Taxation	3
ACCT:3420	Taxes and Business Strategy (offered spring only)	3
ACCT:4100	Auditing	3

Corporate Subprogram Upper-Level Electives

Students complete a minimum of 8 s.h. in accounting courses (prefix ACCT) numbered 3000 or higher, excluding courses already taken for the major.

The following courses from other departments in the Tippie College of Business also count toward the corporate subprogram. Students are not guaranteed specific elective options. The availability of courses outside the Department of Accounting may be subject to prerequisites or restricted to students who have declared a second major within the respective department.

Course #	Title	Hours
BAIS:3025	Business Process Automation	3
BAIS:3140	Information Visualization	3
BAIS:3200	Database Management	3
BAIS:3500	Data Mining	3
ECON:3355	Economic and Business Forecasting	3
ENTR:4200	Entrepreneurship: Business Consulting	3
FIN:3300	Corporate Finance	3
FIN:3400	Principles of Risk Management and Insurance	3

FIN:4210	Futures and Options	3
FIN:4220	Fixed Income Securities	3
FIN:4240	International Finance	3
FIN:4250	Applied Equity Valuation	3
FIN:4330	Investment Banking	3
FIN:4340	Wealth Management	3
MGMT:3200	Individuals, Teams, and Organizations	3
MGMT:4100	Dynamics of Negotiations	3

Career Advancement

The accounting major prepares students for various career opportunities in finance, business, and other sectors. Graduates can pursue roles such as financial accountant, management accountant, tax accountant, auditor, financial analyst, or forensic accountant. They find employment in diverse sectors, including public accounting firms, corporations, government agencies, non-profit organizations, and financial institutions. This major offers a solid foundation in financial reporting, analysis, and decision-making, ensuring students are well-equipped for success in the dynamic field of accounting.

In the most recent Pomerantz Career Center graduate survey, 98% of graduating students reported that they found permanent employment, planned to attend graduate school, or were not seeking employment within six months of graduation.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs; for more information about careers, visit the Pomerantz Career Center website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Accounting, BBA

Course	Title	Hours
Academic Career		
Any Semester		
Pre-business students must be admitted to the Tippie College to declare the accounting major. Students not already admitted to Tippie generally apply for admission during their second year as they are completing the prerequisite courses. [a]		
Students are required to complete 52 s.h. of non-business coursework. Courses with a prefix of ACCT, BAIS, BUS, ECON, ENTR, FIN, MGMT, and MKTG will not count towards non-business hours. Check degree audit for non-business hours or confer with academic advisor.		
Students who need to complete the World Language requirement should consult with their academic advisor about when to add courses to plan of study. World Language counts as non-business coursework.		
To fulfill the Tippie RISE experiential learning requirement, complete an approved course in at least one of the following categories: research with faculty, internship course, study abroad, experiential course. [b]		0 - 3
Students must satisfy the Tippie College of Business residence requirement: 45 s.h. of UI coursework after admission to Tippie.		
A significant percentage of accounting graduates pursue the CPA license. [c]		
	Hours	**0-3**
First Year		
Fall		
BUS:2200	Discover Business at Tippie	1
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business [d]	4
RHET:1030	Rhetoric: Writing and Communication	4
GE: Social Sciences [e]		3
CSI:1600	Success at Iowa	1
	Hours	**17**
Spring		
BAIS:1500	Business Computing Essentials	2
ECON:1200	Principles of Macroeconomics [f]	4
STAT:1030	Statistics for Business	4
ENGL:1200	The Interpretation of Literature	3
GE: Understanding Cultural Perspectives [e]		3
	Hours	**16**
Second Year		
Fall		
ACCT:2100	Introduction to Financial Accounting [f]	3
BAIS:2800	Foundations of Business Analytics	3
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
GE: Natural Sciences without Lab [e]		3
Minor, certificate, or non-business elective		1
	Hours	**14**
Spring		
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
ACCT:3100	Professional Accounting Seminar	1
ACCT:3200	Income Measurement and Asset Valuation	3
BUS:3000	Business Communication and Professionalism [g]	3
GE: Historical Perspectives [e]		3
Minor, certificate, or non-business elective		2
	Hours	**15**
Third Year		
Fall		
ACCT:3300	Valuation of Financial Claims	3
ACCT:4200	Advanced Managerial Accounting Analytics	3
MGMT:2100	Introduction to Management	3
GE: International and Global Issues [e]		3
Minor, certificate, or non-business elective		3
	Hours	**15**

Spring		
ACCT:3600	Accounting Systems and Analytics	3
ACCT:3400	Introduction to Taxation	3
MGMT:2000	Introduction to Law	3
GE: Values and Society [e]		3
Minor, certificate, or non-business elective		3
	Hours	**15**
Fourth Year		
Fall		
ACCT:4100	Auditing	3
MKTG:3000	Introduction to Marketing Strategy	3
Major: elective course [h, i]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
	Hours	**15**
Spring		
ACCT:4300	Accounting Ethics and Law	3
FIN:3000	Introductory Financial Management	3
Major: elective course [i, j]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**122-125**

a Prerequisite courses include RHET:1030, MATH:1350, STAT:1030, ECON:1100 and BAIS:1500. Refer to the Tippie website for admission requirements and deadlines.

b See degree audit for course options.

c Requirements to sit for the CPA exam and for CPA licensure vary by state. Each state requires 150 s.h. to become a licensed CPA, including specific courses and a minimum number of accounting hours. In many states, the required accounting hours exceed the minimum requirements of the BBA. Students should review their state's educational requirements at the National Association of State Boards of Accountancy (NASBA) website and consult with the director of the Master of Accountancy program as needed.

d Enrollment in math courses requires completion of a placement exam.

e GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Business Core Part I component; required to declare major.

g Must be admitted to Tippie to enroll in BUS:3000. Generally completed during the second year, but should be taken no later than the third year.

h ACCT:3500 recommended; typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

i One accounting major elective required, but both are highly recommended for students taking the CPA exam.

j Either ACCT:4280 or ACCT:4400 recommended; typically both of these courses are offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Master of Accountancy, MAc

The Master of Accountancy (MAc) is a nonthesis program. Coursework focuses on the conceptual and economic foundations of accounting with applications to current and emerging problems of professional practice. MAc students also have the opportunity to acquire expertise in one of four subprogram areas: financial accounting and auditing, business analytics, taxation, and managerial accounting.

Graduate students in accounting are subject to the probation and dismissal rules of the Graduate College and are governed by the Iowa MBA program and master's honor code.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

The MAc program develops and enhances accounting skills with a particular focus on research, analysis, interpretation, and the use of technology while emphasizing the problem-solving and communications skills necessary for professional success.

To develop these skills, students should be able to:

- identify a problem in an unstructured setting;
- consider the goals of the decision-maker(s), identify an appropriate solution methodology, and develop possible decision options;
- know how to obtain, assess, and organize information to evaluate the decision options;
- utilize the appropriate data analytics, management tools, and information technologies to evaluate options;
- include qualitative issues—strategic, social, and ethical—when picking the option to execute; and
- communicate the solution in an effective manner.

Requirements

The Master of Accountancy requires 30 s.h. beyond the Bachelor of Business Administration (BBA). The program permits students to specialize in accounting subprograms according to their interests and objectives. It builds on the technical skills acquired in the undergraduate program, broadens students' perspectives on the role of accounting in organizations and decision-making, and further develops written and oral communication skills. The 30 s.h. required for the MAc must include at least 12 s.h. in graduate-level accounting courses and at least 21 s.h. in courses numbered 5000 or above. Some work for the subprogram areas is cross-disciplinary, with courses from other departments as well as accounting.

Students from a variety of academic backgrounds enter the MAc program. Those who enter with an undergraduate degree in accounting can expect to complete the degree in 12 months. Those who enter with a non-accounting undergraduate degree typically require four semesters to complete the MAc. Study plans are adjusted to reflect each student's particular academic background; see the section titled "Students Without Undergraduate Accounting Degrees."

The Master of Accountancy requires the following coursework. Students complete the requirements for their chosen subprogram or for the general program.

Subprogram in Business Analytics

Course #	Title	Hours
Accounting Courses		
This course:		
ACCT:9140	Advanced Auditing	3
Three of these:		
ACCT:9040	Financial Statement Analysis and Forecasting	3
ACCT:9050	Taxes and Business Strategy	3
ACCT:9120	Design and Use of Cost Management Systems	3
ACCT:9130	Financial Reporting: Theory and Practice	3
ACCT:9150	Research Seminar for Tax Professionals	3
Business Analytics Courses		
12 s.h. from these:		
ACCT:4280	Cybersecurity	3
BAIS:6040	Data Programming in Python	3
BAIS:6050	Data Management	3
BAIS:6060	Data Analysis With R	3
BAIS:6070	Data Science	3
BAIS:6100	Text Analytics	3
BAIS:6105	Social Analytics	3
BAIS:6110	Big Data Management and Analytics	3
BAIS:6140	Visual Analytics	3
BAIS:6210	Data Leadership and Management	3
BAIS:9100	Data and Decisions	3
BAIS:9110	Advanced Analytics	3
BAIS:9210	Data Modeling and Automation	3
General Electives		
Total of 6 s.h. from UI courses numbered 3000 and above		

Subprogram in Financial Accounting and Auditing

Course #	Title	Hours
Accounting Courses		
All of these:		
ACCT:9040	Financial Statement Analysis and Forecasting	3
ACCT:9130	Financial Reporting: Theory and Practice	3
ACCT:9140	Advanced Auditing	3
One of these:		
ACCT:9050	Taxes and Business Strategy	3
ACCT:9120	Design and Use of Cost Management Systems	3
ACCT:9150	Research Seminar for Tax Professionals	3

Business Analytics Courses		
6 s.h. from these:		
ACCT:4280	Cybersecurity	3
BAIS:6050	Data Management	3
BAIS:9210	Data Modeling and Automation	3
Finance Courses		
This course:		
MBA:8180	Managerial Finance	3
One of these:		
FIN:9160	Quantitative Finance and Machine Learning	3
FIN:9200	Portfolio Management	3
FIN:9210	Derivatives	3
FIN:9220	Fixed Income Securities	3
FIN:9230	Real Estate Finance and Investments	3
FIN:9240	International Finance	3
FIN:9300	Corporate Finance	3
FIN:9330	Investment Banking	3
FIN:9350	Wealth Management	3
General Electives		
Total of 6 s.h. from UI courses numbered 3000 and above		6

Subprogram in Managerial Accounting

Course #	Title	Hours
Accounting Courses		
This course:		
ACCT:9120	Design and Use of Cost Management Systems	3
Three of these:		
ACCT:9040	Financial Statement Analysis and Forecasting	3
ACCT:9050	Taxes and Business Strategy	3
ACCT:9130	Financial Reporting: Theory and Practice	3
ACCT:9140	Advanced Auditing	3
ACCT:9150	Research Seminar for Tax Professionals	3
Business Analytics Courses		
Two of these:		
ACCT:4280	Cybersecurity	3
BAIS:6050	Data Management	3
BAIS:9210	Data Modeling and Automation	3
Business Electives Outside Accounting		
6 s.h. numbered 5000 or above from BAIS, ECON, ENTR, FIN, LAW, MBA, MGMT, and MKTG ; ACCT:4280/BAIS:4280 also may be used to meet this requirement		6
General Electives		
Total of 6 s.h. from UI courses numbered 3000 and above		

Subprogram in Taxation

Course #	Title	Hours
Accounting Courses		
Three of these:		
ACCT:9040	Financial Statement Analysis and Forecasting	3
ACCT:9120	Design and Use of Cost Management Systems	3
ACCT:9130	Financial Reporting: Theory and Practice	3
ACCT:9140	Advanced Auditing	3
Taxation Courses		
Both of these:		
ACCT:9050	Taxes and Business Strategy	3
ACCT:9150	Research Seminar for Tax Professionals	3
One of these:		
ACCT:9110	Special Topics in Taxation	3
LAW:8194	Basic Federal Income Taxation	3
LAW:8320	Corporate and Partnership Taxation	4
LAW:8322	Corporate Taxation	arr.
LAW:8629	Taxation of International Business Transactions	2-3
LAW:8891	State and Local Taxation	3
LAW:8929	Taxation of Partnerships	2-3
LAW:8981	Trusts and Estates I	3
Business Analytics Courses		
Two of these:		
ACCT:4280	Cybersecurity	3
BAIS:6050	Data Management	3
BAIS:9210	Data Modeling and Automation	3
General Electives		
Students fulfill the remainder of the 30 s.h. with elective UI courses numbered 3000 and above		

General Program

Students who do not wish to pursue a subprogram must complete 30 s.h. beyond the BBA. At least 15 s.h. must be earned in graduate-level accounting courses and at least 21 s.h. must be earned in courses numbered 5000 or above.

The following courses are required.

Course #	Title	Hours
Accounting Courses		
Five of these:		
ACCT:9040	Financial Statement Analysis and Forecasting	3
ACCT:9050	Taxes and Business Strategy	3
ACCT:9120	Design and Use of Cost Management Systems	3
ACCT:9130	Financial Reporting: Theory and Practice	3
ACCT:9140	Advanced Auditing	3
ACCT:9150	Research Seminar for Tax Professionals	3
Business Analytics Courses		

6 s.h. from these:		
ACCT:4280	Cybersecurity	3
BAIS:6050	Data Management	3
BAIS:9210	Data Modeling and Automation	3
General Electives		
Total of 9 s.h. from UI courses numbered 3000 and above		

Students Without Undergraduate Accounting Degrees

Coursework for students who enter the program with a non-accounting bachelor's degree is determined by each student's background and interest area. In addition to meeting the core program requirements for the MAc, students typically take a combination of undergraduate and MBA courses to remove academic deficiencies in quantitative methods, business, and accounting. Students with a bachelor's degree in another area of business typically are required to take 45–51 s.h. in order to complete the MAc program. Those with degrees outside of business and with no accounting courses typically are required to take 57–60 s.h.

Combined Programs

MAc/JD

MAc students have an opportunity to pursue a combined Juris Doctor degree. Students who are interested in pursuing a combined MAc/JD degree should consult with the academic advisors in each program.

Separate application to each degree program is required. Applicants must be admitted to each program before they may be admitted to the combined program.

For information about the JD degree, see Juris Doctor, JD [p. 1833] (College of Law) in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Application criteria includes an online application; a résumé (include information about employment, education, extracurricular activities, and community involvement); a statement of purpose (250–500 words); academic transcripts (unofficial transcripts may be submitted with an application; official transcripts will be required for admission); earned bachelor's degree from a U.S. college or university with a minimum grade-point average of 3.00 on a 4.00 scale; or have earned an equivalent from another country; and TOEFL/IELTS/Duolingo scores for international students (may be waived; see application website for details).

Visit the MAc Admissions page on the Tippie College of Business website for full admission details.

Career Advancement

100% of graduating students in the 2023–24 academic year reported that they found permanent employment or were accepted to graduate school.

The Tippie Graduate Career Services team offers multiple resources to help students in their career development journey. Visit Graduate Career Services on the Tippie College of Business website for details.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Master of Accountancy, MAc

- Subprogram in Financial Accounting and Auditing [p. 1151]
- Subprogram in Business Analytics [p. 1152]
- Subprogram in Managerial Accounting [p. 1152]
- Subprogram in Taxation [p. 1153]
- General Program [p. 1153]

Subprogram in Financial Accounting and Auditing

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Students entering with an undergraduate degree in accounting can expect to complete the degree in two semesters; those with non-accounting degrees typically complete degree requirements in four semesters.		
	Hours	**0**
First Year		
Fall		
ACCT:9130	Financial Reporting: Theory and Practice	3
ACCT:9140	Advanced Auditing	3
MBA:8180	Managerial Finance [c]	3
Business Analytics course [d]		3
Elective course (taken at UI, numbered 3000 and above) [e]		3
	Hours	**15**
Spring		
ACCT:9040	Financial Statement Analysis and Forecasting	3
ACCT:9150 or ACCT:9050 or ACCT:9120	Research Seminar for Tax Professionals [f] or Taxes and Business Strategy or Design and Use of Cost Management Systems	3
Business Analytics course [d]		3
Finance course [g]		3
Elective course (taken at UI, numbered 3000 and above) [e]		3
	Hours	**15**
	Total Hours	**30**

a Complete at least 12 s.h. in graduate level accounting courses and at least 21 s.h. in courses numbered 5000 or above.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c Requires consent of the MBA program.
d Complete 6 s.h. from ACCT:4280, BAIS:6050, BAIS:9210.
e Work with faculty advisor to determine appropriate graduate elective coursework and sequence.
f Note: ACCT:9120 is typically offered only in fall semesters; ACCT:9050 and ACCT:9150 are typically offered only in spring semesters.
g See the General Catalog for list of approved courses.

Subprogram in Business Analytics

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Students entering with an undergraduate degree in accounting can expect to complete the degree in two semesters; those with non-accounting degrees typically complete degree requirements in four semesters.		
	Hours	**0**
First Year		
Fall		
ACCT:9140	Advanced Auditing	3
Accounting course [c]		3
Accounting course [c]		3
Business Analytics course [d]		3
Business Analytics course [d]		3
	Hours	**15**
Spring		
Accounting course [c]		3
Business Analytics course [d]		3
Business Analytics course [d]		3
Elective course (taken at UI, numbered 3000 and above) [e]		3
Elective course (taken at UI, numbered 3000 and above) [e]		3
	Hours	**15**
	Total Hours	**30**

a Complete at least 12 s.h. in graduate-level accounting courses and at least 21 s.h. in courses numbered 5000 or above.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c Choose from ACCT:9040, ACCT:9050, ACCT:9120, ACCT:9130, ACCT:9150. Note: ACCT:9120 and ACCT:9130 are typically offered only in fall semesters; ACCT:9040, ACCT:9050, and ACCT:9150 are typically offered only in spring semesters.
d Students must complete 12 s.h. of business analytics courses. See the General Catalog for list of approved courses.
e Work with faculty advisor to determine appropriate graduate elective coursework and sequence.

Subprogram in Managerial Accounting

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Students entering with an undergraduate degree in accounting can expect to complete the degree in two semesters; those with non-accounting degrees typically complete degree requirements in four semesters.		
	Hours	**0**
First Year		
Fall		
ACCT:9120	Design and Use of Cost Management Systems	3
Accounting course [c]		3
Accounting course [c]		3
Business Analytics course [d]		3
Business Elective Outside Accounting [e, f]		3
	Hours	**15**
Spring		
Accounting course [c]		3
Business Analytics course [d]		3
Business Elective Outside Accounting [e, f]		3
Elective course (taken at UI, numbered 3000 and above) [f]		3
Elective course (taken at UI, numbered 3000 and above) [f]		3
	Hours	**15**
	Total Hours	**30**

a Complete at least 12 s.h. in graduate level accounting courses and at least 21 s.h. in courses numbered 5000 or above.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c Choose from ACCT:9040, ACCT:9050, ACCT:9130, ACCT:9140, ACCT:9150. Note: ACCT:9130 and ACCT:9140 are typically offered only in fall semesters; ACCT:9040, ACCT:9050, and ACCT:9150 are typically offered only in spring semesters.
d Complete 6 s.h. from ACCT:4280, BAIS:6050, BAIS:9210.
e Complete 6 s.h. numbered 5000 or above from BAIS, ECON, ENTR, FIN, LAW, MBA, MGMT, and MKTG; ACCT:4280/BAIS:4280 may also be used to meet this requirement.
f Work with faculty advisor to determine appropriate graduate elective coursework and sequence.

Subprogram in Taxation

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
Students entering with an undergraduate degree in accounting can expect to complete the degree in two semesters; those with non-accounting degrees typically complete degree requirements in four semesters.		
	Hours	**0**
First Year		
Fall		
Accounting course [d]		3
Accounting course [d]		3
Business Analytics course [e]		3
Taxation course [b]		3
Elective course (taken at UI, numbered 3000 and above) [f]		3
	Hours	**15**
Spring		
ACCT:9050	Taxes and Business Strategy	3
ACCT:9150	Research Seminar for Tax Professionals	3
Accounting course [d]		3
Business Analytics course [e]		3
Elective course (taken at UI, numbered 3000 and above) [f]		3
	Hours	**15**
	Total Hours	**30**

a Complete at least 12 s.h. in graduate level accounting courses and at least 21 s.h. in courses numbered 5000 or above.

b See the General Catalog for list of approved courses. Students who take less than 3 s.h. from the list of Taxation courses will be required to complete additional general electives to reach the 30 s.h. minimum required for the degree.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d Choose from ACCT:9040, ACCT:9120, ACCT:9130, ACCT:9140. Note: ACCT:9120, ACCT:9130, and ACCT:9140 are typically offered only in fall semesters; ACCT:9040 is typically offered only in spring semesters.

e Complete 6 s.h. from ACCT:4280, BAIS:6050, BAIS:9210.

f Work with faculty advisor to determine appropriate graduate elective coursework and sequence.

General Program

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Students entering with an undergraduate degree in accounting can expect to complete the degree in two semesters; those with non-accounting degrees typically complete degree requirements in four semesters.		
	Hours	**0**
First Year		
Fall		
Accounting course [c]		3
Accounting course [c]		3
Accounting course [c]		3
Business Analytics course [d]		3
Elective course (taken at UI, numbered 3000 and above) [e]		3
	Hours	**15**
Spring		
Accounting course [c]		3
Accounting course [c]		3
Business Analytics course [d]		3
Elective course (taken at UI, numbered 3000 and above) [e]		3
Elective course (taken at UI, numbered 3000 and above) [e]		3
	Hours	**15**
	Total Hours	**30**

a Complete at least 12 s.h. in graduate level accounting courses and at least 21 s.h. in courses numbered 5000 or above.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Choose from ACCT:9040, ACCT:9050, ACCT:9120, ACCT:9130, ACCT:9140, ACCT:9150. Note: ACCT:9120, ACCT:9130 and ACCT:9140 are typically offered only in fall semesters; ACCT:9040, ACCT:9050, and ACCT:9150 are typically offered only in spring semesters.

d Complete 6 s.h. from ACCT:4280, BAIS:6050, BAIS:9210.

e Work with faculty advisor to determine appropriate graduate elective coursework and sequence.

Doctor of Philosophy

Graduate students in accounting may earn a Doctor of Philosophy in business administration. For a description of the PhD program and requirements, see the PhD in business administration [p. 1179] in the catalog and visit the Department of Accounting website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Application materials must include the applicant's score on the Graduate Management Admission Test (GMAT).

Learning Outcomes

- To demonstrate proficiency and knowledge in the specialization discipline, students will demonstrate expertise in reading and interpreting academic research articles in their specialized discipline. They will be knowledgeable in the major theoretical perspectives and prior research findings in their area and be able to integrate prior research from various streams of literature.
- To demonstrate the ability to conduct independent, original research that leads to publications, students will be able to identify important research questions, provide theory-based reasoning to develop original hypotheses, execute an appropriate research design, and summarize their efforts in a working paper. This includes being able to read and summarize existing research into their paper and understanding the prior literature in a variety of substantive areas, paradigms, and methodologies.
- To be effective teachers in their disciplines, students will demonstrate proficiency as instructors in courses in their specialized discipline. This includes preparing course syllabi, giving lectures, writing assignments and exams, and evaluating students on the various deliverables.
- To demonstrate effective communication skills, students will be effective at communicating ideas in academic writing and how these ideas relate to each other within the context of an academic paper. This includes the ability to establish a position, show why that position matters, and situate that position within a context that is determined by the appropriate audience. International students will demonstrate the ability to effectively lecture and communicate in English.

Business Administration

Undergraduate minor: business administration

Website: https://tippie.uiowa.edu/

The Tippie College of Business offers a minor in business administration. The minor is open to all University of Iowa undergraduates except BBA students in the Tippie College of Business and College of Liberal Arts and Sciences students in the business studies track of the interdepartmental studies major.

Programs

Undergraduate Program of Study

Minor

- Minor in Business Administration [p. 1156]

Business Administration, Minor

Requirements

The undergraduate minor in business administration requires 36 s.h., including at least 12 s.h. offered by the Tippie College of Business. Students must maintain a grade-point average of at least 2.00 in the minor overall and in all courses in the minor taken at the University of Iowa. Coursework in the minor may not be taken pass/nonpass.

The minor can be earned by all University of Iowa undergraduates except BBA students in the Tippie College of Business and College of Liberal Arts and Sciences students in the business studies track of the interdepartmental studies major.

The minor in business administration requires the following courses or their equivalents. Some of these courses have prerequisites and other requirements for registration; students must complete a course's prerequisites and meet its registration requirements before they may register for the course. For more information, visit Minor in Business Administration on the Tippie College of Business website.

Course #	Title	Hours
ACCT:2100	Introduction to Financial Accounting	3
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:1500	Business Computing Essentials	2
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
FIN:3000	Introductory Financial Management	3
MATH:1350	Quantitative Reasoning for Business	4
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
MKTG:3000	Introduction to Marketing Strategy	3
STAT:1030	Statistics for Business	4
Total Hours		**36**

Students who will have completed all requirements for the minor when they graduate should indicate a business administration minor on their Application for Degree. Contact the Undergraduate Program Office for more information about the minor in business administration.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Business Administration, Minor

Course	Title	Hours
Academic Career		
Any Semester		
Thoughtful planning is required to complete the courses necessary for a minor.		
At least 12 semester hours of coursework must be completed in the Tippie College of Business. See MyUI course listing for administrative home of courses required for the minor.		
An overall grade-point average of at least 2.00 is required on all courses taken and on courses taken at The University of Iowa. (2.00 GPA on all courses, not each course).		
Coursework in the minor may not be taken pass/nonpass.		
Exceptions made for the minor may not satisfy requirements for the Bachelor of Business Administration degree. See an advisor in C140 PBB for more information.		
	Hours	**0**
First Year		
Fall		
MATH:1350	Quantitative Reasoning for Business [a, b, c, d]	4
	Hours	**4**
Spring		
ECON:1100	Principles of Microeconomics [e]	4
	Hours	**4**
Second Year		
Fall		
BAIS:1500	Business Computing Essentials	2
ECON:1200	Principles of Macroeconomics [e]	4
	Hours	**6**
Spring		
ACCT:2100	Introduction to Financial Accounting [f]	3
STAT:1030	Statistics for Business	4
	Hours	**7**
Third Year		
Fall		
ACCT:2200	Managerial Accounting Analytics and Data Visualization [f]	3
MGMT:2100	Introduction to Management [f]	3
	Hours	**6**
Spring		
MGMT:2000	Introduction to Law [f]	3
MKTG:3000	Introduction to Marketing Strategy	3
	Hours	**6**
Fourth Year		
Fall		
FIN:3000	Introductory Financial Management [f]	3
	Hours	**3**
	Total Hours	**36**

a Students should take either MATH:1350 or a calculus course to complete this requirement.

b Students must meet the stated prerequisites or ALEKS score to enroll in MATH:1350. Discuss math placement with your academic advisor.
c This course has prerequisites. See MyUI course listing for details.
d Enrollment in math courses requires completion of a placement exam.
e This course is designed to be taken early in your studies as the content is important to subsequent classes. See MyUI for prerequisites.
f Check MyUI for course requirements.

Business Analytics

Chair

- Kang Zhao

Director, Undergraduate Program

- Kristina Bigsby

Director, Master of Science in Business Analytics

- Qihang Lin

Director, PhD Program

- Samuel Burer

Undergraduate major: business analytics and information systems (BBA)

Graduate degrees: MS in business analytics; business analytics subprogram for the PhD in business administration

Graduate certificates: artificial intelligence and machine learning; business analytics

Faculty: https://tippie.uiowa.edu/people?department=Business%20Analytics

Website: https://tippie.uiowa.edu/about/business-analytics-department

The Department of Business Analytics specializes in using advanced computational and mathematical techniques to solve critical business problems. Its strengths in research and instruction include artificial intelligence, machine learning, operations management, optimization, natural language processing, network science, and data mining.

The department offers the undergraduate major in business analytics and information systems. Off-campus offerings include the part-time Master of Science program in business analytics a graduate Certificate in Business Analytics, and a graduate Certificate in Artificial Intelligence and Machine Learning, which are offered online. On-campus graduate programs include the full-time Master of Science program in business analytics and the Doctor of Philosophy in business administration with a business analytics subprogram.

The off-campus business analytics (professional) program collaborates with the Iowa MBA program to offer combined MS/MBA degrees. Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

Programs

Undergraduate Program of Study

Major

- Major in Business Analytics and Information Systems (Bachelor of Business Administration) [p. 1164]

Graduate Programs of Study

- Master of Science in Business Analytics [p. 1169]
- Business analytics subprogram for the Doctor of Philosophy [p. 1175] in Business Administration
- Certificate in Artificial Intelligence and Machine Learning [p. 1176]
- Certificate in Business Analytics [p. 1177]

Courses

Business Analytics Courses

BAIS:1300 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities).

BAIS:1500 Business Computing Essentials **2 s.h.**
Basic proficiency with common business application software (word processing, spreadsheet, presentation software, database); simulation training to achieve requisite skills; additional support available via optional textbook or ebook; online, modular, self-taught course.

BAIS:2800 Foundations of Business Analytics **3 s.h.**
Introduction to business decision-making using data; students transform data into insight using visualization and statistics; introduction to Excel as a tool for business analytics. Prerequisites: (STAT:1030 or STAT:2010 or STAT:3100 or STAT:3101 or STAT:3120 or STAT:3510 or STAT:4100 or BIOS:4120 or PSQF:4143) and (MATH:1350 or MATH:1460 or MATH:1550 or MATH:1850 or MATH:1860) and (BAIS:1500 or CS:1020 or CS:1110 or CS:1210 or CS:2110 or ENGR:1300 or ENGR:2730).

BAIS:2900 Artificial Intelligence in Business **3 s.h.**
Nontechnical course about the integration of artificial intelligence (AI) into businesses. Topics include types of AI, prompt engineering, ethics/risk of AI adoption, and analyzing real-world business cases.

BAIS:3000 Operations Management **2-3 s.h.**
Strategic, tactical, operational issues that arise in management of production and service operations; product and process design, facilities planning, quality management, materials management, operations planning and scheduling, emerging technologies in production and service management. Prerequisites: STAT:2010 or STAT:3120 or STAT:3101 or STAT:2020 with a minimum grade of B or STAT:3510 with a minimum grade of B or BIOS:4120 or STAT:3100 or PSQF:4143 with a minimum grade of B or STAT:1030 or STAT:4100.

BAIS:3005 Information Systems **2 s.h.**
Application of computing principles to solving business problems; information technology in modern organizations; focus on sound data analysis to support decision-making; tools used for problem solving (i.e., databases, Python); role of information systems in organizations; components of information technology; internet and network economy; basic data analysis and visualization; emerging technologies. Prerequisites: BAIS:1500 or CS:1020.

BAIS:3020 Computational Thinking **3 s.h.**
Introduction to algorithmic problem-solving logic with Python; use of data structures and programming constructs to manipulate data and solve business problems. Prerequisites: BAIS:3005 or CS:2110.

BAIS:3025 Business Process Automation 3 s.h.
Explore the essential skills of mapping and measuring business processes and uncovering opportunities for improvement. Through practical exercises and case studies, gain proficiency in process mining, utilizing data to analyze and optimize business processes. Learn the fundamentals of robotic process automation, discovering how automation technologies can streamline and enhance organizational efficiency. Students gain a comprehensive understanding of process analysis and automation, enabling them to drive innovation and operational excellence in diverse business environments. Prerequisites: BAIS:3005 or CS:2110.

BAIS:3050 Business Analytics and Information Systems Professional Preparation 1 s.h.
Information on career opportunities in the fields of business analytics and information systems (BAIS); introduction to the many career avenues available to a BAIS major and how to position oneself for success in those careers.

BAIS:3070 Business Analytics and Information Systems Topics arr.
Special topics in business analytics and information systems.

BAIS:3100 Accounting Systems and Analytics 3 s.h.
Application of computer technology and internal controls to accounting and transaction processing systems; auditing of information systems; information systems infrastructure and trends; problem solving with Python and databases; accounting cycle operations. Prerequisites: ACCT:2200 and ACCT:2100 and (BAIS:3005 or CS:2110). Same as ACCT:3600.

BAIS:3140 Information Visualization 3 s.h.
Instruments for reasoning about quantitative information; analyzing and communicating statistical information; main typologies of data graphics (data-maps, time-series, space-time narrative, relational diagrams, graphs and methods for dimensionality reduction); language for discussing data visualizations combined with knowledge of human perception of visual objects; how to visualize information effectively by using statistical methods, knowledge of human perception, and basics of data graphics. Prerequisites: BAIS:2800 and BAIS:3005.

BAIS:3150 Emerging Technology Driving Business Innovation 3 s.h.
Emerging technologies (i.e., blockchain, Web 3.0, virtual reality, artificial intelligence, etc.) are at the forefront of driving business innovation; students learn from businesses actively using them and identify potential use cases for the technology.

BAIS:3200 Database Management 3 s.h.
Design, implementation, and use of relational database systems; emphasis on conceptual, logical, and physical data modeling; hands-on skill development with Structured Query Language (SQL). Prerequisites: BAIS:3005 or CS:1210 or CS:2110 or CS:2230 or CS:3330 or ENGR:2730.

BAIS:3250 Data Wrangling 3 s.h.
Use of Python programming to collect, process, and manipulate data; application of methods for descriptive and visual analytics to derive insights that can aid business decision-making. Prerequisites: (BAIS:2800 or STAT:2020 with a minimum grade of B or STAT:4101 or ECON:4800) and BAIS:3020 and BAIS:3200.

BAIS:3300 Digital Product Management 3 s.h.
Utilization of Agile project management to manage digital projects; many companies want employees who have experience managing technical projects; students experience each role on a project team as they prioritize backlogs, gather requirements, and deliver features that add value for their customer. Prerequisites: BAIS:3020 and BAIS:3200.

BAIS:3400 Cloud Computing 3 s.h.
Introduction to cloud providers (i.e., Amazon Web Services, Microsoft Azure) and the underlying technology to provide reliable, secure transmission of data between client and cloud provider; hands-on experience configuring compute, storage, database, application, and networking services to provide cost-effective solutions to solve businesses' everyday problems. Prerequisites: BAIS:3005 or CS:2110 or CS:1210.

BAIS:3500 Data Mining 3 s.h.
Introduction to predictive analytics methods motivated by problems in operations, marketing, finance, and health care; data mining techniques including classification, regression, and clustering. Prerequisites: (BAIS:2800 or STAT:2020 with a minimum grade of B or STAT:4101 or ECON:4800) and BAIS:3020 and BAIS:3200.

BAIS:3600 Data Engineering 3 s.h.
Students Identify metrics to measure business initiatives, and identify and manipulate data artifacts necessary to track and measure success of those metrics; topics include ingesting streaming and batch data, creating data pipelines, warehousing appropriate data, and using software to create dashboards to visualize data. Prerequisites: BAIS:3020 and BAIS:3200.

BAIS:3800 Optimization and Simulation Modeling 3 s.h.
Students utilize data and apply logic to construct optimization models to guide business decisions in operations, finance, accounting, marketing, economics, and human resources; leverage data to model uncertainty and construct Monte Carlo simulation models to quantify risk and assess different strategies. Prerequisites: BAIS:2800 or STAT:4101 or ECON:4800 or STAT:2020 with a minimum grade of B.

BAIS:4050 Directed Readings arr.

BAIS:4150 Business Analytics and Information Systems Capstone 3 s.h.
Relevant analytics project experience which facilitates a real professional engagement utilizing Tippie College Business analytics curriculum and delivering value to project sponsors; outcomes include client presentation, steps to recreate analysis, and project report. Prerequisites: BAIS:3250 and BAIS:3500 and ACCT:2200 and BUS:3000.

BAIS:4220 Advanced Database Management and Big Data 3 s.h.
Advanced database management topics; basics of semi-structured data and web services; how to retrieve real-world big data sets from web services; use of SQL and PL/SQL to analyze data in relational databases; big data related topics such as Hadoop and Hive. Prerequisites: BAIS:3200.

BAIS:4280 Cybersecurity 3 s.h.
High-level view of computer security and fostering a cybersecurity mindset which is in demand across all industries; frequent change of perspective from employee to CEO, casual home user, and hacker; broad range of topics; actionable items to make daily digital interactions more secure. Prerequisites: BAIS:3005 or CS:1210 or CS:2110 or CS:2230 or CS:3330 or ENGR:2730. Same as ACCT:4280.

BAIS:4540 Statistical Learning 3 s.h.
Introduction to supervised and unsupervised statistical learning, with a focus on regression, classification, and clustering; methods will be applied to real data using appropriate software; supervised learning topics include linear and nonlinear (e.g., logistic) regression, linear discriminant analysis, cross-validation, bootstrapping, model selection, and regularization methods (e.g., ridge and lasso); generalized additive and spline models, tree-based methods, random forests and boosting, and support-vector machines; unsupervised learning topics include principal components and clustering. Requirements: an introductory statistics course and a regression course. Recommendations: prior exposure to programming and/or software, such as R, SAS, and Matlab. Same as DATA:4540, IGPI:4540, STAT:4540.

BAIS:4999 Honors Thesis in Business Analytics arr.
Independent student project directed by faculty or staff advisor; culminates in thesis that conforms to University of Iowa Honors Program guidelines; may include empirical research, library research, applied projects.

BAIS:6040 Data Programming in Python 3 s.h.
Introduction to principles and practices of handling, cleaning, processing, and visualizing data using the Python programming language; basic data programming skills that can be applied to software development in any high-level programming language; data types, control structures, functions and modules, and other useful libraries for data manipulation and machine learning applications in Python.

BAIS:6050 Data Management 3 s.h.
Understanding how data is stored in databases and learning the tools used to access the data is key to creating data sets used to answer many business questions; how to manage and access data in relational databases using Structured Query Language (SQL); techniques for presenting data retrieved from databases.

BAIS:6060 Data Analysis With R 3 s.h.
Students practice the steps of handling, cleaning, processing, visualizing, and drawing conclusions from data using R programming language; introduction to additional programming techniques and topics in machine learning; real-world group project; prior programming experience not required.

BAIS:6070 Data Science 3 s.h.
Underlying concepts and practical computational skills of data-mining tools including penalty-based variable selection (LASSO), logistic regression, regression and classification trees, clustering methods, principal components and partial least squares; analysis of text and network data; theory behind most useful data mining tools and how to use these tools in real-world situations; software for analysis, exploration, and simplification of large high-dimensional data sets. Prerequisites: (MBA:8150 or BAIS:9100) and BAIS:6040.

BAIS:6100 Text Analytics 3 s.h.
Concepts and techniques of text mining; practice of using statistical tools to automatically extract meaning and patterns from collections of text documents; topics include document representation, text classification and clustering, sentiment analysis and topic modeling. Prerequisites: BAIS:6040 and BAIS:6070.

BAIS:6105 Social Analytics 3 s.h.
Exploration of collection, management, and analysis of social data (interactions among actors); actors as individuals, organizations, or other collectives; sources for social data including social media, websites, annual reports, press releases, articles, and other traditional media. Prerequisites: BAIS:6040 and BAIS:6070.

BAIS:6110 Big Data Management and Analytics 3 s.h.
Introduction to advanced techniques for managing and analyzing big data using R programming language; non-relational data models, such as semi-structured (XML) and unstructured (key-value) data; state-of-the-art big data tools for non-relational data management, such as NoSQL databases and distributed databases (Hadoop); query languages such as Hive); design and implementation of data analysis methods on these platforms; students use introduced tools to implement analysis tasks on big data sets through exercises and course projects. Prerequisites: BAIS:6050 and BAIS:6040.

BAIS:6120 Analytics Experience 3 s.h.
Students work in groups to complete semester-long projects pertaining to business analytics; all project stages are addressed including problem definition, data cleaning, analysis, and final presentation; appropriate tools from required courses used throughout. Prerequisites: (BAIS:9100 or MBA:8150) and BAIS:6050 and BAIS:9110 and BAIS:6040 and BAIS:6070 and BAIS:6140.

BAIS:6130 Applied Optimization 3 s.h.
Use of optimization to make tactical and strategic decisions and to build machine learning and AI models; advanced optimization skills including data collection and preparation, logical modeling, algorithm enhancements, and solution interpretation and implementation; experience within a software environment; applications in the various functional areas of business. Prerequisites: (BAIS:9100 or MBA:8150) and BAIS:6040.

BAIS:6140 Visual Analytics 3 s.h.
Exposure to problems and challenges of effectively interpreting and communicating the pervasive data that surround us; students cover the area of information visualization, grounded in theoretical foundations of visual perception, cognition, information design, human-computer interaction, and analysis of quantitative, unstructured, and relational data; lecture/seminar format with discussion of assigned readings, critiquing visualization examples; hands-on experience with commercial information visualization tools like Tableau and Power BI; and exploration of select open-source information visualization toolkits.

BAIS:6150 Financial Analytics 3 s.h.
Businesses as well as investors are affected by fluctuating treasury bond rates, equity prices, and foreign exchange rates, and the risk must be measured; students focus on gaining knowledge of the classic financial models and statistical and risk metrics and scaling them up with analytics techniques (sorting with thresholds, portfolio optimization, decision trees, and database programming) to find the best investments based on historical data sets; beginning with descriptive analytics and pushing into predictive and prescriptive analytics, students build a software simulation laboratory using R. Prerequisites: (BAIS:9100 or MBA:8150) and BAIS:6040.

BAIS:6160 Big Data Analytics 3 s.h.
Principles of data mining and machine learning in the context of big data; basic data mining principles and methods (pattern discovery, clustering and ordering); analysis of different types of data (sets and sequences); machine learning topics including supervised and unsupervised learning, tuning model complexity, dimensionality reduction, nonparametric methods, comparing and combining algorithms, and applications of these methods; development of analytical techniques to cope with challenging and real big data problems; introduction to graphics processing unit (GPU) computing tools. Prerequisites: (BAIS:9100 or MBA:8150) and BAIS:6060.

BAIS:6170 Directed Readings - Graduate Business Analytics arr.
Project and/or research with a faculty member as part of the graduate business analytics program. Requirements: enrollment in graduate business analytics program.

BAIS:6180 Healthcare Analytics 3 s.h.
Clinical data management is essential for evaluating evidence-based practice/performance-improvement projects; a high quality data management plan provides key stakeholders with information necessary to make decisions; plan components include identified processes and outcomes linked to variables and data sources, adequate statistical power, data cleaning and manipulation techniques, statistical methods, and meaningful presentation of variables that address stakeholder concerns and questions; students gain knowledge and skills necessary to develop and execute a data management plan within a final project. Prerequisites: (BAIS:9100 or MBA:8150) and BAIS:6050.

BAIS:6190 Forecasting 3 s.h.
Forecasting plays a central role in business decision-making, and accurate forecasts are needed when making decisions about investments, resource allocations, schedules, and inventory levels; quantitative forecasting tools; extrapolation of time series data (e.g., daily, weekly, monthly sales); exponential smoothing methods: time series extrapolations from autoregressive and autoregressive integrated moving average (ARIMA) Box-Jenkins models; regression models that predict a variable of interest from its own history as well as any other available information (e.g., sales promotions, price reductions); methods for assessing performance of forecasting methods. Prerequisites: MBA:8150 or BAIS:9100.

BAIS:6210 Data Leadership and Management 3 s.h.
Core chief information officer (CIO) basics; focus on how to keep technology, systems, and procedures supporting business goal outcomes including management of information technology (IT)) teams, systems selection, vendor negotiation, change, information risk, data integrity, ethics, information system (IS) policies, strategies, cloud computing, and budget.

BAIS:6220 Business Analytics Certification Workshop 0-3 s.h.
Preparation for one or more industry certifications in the field of business analytics; certification varies based on timing of course and current trends in business analytics; several options include certifications related to programming languages (e.g., Python, R, SQL), analytics tools (e.g., Tableau, PowerBI), or general professional skills certifications (e.g., Associate Certified Analytics Professional, Certified Associate in Project Management).

BAIS:6230 People Analytics 3 s.h.
Developing, interpreting, and making decisions related to knowledge of human behavior, performance characteristics, and tendencies for organizational success and competitive advantage; data driven frameworks, strategies, and methods for job assignment, scheduling, skill acquisition, staffing, and cross training.

BAIS:6240 Value Creation Using Artificial Intelligence 3 s.h.
Comprehensive understanding of how artificial intelligence (AI) can be harnessed to create value in various business sectors including AI fundamentals; frameworks for value creation; competitive strategies using AI; critical success factors for AI-based projects; and the identification of impactful use cases for a given industry. Ethical considerations, privacy, trust, and security issues related to AI will also be addressed.

BAIS:6250 Applied Deep Learning 3 s.h.
Introduces deep learning and its practical applications. Learn key architectures such as convolutional neural networks, recurrent neural networks, and transformers; explore their practical uses in natural language processing, computer vision, and time series forecasting, and gain hands-on experience with Python libraries like PyTorch. Prerequisites: (MBA:8150 or BAIS:9100) and BAIS:6040 and BAIS:6070.

BAIS:6260 Generative Artificial Intelligence 3 s.h.
Introduction to basics of generative artificial intelligence (AI) models and their practical applications. Key concepts include modal representation and generative models, scalability aspects of these models, and implementation techniques such as pretraining, finetuning, and prompt engineering. Emphasizes hands-on skills, including how to work with pretrained models, evaluate performance, and ensure alignment with goals. Business case studies will help students apply AI responsibly and set realistic expectations for its use. Ethical issues, privacy concerns, and the regulatory landscape will be discussed to prepare students for challenges of using AI in real-world settings. Prerequisites: (MBA:8150 or BAIS:9100) and BAIS:6040 and BAIS:6070. Corequisites: BAIS:6250. Requirements: MS in business analytics professional students must complete BAIS:6250 as a prerequisite.

BAIS:6280 Cybersecurity 3 s.h.
High-level view of computer security and fostering a cybersecurity mindset which is in demand across all industries; frequent change of perspective from employee to CEO, casual home user, and hacker; broad range of topics; actionable items to make daily digital interactions more secure.

BAIS:6300 Dynamic Programming 3 s.h.
Fundamentals of discrete sequential dynamic programming with special focus on situations in which outcomes are uncertain; formulation and analysis of deterministic and stochastic dynamic programs under several objective criteria; emphasis on rapidly expanding field of approximate dynamic programming; applications including inventory control, vehicle routing, and resource allocation.

BAIS:6400 Cloud Computing 3 s.h.
Introduction to cloud providers (i.e., Amazon Web Services, Microsoft Azure) and underlying technology to provide reliable, secure transmission of data between client and cloud provider; hands-on experience configuring compute, storage, database, application, and networking services to provide cost-effective solutions to solve businesses' everyday problems.

BAIS:6420 Advanced Database Management and Big Data 3 s.h.
Advanced database management topics; basics of semi-structured data and web services; how to retrieve real-world big data sets from web services; use of SQL and PL/SQL to analyze data in relational databases; big data related topics (e.g., Hadoop, Hive). Same as IGPI:6420.

BAIS:6480 Knowledge Discovery 3 s.h.
Knowledge discovery process including data reduction, cleansing, and transformation; advanced modeling techniques from classification, prediction, clustering, and association; evaluation and integration. Same as IGPI:6480.

BAIS:6500 Social Network Analytics: Models and Algorithms 3 s.h.
Preparation for future research in computational network analysis; introduction to methodology for analyzing various types of complex networks including social networks, information networks, and business networks; basic concepts of networks, models for network structures and dynamics, computational algorithms for analyzing networks; hands-on experience with analyzing real-world networks using third-party software or programming APIs.

BAIS:6600 Linear Programming 3 s.h.
Mathematical programming models; linear and integer programming, transportation models, large-scale linear programming, network flow models, convex separable programming. Requirements: calculus and linear algebra. Same as IGPI:6600, ISE:6600.

BAIS:6700 Discrete Optimization 3 s.h.
Introduction to modeling and solving discrete optimization problems; integer programming, network flows, dynamic programming. Prerequisites: BAIS:6600. Same as IGPI:6700.

BAIS:6900 Heuristic Search 3 s.h.
Design of heuristic search algorithms to find good (near-optimal) solutions to difficult (NP-hard) optimization problems that occur in many disciplines; basic heuristic concepts (local search, greedy search, problem decomposition) which serve as fundamental constructs for metaheuristics, including simulated annealing, genetic algorithms, tabu search, variable neighborhood search; introduction to various optimization problems and survey of various heuristic approaches; underlying theoretical structure of several heuristic methods; how to implement a heuristic algorithm.

BAIS:6999 Graduation Registration Requirement 1 s.h.
Requirements: professional business analytics MS degree candidate in final semester and all mandatory courses completed.

BAIS:7000 Business Analytics Topics 3 s.h.
Same as IGPI:7000.

BAIS:7110 Managerial Communication 1 s.h.
Effective communication to become a successful business professional and leader; strengthen ability to speak and write confidently, competently, and effectively regardless of venue; varied team and individual presentation coaching, applied exercises.

BAIS:7120 Advanced Technical Communication 1 s.h.
Developing readiness for interacting with clients including status reports, balancing technicality based on audience, and delivering a presentation to an external audience about a finished work product. Corequisites: BAIS:6120.

BAIS:7500 Statistical Machine Learning 3 s.h.
Regularization methods for sparse models, computational algorithms for large scale problems, statistical inference in high-dimensional models, reproducing kernel Hilbert space, supervised learning, nonparametric density and conditional density estimation, neural networks and deep learning, optimal transport and generative learning, dimension reduction and representation learning. Prerequisites: STAT:5100 or STAT:5200. Same as STAT:7500.

BAIS:7900 Special Topics in Business Analytics arr.

BAIS:7925 Machine Learning and Causal Inference 3 s.h.
Exploration of methods and research at intersections of machine learning and causal inference; examination of intersections related to regression and classification, regularization, treatment effects, counterfactuals, text analytics, dimensionality reduction, and causal trees.

BAIS:7950 Directed Readings arr.

BAIS:7975 Thesis in Business Analytics arr.
Requirements: PhD enrollment.

BAIS:8130 Business Communication 1-3 s.h.
Effective communication to become a successful business professional and leader; strengthen ability to speak and write confidently, competently, and effectively regardless of venue; varied team and individual presentation coaching, applied exercises. Requirements: admission to MS in business analytics (career) program.

BAIS:9010 Contemporary Topics in Analytics 1-3 s.h.
Content from cutting edge topics in business analytics, operations, and project management; topics vary.

BAIS:9100 Data and Decisions 3 s.h.
Introduction to business analytics; utilizing Excel to apply descriptive and predictive analytical tools to solve practical business problems using real world data; dealing with uncertainty in decision-making; formal probability concepts and statistical methods for describing variability (decision trees, random variables, hypothesis testing); application of techniques (linear regression, Monte Carlo simulation, linear optimization) to model, explain, and predict for operational, tactical, and strategic decisions.

BAIS:9110 Advanced Analytics 2-3 s.h.
Development of data-driven, problem-solving skills for prediction of uncertain outcomes and prescription of business solutions; linear and nonlinear regression, Monte Carlo simulation, forecasting, data mining, and optimization utilizing spreadsheets and dedicated software packages. Prerequisites: MBA:8150 or BAIS:9100.

BAIS:9120 Managing the Supply Chain 2-3 s.h.
Design, operation, and management of a supply chain; supplier and customer partnerships, supply base management, transportation and logistics, supply chain innovation, supply chain sustainability; supply chain risk management and performance metrics. Prerequisites: MBA:8240.

BAIS:9130 Lean Process Improvement 3 s.h.
Design, management, and improvement of business processes which form the basis of every organization, ranging from manufacturing facilities to service providers and from for-profits to nonprofits; students learn the principles of lean thinking and continuous improvement through a series of hands-on exercises; team-based, data-driven approach on how to map a value stream, identify waste, analyze root causes, and brainstorm countermeasures for a variety of different processes. Recommendations: MBA:8240.

BAIS:9140 Agile Project Management 3 s.h.
Students prepare to create or participate in a successful agile work environment; learn various agile methods (e.g., scrum, lean, Kanban, XP); understand and apply tools, techniques, and approaches in an agile setting; and how to apply advanced agile topics (e.g., story mapping, advanced planning and estimating, scaling methods).

BAIS:9160 Supply Chain Analytics 2-3 s.h.
Supply chain analytics applications for decision-making including demand forecasting, inventory management, capacity planning, and supply chain coordination. Prerequisites: MBA:8150 or BAIS:9100.

BAIS:9210 Data Modeling and Automation 2-3 s.h.
Designed for professionals and students aiming to master the integration of tools such as Visual Basic for Applications (VBA) and Alteryx for enhanced data processing and analysis; delves into advanced techniques of data modeling, leveraging the robust capabilities of both VBA and Alteryx.

BAIS:9220 Introduction to Information Systems 3 s.h.
Effective ways for business firms to harness the power of information technology for strategic purposes; conventional and emerging architectures of information systems; integrated perspective on structural relationships among IT components; emphasis on case studies.

BAIS:9300 Innovations in Technology 2-3 s.h.
Current innovations in technology; examination of virtual reality including basics, hardware and history, applications, psychology; focus on experiencing prebuilt environments to develop an understanding of how virtual reality can be used in different industries rather than on building virtual reality environments; technical background not required.

BAIS:9400 Professional Development and Business Acumen 0-3 s.h.
Professional development and business acumen in preparation for a postgraduate career; students explore how to grow a professional network, examine how to build depth of knowledge and breadth of business acumen, gain knowledge from industry professionals on current trends and activities in business analytics, and receive guidance and best practices on career management fundamentals as well as specific recommendations for business analytics students; exposure to relevant information important to student's major that does not clearly fit into academic coursework.

Business Analytics and Information Systems, BBA

Common BBA Requirements

The Bachelor of Business Administration (BBA) requires a minimum of 120 s.h. of credit, including at least 48 s.h. earned in business courses and at least 52 s.h. earned in non-business courses.

BBA students must earn 45 s.h. at the University of Iowa following admission to the BBA program. At least 24 s.h. in business courses must be earned with Tippie College of Business coursework. At least two-thirds of the semester hours in a student's major must be earned in the student's major department at the Tippie College of Business. Nonresident instruction includes coursework at colleges and universities other than the University of Iowa.

To graduate, BBA students must have a cumulative grade-point average of at least 2.00 in all college-level coursework attempted, all college-level business coursework attempted, all college-level major coursework attempted, all college-level coursework attempted at the University of Iowa, all college-level business coursework attempted at the University of Iowa, and all college-level major coursework attempted at the University of Iowa.

Common BBA Requirements

BBA students must fulfill the following common requirements or approved equivalents. For approved equivalents, consult the college's Undergraduate Program Office.

General Education

Students may not count courses taken to fulfill General Education Program requirements toward other course requirements for the BBA.

Course #	Title	Hours
Historical Perspectives		3
International and Global Issues		3
Interpretation of Literature		3
Natural Sciences (without lab)		3
Rhetoric		4
Social Sciences (excluding ECON:1100 and ECON:1200)		3
Understanding Cultural Perspectives		3
Values and Society		3
World Languages		0-10

World Languages

Tippie College of Business students may complete the World Languages requirement using one of three options. One year of high school language study is generally equivalent to one semester of college language study.

Option One

Attain fourth level proficiency in a single world language. Students attain fourth level proficiency in a single world language by completing four years of that language in high school or four semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at fourth level proficiency.

Option Two

Attain third level proficiency in a single world language and complete a World Language and Cultural Exploration course. Students attain third-level proficiency in a single world language by completing three years of that language in high school or three semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at third-level proficiency. Option two does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Option Three

Attain second level proficiency in each of two world languages. Students attain second level proficiency in each of two world languages by completing two years of each language in high school or two semesters of each language in college, or an equivalent combination of high school and college coursework, or pass achievement tests and/or evaluations at second-level proficiency in each language. Option three does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Prerequisites for Admission to the BBA Program

Course #	Title	Hours
BAIS:1500	Business Computing Essentials	2
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business	4
RHET:1030	Rhetoric: Writing and Communication	4
STAT:1030	Statistics for Business	4

Prerequisites for Declaring a BBA Major

Course #	Title	Hours
ACCT:2100	Introduction to Financial Accounting	3
ECON:1200	Principles of Macroeconomics	4

BBA Core

Course #	Title	Hours
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:2800	Foundations of Business Analytics	3
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
BUS:2200	Discover Business at Tippie	1
BUS:3000	Business Communication and Professionalism	3
FIN:3000	Introductory Financial Management	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
MKTG:3000	Introduction to Marketing Strategy	3

Experiential Learning Requirement: Tippie RISE

RISE is an acronym for hands-on experiential learning in the form of research with faculty, internship course, study abroad, and experiential course. All BBA students in the Tippie College of Business students must successfully complete at least one of these four experiences. Courses that satisfy Tippie RISE are as follows.

Research With Faculty

Working closely with a faculty mentor, students explore a research question of interest for a semester or more. By conducting academic research, students enhance their critical thinking skills, learn techniques to collect and analyze data, and apply their findings to business practices. These skills are highly useful for a variety of businesses and graduate programs.

Course #	Title	Hours
ACCT:4999	Honors Thesis in Accounting	arr.
BAIS:4999	Honors Thesis in Business Analytics	arr.
BUS:3600	Mentored Research	arr.
BUS:4999	Honors Thesis in Business	arr.
ECON:4999	Honors Thesis in Economics	arr.
FIN:4999	Honors Thesis in Finance	arr.
MGMT:4999	Honors Thesis in Management	arr.
MKTG:3702	Marketing Institute Seminar II	2
MKTG:4999	Honors Thesis in Marketing	arr.
URES:3992	Undergraduate Research and Creative Projects	0
URES:3993	Undergraduate Research and Creative Projects	1-4
URES:3994	Undergraduate Research and Creative Projects	1-4
URES:3995	Independent Creative Research by Undergraduates Summer Internship	0

Internship Course

As students gain valuable hands-on work experience in a professional internship, they complete one of the approved internship courses to assist them in having a meaningful learning experience. The internship courses encourage students to take on relevant job responsibilities, outline strategies to meet internship goals, regularly communicate with their supervisors, explore the career field, and reflect on their growth throughout the experience.

Course #	Title	Hours
BUS:3100	Academic Internship or Cooperative Education	0
BUS:3900	Business Communication Internship I	3
BUS:4900	Academic Internship	arr.
CCP:1201	Academic Internship	1-3
CCP:2020	Washington Center Internship Program	arr.
CCP:2202	International Student Full-Time Academic Internship	9
ENTR:4300	Launching an Entrepreneurial Venture	arr.
ENTR:4900	Academic Internship	arr.
EVNT:2110	Internship in Event Management	3
LS:3011	Leadership Certificate Capstone	0-2
SRM:4199	Independent Sport and Recreation Field Experience	arr.

Study Abroad

By taking advantage of short-term, summer, semester, or academic year programs, students can expand their worldview and learn alternative business and cultural practices outside of the United States. Students can participate in Tippie RISE study abroad programs such as London Winter, International Business in Sydney, CIMBA Italy, Global Internships, spring break programs through the John Pappajohn Entrepreneurial Center, or any of the many UI study abroad programs in over 40 countries. Any study abroad program is accepted for credit, including virtual programs, short-term faculty-led programs, and summer, semester, or year-long programs. These courses may be study abroad courses (prefix ABRD) or select study abroad international activities courses (prefix INTL) but are not required to be; see Study Abroad [p. 2215] in the catalog.

Experiential Course

In approved experiential courses, students improve their understanding of academic concepts by applying them to a class project with a company or nonprofit organization. Using real circumstances and issues, students engage with the organization to make a lasting impact. Students have support from classmates and guidance from their instructor throughout the duration of the project. Experiential courses are offered in many BBA majors and as business and non-business electives. Courses must be taken at the University of Iowa to satisfy Tippie RISE.

Course #	Title	Hours
ACCT:3451	Tax Practicum (VITA) II (spring only)	1
BAIS:4150	Business Analytics and Information Systems Capstone	3
BUS:3920	Business Case Competitions Professional Preparation	arr.
ECON:3360	Experimental Economics	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3
FIN:4250	Applied Equity Valuation	3
FIN:4310	Advanced Corporate Finance	3
FIN:4350	Applied Wealth Management	3
FIN:4410	Enterprise Risk Management	3
FIN:4420	Property and Liability Insurance	3
FIN:4460	Insurer Operations and Captive Management	3
LS:1024	Hawkeye Service Breaks (spring only)	3

LS:3002	Career Leadership Academy Part 2: Leadership in Action	3
MGMT:3600	Nonprofit Organizational Effectiveness II	3
MGMT:3850/ ENTR:3850	Entrepreneurial Leadership Academy II	3
MGMT:4600	Nonprofit Ethics and Governance	3
MKTG:3100	Marketing Research	3
MKTG:3103	Advanced Marketing Research	3
MKTG:3700	Marketing Institute Seminar I	2
MKTG:3701	Marketing Institute Field Studies	2
MKTG:4250	Marketing and Sustainability	3
MKTG:4800	Marketing Consulting Project	3
SRM:4197	Sport and Recreation Field Experience (not fans first section)	arr.

Major Area of Study

All BBA students must complete a major area of study. The college offers BBA majors in accounting [p. 1140], business analytics and information systems [p. 1158], economics [p. 1185], entrepreneurship, finance [p. 1208], management [p. 1236], marketing [p. 1261], and risk management and insurance [p. 1219]. The requirements for each major are established by the department that offers the major.

Students With Associate of Arts Degrees

Students who have been granted an Associate of Arts (AA) from a community college participating in the Iowa and Illinois Community College/Regents Articulation Agreements are considered to have met all high school unit requirements for admission to the BBA and all of the General Education Program requirements listed under "General Education Requirements," except the Understanding Cultural Perspectives and World Languages requirements. The program of study for which a student was awarded the AA must have included:

- a minimum of 60 s.h. (or 90 quarter hours) of credit acceptable toward graduation from the University of Iowa;
- completion of the agreed-upon group of courses at the community college; and
- a GPA of at least 2.00.

Mathematics courses comparable to MATH:0100 Basic Algebra I are not accepted toward graduation. Completion of an Associate of Arts does not guarantee admission to the BBA program in the Tippie College of Business. See Admission in Undergraduate Programs [p. 1132] for a complete list of requirements for admission to the BBA.

Students who use the provisions of the articulation agreement are granted a maximum of 60 s.h. of transferable credit from two-year colleges toward the 120 s.h. required for a BBA. Credit earned for the AA beyond the 60 s.h. transferable maximum is used in computing a student's grade-point average, and it may be used to satisfy course requirements, but it does not count toward the BBA. Transfer credit for business courses taken during the first and second years is counted toward the BBA only if such courses are usually offered as lower-division courses at the University of Iowa.

Transfer Courses

Students who have taken courses at another institution that are similar to those approved for the common business requirements at Iowa may request that these courses be evaluated for transfer credit. Students who transfer fewer hours than needed to meet a common business requirement may use only approved courses to complete the remainder of the requirement. Only courses taken at accredited four-year institutions may be used to satisfy business course requirements numbered 3000 or above. Students must complete a minimum of 24 s.h. of business coursework at Iowa and at least two-thirds of the coursework in the major in the department awarding the major. They must also meet the 45 s.h. residence requirement of the Tippie College of Business. Credit earned through online courses may be counted toward all requirements for graduation, subject to approval by a student's major department.

Multiple Majors in Business

Students may earn the BBA degree with more than one major; they may also combine the BBA degree with the Bachelor of Arts or Bachelor of Science in economics (except for the BBA in economics). The Four-Year Graduation Plan is not available to students earning more than one major or degree. Students have access to degree audits in MyUI for all of the programs of study they have officially declared. They also have access to all program courses, with some limitations, during early registration. A student must be in good academic standing in order to declare more than one major. See Double Majors and Joint Degrees on the Tippie College of Business website.

Requirements

The Bachelor of Business Administration with a major in business analytics and information systems (BAIS) requires a minimum of 120 s.h., including 22 s.h. of work for the major. Students must have a cumulative grade-point average (GPA) of at least 2.00 in all college coursework attempted, all college coursework attempted in business, all college coursework attempted in the major, all coursework attempted at the University of Iowa, all business coursework attempted at the University of Iowa, and all coursework in the major attempted at the University of Iowa.

The program provides a variety of educational experiences that develop students' knowledge of managerial decision-making systems. Students acquire skills in applying this knowledge by constructing quantitative models, using computer technology, and creating database systems.

Students earning the BAIS major may not earn the major or minor in informatics.

The BBA with a major in business analytics and information systems requires the following coursework. For BBA requirements, see "Common BBA Requirements" in this section of the catalog.

Requirements	Hours
Required Courses	16
Required Electives	6

Required Courses

Course #	Title	Hours
All of these:		
BAIS:3020	Computational Thinking	3
BAIS:3050	Business Analytics and Information Systems Professional Preparation	1
or FIN:3500	Hawkinson Scholar Seminar	
BAIS:3200	Database Management	3
BAIS:3250	Data Wrangling	3
BAIS:3500	Data Mining	3
BAIS:4150	Business Analytics and Information Systems Capstone	3

Required Electives

Students are not guaranteed specific elective options. The availability of courses outside the Department of Business Analytics may be subject to prerequisites or restricted to students who have declared a second major within the respective department.

Course #	Title	Hours
At least 6 s.h. from these; at least 3 s.h. must be in business analytics courses (prefix BAIS):		
BAIS:3025	Business Process Automation	3
BAIS:3070	Business Analytics and Information Systems Topics	arr.
BAIS:3100/ ACCT:3600	Accounting Systems and Analytics	3
BAIS:3140	Information Visualization	3
BAIS:3150	Emerging Technology Driving Business Innovation	3
BAIS:3300	Digital Product Management	3
BAIS:3400	Cloud Computing	3
BAIS:3600	Data Engineering	3
BAIS:3800	Optimization and Simulation Modeling	3
BAIS:4220	Advanced Database Management and Big Data	3
BAIS:4280/ ACCT:4280	Cybersecurity	3
BAIS:4540/ DATA:4540/ IGPI:4540/ STAT:4540	Statistical Learning	3
CS:1210	Computer Science I: Fundamentals	4
ECON:3300	Introduction to Econometrics: Causal Inference With Data	3
ECON:3355	Economic and Business Forecasting	3
MKTG:3102	Marketing Analytics	3
Any computer science course for which CS:1210 is a prerequisite		3-4

Career Advancement

The business analytics and information systems major prepares students for wide-ranging analytics and technology related opportunities. Graduates successfully seek careers as business analysts, data analysts, systems analysts, technology consultants and managers, and in many other types of technology and data-related careers. Graduates work in all different organizations across all industries. More details about the major and careers can be found in the Business Analytics and Information Systems Toolkit on the University Libraries website.

According to the Pomerantz Career Center's postgraduation data, 98% of students reported that they found permanent employment, were accepted to graduate school, or were not seeking employment within six months of graduation.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs. For more information about careers, visit the Pomerantz Career Center website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Business Analytics and Information Systems, BBA

Course	Title	Hours
Academic Career		
Any Semester		
Students are required to complete 52 s.h. of non-business coursework. Courses with a prefix of ACCT, BAIS, BUS, ECON, ENTR, FIN, MGMT, and MKTG will not count towards non-business hours. Check degree audit for non-business hours or confer with academic advisor.		
Students who need to complete the World Language requirement should consult with their academic advisor about when to add courses to plan of study. World Language counts as non-business coursework.		
To fulfill the Tippie RISE experiential learning requirement, complete an approved course in at least one of the following categories: research with faculty, internship course, study abroad, experiential course. [a]		0 - 3
Students must satisfy the Tippie College of Business residence requirement: 45 s.h. of UI coursework after admission to Tippie.		
Completion of BAIS:2800 Foundations of Business Analytics, BAIS:3000 Operations Management, and BAIS:3005 Information Systems by the end of the second year or no later than the first semester of the third year is essential for major course sequencing.		
	Hours	**0-3**
First Year		
Fall		
BUS:2200	Discover Business at Tippie	1

ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business [b]	4
RHET:1030	Rhetoric: Writing and Communication	4
GE: Social Sciences [c]		3
CSI:1600	Success at Iowa	1
	Hours	**17**
Spring		
BAIS:1500	Business Computing Essentials	2
ECON:1200	Principles of Macroeconomics	4
STAT:1030	Statistics for Business	4
ENGL:1200	The Interpretation of Literature	3
GE: Understanding Cultural Perspectives [c]		3
	Hours	**16**
Second Year		
Fall		
ACCT:2100	Introduction to Financial Accounting	3
BAIS:2800	Foundations of Business Analytics	3
MGMT:2100	Introduction to Management	3
GE: Historical Perspectives [c]		3
GE: Natural Sciences without Lab [c]		3
	Hours	**15**
Spring		
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
BAIS:3050 or FIN:3500	Business Analytics and Information Systems Professional Preparation or Hawkinson Scholar Seminar	1 - 2
BUS:3000	Business Communication and Professionalism [d]	3
GE: Values and Society [c]		3
	Hours	**14-15**
Third Year		
Fall		
BAIS:3020	Computational Thinking	3
BAIS:3200	Database Management	3
MGMT:2000	Introduction to Law	3
GE: International and Global Issues [c]		3
Minor, certificate, or non-business elective		3
	Hours	**15**
Spring		
BAIS:3250	Data Wrangling	3
FIN:3000	Introductory Financial Management	3
Major: business analytics and information systems elective course [e]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		1
	Hours	**16**
Fourth Year		
Fall		
BAIS:3500	Data Mining	3
MKTG:3000	Introduction to Marketing Strategy	3
Major: business analytics and information systems elective course [e]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
	Hours	**14**
Spring		
BAIS:4150	Business Analytics and Information Systems Capstone [f]	3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [g]		
	Hours	**15**
	Total Hours	**122-126**

a See degree audit for course options.

b Enrollment in math courses requires completion of a placement exam.

c GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Must be admitted to Tippie to enroll in BUS:3000. Generally completed during the second year, but should be taken no later than the third year.

e Select from list of approved courses in the General Catalog or on degree audit.

f Students should consider in their planning that ACCT:2200, BAIS:3250, BAIS:3500, and BUS:3000 are prerequisites for the capstone course.

g Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Business Analytics, MS

The digital revolution has generated vast amounts of data, presenting challenges and opportunities for businesses to gain a competitive edge by mastering this data. Business analytics specialists bridge this gap, and the Master of Business Analytics program, offered in full-time and part-time formats, addresses the need to manage and analyze data for business decision-making.

The full-time STEM-designated program in Iowa City spans two semesters and includes core courses, a capstone, and electives in three subprogram areas: artificial intelligence and machine learning, artificial intelligence and technology management, and finance analytics. The part-time program offers online analytics and business elective courses, with occasional in-person business electives in Des Moines. Graduate certificates in artificial intelligence and machine learning or artificial intelligence and technology management can be embedded into the part-time program without taking any additional coursework through appropriate elective selection.

The program equips students with skills to transform raw data into actionable insights, moving beyond descriptive and diagnostic analytics to predictive and prescriptive analytics.

Learning Outcomes

Graduates will exhibit knowledge and skills relevant to data and its applications in business. They will demonstrate competence in the subareas of:

- descriptive analytics;
- predictive analytics; and
- prescriptive analytics.

Graduates will create and communicate solutions to data-related business problems that impact their organizations and communities. They will:

- approach, address, and solve a loosely defined business problem requiring the use, exploration, and analysis of data; and
- communicate effectively through oral, written, and visual forms.

Graduates will understand and explore ethical issues related to the use of data in the modern world. They will:

- contemplate ethical issues arising in their own work; and
- express a working knowledge of the major ethical issues facing the business analytics profession, supported with examples from current events.

Graduates will demonstrate the ability to be effective team members in a diverse and complex world. They will:

- engage in effective team processes; and
- lead and support others to achieve collective goals.

Full-Time Programs

The full-time Master of Science program in business analytics requires a minimum of 33 s.h. of graduate credit. Transfer credit may be accepted with approval from the program. A Graduate College major program grade-point average (GPA) and a UI cumulative GPA of at least 2.75 is required in all coursework. The degree offers three subprograms: artificial intelligence and machine learning, artificial intelligence and technology management, and finance analytics.

The full-time MS in business analytics requires the following coursework.

Requirements	Hours
Core Courses	24
Subprogram Courses	9

Core Courses

Students in all subprograms take the following required courses for a total of 24 s.h.

Course #	Title	Hours
All of these (24 s.h.):		
BAIS:6040	Data Programming in Python	3
BAIS:6050	Data Management	3
BAIS:6070	Data Science	3
BAIS:6120	Analytics Experience	3
BAIS:6140	Visual Analytics	3
BAIS:6250	Applied Deep Learning	3
BAIS:7110	Managerial Communication	1
BAIS:7120	Advanced Technical Communication	1
BAIS:9110	Advanced Analytics	3
BAIS:9400	Professional Development and Business Acumen	1

Subprogram Courses

Artificial Intelligence and Machine Learning

This subprogram provides students with a deeper understanding of artificial intelligence (AI) technologies within a business context.

The MS in business analytics with an artificial intelligence and machine learning subprogram requires the following coursework.

Course #	Title	Hours
All of these (9 s.h.):		
BAIS:6100	Text Analytics	3
BAIS:6105	Social Analytics	3
BAIS:6260	Generative Artificial Intelligence	3

Artificial Intelligence and Technology Management

This subprogram prepares professionals to lead in technology-driven environments, focusing on the intersection of technology and management to equip students with the skills to navigate and lead in a digital world.

The MS in business analytics with a subprogram in artificial intelligence and technology management requires the following coursework.

Course #	Title	Hours
All of these (9 s.h.):		
BAIS:6210	Data Leadership and Management	3

BAIS:6240	Value Creation Using Artificial Intelligence	3
BAIS:9140	Agile Project Management	3

Finance Analytics

This subprogram offers students an interdisciplinary path, i.e., a business analytics degree with a focus on data-driven decision making in finance, preparing them for specific business domains.

The MS in business analytics with a subprogram in finance analytics requires the following coursework.

Course #	Title	Hours
All of these (9 s.h.):		
BAIS:6100	Text Analytics	3
FIN:9300	Corporate Finance	3
MBA:8180	Managerial Finance	3

Professional Program

The part-time Master of Science program in business analytics (professional) requires a minimum of 30 s.h. of graduate credit. Students must have a Graduate College major program grade-point average (GPA) and a UI cumulative GPA of at least 2.75 to satisfy degree requirements.

With program approval, students may count up to a maximum 6 s.h. of graduate transfer credit toward program coursework requirements. Students who wish to include the 15 s.h. earned from the Certificate in Business Analytics toward the business analytics master's degree may do so as long as the coursework is not more than 10 years old from the date when the business analytics master's degree is conferred.

The part-time Master of Science program in business analytics (professional) requires the following coursework.

Requirements	Hours
Core Courses	18
Electives	12

The core courses develop competency in business analytics skills and key functional concepts while elective coursework allows students to deepen or broaden their proficiencies. Students must complete all course prerequisites before taking a given course. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

Core Courses

Course #	Title	Hours
All of these:		
BAIS:6040	Data Programming in Python	3
BAIS:6050	Data Management	3
BAIS:6070	Data Science	3
BAIS:6140	Visual Analytics	3
BAIS:9110	Advanced Analytics	3
One of these:		
BAIS:9100	Data and Decisions	3
MBA:8150	Data and Decisions	3

If a core course is waived, it must be replaced with an approved analytics elective to reach the 30 s.h. of graduate credit.

Electives

The following list includes all approved electives. Not all courses are offered on a regular basis.

Course #	Title	Hours
12 s.h. from these:		
BAIS:6060	Data Analysis With R	3
BAIS:6100	Text Analytics	3
BAIS:6105	Social Analytics	3
BAIS:6110	Big Data Management and Analytics	3
BAIS:6130	Applied Optimization	3
BAIS:6150	Financial Analytics	3
BAIS:6180	Healthcare Analytics	3
BAIS:6190	Forecasting	3
BAIS:6210	Data Leadership and Management	3
BAIS:6230	People Analytics	3
BAIS:6240	Value Creation Using Artificial Intelligence	3
BAIS:6250	Applied Deep Learning	3
BAIS:6260	Generative Artificial Intelligence	3
BAIS:6280	Cybersecurity	3
BAIS:9010	Contemporary Topics in Analytics	1-3
BAIS:9130	Lean Process Improvement	3
BAIS:9140	Agile Project Management	3
MKTG:9310	Marketing Analytics	3
May include 6 s.h. from these:		
ACCT:9020	Strategic Cost Analysis	3
ACCT:9040	Financial Statement Analysis and Forecasting	3
BAIS:9300	Innovations in Technology	3
ECON:9100	Digital Economics	3
ENTR:9100	Entrepreneurship and Innovation	3
ENTR:9200	Entrepreneurial Finance	3
ENTR:9300	Design Thinking	3
ENTR:9450	Strategic Management of Technology and Innovation	3
ENTR:9500	Managing the Growth Business	3
FIN:9130	Corporate Risk Management and Insurance	3
FIN:9140	Enterprise Risk Management	3
FIN:9150	Financial Modeling and Firm Valuation	3
FIN:9160	Quantitative Finance and Machine Learning	3
FIN:9200	Portfolio Management	3
FIN:9210	Derivatives	3
FIN:9220	Fixed Income Securities	3
FIN:9230	Real Estate Finance and Investments	3
FIN:9240	International Finance	3
FIN:9300	Corporate Finance	3
FIN:9310	Corporate Financial Strategy	3
FIN:9350	Wealth Management	3

MBA:8110	Marketing Management	3
MBA:8120	Management in Organizations	3
MBA:8130	Business Communication	3
MBA:8140	Corporate Financial Reporting	3
MBA:8160	Managerial Economics	3
MBA:8180	Managerial Finance	3
MBA:8240	Operations and Supply Chain	3
MBA:8300	Foundations in Strategy	3
MBA:8430	Communication With Artificial Intelligence and Business Technology	3
MBA:8500	Seminar in International Business	3
MBA:9130	Leadership Communication and Story	3
MGMT:9090	Influence and Constructive Persuasion	3
MGMT:9091	Corporate Social Responsibility and Sustainability	3
MGMT:9092	Effective Managerial Communication	3
MGMT:9110	Dynamics of Negotiations	3
MGMT:9120	Leadership and Personal Development	3
MGMT:9130	Strategic Management of Change	3
MGMT:9170	Human Resources Analytics	3
MGMT:9185	Project Management	3
MGMT:9210	Law and Ethics	3
MGMT:9220	Maximizing Team Performance	3
MGMT:9230	Managing and Preventing Conflict	3
MGMT:9240	Inclusive Leadership	3
MGMT:9250	Managing Employee Performance	3
MGMT:9260	Strategic Employee Development	3
MGMT:9270	Human Resource Management	3
MGMT:9290	Global Business Management	3
MKTG:9015	Social Media Marketing	3
MKTG:9120	Customer Relationship Management	3
MKTG:9155	Digital Marketing Insights, Strategies, and Applications	3
MKTG:9170	Business to Business Marketing	3
MKTG:9190	International Marketing	3
MKTG:9320	Strategic Brand Positioning	3
MKTG:9330	Product and Portfolio Strategy	3
MKTG:9340	Customer Analysis	3
MKTG:9350	Marketing Communication and Promotions	3
MKTG:9370	Customer Experience	3

Combined Programs

MS in Business Analytics (Professional Subprogram)/MBA

The Department of Business Analytics collaborates with the Iowa MBA Program to offer a combined Master of Science in business analytics (professional)/Master of Business Administration degree option. This combined program allows students to pursue two degrees simultaneously, earning both more quickly than they would if each degree were pursued separately.

Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

For information about the MBA, see the Master of Business Administration, MBA [p. 1274] section of the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Full-Time Subprograms

Application criteria includes an online application; a résumé (include information about employment, education, extracurricular activities, and community involvement); a statement of purpose (250–500 words); academic transcripts (unofficial transcripts may be submitted with an application; official transcripts will be required for admission); earned bachelor's degree from a U.S. college or university with a minimum grade-point average of 3.00 on a 4.00 scale or have earned an equivalent from another country; and TOEFL/IELTS/Duolingo scores for international students (may be waived; see application website for details).

Visit the full-time MS in business analytics Admissions page on the Tippie College of Business website for full admission details.

Professional Subprogram

Please see the Part-time Master of Business Analytics Admissions on the Tippie College of Business website for information about admission to the MS in business analytics professional subprogram.

Career Advancement

The Tippie Graduate Career Services team offers multiple resources to help students in their career development journey. Visit Graduate Career Services on the Tippie College of Business website for details.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and

should be discussed with an academic advisor. For additional sample plans, see MyUI.

Business Analytics, MS

- Artificial Intelligence and Machine Learning Subprogram [p. 1172]
- Artificial Intelligence and Technology Management Subprogram [p. 1172]
- Finance Analytics Subprogram [p. 1173]
- Professional Subprogram [p. 1173]

Artificial Intelligence and Machine Learning Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
33 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College major program GPA and cumulative GPA of at least 2.75 is required.		
Summer Pre-Work: Data and Decisions Bootcamp [b]		
	Hours	**0**
First Year		
Any Semester		
Meet with your Career Services coach and attend offered sessions.		
	Hours	**0**
Fall		
BAIS:6040	Data Programming in Python [c]	3
BAIS:6050	Data Management	3
BAIS:6070	Data Science	3
BAIS:6100	Text Analytics [d]	3
BAIS:7110	Managerial Communication [d]	1
BAIS:9110	Advanced Analytics	3
BAIS:9400	Professional Development and Business Acumen [c]	1
	Hours	**17**
Spring		
BAIS:6105	Social Analytics [c]	3
BAIS:6120	Analytics Experience	3
BAIS:6140	Visual Analytics	3
BAIS:6250	Applied Deep Learning	3
BAIS:6260	Generative Artificial Intelligence [d]	3
BAIS:7120	Advanced Technical Communication	1
Complete degree application in MyUI [e]		
	Hours	**16**
	Total Hours	**33**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b This 2-semester long master's degree requires students to have some foundational analytics and Excel skills. All students are required to complete a free online asynchronous bootcamp during the summer prior to starting the program.

c First 8 weeks of the semester.

d Second 8 weeks of the semester.

e See Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor.

Artificial Intelligence and Technology Management Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
33 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College major program GPA and cumulative GPA of at least 2.75 is required.		
Summer Pre-Work: Data and Decisions Bootcamp [b]		
	Hours	**0**
First Year		
Any Semester		
Meet with your Career Services coach and attend offered sessions.		
	Hours	**0**
Fall		
BAIS:6040	Data Programming in Python [c]	3
BAIS:6050	Data Management	3
BAIS:6070	Data Science	3
BAIS:6210	Data Leadership and Management [d]	3
BAIS:7110	Managerial Communication [d]	1
BAIS:9110	Advanced Analytics	3
BAIS:9400	Professional Development and Business Acumen [c]	1
	Hours	**17**
Spring		
BAIS:6120	Analytics Experience	3
BAIS:6140	Visual Analytics	3
BAIS:6240	Value Creation Using Artificial Intelligence [d]	3
BAIS:6250	Applied Deep Learning	3
BAIS:7120	Advanced Technical Communication	1
BAIS:9140	Agile Project Management [c]	3
Complete degree application in MyUI [e]		
	Hours	**16**
	Total Hours	**33**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b This 2-semester long master's degree requires students to have some foundational analytics and Excel skills. All students are required to complete a free online asynchronous bootcamp during the summer prior to starting the program.

c First 8 weeks of the semester.

d Second 8 weeks of the semester.
e See Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor.

Finance Analytics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
33 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College major program GPA and cumulative GPA of at least 2.75 is required.		
Summer Pre-Work: Data and Decisions Bootcamp [b]		
	Hours	**0**
First Year		
Any Semester		
Meet with your Career Services coach and attend offered sessions.		
	Hours	**0**
Fall		
BAIS:6040	Data Programming in Python [c]	3
BAIS:6050	Data Management	3
BAIS:6070	Data Science	3
BAIS:6100	Text Analytics [d]	3
BAIS:7110	Managerial Communication [d]	1
BAIS:9110	Advanced Analytics	3
BAIS:9400	Professional Development and Business Acumen [c]	1
	Hours	**17**
Spring		
BAIS:6120	Analytics Experience	3
BAIS:6140	Visual Analytics	3
BAIS:6250	Applied Deep Learning	3
BAIS:7120	Advanced Technical Communication	1
FIN:9300	Corporate Finance [d]	3
MBA:8180	Managerial Finance [c]	3
Complete degree application in MyUI [e]		
	Hours	**16**
	Total Hours	**33**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b This 2-semester long master's degree requires students to have some foundational analytics and Excel skills. All students are required to complete a free online asynchronous bootcamp during the summer prior to starting the program.
c First 8 weeks of the semester.
d Second 8 weeks of the semester.
e See Academic Calendar, Office of the Registrar website for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor.

Professional Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Individual course waivers are not reflected within sample plans. Check with your advisor and/or consult degree audit for approved waivers.		
Students may also choose to earn a graduate/professional certificate along with the degree by focusing electives. Check with your advisor on possible options and to have a certificate added.		
	Hours	**0**
First Year		
Fall		
BAIS:6040	Data Programming in Python	3
BAIS:9100 or MBA:8150	Data and Decisions or Data and Decisions	3
	Hours	**6**
Spring		
BAIS:6070	Data Science	3
Elective course [c, d]		3
	Hours	**6**
Summer		
BAIS:6050	Data Management	3
	Hours	**3**
Second Year		
Fall		
BAIS:9110	Advanced Analytics	3
Elective course [c, d]		3
	Hours	**6**
Spring		
Elective course [c, d]		3
Elective course [c, d]		3
	Hours	**6**
Summer		
BAIS:6140	Visual Analytics	3
Complete Degree Application in MyUI [e]		
	Hours	**3**
	Total Hours	**30**

a Analytics courses are offered in an 8-week format in fall, spring, and summer online. Consult with your advisor and/or the course schedule for more details.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c See the General Catalog for list of approved courses.
d Students may take up to 6 s.h. of business electives through the Iowa MBA Program, which are offered in an 8-week format. Business electives are offered fall, spring and summer and a select number of electives offered in winter

session. Consult with your advisor and/or the schedule for more details.

e See Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor.

Doctor of Philosophy

Graduate students in business analytics may earn a Doctor of Philosophy in business administration. For a description of the PhD program and requirements, see the PhD in business administration [p. 1179] in the catalog and visit the Department of Business Analytics website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Learning Outcomes

- To demonstrate proficiency and knowledge in the specialization discipline, students will demonstrate expertise in reading and interpreting academic research articles in their specialized discipline. They will be knowledgeable in the major theoretical perspectives and prior research findings in their area and be able to integrate prior research from various streams of literature.
- To demonstrate the ability to conduct independent, original research that leads to publications, students will be able to identify important research questions, execute an appropriate research design, and summarize their efforts in a research paper. This includes being able to read and summarize existing research into their paper and understanding the prior literature in a variety of substantive areas, paradigms, and methodologies.
- To be effective teachers in their disciplines, students will demonstrate proficiency as instructors in courses in their specialized discipline. This includes preparing course syllabi, giving lectures, writing assignments and exams, and evaluating students on the various deliverables.
- To demonstrate effective communication skills, students will be effective at communicating ideas in academic writing and how these ideas relate to each other within the context of an academic paper. This includes the ability to establish a position, show why that position matters, and situate that position within a context that is determined by the appropriate audience. International students will demonstrate the ability to effectively lecture and communicate in English.

Artificial Intelligence and Machine Learning, Graduate Certificate

The graduate Certificate in Artificial Intelligence and Machine Learning is designed to equip students with cutting-edge knowledge and skills in one of the most dynamic and rapidly evolving fields today.

This program is tailored for professionals seeking to deepen their expertise in artificial intelligence (AI) and machine learning (ML), enabling them to apply advanced techniques and methodologies to solve real-world problems. The curriculum covers a broad spectrum of topics, including machine learning algorithms, neural networks, natural language processing, and data analytics, ensuring that graduates are well-prepared to lead and innovate in their respective industries.

The certificate is an ideal complement to the Master of Science in business analytics.

Learning Outcomes

Students who earn the Certificate in Artificial Intelligence and Machine Learning will be able to:

- understand the foundations of modern AI and machine learning algorithms;
- design and implement AI and machine learning solutions to real-world problems; and
- assess the effectiveness of different AI and machine learning approaches for analyzing unstructured data.

Requirements

The graduate Certificate in Artificial Intelligence and Machine Learning requires 12 s.h. of credit. Students must earn a Graduate College program grade-point average (GPA) and UI cumulative GPA of at least 2.75 to complete the certificate.

Applicants must meet the admission requirements of the Graduate College and the Certificate in Artificial Intelligence and Machine Learning. For additional information, see the Manual of Rules and Regulations on the Graduate College website and Certificate-Only Admissions on the Tippie College of Business website.

With program approval, students may count up to 3 s.h. of previous graduate or professional coursework toward the certificate.

Certificate courses are offered online. Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Artificial Intelligence and Machine Learning requires the following coursework.

Course #	Title	Hours
This course:		
BAIS:6250	Applied Deep Learning	3
Three of these (9 s.h.):		
BAIS:6100	Text Analytics	3
BAIS:6105	Social Analytics	3
BAIS:6130	Applied Optimization	3
BAIS:6260	Generative Artificial Intelligence	3

Business Analytics, Graduate Certificate

Analytics—broadly defined as the scientific process of transforming data into insight for making better decisions—plays an increasingly critical role in business. Companies must be able to access and analyze this data intelligently. As the recognition of analytics has grown, so has the demand for analytics education.

The focus on business analytics entails a specific approach targeting the core business disciplines of business, including operations, information technology, finance, marketing, accounting, and human resources, among others.

Learning Outcomes

- Graduates will exhibit knowledge and skills relevant to data and its applications in business. They will demonstrate competence in the sub-areas of descriptive analytics, predictive analytics, and prescriptive analytics.
- Graduates will understand and explore ethical and privacy issues related to the use of data in the modern world. They will contemplate ethical and privacy issues arising in their own work and express a working knowledge of the major ethical and privacy issues facing the business analytics profession, supported with examples from current events.
- Graduates will demonstrate the ability to be effective team members in a diverse and complex world. They will engage in effective team processes and lead and support others to achieve collective goals.

Requirements

The graduate Certificate in Business Analytics requires 15 s.h. of credit. Students must earn a Graduate College major program grade-point average (GPA) and UI cumulative GPA of at least 2.75 to complete the certificate.

Applicants must meet the admission requirements of the Graduate College and the Certificate in Business Analytics. For additional information, see the Manual of Rules and Regulations on the Graduate College website and Certificate-Only Admissions on the Tippie College of Business website.

With program approval, students may count up to 6 s.h. of previous graduate or professional coursework toward the certificate.

Certificate courses are offered online. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Business Analytics requires the following coursework.

Course #	Title	Hours
All of these:		
BAIS:6040	Data Programming in Python	3
BAIS:6050	Data Management	3
BAIS:6070	Data Science	3
BAIS:9110	Advanced Analytics	3
One of these:		
BAIS:9100	Data and Decisions	3
MBA:8150	Data and Decisions	3

If a core certificate course is waived, the course must be replaced with BAIS:6140 Visual Analytics to meet the 15 s.h. to earn the certificate. Semester hour credit cannot be reduced if a curricular waiver is granted. If a student is approved for an additional curricular waiver, the waived course(s) must be replaced by an approved business analytics elective.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Business Analytics, Graduate Certificate

Course	Title	Hours
Academic Career		
Any Semester		
15 s.h. must be completed for the certificate; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
If a core certificate course is waived, the course must be replaced with BAIS:6140 Visual Analytics to meet the 15 s.h. to earn the certificate. [c]		
	Hours	**0**
First Year		
Fall		
BAIS:6050	Data Management	3
MBA:8150 or BAIS:9100	Data and Decisions or Data and Decisions	3
	Hours	**6**
Spring		
BAIS:6040	Data Programming in Python	3
BAIS:9110	Advanced Analytics	3
	Hours	**6**
Summer		
BAIS:6070	Data Science	3
	Hours	**3**
	Total Hours	**15**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Analytics courses are offered in an 8-week format in fall, spring, and summer online. Consult with your advisor and/or the schedule for more details.

c Semester hour credit cannot be reduced if a curricular waiver is granted. If a student is approved for an additional curricular waiver, the waived course(s) must be replaced by an approved business analytics elective.

Doctor of Philosophy

Graduate degrees: MA in business administration; PhD in business administration

Website: https://tippie.uiowa.edu/phd

The Doctor of Philosophy program in business administration is an interdepartmental degree open to students in several Tippie College of Business departments. Basic requirements for the degree are detailed under Requirements [p. 1179] in the PhD in business administration section of the catalog. For additional information, see graduate programs in the accounting [p. 1140], business analytics [p. 1158], finance [p. 1208], management and entrepreneurship [p. 1236], and marketing [p. 1261] sections of the catalog.

The Tippie College of Business also offers a Doctor of Philosophy in economics; see economics [p. 1185] in the catalog.

Programs

Graduate Programs of Study

- Master of Arts in Business Administration

Graduate study in business administration focuses on the Doctor of Philosophy. Students are awarded the MA as they fulfill requirements for the PhD.

- Doctor of Philosophy in Business Administration [p. 1179]

Business Administration, PhD

Learning Outcomes

Learning outcomes for PhD in business administration subprograms are included in each department's Doctor of Philosophy section of the catalog.

Requirements

The Doctor of Philosophy program in business administration requires a minimum of 72 s.h., including approved transfer credit. The program is flexible, permitting students to choose a specialization area according to their interests. Coursework and related experience enable students to achieve competence in economic theory, statistical methods, and behavioral science as well as expertise in a major and minor study area. Students also have opportunities to develop research and teaching skills.

PhD coursework consists of prerequisites (as necessary), the PhD core, major and minor study areas, and dissertation research, described in the following sections. For more detailed information about PhD requirements, contact the individual Tippie College of Business departments or visit their websites.

Core Courses

Core courses develop research competence and provide background for specialized study. Doctoral students consult with their advisors to develop a study plan that reflects the individual student's background and interests and satisfies core requirements.

Major Study Area

At least 12 s.h. of approved doctoral-level courses must be completed in one of the following areas: accounting, finance, human resource management, management information systems, marketing, operations management, organizational behavior, or quantitative methods.

Minor Study Area

Students must complete a minimum of 9 s.h. of doctoral-level courses beyond the PhD core course requirements in one of the major study areas listed or in a concentration outside the Tippie College of Business.

Comprehensive Examinations

Students must satisfactorily complete a comprehensive examination, consisting of written or oral parts or both, at the discretion of their major department.

Dissertation

Students must present a dissertation proposal at a forum attended by dissertation committee members and open to interested faculty members and graduate students, as established by the student's major department. Researching and writing the dissertation typically requires two years of full-time effort.

Final Examination

PhD candidates defend the dissertation in an oral examination attended by dissertation committee members and open to interested faculty members and graduate students.

Admission

Applicants to the PhD program in business administration must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants must take the Graduate Record Examination (GRE) General Test or the Graduate Management Admission Test (GMAT) and have their scores sent to the university in order to be considered for admission. The departments of Business Analytics, Finance, Management and Entrepreneurship, and Marketing accept test scores for either the GRE or GMAT. The Department of Accounting only accepts GMAT scores. Required scores on these tests and their weight in admission decisions vary by department.

Admission is for fall entry. Completed applications should be submitted as early as possible and no later than the following deadlines.

- Accounting: Dec. 15
- Business Analytics: Jan. 15
- Finance: Jan. 15
- Management and Entrepreneurship: Dec. 15
- Marketing: Jan. 1

Visit PhD Programs on the Tippie College of Business website to learn more.

Career Advancement

The Doctor of Philosophy program prepares students for research positions in business and government or for research and teaching positions at academic institutions.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Business Administration, PhD

- Accounting Subprogram [p. 1180]
- Business Analytics Subprogram [p. 1180]
- Finance Subprogram [p. 1181]
- Management Subprogram [p. 1182]
- Marketing Subprogram [p. 1183]

Accounting Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Any Semester		
Teaching Orientation		
Serve as Faculty Teaching Assistant		
	Hours	**0**
Fall		
ACCT:7850	Seminar in Accounting Research	1
ACCT:7900	Seminar in Selected Accounting Topics	3
ECON:5115	Fundamentals of Microeconomics	3
ECON:5805	Statistics for Economics	3
	Hours	**10**
Spring		
ACCT:7850	Seminar in Accounting Research	1
ACCT:7900	Seminar in Selected Accounting Topics	3
ECON:5800	Econometrics	3
FIN:7110	Finance Theory I	3
Research Design Fundamentals (Experimental Specialization) course [b]		3
	Hours	**13**
Second Year		
Any Semester		
Serve as Faculty Teaching Assistant		
	Hours	**0**
Fall		
ACCT:7850	Seminar in Accounting Research	1
ACCT:7900	Seminar in Selected Accounting Topics	3
ECON:5810	Applied Econometrics	3
FIN:7120	Seminar in Corporate Finance	3
	Hours	**10**
Spring		
ACCT:7850	Seminar in Accounting Research	3
ACCT:7900	Seminar in Selected Accounting Topics	3
Research Design Fundamentals (Archival Specialization) course [c]		3
	Hours	**9**
Summer		
Second Year Research Paper Manuscript and Presentation to Faculty [d]		
	Hours	**0**
Third Year		
Any Semester		
Teach Standalone Course [e]		
	Hours	**0**
Fall		
ACCT:7850	Seminar in Accounting Research	3
ACCT:7975	Thesis: Accounting	6
	Hours	**9**
Spring		
ACCT:7850	Seminar in Accounting Research	3
ACCT:7975	Thesis: Accounting	6
	Hours	**9**
Winter		
Comprehensive Exam [f]		
	Hours	**0**
Fourth Year		
Fall		
ACCT:7850	Seminar in Accounting Research	1
ACCT:7975	Thesis: Accounting	3
	Hours	**4**
Spring		
Dissertation Proposal		
ACCT:7850	Seminar in Accounting Research	1
ACCT:7975	Thesis: Accounting	3
	Hours	**4**
Fifth Year		
Fall		
ACCT:7850	Seminar in Accounting Research	1
ACCT:7975	Thesis: Accounting	1
	Hours	**2**
Spring		
ACCT:7850	Seminar in Accounting Research	1
ACCT:7975	Thesis: Accounting	1
Final Exam [g]		
	Hours	**2**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Choose from BIOS:5730, STAT:5201, STAT:6513, STAT:6514, STAT:6516, or work with faculty advisor to select an appropriate course.
c Choose from BIOS:5730, FIN:7140, STAT:5201, STAT:6513, STAT:6514, STAT:6516, or work with faculty advisor to select an appropriate course.
d May also complete during third year fall semester.
e May also complete during fourth or fifth year.
f May also complete during third year summer session.
g Dissertation defense.

Business Analytics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**

First Year		
Fall		
STAT:4100 or STAT:3100	Statistical Inference I or Introduction to Mathematical Statistics I	3 - 4
Departmental core course [b]		3
Major area course [c]		3
	Hours	**9-10**
Spring		
Major area course [c]		3
Major area course [c]		3
Research methodology course [d]		3
	Hours	**9**
Second Year		
Fall		
Qualifying Exam		
Departmental core course [b]		3
Major area course [c]		3
Research methodology course [e]		3
	Hours	**9**
Spring		
Minor area course [f]		3
Minor area course [f]		3
Minor area course [f]		3
	Hours	**9**
Summer		
Comprehensive Exam [g]		
	Hours	**0**
Third Year		
Fall		
BAIS:7975	Thesis in Business Analytics [e]	3
BAIS:7975	Thesis in Business Analytics [e]	3
Interdepartmental core course [h]		3
	Hours	**9**
Spring		
BAIS:7975	Thesis in Business Analytics [e]	3
BAIS:7975	Thesis in Business Analytics [e]	3
BAIS:7975	Thesis in Business Analytics [e]	3
	Hours	**9**
Fourth Year		
Fall		
Dissertation Proposal		
BAIS:7975	Thesis in Business Analytics [e]	6
	Hours	**6**
Spring		
BAIS:7975	Thesis in Business Analytics [e]	6
	Hours	**6**
Fifth Year		
Fall		
BAIS:7975	Thesis in Business Analytics [e]	3
	Hours	**3**
Spring		
BAIS:7975	Thesis in Business Analytics [e]	3
Final Exam [i]		
	Hours	**3**
	Total Hours	**72-73**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Choose an Information Systems course (BAIS:6480 or CS:4440) or an Operations Management/Quantitative Methods course (BAIS:6600 or BAIS:7900); other specialization area courses may be substituted with departmental approval.

c May not include a course taken as part of the departmental core or research methodology requirements; work with faculty advisor to determine appropriate coursework in one of the three tracks (Information Systems, Operations Management, Quantitative Methods). Other courses may be added or substituted with departmental approval.

d Work with faculty advisor to select a course from approved list of research methodology courses.

e Work with faculty advisor to determine appropriate coursework and sequence.

f Courses outside of the department or the Tippie College of Business are often acceptable; work with faculty advisor to determine appropriate coursework and sequence.

g Comprehensive Exam requires current session enrollment.

h Choose from ECON:5115, ECON:5800, FIN:7120, or MKTG:7850; other courses in these areas many substituted with departmental approval.

i Dissertation defense.

Finance Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Any Semester		
First Year Paper [b]		
Minor Qualifying Exams [b]		
	Hours	**0**
Fall		
ECON:5115	Fundamentals of Microeconomics	3
ECON:5805	Statistics for Economics	3
FIN:7850	Seminar in Finance	1
STAT:4100	Statistical Inference I	3
	Hours	**10**
Spring		
ECON:5800	Econometrics	3
FIN:7110	Finance Theory I	3
FIN:7850	Seminar in Finance	1
STAT:4101	Statistical Inference II	3
	Hours	**10**
Summer		
Writing Workshop		
	Hours	**0**

Second Year		
Any Semester		
Second Year Paper [c]		
	Hours	**0**
Fall		
ECON:5810	Applied Econometrics	3
FIN:7120	Seminar in Corporate Finance	3
FIN:7130	Finance Theory II	3
FIN:7850	Seminar in Finance	1
Elective course [d]		3
	Hours	**13**
Spring		
FIN:7140	Advanced Empirical Finance	3
FIN:7850	Seminar in Finance	1
Elective course [d]		3
Elective course [d]		3
	Hours	**10**
Summer		
Comprehensive Exam [e]		
Writing Workshop		
	Hours	**0**
Third Year		
Any Semester		
Third Year Research Paper [f]		
	Hours	**0**
Fall		
FIN:7120	Seminar in Corporate Finance [g]	3
FIN:7130	Finance Theory II [g]	3
FIN:7975	Thesis in Finance	1
Elective course		3
	Hours	**10**
Spring		
FIN:7140	Advanced Empirical Finance [g]	3
FIN:7975	Thesis in Finance	3
Elective course [d]		3
	Hours	**9**
Summer		
Writing Workshop		
	Hours	**0**
Fourth Year		
Fall		
FIN:7975	Thesis in Finance	6
	Hours	**6**
Spring		
Dissertation Proposal [h]		
FIN:7975	Thesis in Finance	2
	Hours	**2**
Summer		
Writing Workshop		
	Hours	**0**
Fifth Year		
Fall		
FIN:7975	Thesis in Finance	1
	Hours	**1**
Spring		
FIN:7975	Thesis in Finance	1
Final Exam [i]		
	Hours	**1**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Completion required by end of first year.
c Completion required by end of second year.
d Work with faculty advisor to determine appropriate elective coursework and sequence.
e Comprehensive Exam requires current session enrollment.
f Completion required by end of third year.
g Students are encouraged to retake or sit in on FIN:7120 Seminar in Corporate Finance, FIN:7130 Finance Theory II, and FIN:7140 Advanced Empirical Finance, as the content of these three courses is refreshed each year.
h May also complete during fifth year fall semester.
i Dissertation defense.

Management Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Any Semester		
Mentored Research Presentation to Faculty		
	Hours	**0**
Fall		
MGMT:7360 or MGMT:7350	Motivation and Attitudes (PhD) [b] or Leadership (PhD)	3
MGMT:7700	Mentored Research	3
MGMT:7900	Contemporary Topics in Management & Entrepreneurship	3
Statistics or elective course [c]		3
	Hours	**12**
Spring		
MGMT:7160 or MGMT:7140	Multivariate Analysis in Behavioral Social Sciences (PhD) [d] or Meta-Analysis in Behavioral Social Sciences (PhD)	3
MGMT:7340 or MGMT:7800	Group Processes (PhD) [d] or Foundations of Human Resource Management	3
MGMT:7700	Mentored Research	3
Statistics or elective course [c]		3
	Hours	**12**
Second Year		
Any Semester		
Second Year Qualifying Paper		
	Hours	**0**

Fall		
MGMT:7350 or MGMT:7360	Leadership (PhD) [b] or Motivation and Attitudes (PhD)	3
MGMT:7700	Mentored Research	2
Statistics or elective course [c]		3
	Hours	**8**
Spring		
MGMT:7160 or MGMT:7140	Multivariate Analysis in Behavioral Social Sciences (PhD) [d] or Meta-Analysis in Behavioral Social Sciences (PhD)	3
MGMT:7340 or MGMT:7800	Group Processes (PhD) [d] or Foundations of Human Resource Management	3
MGMT:7700	Mentored Research	1
Statistics or elective course [c]		3
	Hours	**10**
Summer		
Exam: Doctoral Comprehensive Exam [e]		
	Hours	**0**
Third Year		
Fall		
MGMT:7975	Thesis in Management	3
Statistics or elective course (if desired) [c]		3
Statistics or elective course (if desired) [c]		3
Second Year Paper Presentation		
	Hours	**9**
Spring		
MGMT:7975	Thesis in Management	3
Statistics or elective course (if desired) [c]		3
Statistics or elective course (if desired) [c]		3
	Hours	**9**
Fourth Year		
Any Semester		
Dissertation Proposal Defense [f]		
	Hours	**0**
Fall		
MGMT:7975	Thesis in Management	8
	Hours	**8**
Spring		
MGMT:7975	Thesis in Management	2
	Hours	**2**
Fifth Year		
Fall		
MGMT:7975	Thesis in Management	1
	Hours	**1**
Spring		
MGMT:7975	Thesis in Management	1
Exam: Doctoral Final Exam [g]		
	Hours	**1**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Courses are typically offered once every two years.
c Refer to department handbook for list of approved courses; work with faculty advisor to determine appropriate coursework and sequence.
d Courses are typically offered on rotating basis.
e Comprehensive Exam requires current session enrollment.
f Complete in fall or spring of fourth year.
g Dissertation defense.

Marketing Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
MKTG:7800 or MKTG:7825	Seminar in Consumer Behavior - PhD [c] or Problems and Solutions in Behavioral Research	3
Academic track course		3
Academic track course		3
	Hours	**9**
Spring		
MKTG:7850	Seminar in Marketing Models - PhD	3
Academic track course		3
Academic track course		3
Academic track course		3
	Hours	**12**
Summer		
Qualifying Exam		
	Hours	**0**
Second Year		
Fall		
Present First Year Paper		
MKTG:7825 or MKTG:7800	Problems and Solutions in Behavioral Research [c] or Seminar in Consumer Behavior - PhD	3
Academic track course		3
Elective course [d]		3
Elective course [d]		3
	Hours	**12**
Spring		
Present Second Year Paper		
MKTG:7850	Seminar in Marketing Models - PhD	3
Elective course [d]		3
Elective course [d]		3
	Hours	**9**
Summer		
Comprehensive Exam [e]		
	Hours	**0**
Third Year		
Fall		
MKTG:7975	Thesis in Marketing	3

Elective course [d]		3
	Hours	**6**
Spring		
MKTG:7975	Thesis in Marketing	3
Elective course [d]		3
	Hours	**6**
Fourth Year		
Fall		
MKTG:7975	Thesis in Marketing	6
	Hours	**6**
Spring		
Dissertation Proposal Defense		
MKTG:7975	Thesis in Marketing	6
	Hours	**6**
Summer		
Summer Fellowship		
	Hours	**0**
Fifth Year		
Fall		
MKTG:7975	Thesis in Marketing	3
	Hours	**3**
Spring		
MKTG:7975	Thesis in Marketing	3
Final Exam [f]		
	Hours	**3**
	Total Hours	**72**

a Curriculum will vary based on which academic track students choose: Quantitative Modeling (QM), Consumer Behavior (CB), or Marketing Strategy (MS). All students must meet the 72 semester hour requirement and complete the doctoral seminars and econometrics sequence. Beyond that, the program allows a fair amount of freedom based on research interests. Work with faculty advisor to determine appropriate coursework and sequence.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c MKTG:7800 is typically offered in fall semesters of odd years only; MKTG:7825 is typically offered in fall semesters of even years only.

d Work with faculty advisor to determine appropriate elective coursework and sequence.

e Comprehensive Exam requires current session enrollment.

f Dissertation defense.

Economics

Chair

- David J. Cooper

Undergraduate major: economics (BA, BS, BBA)

Undergraduate minor: economics

Graduate degrees: MA in economics; PhD in economics

Faculty: https://tippie.uiowa.edu/people?department=Economics

Website: https://tippie.uiowa.edu/about/economics-department

Economics is the study of how societies allocate limited resources to achieve competing ends. Using both empirical and deductive methods, economists analyze incentives, constraints, organizational forms, and market forces to understand patterns of production, exchange, and consumption of goods and services. Economics treats diverse issues such as wealth and poverty, government expenditures and taxation, prosperity and depression, inflation and unemployment, relations between management and labor, economic growth, environmental protection, health care delivery, the war on drug abuse, free trade versus protectionism, U.S. competitiveness in international markets, and the quality of American education.

The Department of Economics offers degree programs for undergraduates and for graduate students. It also partners with the departments of Philosophy, Political Science, and Sociology and Criminology to offer the undergraduate major in ethics and public policy, an interdisciplinary program administered by the Department of Philosophy (College of Liberal Arts and Sciences); see Ethics and Public Policy [p. 459] in the catalog.

Special Seminar

Each year, the Department of Economics offers a Clarence Tow Lectures in Economics seminar program that brings eminent economists from other universities and from government agencies to the University of Iowa campus. Presentations by department faculty members and students are also featured.

Courses for Nonmajors

Students in the College of Liberal Arts and Sciences may wish to use economics courses as part of other majors or the GE CLAS Core [p. 22]. The introductory courses ECON:1100 Principles of Microeconomics and ECON:1200 Principles of Macroeconomics are approved for the Social Sciences area of the GE CLAS Core; they introduce the field of economics and the specialized topics of upper-division courses. The intermediate theory courses ECON:3100 Intermediate Microeconomics, ECON:3125 Intermediate Microeconomics: Advanced, and ECON:3150 Intermediate Macroeconomics provide a deeper foundation in the core theories and methods of the discipline. They serve as preparation for upper-division field courses or as terminal courses in an economics plan of study.

Coursework in economics relates to majors in many other fields. For example, political science majors could select ECON:3650 Policy Analysis; international studies majors, ECON:3345 Global Economics and Business; environmental policy and planning majors, ECON:3625 Environmental and Natural Resource Economics; pre-law students, ECON:3800 Law and Economics; and statistics majors, ECON:4800 Econometric Analysis: Advanced Causal Inference With Data.

Related Certificate

Transportation Planning

The Transportation Planning Program offers the Certificate in Transportation Planning. The program focuses on the varied and complex problems of transportation and on interdisciplinary approaches to addressing them. The certificate is coordinated by the School of Planning and Public Affairs. See the Certificate in Transportation Planning [p. 1814] (Graduate College) in the catalog.

Programs

Undergraduate Programs of Study

Majors

- Major in Economics (Bachelor of Arts) [p. 1189]
- Major in Economics (Bachelor of Business Administration) [p. 1197]
- Major in Economics (Bachelor of Science) [p. 1193]

Minor

- Minor in Economics [p. 1204]

Graduate Programs of Study

- Master of Arts in Economics [p. 1205]
- Doctor of Philosophy in Economics [p. 1206]

Courses

Students may take ECON:1100 Principles of Microeconomics and ECON:1200 Principles of Macroeconomics in either order or simultaneously. They are approved for the Social Sciences area of the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Qualified undergraduates may enroll in graduate-level courses (numbered 5000 and above) with the consent of the department chair.

Economics Courses

ECON:1100 Principles of Microeconomics 4 s.h.
Organization, workings of modern economic systems; role of markets, prices, competition in efficient allocation of resources and promotion of economic welfare; international trade. Requirements: BBA students cannot use this course for GE CLAS Core Social Sciences. GE: Social Sciences.

ECON:1200 Principles of Macroeconomics 4 s.h.
National income and output, unemployment, and inflation; economic growth and development; money and credit; monetary and fiscal policy; government finance; international finance. Requirements: BBA students cannot use this course for GE CLAS Core Social Sciences. GE: Social Sciences.

ECON:1300 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities).

ECON:3050 Professional Preparation in Economics 1 s.h.
Overview of career avenues for economics majors; how to pursue different career paths and synergies with other courses/majors; development of hard and soft skills required for success in those careers; discussion of use of economics to understand current events; development of skills, strategy, and tools for successful internship and employment search.

ECON:3100 Intermediate Microeconomics 3 s.h.
Economic theory of the behavior of consumers, producers, and other economic agents; role of markets in coordinating economic activity; effects of government policies on market outcomes; conditions that markets require for efficient allocation of resources; market imperfections; strategic behavior of economic actors. Prerequisites: ECON:1100 and (MATH:1350 or MATH:1460 or MATH:1550 or MATH:1850 or MATH:1860).

ECON:3125 Intermediate Microeconomics: Advanced 3 s.h.
Economic theory of the behavior of consumers, producers, and other economic agents; role of markets in coordinating economic activity; effects of government policies on market outcomes; conditions that markets require for efficient allocation of resources; market imperfections; strategic behavior of economic actors; similar to ECON:3100, but with more rigorous examination of topics and use of calculus. Prerequisites: ECON:1100 and MATH:1850 and MATH:1860.

ECON:3150 Intermediate Macroeconomics 3 s.h.
Measurement of macroeconomic indicators; economic growth and business cycles; use of macroeconomic models to study the role of government fiscal and monetary policies. Prerequisites: ECON:1200 and (MATH:1350 or MATH:1460 or MATH:1550 or MATH:1850 or MATH:1860).

ECON:3300 Introduction to Econometrics: Causal Inference With Data 3 s.h.
Use statistical methods to estimate economic relationships, test economic theories, and evaluate and implement government and business policy. Analyze economic events, make forecasts, and gauge the effectiveness of plans. Prerequisites: STAT:1030 and (MATH:1350 or MATH:1460 or MATH:1550 or MATH:1850 or MATH:1860).

ECON:3325 Personnel Economics 3 s.h.
Using microeconomics to learn about labor markets and the future of work. Prerequisites: ECON:1100.

ECON:3335 Money, Banking, and Financial Markets 3 s.h.
Role of financial sector in channeling funds from savers to investors to boost the economic growth of the country; the nature of financial markets, prices, and interest rate determination of financial instruments; the nature of financial institutions; management and regulation of financial markets and financial institutions; the role of money in the economy, role of the Federal Reserve, economic fluctuations, monetary and fiscal policies, exchange rate determination, and nature and causes of financial crises. Prerequisites: ECON:1100 and ECON:1200.

ECON:3345 Global Economics and Business 3 s.h.
Review of basic economic models to explain international trade patterns based on technology, resource endowments, and monopolistic competition, the balance of payments, and exchange rates. Prerequisites: ECON:1100.

ECON:3350 Industry Analysis 3 s.h.
The organization of industries, market structure and performance, and regulation and antitrust policy form. Prerequisites: ECON:1100.

ECON:3355 Economic and Business Forecasting 3 s.h.
Forecasting economic variables like interest rates, exchange rates, levels of employment, inflation rates, housing prices, sales, and gross domestic product (GDP); analyze future events and make forecasts to gauge effectiveness of plans. Econometrics allows businesses and policymakers to analyze future events and make forecasts. Prerequisites: ECON:1100 and ECON:1200 and (ECON:3300 or ECON:4800 or STAT:3200 or BAIS:2800 with a minimum grade of B).

ECON:3360 Experimental Economics 3 s.h.
Techniques of experimental economics and major applications of these techniques. Prerequisites: ECON:1100.

ECON:3380 Business and Government 3 s.h.
Role of the government in reshaping U.S. enterprises and the U.S. economy; the government's economic policies promoting, stabilizing, and regulating the economy and its influence on the welfare of citizens of the country; the influence of business owners and entrepreneurs on the government, shaping political and economic outcomes in the United States. Prerequisites: ECON:1100.

ECON:3620 Economic Growth and Development 3 s.h.
Determinants of rising living standards; accumulation of physical and human capital; predictions of economic growth models compared to observed changes in living standards. Prerequisites: ECON:1100 and ECON:1200.

ECON:3625 Environmental and Natural Resource Economics 3 s.h.
Environmental and resource use problems; efficient mechanisms and other policies for environmental protection, management of common property resources. Prerequisites: ECON:1100 and ECON:1200. Same as URP:3135.

ECON:3640 Regional and Urban Economics 3 s.h.
Theory of location and regional development; central place theory; why cities exist and trade with one another; models of land use patterns, rents; empirical tests of models; policy applications. Prerequisites: ECON:1100. Same as URP:3134.

ECON:3650 Policy Analysis 3 s.h.
Public policies influencing the economy, adequacy of policies made by the federal, state, and local levels of the government, and policymaking process. Develop financial, statistical, and economic tools of policy formulation and evaluation; examine policies informed by theory for economic growth and development, externalities, public goods, health care, education, taxation, inequality, welfare, social security, and environment. Prerequisites: ECON:1100.

ECON:3690 Sports Economics 3 s.h.
Theory and literature of economic issues in professional sports; issues such as relative advantages of large-and small-market teams, city subsidies for baseball and football stadiums, star players' true value to their teams; ideas from introductory economics (such as demand and cost curves) combined with additional economic theory, statistical evidence, and information about particular sports. Prerequisites: ECON:1100.

ECON:3750 Transportation Economics 3 s.h.
Overview of transportation markets—intercity, rural, urban; transportation modes—rail, highway, air, water, pipeline, transit; issues in finance, policy, planning, management, physical distribution, and environmental, economic, and safety regulation. Recommendations: ECON:1100 and ECON:1200. Same as SEES:3940, URP:3350.

ECON:3760 Health Economics 3 s.h.
Externalities and health behaviors; government influence on health behaviors; overview of health insurance and health insurance markets; health care costs; public health insurance; health insurance reforms. Prerequisites: ECON:1100.

ECON:3800 Law and Economics 3 s.h.
Law examined through analytic tools of microeconomics; impact of legal rules on resource allocation, risk bearing, distribution of economic well-being. Prerequisites: ECON:1100.

ECON:3825 Economics of Sustainability 3 s.h.
Energy lights and heats our homes, provides transportation via air, water, or land, and is used for producing the goods and services we demand; while some countries deal with the misuse of energy, other countries struggle with their population not having enough; sustainability is a property of whole systems, such an ecosystem or the Earth as a whole, but also pertains to smaller units such as corporations; sustainability is an area of study that draws on both microeconomics and macroeconomics; examine energy usage, employing economic theory, relevant literature, and case studies of worldly and corporate sustainability. Prerequisites: ECON:1100 and ECON:1200.

ECON:3830 Global Trade Finance 3 s.h.
Understanding and analyzing international trade transactions, including mode of payments, financial instruments, hedging techniques, etc.; assignments include finding trade financing solutions for companies through scenario analyses and case studies. Prerequisites: ECON:1100.

ECON:3850 Behavioral Economics 3 s.h.
Behavioral economics is a relatively new field that applies insights gleaned from psychology to economics; standard economic theory assumes people are all *homo economicus*: we know exactly how to maximize our own utility, and we do it well; behavioral economists seek to improve microeconomic theory with more realistic assumptions about human behavior. Prerequisites: ECON:1100.

ECON:3870 Federal Reserve Challenge 1 s.h.
Experience what Federal Reserve economists do every day: study the real U.S. economy, make forecasts and policy recommendations, defend their views to academic and professional economists; development of analytical skills, teamwork, how to build presentations. Prerequisites: ECON:3100 and ECON:3150.

ECON:3875 Topics in Policy Economics 3 s.h.
Topics vary. Prerequisites: ECON:1100 and ECON:1200.

ECON:4050 Readings and Independent Study in Economics arr.

ECON:4090 Natural Resource Economics 3 s.h.
Economics of natural resources; interaction between economic theory, empirical evidence, and public policy; land, water, fish, trees, minerals; externalities. Prerequisites: ECON:3100 or ECON:3125.

ECON:4110 International Economics 3 s.h.
Neoclassical model of international trade; imperfect competition and international trade and investment; role of trade barriers; regional trade agreements and the World Trade Organization. Prerequisites: ECON:1100 and ECON:1200.

ECON:4140 Labor Economics 3 s.h.
Labor supply and demand; investments in human capital; compensating wage differentials; discrimination; long-term contracts; occupational choice; family decisions; unions; immigration. Prerequisites: ECON:3100 or ECON:3125.

ECON:4160 Public Sector Economics 3 s.h.
Economic functions of government; social welfare programs; income distribution; policies that address market failures; budgetary processes; effects of government expenditures; taxation. Prerequisites: (ECON:3100 or ECON:3125) and ECON:3150.

ECON:4170 Monetary Economics 3 s.h.
Demand for and supply of money; money's role in economy; empirical studies of money's impact; problems with monetary control. Prerequisites: (ECON:3100 or ECON:3125) and ECON:3150.

ECON:4180 Industrial Organization 3 s.h.
Market structure; effects of business practices, informational problems on market structure; appraisal of antitrust policies, government regulation of business. Prerequisites: ECON:3100 or ECON:3125.

ECON:4190 Mathematical Economics 3 s.h.
Mathematical structure of economic principles, problems, systems; may include constrained optimization, choice under uncertainty, general equilibrium and welfare economics, dynamical systems and control theory, game theory. Prerequisites: (ECON:3100 or ECON:3125) and ECON:3150.

ECON:4200 Game Theory 3 s.h.
Basic concepts of game theory including dominance, backward induction, Nash equilibrium, evolutionary stability, commitment, credibility, asymmetric information, adverse selection, signaling; provides students with a working understanding of game theory; examples drawn from economics and politics. Prerequisites: (ECON:3100 or ECON:3125) and ECON:3150.

ECON:4700 Topics in Analytical Economics 3 s.h.
Topics vary. Prerequisites: (ECON:3100 or ECON:3125) and ECON:3150.

ECON:4800 Econometric Analysis: Advanced Causal Inference With Data 3 s.h.
Application of statistics to problems in empirical economics; tools for testing whether economic theories are consistent with real world observations and for predicting how economic policy measures or changes in other factors would affect economic agents. Linear regression, nonlinear regression, panel data, instrumental variables, and limited dependent variables models. Prerequisites: STAT:3101 or STAT:3120.

ECON:4999 Honors Thesis in Economics arr.
Independent research project supervised by economics faculty member; culminates in thesis required for honors in the major. Prerequisites: (ECON:3100 or ECON:3125) and ECON:3150 and (ECON:3300 or ECON:4800).

ECON:5000 Economic Analysis I 3 s.h.
Basic metric topology, convex analysis, function spaces, measure theory and integration.

ECON:5005 Real Analysis for Economics 2 s.h.
Basic metric topology, convex analysis, function spaces, measure theory, and integration.

ECON:5010 Economic Analysis II 3 s.h.
Behavior under uncertainty, macroeconomic models; dynamic programming, asset pricing, saving, consumption.

ECON:5100 Microeconomics I 3 s.h.
Consumer choice theory, producer theory, choice under uncertainty, basic game theory. Offered fall semesters.

ECON:5110 Microeconomics II 3 s.h.
General equilibrium and welfare analysis, adverse selection, the principal-agent problem, social choice, mechanism design. Offered spring semesters. Prerequisites: ECON:5100.

ECON:5115 Fundamentals of Microeconomics 3 s.h.
Consumer theory, producer theory, partial equilibrium models, expected and nonexpected utility theory.

ECON:5125 Game Theory 2 s.h.
Noncooperative and cooperative games, games of perfect and imperfect information, matching games.

ECON:5200 Macroeconomics I 3 s.h.
Economic growth, business cycles, money and inflation. Offered fall semesters.

ECON:5210 Macroeconomics II 3 s.h.
Dynamic macroeconomic models; stochastic macroeconomics; time consistency equilibrium business cycle theory. Offered spring semesters. Prerequisites: ECON:5200.

ECON:5300 Behavioral and Experimental Economics 3 s.h.
Overview of behavioral economics based on theoretical and empirical contributions; experimental methods and literature review. Provides working knowledge of experimental techniques and contributions.

ECON:5800 Econometrics 3 s.h.
Statistical inference in single and multiple equation stochastic models, models with nonindependent or nonidentically distributed error structure, dynamic models; OLS, GLS, IV, ML estimation; asymptotic distribution theory; exact, asymptotic hypothesis tests. Prerequisites: STAT:4101.

ECON:5805 Statistics for Economics 3 s.h.
Probability theory, transformations and expectations, common families of distributions, multiple random variables, properties of a random sample, point estimation, hypothesis testing.

ECON:5810 Applied Econometrics 3 s.h.
Empirical problems; multiple linear regression, nonlinear regression, maximum likelihood, hazard functions, univariate and multivariate time series, flexible functional forms. Prerequisites: ECON:5800.

ECON:5825 Theoretical Econometrics II 2 s.h.
Continuation of ECON:5815.

ECON:5855 Applied Econometrics I 2 s.h.
Empirical problems; multiple linear regression, nonlinear regression, maximum likelihood, hazard functions, univariate and multivariate time series, flexible functional forms.

ECON:5865 Applied Econometrics II 2 s.h.
Continuation of ECON:5855.

ECON:6310 Industrial Organization 3 s.h.
The firm, monopolistic competition, oligopoly and workable competition; industrial organization, nature of equilibrium under uncertainty. Prerequisites: ECON:5110.

ECON:6320 Labor Economics 3 s.h.
Problems and models, including intertemporal models of labor markets; uncertainty and labor market activity; retirement decisions, economic theories of fertility; economics of discrimination; job search models; economic models of unions; bargaining and strikes, public sector labor markets; determinants of income distribution; emphasis on empirical verification of theory. Prerequisites: ECON:5110 and (ECON:4800 or ECON:5800).

ECON:6420 Macroeconomics III 3 s.h.
Current research in macroeconomics; development of research topics with emphasis on theoretical and empirical analysis. Prerequisites: ECON:5110 and ECON:5800.

ECON:6500 International Trade Theory 3 s.h.
The theory of international trade, including basic models of international trade; capital and labor mobility and trade; protection of international trade; the political economy of international trade; empirical applications of international trade.

ECON:6900 Contemporary Topics in Economics 3 s.h.
Topics not offered in other courses.

ECON:7000 Seminar in Economic Theory arr.

ECON:7010 Seminar in Economic Theory II arr.

ECON:7020 Seminar in Economics I 2 s.h.

ECON:7030 Seminar in Economics II 2 s.h.

ECON:7040 Seminar in Economics III 2 s.h.

ECON:7050 Seminar in Economics IV 2 s.h.

ECON:7870 Workshop in Microeconomics 1 s.h.

ECON:7880 Workshop in Macro and Monetary Economics 1 s.h.

ECON:7950 Readings in Economics arr.

ECON:7975 Thesis in Economics arr.

ECON:9100 Digital Economics 3 s.h.
The gap between rapidly evolving technology and slower-moving human development will widen as exponential advances in artificial intelligence, robots, networks, analytics, and digitization have an increasing impact on society and the economy. Focus on three problems in moving toward a fully digitized economy: 1) the speed of adapting evolving technologies by individuals, firms, and organizations, 2) regulation by governments and international organizations, 3) the “digital divide” and inclusive growth; uses a combination of modeling, empirical evidence, and case studies. Prerequisites: MBA:8160.

Economics, BA

The BA in economics incorporates a balance of economic theory, mathematical tools, and field applications.

Students who major in economics complete three sets of requirements for the major: mathematics and statistics courses that provide the skills needed for understanding economic theory and data; economic theory courses that provide the tools needed for analyzing economic issues; and field courses that apply economic tools to business, social, or specialized analytical issues.

Learning Outcomes

Foundational Knowledge

Comprehension of fundamental principles and concepts of economics, including understanding of how markets work, supply and demand models, different economic systems, and macroeconomic variables such as GDP and inflation.

Graduates will be able to:

- evaluate economic choices made by households, firms, and governments, and examine policy issues in areas such as education, health, labor, the environment, and equity;
- describe the performance of economies and choose appropriate models to evaluate and propose policies for improving aggregate economic outcomes, including growth, equity, and stability;
- explain the function of markets and apply supply and demand models to analyze various outcomes under different market conditions; and
- define key macroeconomic variables such as GDP, inflation, unemployment, wages, money, and interest rates, and analyze the economic forces impacting these macroeconomic variables and the rest of the economy.

Critical Thinking and Problem Solving

Ability to apply economic reasoning to real-world problems.

Graduates will be able to:

- use economic theories and models to analyze and interpret real-world economic phenomena;
- develop problem-solving skills to address economic questions and policy issues; and
- apply critical thinking to evaluate various problems, scenarios, and outcomes.

New Discovery

Economic reasoning and knowledge formation for economic and policy analysis.

Graduates will be able to:

- formulate questions about economic processes based on current knowledge;
- construct a hypothesis to guide economic inquiry;
- design economic models, identify variables, and interpret results;
- find and interpret economic data; and
- analyze and evaluate economic results to inform a hypothesis.

Quantitative Skills

Mathematical reasoning, basic numeracy, and econometrics.

Graduates will be able to:

- understand and apply econometric methods to analyze economic data;
- evaluate policy and/or scholarly recommendations based on the findings; and
- use economic reasoning to appraise the trade-offs raised by different sides of a policy debate.

Information Literacy

Acquisition, analysis, and summary of published economic information.

Graduates will be able to:

- locate and critically evaluate the relevance and credibility of information from electronic and print sources;
- identify reliable sources of information;
- cite reliable sources of information appropriately;
- identify questions addressed and methodologies used; and
- assess findings reported and conclusions drawn in published economic articles.

Communication Proficiency

Written and visual presentation of economic information. Graduates will be prepared with written communication skills and visual communication skills.

Graduates will be able to:

- write accessible and concise reports based on economic findings or literature searches;
- effectively communicate complex economic concepts and findings in written, oral, and visual form;
- construct visual presentations of results or findings from the economic literature, using appropriate visual aids such as graphs, charts, and diagrams; and
- orally present findings or results with appropriate media in an accessible manner.

Requirements

The Bachelor of Arts with a major in economics requires a minimum of 120 s.h. of coursework, including 40 s.h. of coursework for the major. To graduate, students must have a cumulative grade-point average of at least 2.00 in all college coursework attempted, all coursework attempted at the University of Iowa, all college economics coursework attempted, and all economics coursework attempted at the University of Iowa. Coursework in the major may not be taken pass/nonpass. Students complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students may be able to count a limited amount of transfer credit toward the economics major, but they are required to complete the following courses at the University of Iowa: ECON:3100 Intermediate Microeconomics, ECON:3150 Intermediate Macroeconomics, and three of the applied field courses.

The major requires courses in mathematics and statistics, economic theory, and in applied field courses. Students should pay close attention to the order in which they take courses because some courses are prerequisites for others.

The Department of Economics offers ECON:3050 Professional Preparation in Economics. This is not a required course to complete the BA with a major in economics; however, it is highly recommended for economics students as it prepares

them for internships and future academic and professional career paths.

The BA with a major in economics requires the following coursework.

Requirements	Hours
Mathematics and Statistics Courses	11
Economic Theory Courses	14
Applied Field Courses	15

Mathematics and Statistics Courses

Course #	Title	Hours
All of these:		
ECON:3300	Introduction to Econometrics: Causal Inference With Data	3
MATH:1350	Quantitative Reasoning for Business	4
STAT:1030	Statistics for Business	4

Economic Theory Courses

Course #	Title	Hours
All of these (ECON:3100 and ECON:3150 must be taken at the University of Iowa):		
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
ECON:3100	Intermediate Microeconomics	3
ECON:3150	Intermediate Macroeconomics	3

Applied Field Courses

Students complete five applied field courses (15 s.h.) selected from economics courses (prefix ECON) numbered 3325–3875, excluding ECON:3870 Federal Reserve Challenge. Three of the applied field courses must be taken at the University of Iowa. Students are not guaranteed specific applied field courses. The availability of courses may be subject to prerequisites or restrictions.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Graduation with honors in economics recognizes high scholastic achievement based on grades and on completion of academic work beyond the requirements of the economics major. Students must have a cumulative grade-point average of at least 3.50 in all college coursework attempted, all coursework attempted at the University of Iowa, all college economics coursework attempted, and all economics coursework attempted at the University of Iowa. They must also successfully complete an honors thesis under the supervision of a faculty member.

Students begin by completing BUS:1999 Introduction to Research in Business at least three semesters prior to graduation. This course introduces students to research in the college and provides an opportunity to develop thesis questions and meet Tippie College of Business faculty members engaged in research. They must also complete ECON:3100 Intermediate Microeconomics, ECON:3150 Intermediate Macroeconomics, and ECON:3300 Introduction to Econometrics: Causal Inference With Data before commencing thesis work.

After identifying a faculty member to advise them on their thesis and completing the coursework listed, students register for ECON:4999 Honors Thesis in Economics for two semesters while they complete their research and write their thesis. In the second semester of their thesis, students present their research in a poster format at the Undergraduate Research Festival.

Students interested in graduating with honors in economics should visit the department's honors advisor at least three semesters prior to graduation.

University of Iowa Honors Program

Completing the economics honors requirements also satisfies the experiential learning requirement for the University of Iowa Honors Program. To learn more about graduating with honors through the UI Honors Program, visit the Honors at Iowa website.

Membership in the UI Honors Program is not required to earn honors in the economics major.

Career Advancement

The Bachelor of Arts degree provides an excellent educational background for a variety of positions in business and government. Graduates find employment in banking, financial institutions, industrial firms, and trade organizations and in federal, state, and local government agencies dealing with economic policy, regulation, and analysis. An undergraduate BA degree in economics also prepares students for the study of law and for graduate study in fields such as economics, public policy, business management, public administration, hospital and health administration, planning and public affairs, transportation, journalism, political science, and statistics.

Over 90% of students reported that they found permanent employment, were accepted to graduate school, or were not seeking employment within six months of graduation.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs. For more information about careers, visit the Pomerantz Career Center website.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the third semester begins: at least one-quarter of the semester hours required for graduation.

Before the fifth semester begins: at least half of the semester hours required for graduation.

Before the seventh semester begins: ECON:1100 Principles of Microeconomics, ECON:1200 Principles of Macroeconomics, ECON:3100 Intermediate Microeconomics, ECON:3150 Intermediate Macroeconomics, MATH:1350 Quantitative Reasoning for Business, STAT:1030 Statistics for Business, ECON:3300 Introduction to Econometrics: Causal Inference With Data, and at least three-quarters of the semester hours required for graduation.

Before the eighth semester begins: at least two applied field courses.

During the eighth semester: all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Economics, BA

Course	Title	Hours
Academic Career		
Any Semester		
Students must satisfy the Tippie College of Business residence requirement: 45 s.h. of UI coursework after admission to Tippie.		
GE: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
ECON:1100	Principles of Microeconomics [b, c]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature [d] or Rhetoric: Writing and Communication	3 - 4
GE: World Languages First Level Proficiency or elective course [e]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [f]		2
	Hours	**14-16**
Spring		
ECON:1200	Principles of Macroeconomics [b, c]	4
MATH:1350	Quantitative Reasoning for Business [c, g, h]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication [d] or The Interpretation of Literature	3 - 4
GE: World Languages Second Level Proficiency or elective course [e]		4 - 5
	Hours	**15-17**
Second Year		
Fall		
ECON:3100 or ECON:3150	Intermediate Microeconomics [i] or Intermediate Macroeconomics	3
STAT:1030	Statistics for Business [c, g]	4
GE: Understanding Cultural Perspectives [j]		3
GE: World Languages Third Level Proficiency or elective course [e]		4 - 5
Elective course [f]		2
	Hours	**16-17**
Spring		
ECON:3150 or ECON:3100	Intermediate Macroeconomics [i] or Intermediate Microeconomics	3
ECON:3300	Introduction to Econometrics: Causal Inference With Data	3
GE: Natural Sciences with Lab [j]		4
GE: World Languages Fourth Level Proficiency or elective course [e]		4 - 5
Elective course [f]		2
	Hours	**16-17**
Third Year		
Fall		
Major: applied field course [k]		3
Major: applied field course [k]		3
GE: Historical Perspectives [j]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Spring		
Major: applied field course [k]		3
GE: Natural Sciences without Lab [j]		3
GE: International and Global Issues [j]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Fourth Year		
Fall		
Major: applied field course [k]		3
GE: Values and Society [j]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Spring		
Major: applied field course [k]		3
GE: Literary, Visual, and Performing Arts [j]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**15**
	Total Hours	**121-127**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or

Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Meets the Social Sciences requirement for the Tippie College of Business.

c Fulfills a major requirement and may fulfill a GE requirement.

d ENGL:1200 - Meets the Interpretation of Literature requirement for the Tippie College of Business. RHET:1030 - Meets the Rhetoric requirement for the Tippie College of Business.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor with questions concerning the World Languages requirement.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Meets the Quantitative or Formal Reasoning requirement for the Tippie College of Business.

h Enrollment in math courses requires completion of a placement exam.

i Both ECON:3100 and ECON:3150 must be completed at the University of Iowa.

j GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

k Students must take five ECON courses (15 s.h.) numbered 3325-3875, excluding ECON:3870. At least three of the applied field courses must be completed at the University of Iowa.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Economics, BS

The BS in economics incorporates a balance of economic theory, mathematical tools, and field applications while emphasizing the development of analytical skills.

Students who major in economics complete three sets of requirements for the major: mathematics and statistics courses that provide the skills needed for understanding economic theory and data; economic theory courses that provide the tools needed for analyzing economic issues; and field courses that apply economic tools to business, social, or specialized analytical issues.

Learning Outcomes

Foundational Knowledge

Comprehension of fundamental principles and concepts of economics, including understanding of how markets work, supply and demand models, different economic systems, and macroeconomic variables such as GDP and inflation.

Graduates will be able to:

- evaluate economic choices made by households, firms, and governments, and examine policy issues in areas such as education, health, labor, the environment, and equity;
- describe the performance of economies and choose appropriate models to evaluate and propose policies for improving aggregate economic outcomes, including growth, equity, and stability;
- explain the function of markets and apply supply and demand models to analyze various market outcomes under different conditions; and
- define key macroeconomic variables such as GDP, inflation, unemployment, wages, money, and interest rates, and analyze the economic forces impacting these macroeconomic variables and the rest of the economy.

Critical Thinking and Problem Solving

Ability to apply economic reasoning to real-world problems.

Graduates will be able to:

- use economic theories and models to analyze and interpret real-world economic issues;
- develop problem-solving skills to address economic questions and policy issues; and
- apply critical thinking to evaluate various problems, scenarios, and outcomes.

New Discovery

Economic reasoning and knowledge formation for economic and policy analysis.

Graduates will be able to:

- formulate questions about economic processes based on current knowledge;
- construct a hypothesis to guide economic inquiry;
- design economic models, identify variables, and interpret results;
- find and interpret economic data; and
- analyze and evaluate economic results to inform a hypothesis.

Quantitative Skills

Mathematical reasoning, basic numeracy, and econometrics. Graduates will have a strong emphasis on quantitative skills.

Graduates will be able to:

- understand and apply econometric methods to analyze economic data;
- evaluate policy and/or scholarly recommendations based on the findings;
- use economic reasoning to appraise the trade-offs raised by different sides of a policy debate;
- apply advanced quantitative methods and models in economic analysis.

Information Literacy

Acquisition, analysis, and summary of published economic information.

Graduates will be able to:

- locate and critically evaluate the relevance and credibility of information from electronic and print sources;
- identify reliable sources of information;
- cite reliable sources of information appropriately;
- identify questions addressed and methodologies used; and
- assess findings reported and conclusions drawn in published economic articles.

Communication Proficiency

Written and visual presentation of economic information. Graduates will be prepared with written communication skills and visual communication skills.

Graduates will be able to:

- write accessible and concise reports based on economic findings or literature searches;
- effectively communicate complex economic concepts and findings in written, oral, and visual form;
- construct visual presentations of results or findings from the economic literature, using appropriate visual aids such as graphs, charts, and diagrams; and
- orally present findings or results with appropriate media in an accessible manner.

Requirements

The Bachelor of Science with a major in economics requires a minimum of 120 s.h. of coursework, including 41–44 s.h. of coursework for the major. To graduate, students must have a cumulative grade-point average of at least 2.00 in all college coursework attempted, all coursework attempted at the University of Iowa, all college economics coursework attempted, and all economics coursework attempted at the University of Iowa. Coursework in the major may not be taken pass/nonpass. Students complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students may be able to count a limited amount of transfer credit toward the economics major, but they are required to complete the following courses at the University of Iowa: ECON:3125 Intermediate Microeconomics: Advanced and ECON:3150 Intermediate Macroeconomics, and two of the applied field courses.

The major requires courses in mathematics and statistics, economic theory, and in applied field courses. Students should

pay close attention to the order in which they take courses, since some courses are prerequisites for others.

The BS program is ideal for students who plan to pursue a technical career in the public or private sector, a graduate degree in economics, or a law degree.

The Department of Economics offers ECON:3050 Professional Preparation in Economics. This is not a required course to complete the BS with a major in economics; however, it is highly recommended for economics students as it prepares them for internships and future academic and professional career paths.

The BS with a major in economics requires the following coursework.

Requirements	Hours
Mathematics and Statistics Courses	15-18
Economic Theory Courses	14
Applied Field Courses	12

Mathematics and Statistics Courses

The department recommends that students planning to pursue a graduate degree in economics take STAT:3100 Introduction to Mathematical Statistics I and STAT:3101 Introduction to Mathematical Statistics II rather than STAT:3120 Probability and Statistics. It also recommends that they complete additional coursework in mathematics, including MATH:2700 Introduction to Linear Algebra, MATH:2850 Calculus III, and MATH:3770 Foundations of Analysis.

Course #	Title	Hours
All of these:		
MATH:1850 & MATH:1860	Calculus I and Calculus II	8
ECON:4800	Econometric Analysis: Advanced Causal Inference With Data	3
One of these:		
STAT:3100 & STAT:3101	Introduction to Mathematical Statistics I and Introduction to Mathematical Statistics II (both courses required)	7
STAT:3120	Probability and Statistics	4

Economic Theory Courses

Course #	Title	Hours
All of these (ECON:3125 and ECON:3150 must be taken at the University of Iowa):		
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
ECON:3125	Intermediate Microeconomics: Advanced	3
ECON:3150	Intermediate Macroeconomics	3

Applied Field Courses

Students complete four applied field courses (12 s.h.) selected from economics courses (prefix ECON) numbered 3325–4700, excluding ECON:3870 Federal Reserve Challenge and ECON:4050 Readings and Independent Study in Economics. At least two courses must be numbered between 4090–4700 and at least two of the applied field courses must be taken at the University of Iowa. Students are not guaranteed specific applied field courses. The availability of courses may be subject to prerequisites or restrictions.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Graduation with honors in economics recognizes high scholastic achievement based on grades and on completion of academic work beyond the requirements of the economics major. Students must have a cumulative grade-point average of at least 3.50 in all college coursework attempted, all coursework attempted at the University of Iowa, all college economics coursework attempted, and all economics coursework attempted at the University of Iowa. They must also successfully complete an honors thesis under the supervision of a faculty member.

Students begin by completing BUS:1999 Introduction to Research in Business at least three semesters prior to graduation. This course introduces students to research in the college and provides an opportunity to develop thesis questions and meet Tippie College of Business faculty members engaged in research. They must also complete ECON:3125 Intermediate Microeconomics: Advanced, ECON:3150 Intermediate Macroeconomics, and ECON:4800 Econometric Analysis: Advanced Causal Inference With Data before commencing thesis work.

After identifying a faculty member to advise them on their thesis and completing the coursework listed, students register for ECON:4999 Honors Thesis in Economics for two semesters while they complete their research and write their thesis. In the second semester of their thesis, students present their research in a poster format at the Undergraduate Research Festival.

Students interested in graduating with honors in economics should visit the department's honors advisor at least three semesters prior to graduation.

University of Iowa Honors Program

Completing the economics honors requirements also satisfies the experiential learning requirement for the University of Iowa Honors Program. To learn more about graduating with honors through the UI Honors Program, visit the Honors at Iowa website.

Membership in the UI Honors Program is not required to earn honors in the economics major.

Career Advancement

The Bachelor of Science degree provides an excellent educational background for a variety of positions in business and government, research institutes and organizations, as well as academia. Graduates find employment in research, consulting, banking, financial institutions, industrial firms, and trade organizations and in federal, state, and local government agencies dealing with economic policy, regulation, and policy analysis. An undergraduate BS degree in economics also prepares students for the study of law and for graduate study in fields such as economics, public policy, business management, public administration, hospital and health administration, urban and regional planning, transportation, journalism, political science, and statistics.

Over 90% of students reported that they found permanent employment, were accepted to graduate school, or were not seeking employment within six months of graduation.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs. For more information about careers, visit the Pomerantz Career Center website.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the third semester begins: at least one-quarter of the semester hours required for graduation.

Before the fourth semester begins: MATH:1850 Calculus I.

Before the fifth semester begins: MATH:1860 Calculus II and at least half of the semester hours required for graduation.

Before the sixth semester begins: STAT:3100 Introduction to Mathematical Statistics I (if chosen statistics course).

Before the seventh semester begins: ECON:1100 Principles of Microeconomics, ECON:1200 Principles of Macroeconomics**,** ECON:3125 Intermediate Microeconomics: Advanced, ECON:3150 Intermediate Macroeconomics, STAT:3101 Introduction to Mathematical Statistics II (if chosen statistics course), and at least three-quarters of the semester hours required for graduation.

Before the eighth semester begins: STAT:3120 Probability and Statistics (if chosen statistics course) and at least two applied field courses.

During the eighth semester: ECON:4800 Econometric Analysis: Advanced Causal Inference With Data, all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Economics, BS

Course	Title	Hours
Academic Career		
Any Semester		
Students must satisfy the Tippie College of Business residence requirement: 45 s.h. of UI coursework after admission to Tippie.		
GE: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
ECON:1100	Principles of Microeconomics [b]	4
MATH:1850	Calculus I [b, c]	4
GE: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [e]		2
	Hours	**15-16**
Spring		
ECON:1200	Principles of Macroeconomics [b]	4
MATH:1860	Calculus II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE: World Languages Second Level Proficiency or elective course [d]		4 - 5
	Hours	**15-17**
Second Year		
Fall		
ECON:3150 or ECON:3125	Intermediate Macroeconomics [f] or Intermediate Microeconomics: Advanced	3
STAT:3100	Introduction to Mathematical Statistics I [g, h]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE: Understanding Cultural Perspectives [i]		3
GE: World Languages Third Level Proficiency or elective course [d]		4 - 5
	Hours	**17-19**
Spring		
ECON:3125 or ECON:3150	Intermediate Microeconomics: Advanced [f] or Intermediate Macroeconomics	3
STAT:3101	Introduction to Mathematical Statistics II [g, j]	3
GE: Natural Sciences with Lab [i]		4
GE: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [e]		2
	Hours	**16-17**
Third Year		
Fall		
STAT:3120	Probability and Statistics [g]	4
Major: applied field course [k, l]		3

GE: Historical Perspectives [i]		3
Elective course [e]		3
Elective course [e]		2
	Hours	**15**
Spring		
Major: applied field course [k, l]		3
GE: Natural Sciences without Lab [i]		3
GE: International and Global Issues [i]		3
Elective course [e]		3
Elective course [e]		2
	Hours	**14**
Fourth Year		
Fall		
ECON:4800	Econometric Analysis: Advanced Causal Inference With Data	3
Major: applied field course [k, l]		3
GE: Values and Society [i]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**
Spring		
Major: applied field course [k, l]		3
GE: Literary, Visual, and Performing Arts [i]		3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**15**
	Total Hours	**122-128**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Enrollment in math courses requires completion of a placement exam.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor with questions concerning the World Languages requirement.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Both ECON:3125 and ECON:3150 must be completed at the University of Iowa.

g Students may choose to complete either STAT:3100-3101 or STAT:3120.

h Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

i GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

j Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

k At least two of the applied field courses must be completed at the University of Iowa.

l Students must complete four ECON courses (12 s.h.) numbered 3325-4700, excluding ECON:3870 and ECON:4050. At least two of the courses must be numbered between 4090-4700.

m Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Economics, BBA

The BBA in economics emphasizes the economic foundations of business fields—accounting, finance, marketing, business law, and management. Students who choose the BBA in economics have the option to select the analytical subprogram.

In addition to the common BBA requirements, students who major in economics complete three sets of requirements for the major: mathematics and statistics courses that provide the skills needed for understanding economic theory and data; economic theory courses that provide the tools needed for analyzing economic issues; and field courses that apply economic tools to business, social, or specialized analytical issues. The course requirements vary, depending on whether a student selects the analytical subprogram.

Common BBA Requirements

The Bachelor of Business Administration (BBA) requires a minimum of 120 s.h. of credit, including at least 48 s.h. earned in business courses and at least 52 s.h. earned in non-business courses.

BBA students must earn 45 s.h. at the University of Iowa following admission to the BBA program. At least 24 s.h. in business courses must be earned with Tippie College of Business coursework. At least two-thirds of the semester hours in a student's major must be earned in the student's major department at the Tippie College of Business. Nonresident instruction includes coursework at colleges and universities other than the University of Iowa.

To graduate, BBA students must have a cumulative grade-point average of at least 2.00 in all college-level coursework attempted, all college-level business coursework attempted, all college-level major coursework attempted, all college-level coursework attempted at the University of Iowa, all college-level business coursework attempted at the University of Iowa, and all college-level major coursework attempted at the University of Iowa.

Common BBA Requirements

BBA students must fulfill the following common requirements or approved equivalents. For approved equivalents, consult the college's Undergraduate Program Office.

General Education

Students may not count courses taken to fulfill General Education Program requirements toward other course requirements for the BBA.

Course #	Title	Hours
Historical Perspectives		3
International and Global Issues		3
Interpretation of Literature		3
Natural Sciences (without lab)		3
Rhetoric		4
Social Sciences (excluding ECON:1100 and ECON:1200)		3
Understanding Cultural Perspectives		3
Values and Society		3
World Languages		0-10

World Languages

Tippie College of Business students may complete the World Languages requirement using one of three options. One year of high school language study is generally equivalent to one semester of college language study.

Option One

Attain fourth level proficiency in a single world language. Students attain fourth level proficiency in a single world language by completing four years of that language in high school or four semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at fourth level proficiency.

Option Two

Attain third level proficiency in a single world language and complete a World Language and Cultural Exploration course. Students attain third-level proficiency in a single world language by completing three years of that language in high school or three semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at third-level proficiency. Option two does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Option Three

Attain second level proficiency in each of two world languages. Students attain second level proficiency in each of two world languages by completing two years of each language in high school or two semesters of each language in college, or an equivalent combination of high school and college coursework, or pass achievement tests and/or evaluations at second-level proficiency in each language. Option three does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Prerequisites for Admission to the BBA Program

Course #	Title	Hours
BAIS:1500	Business Computing Essentials	2
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business	4
RHET:1030	Rhetoric: Writing and Communication	4
STAT:1030	Statistics for Business	4

Prerequisites for Declaring a BBA Major

Course #	Title	Hours
ACCT:2100	Introduction to Financial Accounting	3
ECON:1200	Principles of Macroeconomics	4

BBA Core

Course #	Title	Hours
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:2800	Foundations of Business Analytics	3

BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
BUS:2200	Discover Business at Tippie	1
BUS:3000	Business Communication and Professionalism	3
FIN:3000	Introductory Financial Management	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
MKTG:3000	Introduction to Marketing Strategy	3

Experiential Learning Requirement: Tippie RISE

RISE is an acronym for hands-on experiential learning in the form of research with faculty, internship course, study abroad, and experiential course. All BBA students in the Tippie College of Business students must successfully complete at least one of these four experiences. Courses that satisfy Tippie RISE are as follows.

Research With Faculty

Working closely with a faculty mentor, students explore a research question of interest for a semester or more. By conducting academic research, students enhance their critical thinking skills, learn techniques to collect and analyze data, and apply their findings to business practices. These skills are highly useful for a variety of businesses and graduate programs.

Course #	Title	Hours
ACCT:4999	Honors Thesis in Accounting	arr.
BAIS:4999	Honors Thesis in Business Analytics	arr.
BUS:3600	Mentored Research	arr.
BUS:4999	Honors Thesis in Business	arr.
ECON:4999	Honors Thesis in Economics	arr.
FIN:4999	Honors Thesis in Finance	arr.
MGMT:4999	Honors Thesis in Management	arr.
MKTG:3702	Marketing Institute Seminar II	2
MKTG:4999	Honors Thesis in Marketing	arr.
URES:3992	Undergraduate Research and Creative Projects	0
URES:3993	Undergraduate Research and Creative Projects	1-4
URES:3994	Undergraduate Research and Creative Projects	1-4
URES:3995	Independent Creative Research by Undergraduates Summer Internship	0

Internship Course

As students gain valuable hands-on work experience in a professional internship, they complete one of the approved internship courses to assist them in having a meaningful learning experience. The internship courses encourage students to take on relevant job responsibilities, outline strategies to meet internship goals, regularly communicate with their supervisors, explore the career field, and reflect on their growth throughout the experience.

Course #	Title	Hours
BUS:3100	Academic Internship or Cooperative Education	0
BUS:3900	Business Communication Internship I	3
BUS:4900	Academic Internship	arr.
CCP:1201	Academic Internship	1-3
CCP:2020	Washington Center Internship Program	arr.
CCP:2202	International Student Full-Time Academic Internship	9
ENTR:4300	Launching an Entrepreneurial Venture	arr.
ENTR:4900	Academic Internship	arr.
EVNT:2110	Internship in Event Management	3
LS:3011	Leadership Certificate Capstone	0-2
SRM:4199	Independent Sport and Recreation Field Experience	arr.

Study Abroad

By taking advantage of short-term, summer, semester, or academic year programs, students can expand their worldview and learn alternative business and cultural practices outside of the United States. Students can participate in Tippie RISE study abroad programs such as London Winter, International Business in Sydney, CIMBA Italy, Global Internships, spring break programs through the John Pappajohn Entrepreneurial Center, or any of the many UI study abroad programs in over 40 countries. Any study abroad program is accepted for credit, including virtual programs, short-term faculty-led programs, and summer, semester, or year-long programs. These courses may be study abroad courses (prefix ABRD) or select study abroad international activities courses (prefix INTL) but are not required to be; see Study Abroad [p. 2215] in the catalog.

Experiential Course

In approved experiential courses, students improve their understanding of academic concepts by applying them to a class project with a company or nonprofit organization. Using real circumstances and issues, students engage with the organization to make a lasting impact. Students have support from classmates and guidance from their instructor throughout the duration of the project. Experiential courses are offered in many BBA majors and as business and non-business electives. Courses must be taken at the University of Iowa to satisfy Tippie RISE.

Course #	Title	Hours
ACCT:3451	Tax Practicum (VITA) II (spring only)	1
BAIS:4150	Business Analytics and Information Systems Capstone	3
BUS:3920	Business Case Competitions Professional Preparation	arr.
ECON:3360	Experimental Economics	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3

FIN:4250	Applied Equity Valuation	3
FIN:4310	Advanced Corporate Finance	3
FIN:4350	Applied Wealth Management	3
FIN:4410	Enterprise Risk Management	3
FIN:4420	Property and Liability Insurance	3
FIN:4460	Insurer Operations and Captive Management	3
LS:1024	Hawkeye Service Breaks (spring only)	3
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3
MGMT:3600	Nonprofit Organizational Effectiveness II	3
MGMT:3850/ ENTR:3850	Entrepreneurial Leadership Academy II	3
MGMT:4600	Nonprofit Ethics and Governance	3
MKTG:3100	Marketing Research	3
MKTG:3103	Advanced Marketing Research	3
MKTG:3700	Marketing Institute Seminar I	2
MKTG:3701	Marketing Institute Field Studies	2
MKTG:4250	Marketing and Sustainability	3
MKTG:4800	Marketing Consulting Project	3
SRM:4197	Sport and Recreation Field Experience (not fans first section)	arr.

Major Area of Study

All BBA students must complete a major area of study. The college offers BBA majors in accounting [p. 1140], business analytics and information systems [p. 1158], economics [p. 1185], entrepreneurship, finance [p. 1208], management [p. 1236], marketing [p. 1261], and risk management and insurance [p. 1219]. The requirements for each major are established by the department that offers the major.

Students With Associate of Arts Degrees

Students who have been granted an Associate of Arts (AA) from a community college participating in the Iowa and Illinois Community College/Regents Articulation Agreements are considered to have met all high school unit requirements for admission to the BBA and all of the General Education Program requirements listed under "General Education Requirements," except the Understanding Cultural Perspectives and World Languages requirements. The program of study for which a student was awarded the AA must have included:

- a minimum of 60 s.h. (or 90 quarter hours) of credit acceptable toward graduation from the University of Iowa;
- completion of the agreed-upon group of courses at the community college; and
- a GPA of at least 2.00.

Mathematics courses comparable to MATH:0100 Basic Algebra I are not accepted toward graduation. Completion of an Associate of Arts does not guarantee admission to the BBA program in the Tippie College of Business. See Admission in Undergraduate Programs [p. 1132] for a complete list of requirements for admission to the BBA.

Students who use the provisions of the articulation agreement are granted a maximum of 60 s.h. of transferable credit from two-year colleges toward the 120 s.h. required for a BBA. Credit earned for the AA beyond the 60 s.h. transferable maximum is used in computing a student's grade-point average, and it may be used to satisfy course requirements, but it does not count toward the BBA. Transfer credit for business courses taken during the first and second years is counted toward the BBA only if such courses are usually offered as lower-division courses at the University of Iowa.

Transfer Courses

Students who have taken courses at another institution that are similar to those approved for the common business requirements at Iowa may request that these courses be evaluated for transfer credit. Students who transfer fewer hours than needed to meet a common business requirement may use only approved courses to complete the remainder of the requirement. Only courses taken at accredited four-year institutions may be used to satisfy business course requirements numbered 3000 or above. Students must complete a minimum of 24 s.h. of business coursework at Iowa and at least two-thirds of the coursework in the major in the department awarding the major. They must also meet the 45 s.h. residence requirement of the Tippie College of Business. Credit earned through online courses may be counted toward all requirements for graduation, subject to approval by a student's major department.

Multiple Majors in Business

Students may earn the BBA degree with more than one major; they may also combine the BBA degree with the Bachelor of Arts or Bachelor of Science in economics (except for the BBA in economics). The Four-Year Graduation Plan is not available to students earning more than one major or degree. Students have access to degree audits in MyUI for all of the programs of study they have officially declared. They also have access to all program courses, with some limitations, during early registration. A student must be in good academic standing in order to declare more than one major. See Double Majors and Joint Degrees on the Tippie College of Business website.

Requirements

The Bachelor of Business Administration with a major in economics requires a minimum of 120 s.h. of coursework, including at least 22 s.h. of coursework for the major. To graduate, students must have a cumulative grade-point average of at least 2.00 in all college coursework attempted, all coursework attempted at the University of Iowa, all college business coursework attempted, all business coursework attempted at the University of Iowa, all college economics coursework attempted, and all economics coursework attempted at the University of Iowa. Coursework in the major may not be taken pass/nonpass. For BBA requirements, see "Common BBA Requirements" in this section of the catalog.

The BBA program emphasizes the economic foundations of business fields—accounting, finance, marketing, business law, and management. The BBA with a major in economics is designed for students who seek employment in the public or private sectors or who plan to earn an MBA degree after gaining necessary experience. The analytical subprogram is designed for students interested in a more mathematically rigorous program. They will be well prepared for technical jobs

in the public or private sectors as well as graduate study in economics and related fields.

The major requires a course in professional preparation, mathematics and statistics courses, economic theory courses, and applied field courses. Students in the analytical subprogram take required mathematics and statistics courses, but are not required to take MATH:1350 Quantitative Reasoning for Business or STAT:1030 Statistics for Business. Students should pay close attention to the order in which they take courses because some courses are prerequisites for others.

Students may be able to count a limited amount of transfer credit toward the economics major, but they are required to complete the following courses at the University of Iowa: ECON:3100 Intermediate Microeconomics or ECON:3125 Intermediate Microeconomics: Advanced, ECON:3150 Intermediate Macroeconomics, and two of the applied field courses.

No Subprogram

The BBA with a major in economics (no subprogram) requires the following coursework.

Requirements	Hours
Professional Preparation Course	1
Mathematics and Statistics Course	3
Economic Theory Courses	6
Applied Field Courses	12

Professional Preparation Course

Course #	Title	Hours
This course:		
ECON:3050	Professional Preparation in Economics	1

Mathematics and Statistics Course

Course #	Title	Hours
This course:		
ECON:3300	Introduction to Econometrics: Causal Inference With Data	3

Economic Theory Courses

Course #	Title	Hours
Both of these (must be taken at the University of Iowa):		
ECON:3100	Intermediate Microeconomics	3
ECON:3150	Intermediate Macroeconomics	3

Applied Field Courses

Students complete four applied field courses (12 s.h.) numbered ECON:3325–ECON:4700, excluding ECON:3870 Federal Reserve Challenge and ECON:4050 Readings and Independent Study in Economics. At least two of the applied field courses must be taken at the University of Iowa. Students are not guaranteed specific applied field courses. The availability of courses may be subject to prerequisites or restrictions.

Analytical Subprogram

The analytical subprogram requires the following coursework.

Course #	Title	Hours
Professional Preparation Course		1
Mathematics and Statistics Courses		15-18
Economic Theory Courses		6
Applied Field Courses		12

Analytical Subprogram: Professional Preparation Course

Course #	Title	Hours
This course:		
ECON:3050	Professional Preparation in Economics	1

Analytical Subprogram: Mathematics and Statistics Courses

Course #	Title	Hours
All of these:		
MATH:1850	Calculus I	4
MATH:1860	Calculus II	4
ECON:4800	Econometric Analysis: Advanced Causal Inference With Data	3
One of these:		
STAT:3100 & STAT:3101	Introduction to Mathematical Statistics I and Introduction to Mathematical Statistics II (must take both courses)	7
STAT:3120	Probability and Statistics	4

Analytical Subprogram: Economic Theory Courses

Course #	Title	Hours
Both of these (must be taken at the University of Iowa):		
ECON:3125	Intermediate Microeconomics: Advanced	3
ECON:3150	Intermediate Macroeconomics	3

Analytical Subprogram: Applied Field Courses

Students complete four applied field courses (12 s.h.) numbered ECON:3325–ECON:4700, excluding ECON:3870 Federal Reserve Challenge and ECON:4050 Readings and Independent Study in Economics. At least two of the four courses must be numbered 4000–4700 and at least two of the applied field courses must be taken at the University of Iowa. Students are not guaranteed specific applied field courses. The availability of courses may be subject to prerequisites or restrictions.

Honors

Honors in the Major

Graduation with honors in economics recognizes high scholastic achievement based on grades and on completion

of academic work beyond the requirements of the economics major. Students must have a cumulative grade-point average of at least 3.50 in all college coursework attempted, all coursework attempted at the University of Iowa, all college business coursework attempted, and all business coursework attempted at the University of Iowa. They must also successfully complete an honors thesis under the supervision of a faculty member.

Students begin by completing BUS:1999 Introduction to Research in Business at least three semesters prior to graduation. This course introduces students to research in the college and provides an opportunity to develop thesis questions and meet Tippie College of Business faculty members engaged in research. They must also complete ECON:3100 Intermediate Microeconomics (no subprogram) or ECON:3125 Intermediate Microeconomics: Advanced (analytical subprogram), ECON:3150 Intermediate Macroeconomics, and ECON:3300 Introduction to Econometrics: Causal Inference With Data (no subprogram) or ECON:4800 Econometric Analysis: Advanced Causal Inference With Data (analytical subprogram) before commencing thesis work.

After identifying a faculty member to advise them on their thesis and completing the coursework listed, students register for ECON:4999 Honors Thesis in Economics for two semesters while they complete their research and write their thesis. In the second semester of their thesis, students present their research in a poster format at the Undergraduate Research Festival.

Students interested in graduating with honors in economics should see Tippie Honors on the Tippie College of Business website.

University of Iowa Honors Program

Completing the honors in economics requirements also satisfies the experiential learning requirement for the University of Iowa Honors Program. To learn more about graduating with honors through the UI Honors Program, visit the Honors at Iowa website.

Membership in the UI Honors Program is not required to earn honors in the economics major.

Career Advancement

The Bachelor of Business Administration degree provides an excellent educational background for a variety of positions in business and government, integrating a strong economic perspective with a comprehensive business education. Graduates find employment in industry, banking, financial institutions, and trade organizations and in federal, state, and local government agencies dealing with economic policy, regulation, and analysis. An undergraduate BBA degree in economics also prepares students for a successful entrepreneurship career, as well as the study of law and for graduate study in fields such as economics, business management, public administration, hospital and health administration, urban and regional planning, transportation, journalism, political science, and statistics.

Over 90% of students reported that they found permanent employment, were accepted to graduate school, or were not seeking employment within six months of graduation.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs; for more information about careers, visit the Pomerantz Career Center website.

Economics students also have access to a wide range of career resources and expertise through specifically dedicated Tippie Career Services staff.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

The following checkpoints are designed for students who enter the university as direct admission or pre-business students. In order to stay on the plan, pre-business students must maintain the grade-point averages required for admission to the Tippie College of Business and must apply for admission to the college the semester the four prerequisite courses will be completed, but no later than before the fifth semester begins. The Four-Year Graduation Plan is not available to students who choose to pursue a double major in the college or to those enrolled in a combined degree program.

Students must take BUS:3000 Business Communication and Professionalism during their first year after admission to the Tippie College of Business, except direct admission students, who take the course during their second year.

Students Without Subprogram

Before the third semester begins: ECON:1100 Principles of Microeconomics, ECON:1200 Principles of Macroeconomics, MATH:1350 Quantitative Reasoning for Business, STAT:1030 Statistics for Business, and at least one-quarter of the semester hours required for graduation.

Before the fifth semester begins: ECON:3300 Introduction to Econometrics: Causal Inference With Data, ECON:3100 Intermediate Microeconomics, all General Education requirements, and at least half of the semester hours required for graduation.

Before the seventh semester begins: ECON:3150 Intermediate Macroeconomics, at least one applied field course, all business core requirements, and at least three-quarters of the semester hours required for graduation.

Before the eighth semester begins: at least two applied field courses.

During the eighth semester: all remaining coursework in the major and a sufficient number of semester hours to graduate.

Students With Analytical Subprogram

Before the third semester begins: ECON:1100 Principles of Microeconomics, ECON:1200 Principles of Macroeconomics, MATH:1850 Calculus I, MATH:1860 Calculus II, and at least one-quarter of the semester hours required for graduation.

Before the fifth semester begins: either STAT:3120 Probability and Statistics or both STAT:3100 and STAT:3101 Introduction to Mathematical Statistics II, all General Education requirements, and at least half of the semester hours required for graduation.

Before the seventh semester begins: ECON:3125 Intermediate Microeconomics: Advanced, ECON:3150 Intermediate Macroeconomics, at least one applied field

course, all business core requirements, and at least three-quarters of the semester hours required for graduation.

Before the eighth semester begins: at least two applied field courses.

During the eighth semester: ECON:4800 Econometric Analysis: Advanced Causal Inference With Data, all remaining coursework in the major, and a sufficient number of semester hours to graduate.

Iowa Degree in Three

Iowa Degree in Three is designed for students who are academically prepared to complete more semester hours per term than average or who come to the University of Iowa with completed college credits. It is a flexible, affordable option developed to meet the needs of highly motivated students.

Students sign an agreement during their first semester of enrollment; meet with an advisor at least once a semester to review their plans and progress; take courses during summer sessions, if necessary; meet specific course checkpoints; and maintain the grade-point average required for the major.

The Tippie College of Business makes several assumptions about candidates for the Iowa Degree in Three:

- students are prepared to enroll in MATH:1350 Quantitative Reasoning for Business during their first enrollment at the University of Iowa;
- students have fulfilled the general education World Languages requirement before matriculation;
- students are direct admits to the Tippie College of Business;
- students have earned at least 15 s.h. of college credit before matriculation; and
- students are not held for more than two English as a Second Language classes.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Economics, BBA

Course	Title	Hours
Academic Career		
Any Semester		
Students are required to complete 52 s.h. of non-business coursework. Courses with a prefix of ACCT, BAIS, BUS, ECON, ENTR, FIN, MGMT, and MKTG will not count towards non-business hours. Check degree audit for non-business hours or confer with academic advisor.		
Students who need to complete the World Language requirement should consult with their academic advisor about when to add courses to plan of study. World Language counts as non-business coursework.		
To fulfill the Tippie RISE experiential learning requirement, complete an approved course in at least one of the following categories: research with faculty, internship course, study abroad, experiential course. [a]		0 - 3

Students must satisfy the Tippie College of Business residence requirement: 45 s.h. of UI coursework after admission to Tippie.

	Hours	**0-3**
First Year		
Fall		
BUS:2200	Discover Business at Tippie	1
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business [b]	4
RHET:1030	Rhetoric: Writing and Communication	4
GE: Historical Perspectives [c]		3
CSI:1600	Success at Iowa	1
	Hours	**17**
Spring		
ACCT:2100	Introduction to Financial Accounting	3
ECON:1200	Principles of Macroeconomics	4
STAT:1030	Statistics for Business	4
BAIS:1500	Business Computing Essentials	2
ENGL:1200	The Interpretation of Literature	3
	Hours	**16**
Second Year		
Fall		
BAIS:2800	Foundations of Business Analytics	3
ECON:3100	Intermediate Microeconomics [d]	3
MGMT:2100	Introduction to Management	3
GE: Understanding Cultural Perspectives [c]		3
Minor, certificate, or non-business elective		2
	Hours	**14**
Spring		
BUS:3000	Business Communication and Professionalism [e]	3
ECON:3050	Professional Preparation in Economics	1
ECON:3150	Intermediate Macroeconomics [d]	3
ECON:3300	Introduction to Econometrics: Causal Inference With Data	3
GE: Natural Sciences without Lab [c]		3
Minor, certificate, or non-business elective		2
	Hours	**15**
Third Year		
Fall		
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
MGMT:2000	Introduction to Law	3
Major: applied field course [a, f]		3
GE: International and Global Issues [c]		3
Minor, certificate, or non-business elective		3
	Hours	**15**
Spring		
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
Major: applied field course [a, f]		3
GE: Values and Society [c]		3
GE: Social Sciences [c]		3

Minor, certificate, or non-business elective		3
	Hours	**16**
Fourth Year		
Fall		
MKTG:3000	Introduction to Marketing Strategy	3
Major: applied field course [a, f]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
	Hours	**15**
Spring		
FIN:3000	Introductory Financial Management	3
Major: applied field course [a, f]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [g]		
	Hours	**15**
	Total Hours	**123-126**

a See degree audit for course options.
b Enrollment in math courses requires completion of a placement exam.
c GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
d Must be completed at the University of Iowa.
e Must be admitted to Tippie to enroll in BUS:3000. Generally completed during the second year, but should be taken no later than the third year.
f At least two of the applied field courses must be taken at the University of Iowa.
g Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Economics, Minor

Requirements

The undergraduate minor in economics requires a minimum of 15 s.h. of economics coursework, including 12 s.h. of coursework completed at the University of Iowa in economics courses (prefix ECON) numbered 3000 or above. A maximum of 6 s.h. of coursework used to satisfy another major, minor, or certificate may be applied toward the economics minor. Students must have a cumulative grade-point average of at least 2.00 in all college economics coursework attempted and all economics coursework attempted at the University of Iowa. Coursework in the minor may not be taken pass/nonpass.

Economics, MA

Learning Outcomes

- To demonstrate proficiency and knowledge in the specialization discipline, students will demonstrate expertise in reading and interpreting academic research articles in their specialized discipline. They will be knowledgeable in the major theoretical perspectives and prior research findings in their area and be able to integrate prior research from various streams of literature.
- To demonstrate the ability to conduct independent, original research that leads to publications, students will be able to identify important research questions, provide theory-based reasoning to develop original hypotheses, execute an appropriate research design, and summarize their efforts in a working paper. This includes being able to read and summarize existing research into their paper and understanding the prior literature in a variety of substantive areas, paradigms, and methodologies.
- To be effective teachers in their disciplines, students will demonstrate proficiency as instructors in courses in their specialized discipline. This includes preparing course syllabi, giving lectures, writing assignments and exams, and evaluating students on the various deliverables.
- To demonstrate effective communication skills, students will be effective at communicating ideas in academic writing and how these ideas relate to each other within the context of an academic paper. This includes the ability to establish a position, show why that position matters, and situate that position within a context that is determined by the appropriate audience. International students will demonstrate the ability to effectively lecture and communicate in English.

Requirements

The Master of Arts is offered only to students working toward a PhD in economics.

The department participates in the MBA program; see the Master of Business Administration Program [p. 1272] in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants must submit a completed Application for Graduate Admission, official transcripts from all institutions they have attended, and all official test scores to University of Iowa Admissions.

The application deadline for admission and financial support is Jan. 15 for fall entry.

Career Advancement

Over 90% of students reported that they found permanent employment, were accepted to graduate school, or were not seeking employment within six months of graduation.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs; for more information about careers, visit the Pomerantz Career Center website.

Economics, PhD

Learning Outcomes

- To demonstrate proficiency and knowledge in the specialization discipline, students will demonstrate expertise in reading and interpreting academic research articles in their specialized discipline. They will be knowledgeable in the major theoretical perspectives and prior research findings in their area and be able to integrate prior research from various streams of literature.
- To demonstrate the ability to conduct independent, original research that leads to publications, students will be able to identify important research questions, provide theory-based reasoning to develop original hypotheses, execute an appropriate research design, and summarize their efforts in a working paper. This includes being able to read and summarize existing research into their paper and understanding the prior literature in a variety of substantive areas, paradigms, and methodologies.
- To be effective teachers in their disciplines, students will demonstrate proficiency as instructors in courses in their specialized discipline. This includes preparing course syllabi, giving lectures, writing assignments and exams, and evaluating students on the various deliverables.
- To demonstrate effective communication skills, students will be effective at communicating ideas in academic writing and how these ideas relate to each other within the context of an academic paper. This includes the ability to establish a position, show why that position matters, and situate that position within a context that is determined by the appropriate audience. International students will demonstrate the ability to effectively lecture and communicate in English.

Requirements

The Doctor of Philosophy program in economics requires a minimum of 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average (GPA) of at least 3.00 to earn the degree. The program provides rigorous training in economic theory, econometrics, and applied economics. It has six components: a coordinated sequence of core courses, a qualifying examination, a research paper, a set of major field courses, a dissertation proposal and comprehensive examination, and a dissertation.

The department partners with the College of Law to offer a combined JD/PhD degree program; see Combined Programs [p. 1206] in this section of the catalog. It also participates in the MBA program; see the Master of Business Administration Program [p. 1272] in the catalog.

The PhD in economics requires the following coursework.

Core Sequence

First Semester

Course #	Title	Hours
ECON:5115	Fundamentals of Microeconomics	3
ECON:5200	Macroeconomics I	3
ECON:5805	Statistics for Economics	3

Second Semester

Course #	Title	Hours
ECON:5110	Microeconomics II	3
ECON:5210	Macroeconomics II	3
ECON:5800	Econometrics	3

Third Semester

Course #	Title	Hours
ECON:5810	Applied Econometrics	3
ECON:6320	Labor Economics	3
ECON:6420	Macroeconomics III	3
ECON:6900	Contemporary Topics in Economics	3

Qualifying Examination

The qualifying examination is normally taken the summer after the first year.

Research Paper

The research paper is normally completed the summer after the second year.

Major Field Courses

Students choose a major study area in addition to the core courses. The requirement for the major area is a minimum of 24 s.h. of intensive study in a field and in courses that enable students to understand the relationship between their specialty and related fields.

Dissertation Proposal and Comprehensive Examination

Students must defend a dissertation proposal in a comprehensive examination within one year of completing the research paper requirement.

Dissertation

Submission of the completed dissertation and an oral defense of the dissertation research completes the PhD program.

Combined Programs

PhD/JD

The Department of Economics and the College of Law offer a combined Doctor of Philosophy/Juris Doctor program. Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. For information about the JD, see Juris Doctor, JD [p. 1833] (College of Law) in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants must submit a completed Application for Graduate Admission, official transcripts from all institutions they have attended, and all official test scores to University of Iowa Admissions.

The application deadline for admission and financial support is Jan. 15 for fall entry.

Career Advancement

Over 90% of students reported that they found permanent employment, were accepted to graduate school, or were not seeking employment within six months of graduation.

Finance

Chair

- Erik Lie

Director, Undergraduate Program

- Todd Houge

Executive Director, Vaughan Institute

- Jim Lewis

Undergraduate majors: finance (BBA); risk management and insurance (BBA)

Undergraduate certificate: risk management and insurance

Graduate degrees: MS in finance; finance subprogram for the PhD in business administration

Faculty: https://tippie.uiowa.edu/people?departments=170

Website: https://tippie.uiowa.edu/about/finance-department

The Department of Finance is committed to delivering programs of study that integrate the technology and analytics of today's global financial community. The goal is to provide students with the technical skills they need to enhance their managerial effectiveness, whether they work in large corporations, small organizations, or private consulting.

The department offers undergraduate majors in finance and risk management and insurance, the Master of Science program in finance, and the subprogram in finance that leads to the PhD in business administration. Additionally, they participate in the MBA program; see the Master of Business Administration Program [p. 1272] in the catalog. The department also partners with the Emmett J. Vaughan Institute of Risk Management and Insurance to offer the undergraduate Certificate in Risk Management and Insurance [p. 1224].

Programs

Undergraduate Programs of Study

Majors

- Major in Finance (Bachelor of Business Administration) [p. 1213]
- Major in Risk Management and Insurance (Bachelor of Business Administration) [p. 1219]

Certificate

- Certificate in Risk Management and Insurance [p. 1224]

Graduate Programs of Study

- Master of Science in Finance [p. 1226]
- Finance subprogram for the Doctor of Philosophy [p. 1228] in Business Administration

Resources

The Emmett J. Vaughan Institute of Risk Management and Insurance collaborates with the Department of Finance to offer an undergraduate major in risk management and insurance and an undergraduate Certificate in Risk Management and Insurance. In addition to coursework, the Vaughan Institute provides professional development opportunities—networking events with industry speakers, scholarships, a mentorship program with alumni, and a job fair. The Vaughan Institute was named a Global Center of Insurance Excellence, one of only 33 in the world.

The Vaughan Institute provides numerous opportunities for students. It offers:

- an active student organization—Gamma Iota Sigma;
- over $40,000 in scholarships awarded to Vaughan students each academic year;
- networking events with industry professionals;
- a series of speaker events with recent graduates to assist in résumé preparation, and refinement of interview skills;
- an industry mentor program;
- a student résumé book sent to over 250 employers;
- professional development opportunities, such as the Vaughan Institute Golf Outing in August;
- trips to professional conferences in locations such as Chicago, Dallas, and San Antonio;
- a student newsletter with job and internship announcements; and
- a risk management and insurance career fair.

Courses

Finance Courses

FIN:1300 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities).

FIN:1500 Introduction to Investment Banking **1 s.h.**
Overview of investment banking industry; nontechnical; inclusive environment to determine student interest in applying to the Hawkinson Institute—the Tippie College of Business undergraduate investment banking program; no prior knowledge of accounting and finance required. Requirements: UI cumulative GPA of at least 3.40.

FIN:3000 Introductory Financial Management **3 s.h.**
Financial management goals and decision-making; time value of money; valuation of bonds and stocks, risk and return analysis, cost of capital, capital budgeting, cash flow estimation; financial statement analysis and financial planning. Prerequisites: ECON:1200 and ACCT:2100 and ECON:1100. Requirements: 60 s.h. completed.

FIN:3020 Professional Finance Seminar **1 s.h.**
Seminar topics include finance careers, curriculum, understanding of current events, internships, professional designations, ethics, and general finance acumen.

FIN:3021 Professional Risk Management and Insurance Seminar **1 s.h.**
Topics include risk management and insurance (RMI) careers, curriculum, understanding of current events, internships, professional designations, ethics, and general risk management acumen.

FIN:3100 Financial Information Technology **2 s.h.**
Applications of commonly used financial software and data systems reviewed by student teams. Corequisites: FIN:3000.

FIN:3200 Investment Management 3 s.h.
Investment in marketable securities in domestic and international markets; financial markets, securities trading, evaluation of risk/return trade-off, formulation and implementation of investment strategies, efficient portfolio formation. Prerequisites: FIN:3000.

FIN:3300 Corporate Finance 3 s.h.
Advanced managerial decision-making; corporate financial policy, dividend policy, agency theory, corporate restructuring, capital structure strategies, mergers and acquisitions, option pricing fundamentals, convertible debt, callable debt, warrants. Prerequisites: FIN:3000.

FIN:3400 Principles of Risk Management and Insurance 3 s.h.
Introduction to risk and insurance; risk identification and evaluation, demand for insurance, effects of limited liability, theory of moral hazard and adverse selection; business and personal risk; insurance as a risk management tool.

FIN:3500 Hawkinson Scholar Seminar 2 s.h.
Advanced skill and understanding required for pursuit of investment banking, management consulting careers; specialized résumé and interview training, industry presentations, relevant case assignments.

FIN:3510 Hawkinson Scholar Seminar: Topics in Finance 0 s.h.
Subsectors in the financial services industry, including hedge funds, investment banking, commercial banking; valuation techniques used in real-world mergers, acquisitions, equity offerings, debt financing, and so forth.

FIN:3900 Advanced Entrepreneurial Finance 3 s.h.
Introduction to a variety of finance topics related to startup or entrepreneurial ventures including valuation models, deal structuring and contracts, and different forms of exit; valuation models from perspective of common investors in early stage funding space (i.e., venture capital firms, private equity firms, banks, Small Business Administration); value creation and how to accomplish and measure it; how much money to raise and from which capital providers.

FIN:4015 Topics in Risk Management and Insurance 3 s.h.
Explores cutting-edge concepts and emerging risk management and insurance trends. Students engage with case studies, current industry challenges, and possible innovative solutions. The curriculum adapts each semester to reflect the latest risk management or insurance developments. Prerequisites: FIN:3000.

FIN:4020 Topics in Finance 3 s.h.
Contemporary issues in finance. Prerequisites: FIN:3000.

FIN:4030 Securities Industry Essentials Exam Prep 1 s.h.
Preparatory program for passage of the Securities Industry Essentials (SIE) exam and includes a voucher to take the exam upon completion; much of the material is provided online with additional meetings and review sessions; the SIE exam is for any professional who needs a Series 6, Series 7, or any other exam required by the Financial Industry Regulatory Authority (FINRA). Prerequisites: FIN:3000 or MBA:8180.

FIN:4035 ARGUS Financial Analysis 1 s.h.
Impact of assumptions on cash flows and valuations of income-producing properties using ARGUS financial analysis; use of information obtained through application and analysis of real estate finance and investment due diligence to articulate, communicate, and apply the expertise gained through experiential learning to evaluate real-world real estate situations; access to ARGUS Enterprise software using licenses contributed by ARGUS Software, Inc.

FIN:4040 Bloomberg Market Concepts (BMC) and Environmental Social Governance (ESG) Certificates 1 s.h.
Bloomberg Market Concepts (BMC) and Environmental Social Governance (ESG) certificates offered by Bloomberg for Education are powerful résumé builders and signal to prospective employers that students are adept at using the Bloomberg platform; the BMC certificate is a library of e-learning courses that provides an introduction to financial markets; the ESG certificate covers core modules —environmental, social, and governance—and shows how investors are measuring and making decisions around ESG investing.

FIN:4045 Wall Street Prep: Financial and Valuation Modeling Seminar 1 s.h.
Provide students with advanced financial analysis and modeling skills used by financial analysts in investment banking, private equity, equity research, and related fields. Enhance student competitiveness for internships and full-time employment in those fields. Developed by Wall Street Prep, a training organization employed by top banks and financial institutions globally to develop modeling skills for newly-hired financial analysts. Prerequisites: ACCT:2100. Corequisites: FIN:3000.

FIN:4050 Directed Readings in Finance arr.
Individually guided readings in selected topics.

FIN:4055 Wall Street Prep: Mergers and Acquisitions and Leveraged Buyout Modeling Seminar 1 s.h.
Provide students with advanced financial analysis and modeling skills used in mergers and acquisitions (M&A), leveraged buyouts (LBOs), investment banking, private equity, equity research, corporate development, and related fields. Enhance student competitiveness for internships and full-time employment in those fields. Students will build a three-statement model and a discounted cash flow model. Developed by Wall Street Prep, a training organization employed by top banks and financial institutions globally to develop modeling skills for newly hired financial analysts. Prerequisites: FIN:3000.

FIN:4210 Futures and Options 3 s.h.
Use of options, futures, and other derivative securities in financial management; understanding types of derivative securities, markets, trading technology; applications of risk management and speculation; pricing relations with underlying securities. Prerequisites: FIN:3200.

FIN:4220 Fixed Income Securities 3 s.h.
Theories of fixed income securities, term structure of interest rates; asset pricing models, valuation of fixed income securities and contingent claims, fixed income portfolio management, immunization strategies, yield curve analysis. Prerequisites: FIN:3000. Corequisites: FIN:3200.

FIN:4230 Real Estate Process 3 s.h.
Fundamentals of real estate finance and investments; economic base analysis, asset analysis, market analysis, mortgage markets, underwriting, alternative mortgages, mortgage-backed securities, real estate securitization, land development, valuation principles, investment analysis, tax consideration, portfolio management. Prerequisites: FIN:3000.

FIN:4235 Real Estate Capital Markets 3 s.h.
Key concepts and analytical methods essential for critical real estate financing decisions. Topics covered include operation of global real estate capital markets, alternative mortgage structures, residential and commercial mortgage underwriting, mortgage mathematics, critical role of debt financing and leverage in real estate investment analysis, alternative types of financing, sources of equity partnership financing for real estate, refinancing decisions as source of value, mortgage-backed securities, and real estate private equity fund. Prerequisites: FIN:3000.

FIN:4240 International Finance 3 s.h.
International monetary systems, exchange rate determination, use of currency derivative in hedging and risk management, currency swaps, foreign direct investment, international corporate finance, international capital budgeting, international portfolio investment, Third World debt, privatization, joint ventures. Prerequisites: FIN:3000 and FIN:3200.

FIN:4250 Applied Equity Valuation 3 s.h.
Equity valuation and portfolio management techniques by investment professionals; economic forecasting, industry analysis, financial statement analysis, spreadsheet modeling, cost of capital estimation, equity valuation and portfolio construction; students manage the University of Iowa's Krause Fund (an endowed equity portfolio that blends academic rigor with real-world portfolio management experience). Prerequisites: FIN:3000. Requirements: UI cumulative GPA of at least 2.80.

FIN:4310 Advanced Corporate Finance 3 s.h.
Understanding and evaluating major corporate actions (e.g., mergers and acquisitions, initial public offerings, spin offs, debt and equity issuance); introduction to venture capital and leveraged buyouts; includes a substantial experiential learning component to nudge students away from textbook-based learning towards acquiring practical skills needed to succeed in the corporate finance industry; students collect and evaluate financial information and are challenged to think beyond lecture material presented in the classroom. Prerequisites: FIN:3300. Corequisites: ACCT:3020 or ACCT:3200.

FIN:4320 Commercial Banking 3 s.h.
Management of commercial banks and financial service firms; asset and liability management, credit policy, capital risk, liquidity planning, use of swaps and derivatives to hedge interest rate risk, global banking, investment strategies. Prerequisites: FIN:3000.

FIN:4330 Investment Banking 3 s.h.
How investment banks fill critical roles in maintaining well-functioning financial markets and provide access to capital and strategic advice to companies and governments; recent global financial crisis; how banker's role as intermediary between companies and markets adds value and creates conflicts and risk. Prerequisites: FIN:3300 and FIN:3000.

FIN:4340 Wealth Management 3 s.h.
Financial services for client wealth management; how to make personal investment decisions and build diversified, comprehensive investment portfolios; investment theory; common behavioral biases that lead to investment pitfalls, mistakes; wealth management objectives, portfolio risk and reward, asset allocation, portfolio diversification, tax shield structures, retirement plans, wealth protection, risk management, behavioral finance, psychology of investing. Prerequisites: FIN:3000.

FIN:4350 Applied Wealth Management 3 s.h.
How wealth management relates to managing the financial well-being of individuals; process of determining goals and objectives for someone and assessing their risk tolerances; development of a strong financial plan involving a variety of steps and process including insurance needs, savings requirements, estate planning, budgeting, asset allocation, and portfolio development; experiential component where students make recommendations for real clients or a pool of funds. Prerequisites: FIN:3000.

FIN:4410 Enterprise Risk Management 3 s.h.
Analysis and treatment of pure and financial risks faced by business organizations; development and implementation of the risk management process, application of varied risk management techniques to identified exposures; how businesses manage risk and how insurance is used to manage the cost of risk; case studies. Prerequisites: FIN:3400.

FIN:4420 Property and Liability Insurance 3 s.h.
Fundamentals of commercial property and liability insurance; commercial property and liability contracts, functions of property and liability insurers; regulation and financial analysis of property and liability insurers; marketing, underwriting, rate making, claim settlements. Prerequisites: FIN:3400.

FIN:4430 Life and Health Insurance 3 s.h.
Types of life insurance and annuity contracts and their uses; regulation of life and health insurers; development of financial plans using life insurance products; Social Security, group, and individual health insurance products, including major medical, disability income, long-term care policies; marketplace analysis; contractual provisions, determination of human life values, mathematics of life contingencies and pricing. Prerequisites: FIN:3400.

FIN:4440 Employee Benefit Plans 3 s.h.
Management of employee benefit plans (e.g., group life and health insurance, retirement programs); design, administration, and financing of employee benefits; federal administration of employee benefit plans; funding requirements, financial alternatives; funding and vesting of retirement annuities; design and management of health care plans, including "cafeteria" approach and nonqualified deferred compensation arrangements; economic effects and financing employee benefits and retirement plans in private and public sectors. Prerequisites: FIN:3400.

FIN:4450 Risk Modeling 3 s.h.
Theory used to solve real-life problems taken from a diverse set of risk management applications; varied areas where risk analysis has become important (i.e., finance, insurance, corporate risk management, personal financial planning); principles of probability theory, mathematical finance, and actuarial science developed for use in quantitative analysis of important risk management problems; spreadsheet-based course. Prerequisites: FIN:3000.

FIN:4460 Insurer Operations and Captive Management 3 s.h.
Fundamentals of insurer and captive operations; regulation, accounting, finance, marketing, underwriting, reinsurance, ratemaking, and claims management; students set up and manage a captive insurance company covering risk exposures of the university. Prerequisites: FIN:3400.

FIN:4470 Insurtech Innovation 3 s.h.
Explore proven methodologies and resources for Insurtech (insurance and technology) innovation and examine real-world lessons learned by some of the greatest Insurtech innovations (and a few epic failures). Prerequisites: FIN:3400.

FIN:4999 Honors Thesis in Finance arr.
Independent student project directed by faculty or staff advisor; culminates in thesis that conforms to University of Iowa Honors Program guidelines; may include empirical research, library research, applied projects. Prerequisites: BUS:1999.

FIN:7110 Finance Theory I 3 s.h.
Consumption-based models of asset pricing; arbitrage, contingent claims; market efficiency and information economics, behavioral models; emphasis on theory. Requirements: PhD enrollment.

FIN:7120 Seminar in Corporate Finance 3 s.h.
Valuation (DCF and CAPM); valuation under certainty, uncertainty; financial structure, cost of capital; dividend policy; firm investment in perfect, imperfect capital markets. Requirements: PhD enrollment.

FIN:7130 Finance Theory II 3 s.h.
Continuous time theories of financial markets, including connection between an arbitrage-free pricing system and martingales; pricing of contingent claims, general equilibrium and term structure theory. Requirements: PhD enrollment.

FIN:7140 Advanced Empirical Finance 3 s.h.
Market efficiency and term structure theory tests; tests of asset pricing models, dividend policy and financial structure issues. Requirements: PhD enrollment.

FIN:7850 Seminar in Finance 1 s.h.
Requirements: PhD enrollment.

FIN:7950 Directed Reading in Finance - PhD arr.
Requirements: PhD enrollment.

FIN:7975 Thesis in Finance arr.

FIN:8130 Business Communication 1-3 s.h.
Effective communication to become a successful business professional and leader; strengthen ability to speak and write confidently, competently, and effectively regardless of venue; varied team and individual presentation coaching, applied exercises. Requirements: admission to MS in finance program.

FIN:9000 Directed Readings in Finance - MBA arr.

FIN:9001 Directed Readings in Finance - Master of Science in Finance arr.
Coursework and topics negotiated between student and instructor on a case-by-case basis. Prerequisites: MBA:8180.

FIN:9010 Contemporary Topics in Finance arr.

FIN:9130 Corporate Risk Management and Insurance 3 s.h.
Introduction to corporate risk management and the risk management process; how insurance can be used as a risk management tool; standard commercial property and liability insurance contracts and their applications; fundamentals of insurance company operations and their distribution channels, rate making, underwriting, and claim settlements.

FIN:9140 Enterprise Risk Management 2-3 s.h.
Analysis and treatment of risks faced by businesses; how risk management creates value in corporations, includes development and implementation of the risk management process, and explores the application of various risk management techniques to identified exposures; use of case studies to study how businesses manage risk, and how insurance and other risk management tools help reduce the cost of risk. Prerequisites: MBA:8180.

FIN:9150 Financial Modeling and Firm Valuation 2-3 s.h.
How to model firm value from a discounted cash flow perspective; identify a company's key value drivers, create spreadsheet valuation models; projected financial valuation integrates projected pro forma accounting statements; forecasting, free cash flow estimation, industry competitive analysis. Prerequisites: MBA:8180.

FIN:9160 Quantitative Finance and Machine Learning 0,3 s.h.
Quantitative techniques in derivative, equity, and interest rate valuation using regression and machine learning techniques; overview of portfolio construction methods; underlying financial theory and Python programming.

FIN:9200 Portfolio Management 2-3 s.h.
Introduction to fundamental elements of modern portfolio theory, application to investment analysis; investment environment, instruments, types of investors; concepts of risk and return, broad perspective on historical risk and return of various asset classes; asset allocation decision, risk and return dynamics of a multiple securities portfolio; varied asset pricing models, how capital markets work for investors and users of capital. Prerequisites: MBA:8180.

FIN:9210 Derivatives 2-3 s.h.
Examination of the wide range of derivative securities that cover the financial landscape; the market place, trading, and investors; different derivative securities in existence, their relationship with the underlying securities, and pricing; applications of derivative securities to risk management and speculation; application of principles to fixed income, international finance, real estate, and securitization. Prerequisites: MBA:8180 and FIN:9200.

FIN:9220 Fixed Income Securities 2-3 s.h.
Conceptual framework and tools to undertake the valuation of fixed income securities and the management of fixed income portfolios; varied fixed income instruments and the markets in which they trade; introduction to basic building blocks of fixed income analysis, including concepts of duration, convexity, and term structure of interest rates; application of concepts in bond portfolio immunization strategies; use of interest rate derivatives in portfolio hedging applications. Prerequisites: MBA:8180.

FIN:9225 Applied Fixed Income Analysis - Hart Fund 3 s.h.
Management of fixed income fund portfolio; legal environment in which the fund operates; students analyze and recommend fixed income investments, implement controls to monitor fund's performance; decisions and investment recommendations are made by students; each student is assigned a specific fixed income asset class (i.e., high-yield debt) to monitor, analyze, and predict future investment returns; employment of historical and predictive analytics to estimate short term and long term returns for asset classes; and collectively determine the mean variance portfolio. Prerequisites: MBA:8180 and FIN:9220.

FIN:9230 Real Estate Finance and Investments 2-3 s.h.
In-depth understanding of concepts and techniques of real estate financial analysis, equity investment decision-making; real estate investing from analysis of developments through the securitization of mortgages; mortgage markets and pricing, real estate finance and investments, mortgage-backed securities, development process, real estate valuation, tax effects, securitized real estate, real estate cycles, application of derivative instruments, strategic asset allocation. Prerequisites: MBA:8180.

FIN:9240 International Finance 2-3 s.h.
Introduction to structure and functioning of global financial markets; currency market, international equity markets; use of derivatives in currency risk management for corporate and investment needs; corporate investment decisions in an international context. Prerequisites: MBA:8180.

FIN:9250 Applied Securities Analysis - Henry Fund I 3 s.h.
Manage Henry Fund portfolio, learn legal environment in which the fund operates, analyze potential investments, implement controls to monitor the fund's performance; decisions and investment recommendations made by students; each student analyzes an economic sector and geographic region (i.e., utilities analyst and specialist in South East Asia); while the fund cannot currently invest directly in foreign listed stocks, it holds U.S. listed stocks with significant overseas interests and students are able to invest in a number of ADRs. Prerequisites: MBA:8180.

FIN:9260 Applied Securities Analysis - Henry Fund II 3 s.h.
Continuation of FIN:9250. Prerequisites: FIN:9250 and MBA:8180.

FIN:9270 Security Analysis 3 s.h.
Valuation of financial securities (primarily equities) using discounted cash flow model; industry, regulatory analysis; financial statement analysis; active portfolio management; value-based management techniques; valuation of firms outside the United States. Prerequisites: MBA:8180.

FIN:9290 Alternative Investments and Portfolio Strategies 2-3 s.h.
Alternative investments including hedge funds, private equity funds, and venture capital vehicles; purpose of alternative investment, including the risk/return profile of alternatives and correlations with traditional asset classes; specific hedge fund styles, strategies, risk profiles; portfolio strategy topics including diversification benefits, management of downside risk, international diversification, behavioral finance, performance measures, and performance attribution analysis. Prerequisites: MBA:8180.

FIN:9300 Corporate Finance 2-3 s.h.
Underpinnings and optimization of corporations' investment and financing decisions; firm-wide and project-specific cost of capital, optimal capital structure decisions; in-depth capital budgeting methods, including real options techniques; corporate investment module of the class includes simulation analysis using Crystal Ball; cost of capital, valuation techniques, advanced capital budgeting, capital structure and dividend policy, option pricing models applied to corporate finance. Prerequisites: MBA:8180.

FIN:9310 Corporate Financial Strategy 2-3 s.h.
Major strategic decisions within the corporate form; risk management, including why firms engage in it, their methods for doing so, and exercises in the simulation of uncertainty; dividends and repurchases under the payout policy decision; corporate governance topics, including executive compensation, board structure, and institutional monitoring; merger and acquisitions analysis, including regulation, valuation, anti-takeover devices, payment method, and LBOs; divestitures and other restructuring topics, including corporate diversification, spin-offs, carve-outs, private workouts, and Chapter 11. Prerequisites: MBA:8180.

FIN:9330 Investment Banking 3 s.h.
How investment banks fill critical roles in maintaining well-functioning financial markets and provide access to capital and strategic advice to companies and governments; recent global financial crisis; how banker's role as intermediary between companies and markets adds value and creates conflicts and risk. Prerequisites: MBA:8180.

FIN:9350 Wealth Management 2-3 s.h.
Rapid growth of the field of wealth management over several decades, driven by general increase in personal wealth and increased responsibility for individuals to manage their own wealth; knowledge and tools to enter the financial services industry; financial planning industry, client characteristics, tax shield structures, insurance, asset allocation plans, estate planning, behavioral finance. Prerequisites: MBA:8180.

FIN:9390 Applied Financial Analysis: Industry Project 3 s.h.
Hands-on practical experience in corporate finance or investments; work in teams on a corporate finance project or an investment project for a corporate or institutional client; partner companies identify financial issues, challenges, and opportunities for students to help solve; students work with the companies and a faculty member to provide an analysis of the situation and proposals of actions to be taken. Prerequisites: MBA:8180.

FIN:9391 Thesis in Finance - Master of Science in Finance arr.
Students conduct original research in finance, supervised by a Department of Finance faculty member. Prerequisites: MBA:8180.

FIN:9400 Professional Development and Business Acumen 0-3 s.h.
Preparation for postgraduate careers and exposure to relevant information that does not fit cleanly into academic work; how to grow a professional network and build depth of knowledge and breadth of business acumen; focus on helping students investigate various finance roles, land the all-important summer and postgraduate employment, and demonstrate professionalism in business; informational input on current trends/topics from outside business professionals, along with shared student experiences, are important cornerstones and require student preparation and participation. Requirements: admission to MS in finance.

Finance, BBA

Common BBA Requirements

The Bachelor of Business Administration (BBA) requires a minimum of 120 s.h. of credit, including at least 48 s.h. earned in business courses and at least 52 s.h. earned in non-business courses.

BBA students must earn 45 s.h. at the University of Iowa following admission to the BBA program. At least 24 s.h. in business courses must be earned with Tippie College of Business coursework. At least two-thirds of the semester hours in a student's major must be earned in the student's major department at the Tippie College of Business. Nonresident instruction includes coursework at colleges and universities other than the University of Iowa.

To graduate, BBA students must have a cumulative grade-point average of at least 2.00 in all college-level coursework attempted, all college-level business coursework attempted, all college-level major coursework attempted, all college-level coursework attempted at the University of Iowa, all college-level business coursework attempted at the University of Iowa, and all college-level major coursework attempted at the University of Iowa.

Common BBA Requirements

BBA students must fulfill the following common requirements or approved equivalents. For approved equivalents, consult the college's Undergraduate Program Office.

General Education

Students may not count courses taken to fulfill General Education Program requirements toward other course requirements for the BBA.

Course #	Title	Hours
Historical Perspectives		3
International and Global Issues		3
Interpretation of Literature		3
Natural Sciences (without lab)		3
Rhetoric		4
Social Sciences (excluding ECON:1100 and ECON:1200)		3
Understanding Cultural Perspectives		3
Values and Society		3
World Languages		0-10

World Languages

Tippie College of Business students may complete the World Languages requirement using one of three options. One year of high school language study is generally equivalent to one semester of college language study.

Option One

Attain fourth level proficiency in a single world language. Students attain fourth level proficiency in a single world language by completing four years of that language in high school or four semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at fourth level proficiency.

Option Two

Attain third level proficiency in a single world language and complete a World Language and Cultural Exploration course. Students attain third-level proficiency in a single world language by completing three years of that language in high school or three semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at third-level proficiency. Option two does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Option Three

Attain second level proficiency in each of two world languages. Students attain second level proficiency in each of two world languages by completing two years of each language in high school or two semesters of each language in college, or an equivalent combination of high school and college coursework, or pass achievement tests and/or evaluations at second-level proficiency in each language. Option three does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Prerequisites for Admission to the BBA Program

Course #	Title	Hours
BAIS:1500	Business Computing Essentials	2
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business	4
RHET:1030	Rhetoric: Writing and Communication	4
STAT:1030	Statistics for Business	4

Prerequisites for Declaring a BBA Major

Course #	Title	Hours
ACCT:2100	Introduction to Financial Accounting	3
ECON:1200	Principles of Macroeconomics	4

BBA Core

Course #	Title	Hours
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:2800	Foundations of Business Analytics	3
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
BUS:2200	Discover Business at Tippie	1
BUS:3000	Business Communication and Professionalism	3
FIN:3000	Introductory Financial Management	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
MKTG:3000	Introduction to Marketing Strategy	3

Experiential Learning Requirement: Tippie RISE

RISE is an acronym for hands-on experiential learning in the form of research with faculty, internship course, study abroad, and experiential course. All BBA students in the Tippie College of Business students must successfully complete at least one of these four experiences. Courses that satisfy Tippie RISE are as follows.

Research With Faculty

Working closely with a faculty mentor, students explore a research question of interest for a semester or more. By conducting academic research, students enhance their critical thinking skills, learn techniques to collect and analyze data, and apply their findings to business practices. These skills are highly useful for a variety of businesses and graduate programs.

Course #	Title	Hours
ACCT:4999	Honors Thesis in Accounting	arr.
BAIS:4999	Honors Thesis in Business Analytics	arr.
BUS:3600	Mentored Research	arr.
BUS:4999	Honors Thesis in Business	arr.
ECON:4999	Honors Thesis in Economics	arr.
FIN:4999	Honors Thesis in Finance	arr.
MGMT:4999	Honors Thesis in Management	arr.
MKTG:3702	Marketing Institute Seminar II	2
MKTG:4999	Honors Thesis in Marketing	arr.
URES:3992	Undergraduate Research and Creative Projects	0
URES:3993	Undergraduate Research and Creative Projects	1-4
URES:3994	Undergraduate Research and Creative Projects	1-4
URES:3995	Independent Creative Research by Undergraduates Summer Internship	0

Internship Course

As students gain valuable hands-on work experience in a professional internship, they complete one of the approved internship courses to assist them in having a meaningful learning experience. The internship courses encourage students to take on relevant job responsibilities, outline strategies to meet internship goals, regularly communicate with their supervisors, explore the career field, and reflect on their growth throughout the experience.

Course #	Title	Hours
BUS:3100	Academic Internship or Cooperative Education	0
BUS:3900	Business Communication Internship I	3
BUS:4900	Academic Internship	arr.
CCP:1201	Academic Internship	1-3
CCP:2020	Washington Center Internship Program	arr.
CCP:2202	International Student Full-Time Academic Internship	9
ENTR:4300	Launching an Entrepreneurial Venture	arr.
ENTR:4900	Academic Internship	arr.
EVNT:2110	Internship in Event Management	3
LS:3011	Leadership Certificate Capstone	0-2
SRM:4199	Independent Sport and Recreation Field Experience	arr.

Study Abroad

By taking advantage of short-term, summer, semester, or academic year programs, students can expand their worldview and learn alternative business and cultural practices outside of the United States. Students can participate in Tippie RISE study abroad programs such as London Winter, International Business in Sydney, CIMBA Italy, Global Internships, spring break programs through the John Pappajohn Entrepreneurial Center, or any of the many UI study abroad programs in over 40 countries. Any study abroad program is accepted for credit, including virtual programs, short-term faculty-led programs, and summer, semester, or year-long programs. These courses may be study abroad courses (prefix ABRD) or select study abroad international activities courses (prefix INTL) but are not required to be; see Study Abroad [p. 2215] in the catalog.

Experiential Course

In approved experiential courses, students improve their understanding of academic concepts by applying them to a class project with a company or nonprofit organization. Using real circumstances and issues, students engage with the organization to make a lasting impact. Students have support from classmates and guidance from their instructor throughout the duration of the project. Experiential courses are offered in many BBA majors and as business and non-business electives. Courses must be taken at the University of Iowa to satisfy Tippie RISE.

Course #	Title	Hours
ACCT:3451	Tax Practicum (VITA) II (spring only)	1
BAIS:4150	Business Analytics and Information Systems Capstone	3
BUS:3920	Business Case Competitions Professional Preparation	arr.
ECON:3360	Experimental Economics	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3
FIN:4250	Applied Equity Valuation	3
FIN:4310	Advanced Corporate Finance	3
FIN:4350	Applied Wealth Management	3
FIN:4410	Enterprise Risk Management	3
FIN:4420	Property and Liability Insurance	3
FIN:4460	Insurer Operations and Captive Management	3
LS:1024	Hawkeye Service Breaks (spring only)	3

LS:3002	Career Leadership Academy Part 2: Leadership in Action	3
MGMT:3600	Nonprofit Organizational Effectiveness II	3
MGMT:3850/ ENTR:3850	Entrepreneurial Leadership Academy II	3
MGMT:4600	Nonprofit Ethics and Governance	3
MKTG:3100	Marketing Research	3
MKTG:3103	Advanced Marketing Research	3
MKTG:3700	Marketing Institute Seminar I	2
MKTG:3701	Marketing Institute Field Studies	2
MKTG:4250	Marketing and Sustainability	3
MKTG:4800	Marketing Consulting Project	3
SRM:4197	Sport and Recreation Field Experience (not fans first section)	arr.

Major Area of Study

All BBA students must complete a major area of study. The college offers BBA majors in accounting [p. 1140], business analytics and information systems [p. 1158], economics [p. 1185], entrepreneurship, finance [p. 1208], management [p. 1236], marketing [p. 1261], and risk management and insurance [p. 1219]. The requirements for each major are established by the department that offers the major.

Students With Associate of Arts Degrees

Students who have been granted an Associate of Arts (AA) from a community college participating in the Iowa and Illinois Community College/Regents Articulation Agreements are considered to have met all high school unit requirements for admission to the BBA and all of the General Education Program requirements listed under "General Education Requirements," except the Understanding Cultural Perspectives and World Languages requirements. The program of study for which a student was awarded the AA must have included:

- a minimum of 60 s.h. (or 90 quarter hours) of credit acceptable toward graduation from the University of Iowa;
- completion of the agreed-upon group of courses at the community college; and
- a GPA of at least 2.00.

Mathematics courses comparable to MATH:0100 Basic Algebra I are not accepted toward graduation. Completion of an Associate of Arts does not guarantee admission to the BBA program in the Tippie College of Business. See Admission in Undergraduate Programs [p. 1132] for a complete list of requirements for admission to the BBA.

Students who use the provisions of the articulation agreement are granted a maximum of 60 s.h. of transferable credit from two-year colleges toward the 120 s.h. required for a BBA. Credit earned for the AA beyond the 60 s.h. transferable maximum is used in computing a student's grade-point average, and it may be used to satisfy course requirements, but it does not count toward the BBA. Transfer credit for business courses taken during the first and second years is counted toward the BBA only if such courses are usually offered as lower-division courses at the University of Iowa.

Transfer Courses

Students who have taken courses at another institution that are similar to those approved for the common business requirements at Iowa may request that these courses be evaluated for transfer credit. Students who transfer fewer hours than needed to meet a common business requirement may use only approved courses to complete the remainder of the requirement. Only courses taken at accredited four-year institutions may be used to satisfy business course requirements numbered 3000 or above. Students must complete a minimum of 24 s.h. of business coursework at Iowa and at least two-thirds of the coursework in the major in the department awarding the major. They must also meet the 45 s.h. residence requirement of the Tippie College of Business. Credit earned through online courses may be counted toward all requirements for graduation, subject to approval by a student's major department.

Multiple Majors in Business

Students may earn the BBA degree with more than one major; they may also combine the BBA degree with the Bachelor of Arts or Bachelor of Science in economics (except for the BBA in economics). The Four-Year Graduation Plan is not available to students earning more than one major or degree. Students have access to degree audits in MyUI for all of the programs of study they have officially declared. They also have access to all program courses, with some limitations, during early registration. A student must be in good academic standing in order to declare more than one major. See Double Majors and Joint Degrees on the Tippie College of Business website.

Requirements

The Bachelor of Business Administration with a major in finance requires a minimum of 120 s.h., including 22 s.h. of work for the major. Students must have a cumulative grade-point average (GPA) of at least 2.00 in all college coursework attempted, all college coursework attempted in business, all college coursework attempted in the major, all coursework attempted at the University of Iowa, all business coursework attempted at the University of Iowa, and all coursework in the major attempted at the University of Iowa.

The program provides a balance of theory, applications, and financial information technology that facilitates students' transition from classroom to workplace. Through fundamental finance principles and state-of-the-art financial market information technologies, students develop analytical abilities to interpret financial market data, implement the latest trading and investment strategies, and make effective managerial decisions in national as well as international settings.

With the goal of enhancing students' career development, the program stresses learning by doing, partnership with industry, and internships. Students receive a balanced education consistent with the globalization of business and the explosion in financial markets and information technology.

Students are not guaranteed specific elective options. The availability of courses outside the Department of Finance may be subject to prerequisites or restricted to students who have declared a second major within the respective department. For BBA requirements, see "Common BBA Requirements" in this section of the catalog. The Bachelor of Business

Administration with a major in finance requires the following coursework.

Requirements	Hours
Finance Common Required Courses	10
Finance Required Electives	12

Finance Common Required Courses

Course #	Title	Hours
All of these:		
ACCT:3020	Financial Accounting and Reporting	3
or ACCT:3200	Income Measurement and Asset Valuation	
FIN:3200	Investment Management	3
FIN:3300	Corporate Finance	3
One of these:		
FIN:3020	Professional Finance Seminar	1
or FIN:3021	Professional Risk Management and Insurance Seminar	
FIN:3500	Hawkinson Scholar Seminar	2

Finance Required Electives

Students may not earn credit for both FIN:4340 Wealth Management and FIN:4350 Applied Wealth Management due to overlap in course content.

Course #	Title	Hours
12 s.h. from these:		
FIN:3400	Principles of Risk Management and Insurance	3
FIN:4020	Topics in Finance	3
FIN:4210	Futures and Options	3
FIN:4220	Fixed Income Securities	3
FIN:4230	Real Estate Process	3
FIN:4235	Real Estate Capital Markets	3
FIN:4240	International Finance	3
FIN:4250	Applied Equity Valuation	3
FIN:4310	Advanced Corporate Finance	3
FIN:4320	Commercial Banking	3
FIN:4330	Investment Banking	3
FIN:4340	Wealth Management	3
or FIN:4350	Applied Wealth Management	
FIN:4450	Risk Modeling	3
May include 3 s.h. from these:		
FIN:4410	Enterprise Risk Management	3
FIN:4420	Property and Liability Insurance	3
FIN:4430	Life and Health Insurance	3
FIN:4440	Employee Benefit Plans	3
FIN:4460	Insurer Operations and Captive Management	3
FIN:4470	Insurtech Innovation	3
May include 3 s.h. from these:		
FIN:3100	Financial Information Technology	2
FIN:4030	Securities Industry Essentials Exam Prep	1
FIN:4035	ARGUS Financial Analysis	1
FIN:4040	Bloomberg Market Concepts (BMC) and Environmental Social Governance (ESG) Certificates	1
FIN:4045	Wall Street Prep: Financial and Valuation Modeling Seminar	1
FIN:4050	Directed Readings in Finance	1
FIN:4055	Wall Street Prep: Mergers and Acquisitions and Leveraged Buyout Modeling Seminar	1
ACCT:3300	Valuation of Financial Claims	3
BAIS:4150	Business Analytics and Information Systems Capstone	3
ECON:3355	Economic and Business Forecasting	3
MGMT:4325	Team and Project Management	3
MKTG:4500	Marketing Capstone	3

Career Advancement

Careers for students majoring in finance include corporate treasury operations, cash management, mergers and acquisitions, investment banking, sales and security trading, security analysis, commercial banking and financial services, credit analysis, mortgage lending, financial planning, consulting, public administration, insurance roles, and real estate.

Over 90% of students reported that they found permanent employment, were accepted to graduate school, or were not seeking employment within six months of graduation.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs. For more information about careers, visit the Pomerantz Career Center website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Finance, BBA

Course	Title	Hours
Academic Career		
Any Semester		
Students are required to complete 52 s.h. of non-business coursework. Courses with a prefix of ACCT, BAIS, BUS, ECON, ENTR, FIN, MGMT, and MKTG will not count towards non-business hours. Check degree audit for non-business hours or confer with academic advisor.		

Students who need to complete the World Language requirement should consult with their academic advisor about when to add courses to plan of study. World Language counts as non-business coursework.		
To fulfill the Tippie RISE experiential learning requirement, complete an approved course in at least one of the following categories: research with faculty, internship course, study abroad, experiential course. [a]		0 - 3
Students must satisfy the Tippie College of Business residence requirement: 45 s.h. of UI coursework after admission to Tippie.		
	Hours	**0-3**
First Year		
Fall		
BUS:2200	Discover Business at Tippie	1
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business [b]	4
RHET:1030	Rhetoric: Writing and Communication	4
GE: Social Sciences [c]		3
CSI:1600	Success at Iowa	1
	Hours	**17**
Spring		
BAIS:1500	Business Computing Essentials	2
ECON:1200	Principles of Macroeconomics	4
STAT:1030	Statistics for Business	4
ENGL:1200	The Interpretation of Literature	3
GE: Understanding Cultural Perspectives [c]		3
	Hours	**16**
Second Year		
Fall		
ACCT:2100	Introduction to Financial Accounting	3
BAIS:2800	Foundations of Business Analytics	3
MGMT:2100	Introduction to Management	3
GE: Natural Sciences without Lab [c]		3
Minor, certificate, or non-business elective		3
	Hours	**15**
Spring		
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BUS:3000	Business Communication and Professionalism [d]	3
FIN:3000	Introductory Financial Management [e]	3
FIN:3020 or FIN:3021	Professional Finance Seminar or Professional Risk Management and Insurance Seminar	1
GE: International and Global Issues [c]		3
Minor, certificate, or non-business elective		2
	Hours	**15**
Third Year		
Fall		
ACCT:3020 or ACCT:3200	Financial Accounting and Reporting or Income Measurement and Asset Valuation	3
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
FIN:3200	Investment Management	3
GE: Historical Perspectives [c]		3
Minor, certificate, or non-business elective		2
	Hours	**15**
Spring		
FIN:3300	Corporate Finance	3
FIN:3500	Hawkinson Scholar Seminar	2
MGMT:2000	Introduction to Law	3
Major: finance elective course [f]		3
GE: Values and Society [c]		3
Minor, certificate, or non-business elective		2
	Hours	**16**
Fourth Year		
Fall		
Major: finance elective course [f]		3
Major: finance elective course [f]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
	Hours	**15**
Spring		
MKTG:3000	Introduction to Marketing Strategy	3
Major: finance elective course [f]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [g]		
	Hours	**15**
	Total Hours	**124-127**

a See degree audit for course options.
b Enrollment in math courses requires completion of a placement exam.
c GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
d Must be admitted to Tippie to enroll in BUS:3000. Generally completed during the second year, but should be taken no later than the third year.
e This Accelerated Four-Year Plan outlines coursework to prepare for two finance internships after the second and third years. For a Standard Four-Year Plan, with one internship between the third and fourth years, see the Tippie College of Business website.
f Select from list of approved courses in the General Catalog or on degree audit. Students may not earn credit for both FIN:4340 and FIN:4350 due to overlap in course content.

g Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Risk Management and Insurance, BBA

Common BBA Requirements

The Bachelor of Business Administration (BBA) requires a minimum of 120 s.h. of credit, including at least 48 s.h. earned in business courses and at least 52 s.h. earned in non-business courses.

BBA students must earn 45 s.h. at the University of Iowa following admission to the BBA program. At least 24 s.h. in business courses must be earned with Tippie College of Business coursework. At least two-thirds of the semester hours in a student's major must be earned in the student's major department at the Tippie College of Business. Nonresident instruction includes coursework at colleges and universities other than the University of Iowa.

To graduate, BBA students must have a cumulative grade-point average of at least 2.00 in all college-level coursework attempted, all college-level business coursework attempted, all college-level major coursework attempted, all college-level coursework attempted at the University of Iowa, all college-level business coursework attempted at the University of Iowa, and all college-level major coursework attempted at the University of Iowa.

Common BBA Requirements

BBA students must fulfill the following common requirements or approved equivalents. For approved equivalents, consult the college's Undergraduate Program Office.

General Education

Students may not count courses taken to fulfill General Education Program requirements toward other course requirements for the BBA.

Course #	Title	Hours
Historical Perspectives		3
International and Global Issues		3
Interpretation of Literature		3
Natural Sciences (without lab)		3
Rhetoric		4
Social Sciences (excluding ECON:1100 and ECON:1200)		3
Understanding Cultural Perspectives		3
Values and Society		3
World Languages		0-10

World Languages

Tippie College of Business students may complete the World Languages requirement using one of three options. One year of high school language study is generally equivalent to one semester of college language study.

Option One

Attain fourth level proficiency in a single world language. Students attain fourth level proficiency in a single world language by completing four years of that language in high school or four semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at fourth level proficiency.

Option Two

Attain third level proficiency in a single world language and complete a World Language and Cultural Exploration course. Students attain third-level proficiency in a single world language by completing three years of that language in high school or three semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at third-level proficiency. Option two does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Option Three

Attain second level proficiency in each of two world languages. Students attain second level proficiency in each of two world languages by completing two years of each language in high school or two semesters of each language in college, or an equivalent combination of high school and college coursework, or pass achievement tests and/or evaluations at second-level proficiency in each language. Option three does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Prerequisites for Admission to the BBA Program

Course #	Title	Hours
BAIS:1500	Business Computing Essentials	2
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business	4
RHET:1030	Rhetoric: Writing and Communication	4
STAT:1030	Statistics for Business	4

Prerequisites for Declaring a BBA Major

Course #	Title	Hours
ACCT:2100	Introduction to Financial Accounting	3
ECON:1200	Principles of Macroeconomics	4

BBA Core

Course #	Title	Hours
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:2800	Foundations of Business Analytics	3
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
BUS:2200	Discover Business at Tippie	1
BUS:3000	Business Communication and Professionalism	3
FIN:3000	Introductory Financial Management	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
MKTG:3000	Introduction to Marketing Strategy	3

Experiential Learning Requirement: Tippie RISE

RISE is an acronym for hands-on experiential learning in the form of research with faculty, internship course, study abroad, and experiential course. All BBA students in the Tippie College of Business students must successfully complete at least one of these four experiences. Courses that satisfy Tippie RISE are as follows.

Research With Faculty

Working closely with a faculty mentor, students explore a research question of interest for a semester or more. By conducting academic research, students enhance their critical thinking skills, learn techniques to collect and analyze data, and apply their findings to business practices. These skills are highly useful for a variety of businesses and graduate programs.

Course #	Title	Hours
ACCT:4999	Honors Thesis in Accounting	arr.
BAIS:4999	Honors Thesis in Business Analytics	arr.
BUS:3600	Mentored Research	arr.
BUS:4999	Honors Thesis in Business	arr.
ECON:4999	Honors Thesis in Economics	arr.
FIN:4999	Honors Thesis in Finance	arr.
MGMT:4999	Honors Thesis in Management	arr.
MKTG:3702	Marketing Institute Seminar II	2
MKTG:4999	Honors Thesis in Marketing	arr.
URES:3992	Undergraduate Research and Creative Projects	0
URES:3993	Undergraduate Research and Creative Projects	1-4
URES:3994	Undergraduate Research and Creative Projects	1-4
URES:3995	Independent Creative Research by Undergraduates Summer Internship	0

Internship Course

As students gain valuable hands-on work experience in a professional internship, they complete one of the approved internship courses to assist them in having a meaningful learning experience. The internship courses encourage students to take on relevant job responsibilities, outline strategies to meet internship goals, regularly communicate with their supervisors, explore the career field, and reflect on their growth throughout the experience.

Course #	Title	Hours
BUS:3100	Academic Internship or Cooperative Education	0
BUS:3900	Business Communication Internship I	3
BUS:4900	Academic Internship	arr.
CCP:1201	Academic Internship	1-3
CCP:2020	Washington Center Internship Program	arr.
CCP:2202	International Student Full-Time Academic Internship	9
ENTR:4300	Launching an Entrepreneurial Venture	arr.
ENTR:4900	Academic Internship	arr.
EVNT:2110	Internship in Event Management	3
LS:3011	Leadership Certificate Capstone	0-2
SRM:4199	Independent Sport and Recreation Field Experience	arr.

Study Abroad

By taking advantage of short-term, summer, semester, or academic year programs, students can expand their worldview and learn alternative business and cultural practices outside of the United States. Students can participate in Tippie RISE study abroad programs such as London Winter, International Business in Sydney, CIMBA Italy, Global Internships, spring break programs through the John Pappajohn Entrepreneurial Center, or any of the many UI study abroad programs in over 40 countries. Any study abroad program is accepted for credit, including virtual programs, short-term faculty-led programs, and summer, semester, or year-long programs. These courses may be study abroad courses (prefix ABRD) or select study abroad international activities courses (prefix INTL) but are not required to be; see Study Abroad [p. 2215] in the catalog.

Experiential Course

In approved experiential courses, students improve their understanding of academic concepts by applying them to a class project with a company or nonprofit organization. Using real circumstances and issues, students engage with the organization to make a lasting impact. Students have support from classmates and guidance from their instructor throughout the duration of the project. Experiential courses are offered in many BBA majors and as business and non-business electives. Courses must be taken at the University of Iowa to satisfy Tippie RISE.

Course #	Title	Hours
ACCT:3451	Tax Practicum (VITA) II (spring only)	1
BAIS:4150	Business Analytics and Information Systems Capstone	3
BUS:3920	Business Case Competitions Professional Preparation	arr.
ECON:3360	Experimental Economics	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3
FIN:4250	Applied Equity Valuation	3
FIN:4310	Advanced Corporate Finance	3
FIN:4350	Applied Wealth Management	3
FIN:4410	Enterprise Risk Management	3
FIN:4420	Property and Liability Insurance	3
FIN:4460	Insurer Operations and Captive Management	3
LS:1024	Hawkeye Service Breaks (spring only)	3

LS:3002	Career Leadership Academy Part 2: Leadership in Action	3
MGMT:3600	Nonprofit Organizational Effectiveness II	3
MGMT:3850/ ENTR:3850	Entrepreneurial Leadership Academy II	3
MGMT:4600	Nonprofit Ethics and Governance	3
MKTG:3100	Marketing Research	3
MKTG:3103	Advanced Marketing Research	3
MKTG:3700	Marketing Institute Seminar I	2
MKTG:3701	Marketing Institute Field Studies	2
MKTG:4250	Marketing and Sustainability	3
MKTG:4800	Marketing Consulting Project	3
SRM:4197	Sport and Recreation Field Experience (not fans first section)	arr.

Major Area of Study

All BBA students must complete a major area of study. The college offers BBA majors in accounting [p. 1140], business analytics and information systems [p. 1158], economics [p. 1185], entrepreneurship, finance [p. 1208], management [p. 1236], marketing [p. 1261], and risk management and insurance [p. 1219]. The requirements for each major are established by the department that offers the major.

Students With Associate of Arts Degrees

Students who have been granted an Associate of Arts (AA) from a community college participating in the Iowa and Illinois Community College/Regents Articulation Agreements are considered to have met all high school unit requirements for admission to the BBA and all of the General Education Program requirements listed under "General Education Requirements," except the Understanding Cultural Perspectives and World Languages requirements. The program of study for which a student was awarded the AA must have included:

- a minimum of 60 s.h. (or 90 quarter hours) of credit acceptable toward graduation from the University of Iowa;
- completion of the agreed-upon group of courses at the community college; and
- a GPA of at least 2.00.

Mathematics courses comparable to MATH:0100 Basic Algebra I are not accepted toward graduation. Completion of an Associate of Arts does not guarantee admission to the BBA program in the Tippie College of Business. See Admission in Undergraduate Programs [p. 1132] for a complete list of requirements for admission to the BBA.

Students who use the provisions of the articulation agreement are granted a maximum of 60 s.h. of transferable credit from two-year colleges toward the 120 s.h. required for a BBA. Credit earned for the AA beyond the 60 s.h. transferable maximum is used in computing a student's grade-point average, and it may be used to satisfy course requirements, but it does not count toward the BBA. Transfer credit for business courses taken during the first and second years is counted toward the BBA only if such courses are usually offered as lower-division courses at the University of Iowa.

Transfer Courses

Students who have taken courses at another institution that are similar to those approved for the common business requirements at Iowa may request that these courses be evaluated for transfer credit. Students who transfer fewer hours than needed to meet a common business requirement may use only approved courses to complete the remainder of the requirement. Only courses taken at accredited four-year institutions may be used to satisfy business course requirements numbered 3000 or above. Students must complete a minimum of 24 s.h. of business coursework at Iowa and at least two-thirds of the coursework in the major in the department awarding the major. They must also meet the 45 s.h. residence requirement of the Tippie College of Business. Credit earned through online courses may be counted toward all requirements for graduation, subject to approval by a student's major department.

Multiple Majors in Business

Students may earn the BBA degree with more than one major; they may also combine the BBA degree with the Bachelor of Arts or Bachelor of Science in economics (except for the BBA in economics). The Four-Year Graduation Plan is not available to students earning more than one major or degree. Students have access to degree audits in MyUI for all of the programs of study they have officially declared. They also have access to all program courses, with some limitations, during early registration. A student must be in good academic standing in order to declare more than one major. See Double Majors and Joint Degrees on the Tippie College of Business website.

Requirements

The Bachelor of Business Administration with a major in risk management and insurance (RMI) requires a minimum of 120 s.h., including 22 s.h. of work for the major. Students must have a cumulative grade-point average (GPA) of at least 2.00 in all college coursework attempted, all college coursework attempted in business, all college coursework attempted in the major, all coursework attempted at the University of Iowa, all business coursework attempted at the University of Iowa, and all coursework in the major attempted at the University of Iowa. Students in this major are not eligible to earn the Certificate in Risk Management and Insurance.

The Bachelor of Business Administration with a major in risk management and insurance requires the following coursework. For BBA requirements, see "Common BBA Requirements" in this section of the catalog.

Requirements	Hours
RMI Common Required Courses	13
RMI Required Electives	9

RMI Common Required Courses

Course #	Title	Hours
All of these:		
ACCT:3020	Financial Accounting and Reporting	3
or ACCT:3200	Income Measurement and Asset Valuation	
FIN:3400	Principles of Risk Management and Insurance	3

FIN:4410	Enterprise Risk Management	3
FIN:4420	Property and Liability Insurance	3
One of these:		
FIN:3021	Professional Risk Management and Insurance Seminar	1
or FIN:3020	Professional Finance Seminar	
FIN:3500	Hawkinson Scholar Seminar	2

RMI Required Electives

Students are not guaranteed specific elective options. The availability of courses outside the Department of Finance may be subject to prerequisites or restricted to students who have declared a second major within the respective department.

Course #	Title	Hours
9 s.h. from these:		
FIN:4430	Life and Health Insurance	3
FIN:4440	Employee Benefit Plans	3
FIN:4450	Risk Modeling	3
FIN:4460	Insurer Operations and Captive Management	3
FIN:4470	Insurtech Innovation	3
May include 3 s.h. from these:		
ACTS:3080	Mathematics of Finance I	3
BAIS:3025	Business Process Automation	3
BAIS:4280/ ACCT:4280	Cybersecurity	3
BUS:3800	Business Writing	3
FIN:3200	Investment Management	3
FIN:3300	Corporate Finance	3
MGMT:4100	Dynamics of Negotiations	3
MKTG:3100	Marketing Research	3
MKTG:4101	Integrated Marketing Communications	3
MKTG:4200	Sales Management	3
MKTG:4201	Professional Selling	3

Career Advancement

The RMI industry accounts for 11% of Iowa's gross domestic product. Chicago is a regional insurance hub, and the few other RMI programs in the country meet less than 10% of the national demand for talent.

Standard careers for students majoring in risk management and insurance include corporate risk management, underwriting, risk analytics, loss control, claims management, brokerage and producer (sales) roles, risk consulting, and employee benefits consulting.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs. For more information about careers, visit the Pomerantz Career Center website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Risk Management and Insurance, BBA

Course	Title	Hours
Academic Career		
Any Semester		
Students are required to complete 52 s.h. of non-business coursework. Courses with a prefix of ACCT, BAIS, BUS, ECON, ENTR, FIN, MGMT, and MKTG will not count towards non-business hours. Check degree audit for non-business hours or confer with academic advisor.		
Students who need to complete the World Language requirement should consult with their academic advisor about when to add courses to plan of study. World Language counts as non-business coursework.		
Students must satisfy the Tippie College of Business residence requirement: 45 hours of UI coursework after admission to Tippie.		
To fulfill the Tippie RISE experiential learning requirement, complete an approved course in at least one of the following categories: research with faculty, internship course, study abroad, experiential course. [a]		0 - 3
	Hours	**0-3**
First Year		
Fall		
BUS:2200	Discover Business at Tippie	1
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business [b]	4
RHET:1030	Rhetoric: Writing and Communication	4
GE: Social Sciences [c]		3
CSI:1600	Success at Iowa	1
	Hours	**17**
Spring		
BAIS:1500	Business Computing Essentials	2
ECON:1200	Principles of Macroeconomics	4
STAT:1030	Statistics for Business	4
ENGL:1200	The Interpretation of Literature	3
GE: Understanding Cultural Perspectives [c]		3
	Hours	**16**
Second Year		
Fall		
ACCT:2100	Introduction to Financial Accounting	3
BAIS:2800	Foundations of Business Analytics	3
MGMT:2100	Introduction to Management	3
GE: Natural Sciences without Lab [c]		3
GE: Historical Perspectives [c]		3
	Hours	**15**
Spring		
BUS:3000	Business Communication and Professionalism [d]	3
FIN:3000	Introductory Financial Management	3

FIN:3500 or FIN:3021 or FIN:3020	Hawkinson Scholar Seminar or Professional Risk Management and Insurance Seminar or Professional Finance Seminar	1 - 2
FIN:3400	Principles of Risk Management and Insurance	3
GE: Values and Society [c]		3
Minor, certificate, or non-business elective		1
	Hours	**14-15**
Third Year		
Fall		
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
FIN:4410	Enterprise Risk Management	3
GE: International and Global Issues [c]		3
Minor, certificate, or non-business elective		2
	Hours	**15**
Spring		
ACCT:3020 or ACCT:3200	Financial Accounting and Reporting or Income Measurement and Asset Valuation	3
FIN:4420	Property and Liability Insurance	3
MKTG:3000	Introduction to Marketing Strategy	3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
	Hours	**15**
Fourth Year		
Fall		
MGMT:2000	Introduction to Law	3
Major: risk management and insurance elective course [e, f]		3
Major: risk management and insurance elective course [e, f]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
	Hours	**15**
Spring		
Major: risk management and insurance elective course [e, f]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
Degree Application: Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [g]		
	Hours	**15**
	Total Hours	**122-126**

a See degree audit for course options.
b Enrollment in math courses requires completion of a placement exam.
c GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
d Must be admitted to Tippie to enroll in BUS:3000. Generally completed during the second year, but should be taken no later than the third year.
e Students are not guaranteed specific elective options. The availability of courses outside the Department of Finance may be subject to prerequisites or restricted to students who have declared a second major within the respective department.
f Select from list of approved courses in the General Catalog or on degree audit. Several RMI electives are offered only one semester each year; consult with your advisor about offerings.
g Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Risk Management and Insurance, Certificate

Requirements

The undergraduate Certificate in Risk Management and Insurance (RMI) requires 12–22 s.h. of credit: 21 s.h. for BBA students with a major in finance, 21–22 s.h. for students with a major in mathematics (specialization in risk management and insurance or in finance), 13 s.h. for other majors outside of Tippie College of Business, and 12 s.h. for BBA students with a major other than finance.

Students must maintain a grade-point average of at least 2.00 in work for the certificate. The certificate may be earned by any student admitted to the University of Iowa who is not concurrently enrolled in a graduate or professional degree program.

Students must declare their intent to earn the certificate with the RMI advisor. Some courses have prerequisites; students must complete prerequisites before they may register for a course. For more information, see Risk Management and Insurance Certificate on the Emmett J. Vaughan Institute of Risk Management and Insurance website.

The Certificate in Risk Management and Insurance requires the following coursework.

RMI Required Course

Students must complete this course with a grade of C or higher.

Course #	Title	Hours
This course:		
FIN:3400	Principles of Risk Management and Insurance	3

RMI Elective Courses

Course #	Title	Hours
9 s.h. from these:		
FIN:4410	Enterprise Risk Management	3
FIN:4420	Property and Liability Insurance	3
FIN:4430	Life and Health Insurance	3
FIN:4440	Employee Benefit Plans	3
FIN:4450	Risk Modeling	3
FIN:4460	Insurer Operations and Captive Management	3
FIN:4470	Insurtech Innovation	3

Additional Coursework for Majors Outside Tippie

All majors not in the Tippie College of Business are required to complete the following.

Course #	Title	Hours
FIN:3021	Professional Risk Management and Insurance Seminar	1

Additional Coursework for Finance and Mathematics Majors

In addition to the preceding requirements, finance majors or mathematics majors (program C, with a specialization in finance or RMI) also must complete the following courses.

Finance Major

BBA students majoring in finance complete three of these (9 s.h.). The availability of courses outside the Department of Finance may be subject to prerequisites or restricted to students who have declared a second major within the respective department.

Course #	Title	Hours
BAIS:3025	Business Process Automation	3
MGMT:4100	Dynamics of Negotiations	3
MKTG:4200	Sales Management	3
A maximum of three finance courses (prefix FIN) numbered 4000 or above, excluding those taken to satisfy RMI courses		

Mathematics Major With Specialization

Students majoring in mathematics with a specialization in risk management and insurance or a specialization in finance complete three of these (8–9 s.h.).

Course #	Title	Hours
ACCT:3020	Financial Accounting and Reporting	3
ACCT:3200	Income Measurement and Asset Valuation (accounting majors with no subprogram take this instead of ACCT:3020)	3
FIN:3100	Financial Information Technology	2
FIN:3200	Investment Management	3
FIN:3300	Corporate Finance	3
FIN:4210	Futures and Options	3
FIN:4220	Fixed Income Securities	3
FIN:4230	Real Estate Process	3
FIN:4320	Commercial Banking	3

Risk Management and Insurance Affiliated Courses

The Department of Finance offers eight courses affiliated with the Emmett J. Vaughan Institute of Risk Management and Insurance that are included in the Certificate in Risk Management and Insurance curriculum. Students should view the course descriptions and prerequisites for each of the following courses.

Course #	Title	Hours
FIN:3400	Principles of Risk Management and Insurance	3
FIN:4410	Enterprise Risk Management	3
FIN:4420	Property and Liability Insurance	3
FIN:4430	Life and Health Insurance	3
FIN:4440	Employee Benefit Plans	3
FIN:4450	Risk Modeling	3

FIN:4460	Insurer Operations and Captive Management	3
FIN:4470	Insurtech Innovation	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Risk Management and Insurance, Certificate

Finance Majors

Course	Title	Hours
Academic Career		
Any Semester		
To declare the certificate students should be enrolled in FIN:3400 Principles of Risk Management & Ins.		
Maintain a cumulative GPA of at least 2.00 in all courses, UI courses, RMI (Risk Management and Insurance) courses and UI RMI courses.		
Meet with the RMI advisor for planning and to learn about additional benefits of the RMI certificate; more information is included in the General Catalog and on Tippie College of Business website.		
	Hours	**0**
First Year		
Any Semester		
FIN:3400	Principles of Risk Management and Insurance [a]	3
	Hours	**3**
Second Year		
Any Semester		
Certificate: RMI elective [b]		3
Certificate: RMI elective [b]		3
	Hours	**6**
Third Year		
Any Semester		
Certificate: RMI elective [b]		3
Certificate: additional elective approved for finance majors [c]		3
	Hours	**6**
Fourth Year		
Any Semester		
Certificate: additional elective approved for finance majors [c]		3
Certificate: additional elective approved for finance majors [c]		3
	Hours	**6**
	Total Hours	**21**

a Students must earn a grade of C or higher in FIN:3400.

b Complete three RMI electives (9 s.h.) from FIN:4410, FIN:4420, FIN:4430, FIN:4440, FIN:4450, FIN:4460. Some courses may also satisfy the Tippie College of Business RISE requirement.

c Three additional electives (9 s.h.) are required for the certificate. These include BAIS:3025, MGMT:4100, MKTG:4200, finance courses (prefix FIN) numbered 4000 or above. The availability of courses outside the Department of Finance may be subject to prerequisites or restricted to students who have declared a second major within the respective department.

Finance, MS

The Master of Science in finance program is an online program that can be completed at a student's own pace. It can be completed in as quickly as one year or in up to ten years.

Learning Outcomes

Core Competency

- Students acquire and exhibit knowledge about fundamental financial concepts.

Business Applications

- Students acquire and exhibit knowledge about applying financial concepts in business and financial markets.

Team Work

- Students demonstrate the ability to be effective team members in a complex and diverse world.

Coursework

- Students customize their coursework to fulfill their career goals as finance professionals.

Requirements

The Master of Science program in finance requires a minimum of 30 s.h. of graduate credit. A Graduate College major program grade-point average (GPA) and a UI cumulative GPA of at least 2.75 are required in all coursework.

With program approval, students may count up to a maximum 6 s.h. of transfer credit toward program coursework requirements. Transfer credit must be from a graduate or professional program accredited by the Association to Advance Collegiate Schools of Business (AACSB).

The MS in finance requires the following coursework.

Core Courses

Students complete six core courses for a total of 18 s.h.

Course #	Title	Hours
All of these:		
FIN:9200	Portfolio Management	3
FIN:9210	Derivatives	3
FIN:9300	Corporate Finance	3
MBA:8140	Corporate Financial Reporting	3
MBA:8150	Data and Decisions	3
MBA:8180	Managerial Finance	3

If a core course is waived, it must be replaced by a course from the electives list.

Electives

Students complete four elective courses for a total of 12 s.h., including at least two courses (6 s.h.) from the first list below.

Course #	Title	Hours
At least two of these:		
FIN:9150	Financial Modeling and Firm Valuation	3
FIN:9160	Quantitative Finance and Machine Learning	3
FIN:9230	Real Estate Finance and Investments	3
FIN:9310	Corporate Financial Strategy	3
FIN:9350	Wealth Management	3
Up to two of these:		
FIN:9130	Corporate Risk Management and Insurance	3
FIN:9140	Enterprise Risk Management	3
BAIS:6040	Data Programming in Python	3
BAIS:6070	Data Science	3
BAIS:6100	Text Analytics	3
ENTR:9200	Entrepreneurial Finance	3

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Please see the Part-time Master of Finance Admissions page on the Tippie College of Business website for information about admission to the MS in finance subprogram.

Career Advancement

The Tippie Graduate Career Services team offers multiple resources to help students in their career development journey. Visit Graduate Career Services on the Tippie College of Business website for details.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Finance, MS

Course	Title	Hours
Academic Career		
Any Semester		
45 s.h. of graduate level coursework must be completed; up to 6 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website.[a]		
A Graduate College major program GPA and a cumulative GPA of at least 2.75 is required in all coursework.		
	Hours	**0**
First Year		
Any Semester		
Meet with your Career Services Coach and Professional Director.		
Attend Career Services sessions offered.		
Apply to and secure a summer internship or arrange a summer research project.		
	Hours	**0**
Fall		
BAIS:9100	Data and Decisions	3

FIN:9220	Fixed Income Securities	3
FIN:9400	Professional Development and Business Acumen [b]	1
MBA:8140	Corporate Financial Reporting	3
MBA:8170	International Economic Environment of the Firm	3
MBA:8180	Managerial Finance	3
Arrange for Career Services to review updated resume, then upload to Handshake.		
	Hours	**16**
Spring		
FIN:9150	Financial Modeling and Firm Valuation	2
FIN:9200	Portfolio Management	3
FIN:9300	Corporate Finance	3
FIN:9400	Professional Development and Business Acumen [b]	1
FIN:8130	Business Communication [c]	1
Elective course [d]		3
Elective or experiential elective [d, e]		3
Complete end of semester employment placement survey as directed by Career Services.		
	Hours	**16**
Summer		
Internship: complete a summer internship [f]		
Research: complete a summer research project [f]		
	Hours	**0**
Second Year		
Fall		
FIN:9210	Derivatives	3
FIN:8130	Business Communication [c]	1
Elective course [d]		3
Elective course [d]		3
Elective or experiential elective [d, e]		3
Complete end of semester employment placement survey as directed by Career Services.		
Meet with your Career Services Coach and Professional Director.		
Attend Career Services sessions offered.		
Verify completion of all degree requirements with program administrator.		
Apply to and secure post-graduation employment.		
	Hours	**13**
	Total Hours	**45**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b FIN:9400 is taken during both fall and spring of the first year for a total of 2 s.h.

c FIN:8130 is taken during both first year spring and second year fall for a total of 2 s.h.

d Choose electives from a pre-approved list or with departmental approval.

e Spring experiential electives: FIN:9225, FIN:9391, or FIN:9250 (must also take FIN:9260 in fall). Fall experiential electives: FIN:9225, FIN:9391, FIN:9390, FIN:9260 (must have taken FIN:9250 in spring).

f Apply to and secure a summer internship or arrange a summer research project.

Doctor of Philosophy

Graduate students in finance may earn a Doctor of Philosophy in business administration. For a description of the PhD program and requirements, see the PhD in business administration [p. 1179] in the catalog and visit the Department of Finance website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Learning Outcomes

Students will:

- master the core knowledge and research tools in the field of finance;
- develop the ability to conduct independent research that constitutes a significant contribution to the field of finance;
- develop the ability to effectively communicate research ideas and outcomes; and
- be prepared to effectively teach undergraduate and graduate courses in finance.

International Business

Coordinators

- Nicholas F. Martini (College of Liberal Arts and Sciences), Dimy Doresca (Tippie College of Business)

Undergraduate certificate: international business

Website: https://students.tippie.uiowa.edu/undergraduates/academics-undergraduate/certificates/international-business-certificate

The Tippie College of Business and the College of Liberal Arts and Sciences offer the undergraduate Certificate in International Business. The program is designed for students who intend to pursue careers in international business as well as those interested in gaining a better understanding of the global economy and a broader awareness of the political, historical, and social environment in which international business operates.

Programs

Undergraduate Program of Study

Certificate

- Certificate in International Business [p. 1230]

International Business, Certificate

Requirements

The undergraduate Certificate in International Business requires a minimum of 21 s.h. The program includes the study of international business and economics, along with associated political, environmental, and cultural contexts. The range of courses permits students to tailor areas of specialization suited to their individual interests and to complement majors in business and in liberal arts and sciences.

Students must maintain a grade-point average of at least 2.00 in work for the certificate. Certificate courses may not be taken pass/nonpass. A course may not be used to satisfy more than one certificate requirement. The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Students should declare their intention to earn the certificate as early as possible, talk with an advisor about certificate requirements, and work to create an individual plan of study. Tippie College of Business students should talk with the advising staff at the college's Undergraduate Program Office; College of Liberal Arts and Sciences students and students enrolled in other UI colleges should talk with a Certificate in International Business advisor at the Academic Advising Center. Individuals who hold a bachelor's degree from another institution should contact University of Iowa Admissions.

Students are allowed up to 7 s.h. of transfer work towards the certificate. The remaining certificate coursework (other than language courses) must be completed at the University of Iowa or in approved study abroad programs. Students who plan to count study abroad credit toward the certificate should consult a Certificate in International Business advisor before enrolling in a program and leaving campus.

The Certificate in International Business requires the following coursework.

Requirements	Hours
Global Business Foundation Courses	12-16
Political, Environmental, and Cultural Contexts Courses	9-12

Global Business Foundation

Global business foundation courses provide students with an essential understanding of economics, which is central to all business operation. They also help students develop knowledge of the functional areas of international business.

Course #	Title	Hours
One of these:		
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
SEES:2910	The Global Economy	3
One of these:		
ACCT:2100 & MKTG:3000	Introduction to Financial Accounting and Introduction to Marketing Strategy (both courses)	6
ENTR:1350	Foundations in Entrepreneurship	3
ENTR:2000	Entrepreneurship and Innovation	3
One of these:		
ENTR:4460	Entrepreneurship and Global Trade (if not used to satisfy the following requirement)	3
MGMT:3450	International Business Environment	3
One of these:		
ECON:3345	Global Economics and Business	3
ECON:3830	Global Trade Finance	3
ENTR:4460	Entrepreneurship and Global Trade (if not used to satisfy the preceding requirement)	3
FIN:4240	International Finance	3
FREN:3410	Business French	3
GRMN:3214	Business German	3
JPNS:3500	Japanese for Professional Purposes	3
MKTG:4300	International Marketing	3
SPAN:3080	Spanish for International Business	3

Political, Environmental, and Cultural Contexts

The political, environmental, and cultural contexts category has three separate requirements: global politics (3 s.h.); environmental, social, and corporate governance (3 s.h.); and cultural immersion (3–6 s.h.).

Global Politics

Students will gain deeper knowledge of cross-cultural issues and think critically about broader dynamics.

Course #	Title	Hours
One of these (3 s.h.):		
HIST:1101	The Modern World	3
POLI:1400	Introduction to Comparative Politics	3
POLI:1500	Introduction to International Relations	3
POLI:1501	Introduction to American Foreign Policy	3
SEES:1090	Globalization and Geographic Diversity	3

Environmental, Social, and Corporate Governance

Students will demonstrate ethical reasoning in dealing with environmental, social, and governance issues in international business.

Course #	Title	Hours
One of these (3 s.h.):		
ANTH:2136	Race, Place, and Power: Urban Anthropology	3
ANTH:2151/ GWSS:2151/IS:2151	Global Migration in the Contemporary World	3
ANTH:2190/ GWSS:2190/IS:2190	Love Rules: Law and the Family Across Cultures	3
ANTH:3103	Environment and Culture	3
ANTH:3190/ IS:3190/SJUS:3190	Global Debt	3
ANTH:3199/ GHS:3199/IS:3198	Understanding Health in an Unequal World: Anthropology and Global Health Policy	3
ARAB:2006/ SJUS:2006/ WLLC:2006	Transnational Solidarities	3
ARTH:1025	Buyer Beware! Fakes, Thefts, and the Global Art Market	3
COMM:2042/ IS:2042/SSW:2042	Intercultural Communication	3
COMM:4131/ IS:4131	Globalization and Culture	3
CPH:3500/ GHS:3500	Global Public Health	3
CPH:4200	Agriculture, Food Systems, and Sustainability	3
CRIM:3415	Global Criminology	3
CRIM:4680/ SOC:4680	Corruption: The Social Scientific Perspectives	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	3
GHS:2000/ ANTH:2103	Introduction to Global Health Studies	3
GHS:3325	Global Epidemics	3
GHS:4001	Social Entrepreneurship and Global Health	3
GHS:4003	Case Studies in Global Health Inequities	3
GWSS:2571/ ENGL:2571/ SJUS:2571	Visualizing Human Rights	3
GWSS:2650/ GHS:2650	Global Reproduction	3
GWSS:2900/ ANTH:2191	Love, Sex, and Money: Sexuality and Exchange Across Cultures	3
GWSS:3157/ HIST:3157	Gender, Sexuality, and Human Rights	3
HIST:3108	History of Human Rights	3
HIST:3126	History of Globalization	3
HIST:3128	Topics in Global Environmental History	3
HRTS:2115/IS:2115	Introduction to Human Rights	3
HRTS:2903/IS:2903	Technology and Human Rights	3
HRTS:3904/IS:3904	Business, Labor, and Human Rights	3
HRTS:3905/IS:3905	Topics in Human Rights	3
HRTS:3906	Global Crises and Human Rights	3
HRTS:3910/IS:3910	Approaches to Advocacy: From Theory to Practice	3
IS:2000	Introduction to International Studies	3
IS:2020	World Events Today!	3
JMC:3116/IS:3116	Media and Global Cultures	3
JMC:3142/IS:3142	Media and Social Change	3
LING:1040/ ANTH:1040	Language Rights	3
PHIL:2429	War, Terrorism, and Torture	3
PHIL:3430	Philosophy of Human Rights	3
POLI:1510	International Politics of Environmental Issues	3
POLI:1800	Introduction to the Politics of Class and Inequality	3
POLI:2417	Comparative Environmental Policy	3
POLI:2500	Politics of Natural Disasters	3
POLI:3350	Games of Politics	3
POLI:3405	Authoritarian Politics	3
POLI:3411	Democracy: Global Trends and Struggles	3
POLI:3424	Global Development	3
POLI:3426	Outliers: Comparing Odd Countries	3
POLI:3430/ NAIS:3430	Environmental Politics and Indigeneity	3
POLI:3432/ NAIS:3432	Agriculture Politics and Policy	3
POLI:3450	Problems in Comparative Politics	3
POLI:3503	Politics of Terrorism	3
POLI:3504	Globalization	3
POLI:3505	Civil Wars	3
POLI:3506	Consequences of War	3
POLI:3509	International Courts: The Intersection of Law and Politics	3
POLI:3512	International Conflict	3
POLI:3516	The Politics of International Economics	3
POLI:3518	Water Wars: Conflict and Cooperation	3
POLI:3550	Problems of International Politics	3
RELS:1015	Global Religious Conflict and Diversity	3
RELS:2330	Wealth, Inequality, and Islam	3
SEES:2110/ GHS:2110	Eight Billion and Counting: Introduction to Population Dynamics	3
SEES:2910	The Global Economy	3
SEES:3090/ GHS:3070	Hungry Planet: Global Geographies of Food	3
SEES:3300/ GHS:3300	Envisioning Future Worlds: Sustainable Development and Its Alternatives	3

SEES:3331	Human Dimensions of Climate	3
SEES:4000/ SDG:4000	The United Nations Sustainable Development Goals: A Blueprint for a Sustainable Future	3
SEES:4210	Sustainability as a System Science	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3

Cultural Immersion

Students will cultivate effective written, spoken, and visual communication skills necessary in cross-cultural organizational settings. They will also gain deeper knowledge of cross-cultural issues and think critically about broader dynamics. There are three options for fulfilling the cultural immersion requirement.

Cultural Immersion: Option 1

Students complete a fourth semester-level or higher-level World Language course offered for at least 3 s.h. that is taught in the world language (i.e., not taught in English). World Language courses that build proficiency for business and professional environments are strongly encouraged.

Course #	Title	Hours
Arabic		
ARAB:2002	Intermediate Modern Standard Arabic II	5
Or any course taught in Arabic for which ARAB:2002 or above is a prerequisite or requirement		
Chinese		
CHIN:2102	Second-Year Chinese: Second Semester	5
CHIN:2104	Accelerated Second-Year Chinese: Second Semester	3
Or any course taught in Chinese for which CHIN:2102 or above is a prerequisite or requirement		
French		
FREN:2002	Intermediate French II	4
Or any course taught in French for which FREN:2002 or above is a prerequisite or requirement		
German		
GRMN:2002	Intermediate German II	4
Or any course taught in German for which GRMN:2002 or above is a prerequisite or requirement		
Italian		
ITAL:2204	Intermediate Italian II	4
Or any course taught in Italian for which ITAL:2204 or above is a prerequisite or requirement		
Japanese		
JPNS:2002	Second-Year Japanese: Second Semester	5
Or any course taught in Japanese for which JPNS:2002 or above is a prerequisite or requirement		
Korean		
KORE:2102	Second-Year Korean: Second Semester	4
Or any course taught in Korean for which KORE:2102 or above is a prerequisite or requirement		
Portuguese		
PORT:2500	Accelerated Intermediate Portuguese	5
Or any course taught in Portuguese for which PORT:2500 or above is a prerequisite or requirement		
Russian		
RUSS:2112	Second-Year Russian II	4
Or any course taught in Russian for which RUSS:2112 or above is a prerequisite or requirement		
Spanish		
SPAN:1502	Intermediate Spanish II	4
SPAN:1503	Accelerated Intermediate Spanish	6
SPAN:1505	Intermediate Spanish for Heritage Speakers	5
SPAN:2040	Spanish for Heritage Speakers	3
Or any course taught in Spanish for which SPAN:1502 or above is a prerequisite or requirement		
Swahili		
SWAH:2002	Intermediate Swahili II	4
Or any course taught in Swahili for which SWAH:2002 or above is a prerequisite or requirement		

Cultural Immersion: Option 2

Students complete a minimum of 6 s.h. from the following.

Course #	Title	Hours
This:		
Study abroad credit coursework (consult international business certificate advisor)		
And/or these:		
ENTR:4200	Entrepreneurship: Business Consulting (Mandela Fellows section only)	3
INTL:4525	SIT Virtual Global Internship	arr.
INTL:4540	IES Virtual Global Internships	arr.
IS:3012	Service Learning in International Studies	3
RHET:2090	Conversation Practicum	0-3

Cultural Immersion: Option 3

Students complete a minimum of 6 s.h. from one of the following area studies: Asia, Europe, Latin America, Middle East/Africa, or Russia/Eastern Europe.

Asia

Course #	Title	Hours
ANTH:2108/ GWSS:2108	Gendering India	3

ANTH:2160/ GHS:2160	Culture, Health, and Wellness: Southeast Asia in Focus	3
ANTH:3121/ GWSS:3121	Love, Marriage, and Family in India	3
ARTH:1070	Asian Art and Culture	3
ARTH:2220/ ASIA:2231	Introduction to the Art of China	3
ARTH:2250/ JPNS:2250	Introduction to the Art of Japan	3
ARTH:3225	Modern and Contemporary Art in China	3
ARTH:3270/ ASIA:3270	Themes in Asian Art History	3
ASIA:1502/ RELS:1502/ SOAS:1502	Asian Humanities: India	3
ASIA:1609/ HIST:1609	India Now! Surveying the World's Largest Democracy	3-4
ASIA:2450/ MUS:2450	India Beat: The Aesthetics and Politics of India Today	3
CHIN:1504	China Beyond Walls	3
CHIN:1702	Chinese Popular Culture	3
CHIN:3341	Chinese Literature: Poetry	3
CHIN:4203	Modern Chinese Writers	3
CHIN:4206	Chinese Cinema	3
ENGL:3540	Literature of the Indian Subcontinent	3
HIST:1602/ ASIA:1602	Civilizations of Asia: China from the 17th Century to the Present	3
HIST:1604/ ASIA:1604	Civilizations of Asia: Japan	3-4
HIST:1606/ ASIA:1606/ RELS:1606	Civilizations of Asia: South Asia	3-4
HIST:1607/ ASIA:1607	Civilizations of Asia: Korea	3-4
HIST:2684/ ASIA:2684	Korean War: Local and Global History	3
HIST:2687/ ASIA:2887	Perspectives on Korea	3
HIST:3652/ ASIA:3652	Twentieth-Century China	3
HIST:3685/ ASIA:3685	Modern Korean History	3
JMC:2150	News and Knowledge: Chinese Culture, History, and Journalism	1
JPNS:1506	Ghostly Japan	3
JPNS:3202	Traditional Japanese Literature in Translation	3
JPNS:3203	Modern Japanese Fiction in Translation	3
JPNS:3205	Major Authors in Modern Japanese Literature	3
JPNS:3206	Warriors' Dreams	3
JPNS:3207	Japan Illuminated: Japanese Literature and Visual Culture	3
JPNS:3208	Japanese Film	3
JPNS:3401	Language in Japanese Society	3
JPNS:3402	Japan: Culture and Communication	3
JPNS:3601	Contemporary Japanese Culture	3
KORE:1135	Cultural Fusion: Korean Pop Culture in a Globalized World	3
PHIL:2343	Philosophy East and West	3
POLI:3408	Chinese Politics and Society	3
POLI:3420	Southeast Asia: Politics and Development	3
RELS:1404/ ASIA:1040/ HIST:1610	Introduction to Asian Religions	3
RELS:1506/ ASIA:1060/ HIST:1612	Introduction to Buddhism	3
RELS:1670/ ASIA:1670/ KORE:1670	Korea in the World	3
RELS:3055/ ASIA:3055	Death, Dying, and Beyond in Asian Religions	3
RELS:3655/ ASIA:3655/ HIST:3655	Zen Buddhism	3
RUSS:2050/ WLLC:2050	Women From an Unknown Land: The Fight for Independence	3
WLLC:3700/ ASIA:3700/ JPNS:3700/ TRNS:3700	Topics in Global Cinema	3

Europe

Course #	Title	Hours
ARTH:3020	Paris and the Art of Urban Life	3
ENGL:2330	Topics in Modern British Literature After 1900	3
ENGL:2360	Twentieth-Century British Literature	3
ENGL:2361	Twenty-first-Century British Literature	3
ENGL:3320	Modern British Drama	3
ENGL:3350	Literature and Culture of 20th- and 21st-Century Britain	3
FREN:1510	Cultural Misunderstandings: France and U.S.A.	3
FREN:4015	Francophone Cinema	3-4
FREN:4026/ GWSS:4026	French Women Writers	3-4
FREN:4100	French Cinema	3-4
FREN:4433/ HIST:4433	France Under Nazi Occupation, 1940-1944	3-4
GRMN:2275	Scandinavian Crime Fiction	3
GRMN:2618/ WLLC:2618	Film and Literature of the Holocaust	3
GRMN:2620/ WLLC:2620	Anne Frank and Her Story	3-4

GRMN:2630	German Cinema: Greatest Hits	3-4
GRMN:2675/ MUSM:2675	The Politics of Memory: Holocaust, Genocide, and 9/11	3-4
GRMN:2720/ HIST:2420	Germany in the World	3
HIST:1403	The West and the World: Modern	3
HIST:2465	Europe Since 1945	3
HIST:3145	Europe and the United States in the Twentieth Century	3
HIST:3470	France From 1815 to Present	3
HIST:4478	Holocaust in History and Memory	3
ITAL:1050	Italy Live	3
ITAL:2440	Italian Arts for International Success	3
ITAL:2550	Images of Modern Italy	3
ITAL:2770	The Mafia and the Movies	3
ITAL:2880	Italian Food Culture	3
POLI:1449	Introduction to European Politics	3
SPAN:2901	Diversity and Cultures in Spain	3

Latin America

Course #	Title	Hours
DANC:1150/ LAS:1150	Brazilian Culture and Carnival	3
ENGL:3535/ LAS:3535	Topics in Literature and Culture of the Americas	3
HIST:2288	Latina/o/x History From Conquest to the Present	3
HIST:3217/ LAS:3217/ LATS:3217	Latina/o/x Immigration	3
HIST:3501/ LAS:3501	Rebel Island: A History of Cuba	3
HIST:3508/ GHS:3508/LAS:3508	Disease and Health in Latin American History	3
HIST:3515/ LAS:3515	Introduction to Modern Latin America	3
HIST:4216/ LAS:4216	Mexican American History	3
LAS:4700/ ANTH:4700/ HIST:4504/ PORT:4700/ SPAN:4900	Latin American Studies Seminar	3-4
MUS:2311/ LAS:2311	Music of Latin America and the Caribbean	3
POLI:2415/ LAS:2415	Latin American Politics	3
PORT:2850/ LAS:2850/ SPAN:2850	Brazilian Narrative in Translation	3
SPAN:1800	Writing and Writers From Latin America	3
SPAN:2700/ IS:2700/LAS:2700/ PORT:2700	Introduction to Latin American Studies	3

Middle East/Africa

Course #	Title	Hours
ANTH:2182/ GHS:2182	Africa: Health and Society	3
ARAB:3005	Culture and Resistance: The Modern Middle East	3-4
ARAB:3030	Media Arabic	3
ARTH:1040	Arts of Africa	3
ARTH:2120	Art and Architecture of the Islamic World	3
ARTH:3325	Kings, Gods, and Heroes: Art of Ancient Mesopotamia and Persia	3
ENGL:3550/ AFAM:3550	African Literature	3
ENGL:3555/ AFAM:3555	Topics in African Cinema	3
FREN:4015	Francophone Cinema	3-4
HIST:1708	Civilizations of Africa	3
HIST:2802	Gender, Religion, and Social Identities in the Modern Middle East	3
HIST:2810	The Modern Middle East	3
HIST:3755/ GHS:3555/IS:3555	Understanding Health and Disease in Africa	3
HIST:3760/ AFAM:3760	The Making of Modern Africa	3
HIST:3810	History of the Modern Middle East	3
POLI:3422	Horn of Africa: Politics and Transnational Issues	arr.
POLI:3423	The Middle East: Policy and Diplomacy	3
RELS:1130/ HIST:1030	Introduction to Islamic Civilization	3
RELS:2330	Wealth, Inequality, and Islam	3
RELS:2852/ GWSS:2052	Women in Islam and the Middle East	3
RELS:2955/IS:2955	Human Rights and Islam	3
RELS:3267	Dissent and Rebellion in Islamic Societies: Was There an Arab Spring?	3
RUSS:2050/ WLLC:2050	Women From an Unknown Land: The Fight for Independence	3

Russia/Eastern Europe

Course #	Title	Hours
POLI:1401	Introduction to Russian Politics	3
POLI:3405	Authoritarian Politics	3
RUSS:1082	Youth Subcultures After Socialism	3
RUSS:1131/ WLLC:1131	Introduction to Russian Culture	3
RUSS:1132	Russia Today	3
RUSS:1531	Slavic Folklore	3

RUSS:1532	Traces of Ancient Russian Culture (IX-XVII Centuries): Vikings, Mongols, and Tsars	3
RUSS:2050/ WLLC:2050	Women From an Unknown Land: The Fight for Independence	3
RUSS:2100	Russian Mindset: Sex, Business, and Politics	3
RUSS:2110	Russian Sports: Politics, Scandal, Glory	3
RUSS:3122/ TRNS:3122/ WLLC:3122	Tolstoy and Dostoevsky	3-4
RUSS:3202/ HIST:3492/ TRNS:3203/ WLLC:3202	Russian Literature in Translation 1860-1917	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

International Business, Certificate

Course	Title	Hours
Academic Career		
Any Semester		
The undergraduate certificate in international business requires a minimum of 21 s.h. The program includes the study of international business and economics, along with associated political, environmental, and cultural contexts. [a]		
Study abroad experience enhances the international business certificate program but requires advance planning. Students should plan to attend a discover study abroad session early in their college career to learn more.		
Students must maintain a cumulative GPA of at least 2.00 in work for the certificate.		
Certificate courses may not be taken pass/nonpass.		
	Hours	**0**
First Year		
Fall		
SEES:2910 or ECON:1100 or ECON:1200	The Global Economy or Principles of Microeconomics or Principles of Macroeconomics	3 - 4
	Hours	**3-4**
Spring		
Certificate: global politics course [b, c]		3
	Hours	**3**
Second Year		
Fall		
ACCT:2100	Introduction to Financial Accounting [d]	3
Certificate: cultural immersion course [b, c, e]		3
	Hours	**6**
Spring		
MKTG:3000	Introduction to Marketing Strategy [d]	3
Certificate: cultural immersion course (if needed) [b, c, e]		3
	Hours	**6**
Third Year		
Fall		
ENTR:4460 or MGMT:3450	Entrepreneurship and Global Trade [f] or International Business Environment	3
	Hours	**3**
Spring		
Certificate: global business foundation course [b]		3
	Hours	**3**
Fourth Year		
Fall		
Certificate: environmental, social, and corporate governance course [b, c]		3
	Hours	**3**
	Total Hours	**27-28**

a The international business certificate program encourages students to develop a global mindset and cross-cultural skills through their coursework and co-curricular experiences. The study of a world language, an experience abroad, and engagement with international groups on campus and in the community support the program's curriculum.

b See the General Catalog for list of approved courses.

c Some GE courses such as those for Understanding Cultural Perspectives, Historical Perspectives, International and Global issues, Social Sciences, and Values and Society may also fulfill a requirement for the international business certificate.

d Non-business majors can opt to complete either ENTR:1350 or ENTR:2000 rather than ACCT:2100 and MKTG:3000.

e There are three options for satisfying the cultural immersion component: 1) complete a fourth semester-level or higher-level world language course offered for at least 3 s.h. and not taught in English, typically taken during first year; 2) complete at least 6 s.h. from approved study abroad courses or related coursework, typically taken during second or third year; or 3) complete at least 6 s.h. in courses from one of the following area studies: Asia, Europe, Latin America, Middle East/Africa, or Russia/Eastern Europe.

f Students are encouraged to complete this course during either the second or third year.

Management and Entrepreneurship

Chair

- Jennifer Nahrgang Craig

Director, Undergraduate Program, Entrepreneurship

- Kimm M. Harris

Director, Undergraduate Program, Management

- Nicole L. Wilson

Director, PhD Program

- Chad H. Van Iddekinge

Undergraduate major: entrepreneurship (BBA), management (BBA)

Graduate degree: management subprogram for the PhD in business administration

Faculty: https://tippie.uiowa.edu/people/?department=Management+and+Entrepreneurship&cohort=417809&category=FACULTY

Website: https://tippie.uiowa.edu/about/management-and-entrepreneurship-department

The Department of Management and Entrepreneurship has strengths in the areas of leadership, entrepreneurship, and human resource management. It provides evidence-based instruction that prepares students to pursue a career in human resource management; become successful innovators, entrepreneurial leaders, and business founders; or lead projects, teams, and organizations.

For Tippie College of Business students, the department offers undergraduate majors in entrepreneurship and management. For undergraduate students across the University of Iowa, the Tippie College of Business and the John Pappajohn Entrepreneurial Center (Iowa JPEC) offer the Certificate in Entrepreneurial Management. The Tippie College of Business and Iowa JPEC collaborate with the College of Engineering to offer the Certificate in Technological Entrepreneurship [p. 1681]. Iowa JPEC collaborates with the College of Liberal Arts and Sciences to offer the BA in enterprise leadership [p. 454], an interdisciplinary major that includes coursework in entrepreneurship, leadership, and communications, and the minor in media management [p. 647].

At the graduate level, the Department of Management and Entrepreneurship also contributes to the MBA program; see the Master of Business Administration Program [p. 1272] in the catalog. Finally, the department offers a Doctor of Philosophy [p. 1260] in Business Administration (management subprogram).

Programs

Undergraduate Programs of Study

Majors

- Major in Entrepreneurship (Bachelor of Business Administration) [p. 1245]
- Major in Management (Bachelor of Business Administration) [p. 1251]

Certificate

- Certificate in Entrepreneurial Management [p. 1258]

Graduate Program of Study

- Management subprogram for the Doctor of Philosophy [p. 1260] in Business Administration

Facilities

John Pappajohn Entrepreneurial Center

The John Pappajohn Entrepreneurial Center (Iowa JPEC) is the hub for entrepreneurship education and outreach at the University of Iowa. The main office is located in the John Pappajohn Business Building. Students who would like information about undergraduate entrepreneurship-related academic programs or those interested in learning more about resources and programs to support student entrepreneurship are encouraged to stop by and visit with a staff member.

Bedell Entrepreneurship Learning Laboratory

The Bedell Entrepreneurship Learning Laboratory is an applied learning environment for University of Iowa students creating a new business. The laboratory provides dedicated office space for individual students and teams, enabling them to concentrate on developing their business concepts. Student entrepreneurs participate in the Startup Incubator, a student business acceleration program open to any student at the University of Iowa. Separate programs exist for undergraduate and graduate students. Intense summer tracks are also available. All business incubation and acceleration programs connect students with the resources to launch start-ups and grow them into sustainable businesses. Participants have access to a variety of resources including collaborative workspace and equipment, workshops, training, networking, funding opportunities, and one-on-one mentoring from experienced professionals. Students also compete for capital in several campus and national pitch and business model competitions. They gain access to technical support, accounting, legal, engineering, and prototyping services, and are connected with potential investors and business partners.

Contact the John Pappajohn Entrepreneurial Center for information or visit Startup Incubator on the center's website to apply.

Courses

- Entrepreneurial Management Courses [p. 1237]
- Management and Entrepreneurship Courses [p. 1240]

Entrepreneurial Management Courses

ENTR:1010 Exploring Entrepreneurship 3 s.h.
Introduction to entrepreneurship, including identifying characteristics of the entrepreneur, evaluating opportunities, engaging in customer discovery, design thinking, feasibility, financing, and planning for success.

ENTR:1020 Business Innovation 3 s.h.
Overview of entrepreneurship, innovation, and project management concepts; work in teams with science, technology, engineering, and mathematics (STEM) industry mentors to develop innovative solutions to real-world problems.

ENTR:1030 STEM Innovator 3 s.h.
Work with science, technology, engineering, and mathematics (STEM) industry mentors to engage in innovation and entrepreneurship by employing conceptual understandings and practices of STEM within an entrepreneurship framework; students solve real-world STEM problems that are of interest to them and their community, acquire and demonstrate 21st-century skills working on authentic, meaningful, and cross-curricular projects; exposure to potential STEM careers and entrepreneurial pathways; preparation for success in postsecondary STEM majors, careers, and entrepreneurial ventures of the future. Requirements: enrollment in STEM Innovator program and consent of UI STEM innovator program administrators.

ENTR:1300 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities).

ENTR:1350 Foundations in Entrepreneurship 3 s.h.
Introduction to important tools and approaches entrepreneurs and innovators utilize to identify and assess opportunities including innovation and design thinking, the business model canvas, customer discovery, and pitching ideas. Learn how entrepreneurial approaches are leveraged in different types of organizations including new ventures, small-to-medium sized businesses, large corporations, and nonprofit and social entrepreneurship organizations. Recommendations: non-business major interested in studying entrepreneurship.

ENTR:1800 Innovation in Action: Sustainability 0-1 s.h.
For businesses to successfully compete and thrive in a global marketplace, they must embrace innovation throughout their organizations, and one of the critical issues businesses face today is that of sustainability—how to most effectively acquire and utilize scarce resources while limiting their overall environmental impact; introduction to sustainability; focus on economic, social, and environmental issues facing organizations and society; project management fundamentals; students work in teams to identify a specific sustainability challenge, and prepare and present a strategic approach for addressing a sustainability problem.

ENTR:2000 Entrepreneurship and Innovation 3 s.h.
Students will learn how entrepreneurial leaders identify and evaluate opportunities, design innovative solutions, create successful business strategies, and bring sustainable products and services to the global marketplace. Topics include innovation and creativity; opportunity recognition; characteristics of entrepreneurial leaders; traditional, social, and corporate entrepreneurship; feasibility analysis; strategic business planning; design thinking; and the business model canvas. Students will learn how to apply the latest models and approaches used by entrepreneurs and existing organizations to create sustainable value and positively impact society.

ENTR:2800 Entrepreneurial Experience 1-3 s.h.
Applied learning course designed to enhance innovation and opportunity recognition skills, develop customer discovery expertise, and foster team-building and leadership abilities.

ENTR:3000 Practicum in Entrepreneurship 1-3 s.h.
Applied, experiential learning opportunities designed to foster development of entrepreneurial leadership skills; opportunity recognition and assessment, strategic business planning, innovation and creativity, team leadership, professional communication skills, strategy development and execution.

ENTR:3050 Professional Preparation for Enterprise Leadership and Entrepreneurship 1 s.h.
Survey of professional career paths for students studying enterprise leadership, entrepreneurial management, and entrepreneurship; support for creating professional résumés, LinkedIn profiles, and Handshake profiles; students enhance interview skills, develop a strategy for securing an internship or full-time employment, and discuss topics on successfully transitioning from college to professional world; students also expand their professional network through regular interactions with alumni, entrepreneurs, and business professionals.

ENTR:3100 Entrepreneurial Finance 3 s.h.
Understanding financial aspects of new and growing ventures; focus on preparing financial projections, analyzing financial performance, managing cash flow, and determining financial feasibility; detailed overview of various sources of capital available for start-up and growing ventures. Prerequisites: ENTR:2000 or ENTR:3350.

ENTR:3200 Entrepreneurial Marketing 3 s.h.
Practical marketing concepts for evaluating the market potential for new products, services, or business opportunities; how to obtain and evaluate market data, determine customer demand, analyze the competition, design effective promotions, develop and implement effective sales strategies, and write a successful marketing plan. Prerequisites: ENTR:2000 or ENTR:3350.

ENTR:3350 Entrepreneurial Strategy 3 s.h.
Study of entrepreneurial models and approaches utilized by entrepreneurs and organizational leaders to identify and evaluate opportunities and design innovative solutions that create economic, social, and environmental value; topics include entrepreneurial mindset, innovation and creativity, design thinking, opportunity recognition and assessment, feasibility analysis, strategic business planning, corporate entrepreneurship, and social entrepreneurship.

ENTR:3400 Strategic Management of Technology and Innovation 3 s.h.
New technology innovation and commercialization; technology innovation process, identification of commercialization strategies, feasibility analysis, intellectual property issues. Prerequisites: ENTR:2000 or ENTR:3350.

ENTR:3500 Social Entrepreneurship 3 s.h.
Introduction to the growing field of social entrepreneurship; creation of ventures with dual missions of social benefit and return on investment; issues related to evaluating market opportunities; acquiring and managing scarce resources; sustainability; maximizing social and economic value. Prerequisites: ENTR:2000 or ENTR:3350.

ENTR:3550 Commercializing New Technology I 3 s.h.
Students work in teams to identify technology-based innovation opportunities arising from the validation of market needs or problems; application of design thinking, lean methodology, and business model canvas approaches; regular interaction with alumni entrepreneurs and industry experts; conduction of customer discovery to validate assumptions and identify product-market fit; creation of a minimal viable product for further customer discovery and initial testing; first of a two-course sequence. Prerequisites: ENTR:2000 or ENTR:3350. Corequisites: (ENTR:3200 or MKTG:3000) and (ENTR:3100 or ACCT:2100). Requirements: 75 s.h. completed.

ENTR:3575 Commercializing New Technology II 3 s.h.
Creation of a formal technology commercialization plan for a university-based discovery by student teams; team assignment to alumni entrepreneurial mentors, interaction with industry experts, and engagement with potential customers and partners; preparation of a formal strategic business plan, intellectual property assessment, and pitch deck; presentation of final plans to alumni angel investors and venture capitalists; second in a two-course sequence. Prerequisites: ENTR:3550. Requirements: 60 s.h. completed.

ENTR:3595 Nonprofit Organizational Effectiveness I 3 s.h.
Operational and financial aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as MGMT:3500, MUSM:3500, NURS:3595, RELS:3700, SSW:3500.

ENTR:3600 Social Media Strategies for Entrepreneurial Ventures 3 s.h.
Evaluate, plan, implement, and assess the value of social media strategies for startups and early-to-mid-stage entrepreneurial ventures; introduction to the use of Google Analytics in goal-setting and value-assessment of social media strategy; basic tactics of strategy implementation for various social media platforms including Instagram, Facebook, YouTube, and LinkedIn; collaboration with Iowa entrepreneurial and social ventures to create social media strategic plans to help grow their enterprises. Prerequisites: ENTR:2000 or ENTR:3350.

ENTR:3700 Sustainable Innovation and Management 3 s.h.
Examine the sustainable strategies of entrepreneurial and innovation-based organizations as they relate to key business functions including product development, marketing, logistics, human resources, and finance; work closely with existing organizations to assess their current sustainability practices, prepare plans for enhancing sustainable efforts, and then assist with the implementation and assessment of those initiatives designed to positively impact the organization, community, and environment. Prerequisites: ENTR:2000 or ENTR:3350 or MKTG:3000. Requirements: 60 s.h. earned.

ENTR:3800 Entrepreneurial Leadership Academy I 3 s.h.
Exposure to latest research and techniques in leading entrepreneurial organizations; students learn how to successfully manage innovation based projects and engage with entrepreneurial leaders and business experts to understand how they utilize entrepreneurial approaches to launch and lead high potential entrepreneurial ventures; first of a two-course sequence. Prerequisites: MGMT:2100 or ENTR:2000 or ENTR:3350. Requirements: declared management and entrepreneurship major or enterprise leadership major, and 75 s.h. completed. Same as MGMT:3800.

ENTR:3850 Entrepreneurial Leadership Academy II 3 s.h.
Students work in teams to provide advanced strategic management consulting services to entrepreneurial ventures, corporations, and select nonprofit organizations; students work directly with C-level executives on projects and receive mentoring from faculty who have built and led successful organizations; teams are responsible for developing innovative strategies to address significant challenges facing clients; second of a two-course sequence. Prerequisites: MGMT:3800 or ENTR:3800. Same as MGMT:3850.

ENTR:4000 Topics in Entrepreneurship 1-3 s.h.
Current topics in entrepreneurship. Prerequisites: ENTR:2000 or ENTR:1350.

ENTR:4050 Directed Readings in Entrepreneurship arr.
Independent study; topics and assignments approved by instructor.

ENTR:4100 International Entrepreneurship, Culture, and Social Impact 1-3 s.h.
International entrepreneurship and business strategy, foreign exchange, tariffs and trade, microfinance, economic conditions, and culture of destination countries; students travel abroad or utilize distance technology to complete real-world projects with international entrepreneurs and business leaders; group projects focus on evaluating entrepreneurial opportunities, identifying sustainable growth strategies, incorporating innovation throughout the organization, and understanding international business culture. Prerequisites: ENTR:2000 or ENTR:3350. Requirements: junior standing.

ENTR:4200 Entrepreneurship: Business Consulting 3 s.h.
Students provide strategic business consulting services to new entrepreneurial ventures, existing small-to-medium size enterprises, and select social/nonprofit organizations; real world application of project consulting process including proposal development, data collection and analysis, leading and working in interdisciplinary teams, professional communications with clients, developing actionable business strategies, preparing formal written and oral reports; projects may include market research and competitive analysis, financial analysis and modeling, and strategic growth planning; opportunities to complete international projects. Prerequisites: (ENTR:2000 or ENTR:3350 or MGMT:2100) and (ENTR:3200 or MKTG:3000). Requirements: 60 s.h. completed.

ENTR:4300 Launching an Entrepreneurial Venture arr.
Work on the launch of an entrepreneurial venture; students are expected to have a concept that they have vetted and be seriously considering starting a new business or focused on growing an existing business they have recently launched; focus on strategic business planning, building a management team, developing growth strategies, capital acquisition, and presenting the plan.

ENTR:4400 Managing the Growth Business 3 s.h.
Practical experience in leading and running a business from startup to maturity in an interactive, competitive simulation that incorporates strategic planning, entrepreneurial mindset, and conscious capitalism; learn and practice critical thinking skills, teamwork, leadership, and collaboration with others to create and build a company; development of new products, what markets to enter, how to finance growth and be prepared to pivot to changing environments; application of operations, marketing, and financial strategies to make data driven decisions and see immediate results and consequences. Prerequisites: ENTR:2000 or ENTR:3350. Requirements: 75 s.h. earned.

ENTR:4460 Entrepreneurship and Global Trade 3 s.h.
Complex issues of business operations in a global economy; trade transactions related to importing and exporting, logistics, and ethical issues in international trade; global business management, global marketing, global supply chain management, and trade finance; preparation for work in global marketplace and for the Certified Global Business Professional certification exam offered by the North American Small Business International Trade Educators. Prerequisites: ENTR:2000 or ENTR:3350 or SEES:2910.

ENTR:4510 Arts Leadership Seminar 3 s.h.
Performing arts management and administrative principles, practical applications, trends in arts leadership and advocacy. Same as INTD:4510, THTR:4510.

ENTR:4610 Advanced Venture Finance 3 s.h.
Examination of sources of financing available to emerging and high potential ventures including angel investing, venture capital, state and federal funding programs, and public offerings; various business valuation methods; due diligence process; how to develop and evaluate term sheets. Prerequisites: (ENTR:2000 or ENTR:3350) and (ENTR:3100 or FIN:3000).

ENTR:4650 Applied Venture Finance 3 s.h.
Students work directly with early stage and high potential, scalable entrepreneurial ventures seeking assistance with financial modeling and capital acquisition; connectivity to experienced entrepreneurship faculty, C-level alumni mentors, and successful entrepreneurs who have raised equity capital; students experience first-hand the process of raising capital for a business venture. Prerequisites: FIN:3900.

ENTR:4900 Academic Internship arr.
Professional internship experience with academic credit (e.g., paper, coursework).

ENTR:4999 Honors Thesis in Entrepreneurial Studies arr.
Independent study project directed by a faculty member or staff advisor, and culminating in a thesis that conforms to University of Iowa Honors Program guidelines; project includes empirical research, library research, applied projects. Requirements: honors standing, UI GPA of at least 3.50, and enterprise leadership GPA of 3.50.

ENTR:9100 Entrepreneurship and Innovation 3 s.h.
Entrepreneurial process from ideation to commercialization of innovations for new ventures, existing businesses, and nonprofit organizations; topics include innovation and creativity, opportunity recognition and assessment, venture screening, business modeling, resource identification and acquisition, entrepreneurial leadership, and strategic business planning.

ENTR:9150 Venture School International arr.
Innovative training focused on real-world experimentation, customer discovery, and lean methodologies; curriculum developed by the National Science Foundation I-Corps to help entrepreneurs and startups turn their ideas into reality; individual and team ideation, problem identification, and validation using real customer discovery interviews; students test their hypothesis by talking with customers, partners, and suppliers; encountering chaos and uncertainty of commercializing innovations and creating new ventures in a safe environment; creation of a business model that creates value.

ENTR:9200 Entrepreneurial Finance 3 s.h.
Financial aspects of launching and growing entrepreneurial ventures; topics include financial feasibility, financial forecasting and cashflow management, business valuation, sources of venture financing, deal structure, financing growth, and exit strategies. Prerequisites: MBA:8140.

ENTR:9300 Design Thinking 3 s.h.
Introduction to concepts of design thinking—a human-centered approach to developing products, services, and experiences; methods and mindset of design thinking including identifying the problem, gathering customer insights, ideating a solution, developing a prototype, experimenting, and iterating based on customer feedback to creatively develop solutions that are desirable, feasible, and viable.

ENTR:9450 Strategic Management of Technology and Innovation 3 s.h.
Role of technology in creation, growth, and survival of industries; processes, risks, and rewards of technological innovation and commercialization; successful approaches to developing technological strategy and products.

ENTR:9500 Managing the Growth Business 3 s.h.
Issues faced by new, rapidly growing businesses; adapting organizational structure as business expands, building a management team, hiring new employees, managing strategic growth of a business; case studies, particularly in technology sector.

ENTR:9600 Seminar in Entrepreneurship 1-3 s.h.
Topics vary; franchising, business acquisition, real estate development, e-commerce, technology transfer.

ENTR:9610 STEM Innovator I: Introduction to STEM Innovation and Entrepreneurial Thinking 1-3 s.h.
Exploration of current best practices in problem/project-based learning with research-driven curriculum, instruction, and assessment to prepare all students to be future ready; introduction to skills and mindsets of STEM innovators and entrepreneurs; how a growth mindset and leveraging student strengths facilitates successful team projects; exploration of a problem identification strategy and establishing the value of solving a problem through the entrepreneurial process of customer discovery. Requirements: enrollment in STEM Innovator professional development program or approval of UI STEM Innovator instructor.

ENTR:9620 STEM Innovator II: Skills, Mindsets, Practices, and Academic Knowledge of Problem-Based Learning 1-3 s.h.
Introduction to STEM innovation, invention, and entrepreneurship academic language, activities, and reflective assessment to assist development of innovation skills, mindsets, and practices; engagement in the design thinking process to tackle STEM problems and develop sustainable solutions of value for potential users; strengths leveraged to form collaborative teams and engage in project development; exploration of prototype development research process with focus on implementation in the K-14 environment. Recommendations: ENTR:9610.

ENTR:9630 STEM Innovator III: Lean Start-Up, Data Analysis, Prototyping, and Project Development 1-3 s.h.
Exploration of STEM practices of Lean Start-Up methodology, quantitative and qualitative data analysis, prototype research and development, and project development frameworks; activities and reflective assessment to assist development of innovation skills, mindsets, and practices; advancement of a solution to a STEM problem and development of sustainable solutions of value for potential users; exploration of STEM practices and activities with focus on implementation in the K-14 environment. Requirements: enrollment in STEM Innovator professional development program or approval of UI STEM Innovator instructor. Recommendations: ENTR:9610.

ENTR:9640 STEM Innovator IV: STEM Innovation Activities, Portfolio Assessment, and Community Engagement 1-3 s.h.
Strategies to engage community mentors in assisting student innovation teams through technical and project management expertise; exploration of STEM Innovator Portfolio assessment tool to capture student innovation, invention, and entrepreneurial competencies over time; engagement with STEM Innovator curriculum toolkit to advance professional expertise and implement activities directly into classroom practice; activities and reflective assessment to assist development of innovation skills, mindsets, and practices; exploration of STEM practices and activities with focus on implementation in the K-14 environment. Requirements: enrollment in STEM Innovator professional development program or approval of UI STEM Innovator instructor. Recommendations: ENTR:9610.

ENTR:9650 STEM Innovator V: STEM Innovator Tools to Create an Innovation Model for the Classroom 1-3 s.h.
Utilization of STEM Innovator curriculum, instruction, and assessment tools to develop an implementation framework to infuse innovation, invention, and entrepreneurship into classroom practice; development of curriculum scope and sequence, align core K-14 content standards, secure community partnerships, and network with administrators, counselors, parents, and industry experts to build support during initial launch of the model; activities and reflective assessment to assist development of innovation skills, mindsets, and practices. Requirements: enrollment in STEM Innovator professional development program or approval of UI STEM Innovator instructor. Recommendations: ENTR:9610.

ENTR:9660 STEM Innovator VI: Creating a STEM Innovation Pathway Across K-14 Learning Experiences 1-3 s.h.
Engagement in systems thinking to design a model K-14 STEM innovation, invention, and entrepreneurial pathway for students across a school or district; utilization of STEM Innovator portfolio assessment tool to demonstrate student growth in skills, mindsets, practices, and academic content knowledge in STEM; networking to leverage additional educators, administrators, and industry leaders to develop, promote, and implement a STEM pathway for the district to increase student participation. Requirements: enrollment in STEM Innovator professional development program or approval of UI STEM Innovator instructor. Recommendations: ENTR:9610.

ENTR:9800 Entrepreneurship: Advanced Business Planning 0-3 s.h.
Mentoring for individuals in final stages of preparing to launch their own business or working with an entrepreneurial venture to grow their business.

Management and Entrepreneurship Courses

MGMT:1300 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities).

MGMT:2000 Introduction to Law 3 s.h.
Legal issues surrounding start-up and day-to-day management of a business; contract law, standard business formations, tort law, employment law, business ethics, and alternative dispute resolution. Requirements: sophomore standing.

MGMT:2100 Introduction to Management 3 s.h.
Principles of management, organizational structure, decision-making, leadership, line-staff relationships, and administration of organizations; overview of the demands and challenges facing managers, behaviors of effective managers, management theory, personal effectiveness, decision-making, team skills, and leadership skills. Requirements: sophomore standing.

MGMT:3050 Professional Preparation for Management 1 s.h.
Survey of career paths in the field of management through discussions with individuals working in human resources, management consulting, entrepreneurial endeavors, and more; hands-on activities for students to hone the skills required to succeed in today's workplace.

MGMT:3200 Individuals, Teams, and Organizations 3 s.h.
Theories of organizational behavior applied to current business trends for individuals, teams, organizations; personality, managing diversity, work-family conflict, self-managed teams, charismatic leadership, work motivation, managing conflict, organizational culture. Prerequisites: MGMT:2000 and MGMT:2100.

MGMT:3250 Leading Innovation 3 s.h.
Knowledge and skills needed to lead teams and organizations—formally or informally—to achieve sustainable innovation culture, strategy, execution, and outcomes; how to navigate corporate innovation challenges from culture to management and resourcing, in order to successfully lead innovation efforts; problem definition, critical thinking, metrics, design thinking, and entrepreneurial business model development; innovation prerequisites, roles, leadership skills, and strategy. Prerequisites: MGMT:2000 and MGMT:2100.

MGMT:3300 Strategic Human Resource Management 3 s.h.
People management activities, policies, and practices that promote effective organizations; how changes in technology, business restructuring, legal and social concerns, other issues affect human resource management. Prerequisites: MGMT:2000 and MGMT:2100.

MGMT:3400 Employment Law 3 s.h.
Laws affecting employers and employees, such as regulatory health and safety policies, unemployment and retirement benefits, and employment discrimination including hiring, termination, testing issues. Prerequisites: MGMT:2000 and MGMT:2100.

MGMT:3450 International Business Environment 3 s.h.
Differences in international and domestic business; cultural, legal, political factors for managers. Requirements: junior or higher standing.

MGMT:3500 Nonprofit Organizational Effectiveness I 3 s.h.
Operational and financial aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as ENTR:3595, MUSM:3500, NURS:3595, RELS:3700, SSW:3500.

MGMT:3600 Nonprofit Organizational Effectiveness II 3 s.h.
Qualities for leadership of nonprofit organizations, including relationships with staff and volunteers; relationship of nonprofit and outside world; marketing, public relations, advocacy strategies for nonprofits. Same as NURS:3600, RELS:3701, SSW:3600.

MGMT:3700 Field Experience: Nonprofit Leadership and Philanthropy 3 s.h.
Faculty-supervised professional work experience with a nonprofit organization with associated academic content.

MGMT:3800 Entrepreneurial Leadership Academy I 3 s.h.
Exposure to latest research and techniques in leading entrepreneurial organizations; students learn how to successfully manage innovation based projects and engage with entrepreneurial leaders and business experts to understand how they utilize entrepreneurial approaches to launch and lead high potential entrepreneurial ventures; first of a two-course sequence. Prerequisites: MGMT:2100 or ENTR:2000 or ENTR:3350. Requirements: declared management and entrepreneurship major or enterprise leadership major, and 75 s.h. completed. Same as ENTR:3800.

MGMT:3850 Entrepreneurial Leadership Academy II 3 s.h.
Students work in teams to provide advanced strategic management consulting services to entrepreneurial ventures, corporations, and select nonprofit organizations; students work directly with C-level executives on projects and receive mentoring from faculty who have built and led successful organizations; teams are responsible for developing innovative strategies to address significant challenges facing clients; second of a two-course sequence. Prerequisites: MGMT:3800 or ENTR:3800. Same as ENTR:3850.

MGMT:3999 CIMBA Italy Experiential Leadership 1-3 s.h.
Leadership Initiative for Excellence (LIFE) includes a three-day training that enhances key leadership competencies including effective communication, decision-making, teamwork, focus, and interpersonal skills; Learn, Enrich, Achieve, Perform (LEAP) includes and builds upon concepts in LIFE, and is a semester-long professional development program that utilizes self-assessment, one-on-one and group coaching, and developmental seminars; for students enrolled in the CIMBA Italy Program.

MGMT:4000 Topics in Management 1-3 s.h.
Topics not regularly offered in other courses. Prerequisites: MGMT:2100.

MGMT:4050 Directed Readings in Management and Organizations arr.

MGMT:4100 Dynamics of Negotiations 3 s.h.
Predictable aspects and dynamics of bargaining experiences; simulations, experiential exercises to foster skills needed for effective negotiation in almost any situation. Requirements: 60 s.h. completed.

MGMT:4200 Staffing and Talent Management 3 s.h.
Staffing processes; external influences such as labor markets, the legal environment; support activities such as job analysis, employment planning; staffing activities such as internal and external recruiting, selection. Prerequisites: MGMT:3300 and MGMT:3200. Corequisites: MGMT:3400.

MGMT:4300 Leadership and Personal Development 3 s.h.
Practical development and application of leadership and managerial skills to enhance individual and organizational effectiveness.

MGMT:4325 Team and Project Management 3 s.h.
Fundamentals of managing teams and group projects; emphasis on practical application, using case studies, and interactive and experiential exercises. Prerequisites: MGMT:3200 and MGMT:3300.

MGMT:4350 Performance Management and Strategic Rewards 3 s.h.
Role of pay and other rewards on organizational objectives; compensation's impact on employee behavior and performance; mix of pay and benefits in compensation systems; legal environment regulating pay and benefits; nonmonetary forms of reward; the role of performance management, pay, and other rewards on employee performance and organizational objectives is examined; includes performance appraisals, coaching, performance feedback, incentive systems, the mix of pay and benefits in compensation systems, and the legal environment regulating pay and benefits. Prerequisites: MGMT:3300 and MGMT:3200.

MGMT:4500 Strategy, Innovation and Global Competition 3 s.h.
Development of skills for firm strategy formation in a complex and technology-driven global economy; analytical tools that are essential to any consultant, manager, or entrepreneur facing dynamic industry environments. Prerequisites: MGMT:2100.

MGMT:4600 Nonprofit Ethics and Governance 3 s.h.
Tools to help identify, understand, and resolve ethical issues in nonprofit sectors; how individual beliefs and societal standards shape ethical decision-making; application of ethical frameworks to classic and contemporary ethical dilemmas; how various forms of governance shape ethical behavior in organizations; case studies, readings, lectures, and guest speakers. Same as MUSM:4600.

MGMT:4999 Honors Thesis in Management arr.
Independent student project directed by faculty or staff advisor; culminates in thesis that conforms to University of Iowa Honors Program guidelines; may include empirical research, library research, applied projects. Prerequisites: BUS:1999.

MGMT:7120 Research Methods in Behavioral Social Sciences (PhD) 3 s.h.
Main steps in conducting empirical research studies. Example topics include generating research ideas, developing hypotheses, designing experiments and field studies, developing measures of the constructs, identifying a sample, testing hypotheses, and writing and publishing research.

MGMT:7124 Methods for Qualitative Research 2 s.h.
Qualitative methods available to researchers; role and contributions of qualitative methods in research; reasons why qualitative research papers get rejected by journals and strategies to avoiding them; work with qualitative data; philosophy of science, formulating research questions, sampling and gaining access, alternative qualitative data collection methods, ways of coding and analyzing qualitative data, building theory from qualitative data.

MGMT:7128 Methods for Experimental Research 2 s.h.
Nature of research and principles of experimental design, including laboratory and field experiments (quasi-experiments), event sampling, and methods of small-group research; analysis of variance (ANOVA), analysis of covariance (ANCOVA), multi-attribute analysis of variance (MANOVA); orthogonal, planned and unplanned comparisons, factorial experiments including repeated measures, nested-factors design, Latin square designs; analysis of data sets with SPSS.

MGMT:7140 Meta-Analysis in Behavioral Social Sciences (PhD) 3 s.h.
Methods for quantitative integration of findings in behavioral and social sciences; overall effect size or correlation, whether conflicting findings documented in research literature are due to moderators (interactions) or statistical and measurement artifacts.

MGMT:7160 Multivariate Analysis in Behavioral Social Sciences (PhD) 3 s.h.
Principles and analytical methods for testing multivariate relationships in behavioral social sciences. Students build on existing knowledge about univariate (e.g., summary statistics) and bivariate statistics (e.g., group comparison, correlation, linear regression) and learn the foundation and application of multivariate statistics. Topics covered include multiple regression, relative importance analysis, mediated and moderated models, principal component analysis and factor analysis, and basic and advanced topics in structural equation modeling. Time will also be spent on data cleaning, organization, and visualization. Requirements: basic statistical methods course.

MGMT:7323 Foundations of Organizational Theorizing 2-3 s.h.
Examination of the field of micro-organizational behavior (micro-OB); development of ability to evaluate and generate papers that make a theoretical contribution to the field; classic and contemporary research related to prevailing theories; students engage in weekly writing, including a series of theory building exercises and peer reviewing; objectives include supporting peers in generating new theoretical questions, models, and/or frameworks, and providing an overview of theoretical contributions in several important areas in organizational behavior.

MGMT:7328 Academic Writing 2-3 s.h.
Development of critical thinking skills and practices associated with successful academic writing; students learn and practice how to write stylized sections of a social science paper effectively (e.g., literature review, hypothesis development); how to write for impact; research-supported productive writing habits, including how to give and receive feedback on early drafts of writing; writing style/mechanics (e.g., using active voice); writing assignments include a combination of step-by-step revisions to an existing, self-selected paper and shorter hands-on exercises targeted at specific writing skills.

MGMT:7340 Group Processes (PhD) 3 s.h.
In-depth understanding of how work groups and teams can be made more effective in organizations; team design issues (i.e., task type, interdependence, leadership, member composition); process issues including power, influence, communications, conflict, collective memory, and intergroup relations.

MGMT:7350 Leadership (PhD) 3 s.h.
Understanding and preparation for implementing leadership in organizations; focus on reading and analysis of basic research-related leadership theories; contrast "great person" theories, traditional behavioral and situational theories, and transformational leadership theory.

MGMT:7360 Motivation and Attitudes (PhD) 3 s.h.
Motivational processes, attitudes, communication and interorganizational networks; emphasis on motivational antecedents and consequences, theoretical implications for models of work performance.

MGMT:7700 Mentored Research arr.
Management research conducted by doctoral students under faculty supervision; culminates in second-year research paper.

MGMT:7800 Foundations of Human Resource Management 2-3 s.h.
Broad survey of foundational topics in human resource management, particularly from a micro perspective, interspersed with special topics of growing interest within the field; introduction to foundational theoretical and empirical research on topics of staffing, training and development, performance management and compensation, including an examination of trending topics of interest in these areas; students develop skills necessary to evaluate, criticize, and contribute to literature on human resource management.

MGMT:7900 Contemporary Topics in Management & Entrepreneurship arr.
Research topics in human resources and organizational behavior.

MGMT:7950 Directed Readings in Management arr.

MGMT:7975 Thesis in Management arr.
Management research conducted by doctoral students under faculty supervision; culminates in dissertation.

MGMT:8000 Healthcare Business Leadership 1-2 s.h.
Explaining, predicting, and influencing human behavior in healthcare organizations and settings; topics include high-performance leadership, strategic hiring of employees, decision making, negotiations, entrepreneurship, and basic finance/accounting for clinicians. Requirements: acceptance into pharmacy Healthcare Business Leadership (HBL) Program, and full-time student status (12 s.h.) in each semester enrolled in the HBL program not including hours tied to this course.

MGMT:9090 Influence and Constructive Persuasion 3 s.h.
Exploration of methods of persuasion and the science behind why and how influence works in a contemporary business setting; leadership as a function of consensus building, convincing, and motivating in today's team-based, knowledge-centric enterprises; how leaders select from a variety of influence techniques to get others' commitment to a course of action rather than commanding others; persuasion—using solid evidence coupled with emotional appeal—as capacity to present a message in a way that leads others to support it; how persuasion, when used effectively, creates a sense of freedom—others freely choose your perspective and support it.

MGMT:9091 Corporate Social Responsibility and Sustainability 2-3 s.h.
Introduction to main corporate social responsibility (CSR) and sustainability issues; current debates; costs and benefits of CSR/sustainability; relationship between leadership, innovation, and CSR; CSR's effects on companies' ability to attract and retain good employees; numerous cases studies ranging from small to large companies from various sectors including food and agriculture, manufacturing, finance, mining, energy, retail, transportation; students read and debate articles and case studies written by leading business experts, academics, and CEOs; individual or teamwork on a CSR change analysis.

MGMT:9092 Effective Managerial Communication 2-3 s.h.
Decisive personal and organizational skills for business leaders and entrepreneurs; at individual level, students will refresh writing, listening, speaking, and interpersonal skills for business settings; at the organizational level, course provides crucial managerial skills—how to conduct an effective meeting, questioning skills for employment selection, engaging in small talk, and communication during a crisis.

MGMT:9110 Dynamics of Negotiations 2-3 s.h.
Predictable aspects and dynamics of bargaining experiences; simulations, experiential exercises to foster skills needed for effective negotiation in almost any situation. Requirements: MBA enrollment.

MGMT:9120 Leadership and Personal Development 2-3 s.h.
Major theories; determinants of leader effectiveness, personal and career success; practical development of leadership, managerial skills to enhance individual, organizational effectiveness.

MGMT:9130 Strategic Management of Change 3 s.h.
How congruence in organizational strategy, structure and culture, job design, and employee characteristics produces effective organizations; emphasis on managing organizational change, implementing and working in teams, project management. Recommendations: completion of MBA:8120.

MGMT:9150 Nonprofit Organizational Effectiveness I 3 s.h.
Operational and financing aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as HMP:6360, PBAF:6278, RELS:6070, SPST:6010, SSW:6247, URP:6278.

MGMT:9160 Nonprofit Organizational Effectiveness II 3 s.h.
Qualities for leadership of nonprofit organizations, including relationships with staff and volunteers; relationship of nonprofit and outside world; marketing, public relations, advocacy strategies for nonprofits. Same as HMP:6365, PBAF:6279, RELS:6075, SPST:6020, SSW:6248, URP:6279.

MGMT:9170 Human Resources Analytics 3 s.h.
Introduces analytical techniques for making human resources (HR) decisions. Using Excel and Python, learn the importance of measurement and how to analyze data and interpret results to inform organizational decision-making related to selection, promotions, and turnover. Use data to make high-stakes decisions in the conceptual domain of human resources. Analytical techniques covered include basic descriptive statistics, correlations, regression, and introduction to natural language processing. Prerequisites: MBA:8150 or BAIS:9100.

MGMT:9185 Project Management 2-3 s.h.
Preparation for managing projects and project portfolios; project selection, project planning and budgeting, scheduling, resource allocation, project control; integration of project planning tools, including project management software.

MGMT:9210 Law and Ethics 2-3 s.h.
Legal issues surrounding start-up and day-to-day management of a business; contract law, standard business formations, tort law, employment law, business ethics, and alternative dispute resolution; exploration of the ways in which ethics and law intersect as well as the ways in which law reflects various ethical judgments; consideration and comparison of the roles of law and the role of ethics in our society.

MGMT:9220 Maximizing Team Performance 3 s.h.
Current approaches to implementing effective teams within organizations; team selection and formation, group dynamics, facilitation skills, performance and obstacle management.

MGMT:9230 Managing and Preventing Conflict 3 s.h.
Skills for management of high-conflict situations in the workplace and for long-term business success and job satisfaction; experience developing mediation-based skills and communication techniques to prevent and resolve workplace conflicts.

MGMT:9240 Inclusive Leadership 3 s.h.
Skills to develop a more inclusive leadership style including leading productive conversations about diversity, transforming diversity-related conflicts into opportunities for learning and growth, evaluating diversity initiatives for potential effectiveness, and developing a change management plan for increasing inclusion in an organization; exploration of foundations for inclusive leadership behaviors and team cultures through self-assessments, case studies, and group activities. Prerequisites: MBA:8120.

MGMT:9250 Managing Employee Performance 3 s.h.
Concepts and practices to effectively manage, measure, and improve employee performance; establishing and communicating organizational expectations, the manager as coach and motivator, measurement methodologies, and performance improvement methods; concepts and practices to effectively manage, measure, and improve employee performance; establishing and communicating organizational expectations; the manager as coach and motivator, performance improvement methods, and designing more effective reward practices.

MGMT:9260 Strategic Employee Development 3 s.h.
Concepts, practices in training and development; strategic issues affecting the design, implementation, and evaluation of training programs and of career management and organizational development activities.

MGMT:9270 Human Resource Management 3 s.h.
Systematic approach to managing human resources through practices consistent with validated theories and empirical research; human resources practices and business strategies; human resources strategy, recruitment and selection, training and development, employment law, international human resources, career management, compensation.

MGMT:9290 Global Business Management 3 s.h.
Theoretical knowledge and practical skills that are critical to successfully compete in the global marketplace and to make sound management decisions in international contexts; economic, political, legal, and social aspects of a business environment in foreign markets; multinational companies' winning moves in entering and growing in these markets; best practices in managing people in different cultural settings.

Entrepreneurship, BBA

Iowa JPEC and the Department of Management and Entrepreneurship [p. 1236] offer the Bachelor of Business Administration (BBA) in entrepreneurship. Students are encouraged to meet with their academic advisors regarding completing the BBA in entrepreneurship.

Undergraduate entrepreneurship academic programs at the University of Iowa are comprised of advanced applied learning courses along with several cocurricular programs to help prepare the next generation of successful innovators, entrepreneurial leaders, and business founders. The academic programs are designed to teach innovation and creativity, entrepreneurial leadership, opportunity recognition, design thinking, strategic business planning, entrepreneurial finance, entrepreneurial marketing, and professional communications. Students have several emphasis areas to choose from to complete their programs of study based on their future career interests such as technological innovation, social entrepreneurship, entrepreneurial finance, launching new ventures, corporate entrepreneurship, or general entrepreneurship. Students learn from a select group of faculty who have launched, built, and led successful organizations and have the ability to bridge theory and practice. Several of the programs are open to all University of Iowa undergraduate students. To learn more, visit the John Pappajohn Entrepreneurial Center website.

Common BBA Requirements

The Bachelor of Business Administration (BBA) requires a minimum of 120 s.h. of credit, including at least 48 s.h. earned in business courses and at least 52 s.h. earned in non-business courses.

BBA students must earn 45 s.h. at the University of Iowa following admission to the BBA program. At least 24 s.h. in business courses must be earned with Tippie College of Business coursework. At least two-thirds of the semester hours in a student's major must be earned in the student's major department at the Tippie College of Business. Nonresident instruction includes coursework at colleges and universities other than the University of Iowa.

To graduate, BBA students must have a cumulative grade-point average of at least 2.00 in all college-level coursework attempted, all college-level business coursework attempted, all college-level major coursework attempted, all college-level coursework attempted at the University of Iowa, all college-level business coursework attempted at the University of Iowa, and all college-level major coursework attempted at the University of Iowa.

Common BBA Requirements

BBA students must fulfill the following common requirements or approved equivalents. For approved equivalents, consult the college's Undergraduate Program Office.

General Education

Students may not count courses taken to fulfill General Education Program requirements toward other course requirements for the BBA.

Course #	Title	Hours
Historical Perspectives		3
International and Global Issues		3
Interpretation of Literature		3
Natural Sciences (without lab)		3
Rhetoric		4
Social Sciences (excluding ECON:1100 and ECON:1200)		3
Understanding Cultural Perspectives		3
Values and Society		3
World Languages		0-10

World Languages

Tippie College of Business students may complete the World Languages requirement using one of three options. One year of high school language study is generally equivalent to one semester of college language study.

Option One

Attain fourth level proficiency in a single world language. Students attain fourth level proficiency in a single world language by completing four years of that language in high school or four semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at fourth level proficiency.

Option Two

Attain third level proficiency in a single world language and complete a World Language and Cultural Exploration course. Students attain third-level proficiency in a single world language by completing three years of that language in high school or three semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at third-level proficiency. Option two does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Option Three

Attain second level proficiency in each of two world languages. Students attain second level proficiency in each of two world languages by completing two years of each language in high school or two semesters of each language in college, or an equivalent combination of high school and college coursework, or pass achievement tests and/or evaluations at second-level proficiency in each language. Option three does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Prerequisites for Admission to the BBA Program

Course #	Title	Hours
BAIS:1500	Business Computing Essentials	2
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business	4
RHET:1030	Rhetoric: Writing and Communication	4
STAT:1030	Statistics for Business	4

Prerequisites for Declaring a BBA Major

Course #	Title	Hours
ACCT:2100	Introduction to Financial Accounting	3

ECON:1200	Principles of Macroeconomics	4

BBA Core

Course #	Title	Hours
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:2800	Foundations of Business Analytics	3
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
BUS:2200	Discover Business at Tippie	1
BUS:3000	Business Communication and Professionalism	3
FIN:3000	Introductory Financial Management	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
MKTG:3000	Introduction to Marketing Strategy	3

Experiential Learning Requirement: Tippie RISE

RISE is an acronym for hands-on experiential learning in the form of research with faculty, internship course, study abroad, and experiential course. All BBA students in the Tippie College of Business students must successfully complete at least one of these four experiences. Courses that satisfy Tippie RISE are as follows.

Research With Faculty

Working closely with a faculty mentor, students explore a research question of interest for a semester or more. By conducting academic research, students enhance their critical thinking skills, learn techniques to collect and analyze data, and apply their findings to business practices. These skills are highly useful for a variety of businesses and graduate programs.

Course #	Title	Hours
ACCT:4999	Honors Thesis in Accounting	arr.
BAIS:4999	Honors Thesis in Business Analytics	arr.
BUS:3600	Mentored Research	arr.
BUS:4999	Honors Thesis in Business	arr.
ECON:4999	Honors Thesis in Economics	arr.
FIN:4999	Honors Thesis in Finance	arr.
MGMT:4999	Honors Thesis in Management	arr.
MKTG:3702	Marketing Institute Seminar II	2
MKTG:4999	Honors Thesis in Marketing	arr.
URES:3992	Undergraduate Research and Creative Projects	0
URES:3993	Undergraduate Research and Creative Projects	1-4
URES:3994	Undergraduate Research and Creative Projects	1-4
URES:3995	Independent Creative Research by Undergraduates Summer Internship	0

Internship Course

As students gain valuable hands-on work experience in a professional internship, they complete one of the approved internship courses to assist them in having a meaningful learning experience. The internship courses encourage students to take on relevant job responsibilities, outline strategies to meet internship goals, regularly communicate with their supervisors, explore the career field, and reflect on their growth throughout the experience.

Course #	Title	Hours
BUS:3100	Academic Internship or Cooperative Education	0
BUS:3900	Business Communication Internship I	3
BUS:4900	Academic Internship	arr.
CCP:1201	Academic Internship	1-3
CCP:2020	Washington Center Internship Program	arr.
CCP:2202	International Student Full-Time Academic Internship	9
ENTR:4300	Launching an Entrepreneurial Venture	arr.
ENTR:4900	Academic Internship	arr.
EVNT:2110	Internship in Event Management	3
LS:3011	Leadership Certificate Capstone	0-2
SRM:4199	Independent Sport and Recreation Field Experience	arr.

Study Abroad

By taking advantage of short-term, summer, semester, or academic year programs, students can expand their worldview and learn alternative business and cultural practices outside of the United States. Students can participate in Tippie RISE study abroad programs such as London Winter, International Business in Sydney, CIMBA Italy, Global Internships, spring break programs through the John Pappajohn Entrepreneurial Center, or any of the many UI study abroad programs in over 40 countries. Any study abroad program is accepted for credit, including virtual programs, short-term faculty-led programs, and summer, semester, or year-long programs. These courses may be study abroad courses (prefix ABRD) or select study abroad international activities courses (prefix INTL) but are not required to be; see Study Abroad [p. 2215] in the catalog.

Experiential Course

In approved experiential courses, students improve their understanding of academic concepts by applying them to a class project with a company or nonprofit organization. Using real circumstances and issues, students engage with the organization to make a lasting impact. Students have support from classmates and guidance from their instructor throughout the duration of the project. Experiential courses are offered in many BBA majors and as business and non-business electives. Courses must be taken at the University of Iowa to satisfy Tippie RISE.

Course #	Title	Hours
ACCT:3451	Tax Practicum (VITA) II (spring only)	1
BAIS:4150	Business Analytics and Information Systems Capstone	3
BUS:3920	Business Case Competitions Professional Preparation	arr.
ECON:3360	Experimental Economics	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3
FIN:4250	Applied Equity Valuation	3
FIN:4310	Advanced Corporate Finance	3
FIN:4350	Applied Wealth Management	3
FIN:4410	Enterprise Risk Management	3
FIN:4420	Property and Liability Insurance	3
FIN:4460	Insurer Operations and Captive Management	3
LS:1024	Hawkeye Service Breaks (spring only)	3
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3
MGMT:3600	Nonprofit Organizational Effectiveness II	3
MGMT:3850/ ENTR:3850	Entrepreneurial Leadership Academy II	3
MGMT:4600	Nonprofit Ethics and Governance	3
MKTG:3100	Marketing Research	3
MKTG:3103	Advanced Marketing Research	3
MKTG:3700	Marketing Institute Seminar I	2
MKTG:3701	Marketing Institute Field Studies	2
MKTG:4250	Marketing and Sustainability	3
MKTG:4800	Marketing Consulting Project	3
SRM:4197	Sport and Recreation Field Experience (not fans first section)	arr.

Major Area of Study

All BBA students must complete a major area of study. The college offers BBA majors in accounting [p. 1140], business analytics and information systems [p. 1158], economics [p. 1185], entrepreneurship, finance [p. 1208], management [p. 1236], marketing [p. 1261], and risk management and insurance [p. 1219]. The requirements for each major are established by the department that offers the major.

Students With Associate of Arts Degrees

Students who have been granted an Associate of Arts (AA) from a community college participating in the Iowa and Illinois Community College/Regents Articulation Agreements are considered to have met all high school unit requirements for admission to the BBA and all of the General Education Program requirements listed under "General Education Requirements," except the Understanding Cultural Perspectives and World Languages requirements. The program of study for which a student was awarded the AA must have included:

- a minimum of 60 s.h. (or 90 quarter hours) of credit acceptable toward graduation from the University of Iowa;
- completion of the agreed-upon group of courses at the community college; and
- a GPA of at least 2.00.

Mathematics courses comparable to MATH:0100 Basic Algebra I are not accepted toward graduation. Completion of an Associate of Arts does not guarantee admission to the BBA program in the Tippie College of Business. See Admission in Undergraduate Programs [p. 1132] for a complete list of requirements for admission to the BBA.

Students who use the provisions of the articulation agreement are granted a maximum of 60 s.h. of transferable credit from two-year colleges toward the 120 s.h. required for a BBA. Credit earned for the AA beyond the 60 s.h. transferable maximum is used in computing a student's grade-point average, and it may be used to satisfy course requirements, but it does not count toward the BBA. Transfer credit for business courses taken during the first and second years is counted toward the BBA only if such courses are usually offered as lower-division courses at the University of Iowa.

Transfer Courses

Students who have taken courses at another institution that are similar to those approved for the common business requirements at Iowa may request that these courses be evaluated for transfer credit. Students who transfer fewer hours than needed to meet a common business requirement may use only approved courses to complete the remainder of the requirement. Only courses taken at accredited four-year institutions may be used to satisfy business course requirements numbered 3000 or above. Students must complete a minimum of 24 s.h. of business coursework at Iowa and at least two-thirds of the coursework in the major in the department awarding the major. They must also meet the 45 s.h. residence requirement of the Tippie College of Business. Credit earned through online courses may be counted toward all requirements for graduation, subject to approval by a student's major department.

Multiple Majors in Business

Students may earn the BBA degree with more than one major; they may also combine the BBA degree with the Bachelor of Arts or Bachelor of Science in economics (except for the BBA in economics). The Four-Year Graduation Plan is not available to students earning more than one major or degree. Students have access to degree audits in MyUI for all of the programs of study they have officially declared. They also have access to all program courses, with some limitations, during early registration. A student must be in good academic standing in order to declare more than one major. See Double Majors and Joint Degrees on the Tippie College of Business website.

Requirements

The Bachelor of Business Administration (BBA) with a major in entrepreneurship requires a minimum of 120 s.h., including 22 s.h. of work for the major. To graduate, students must have a cumulative grade-point average of at least 2.00 in all college coursework attempted, all coursework attempted at the

University of Iowa, all college business coursework attempted, all business coursework attempted at the University of Iowa, all college management and entrepreneurship coursework attempted, and all management and entrepreneurship coursework attempted at the University of Iowa.

Students in this major are not eligible to earn the BA in enterprise leadership or the Certificate in Entrepreneurial Management.

Students may not earn credit for both MGMT:3200 Individuals, Teams, and Organizations and MGMT:3250 Leading Innovation due to overlap in course content.

The BBA with a major in entrepreneurship requires the following coursework.

Requirements	Hours
Entrepreneurship Common Required Courses	16
Entrepreneurship Elective Courses	6

Entrepreneurship Common Required Courses

Course #	Title	Hours
All of these:		
ENTR:3050	Professional Preparation for Enterprise Leadership and Entrepreneurship	1
ENTR:3350	Entrepreneurial Strategy	3
BAIS:3150	Emerging Technology Driving Business Innovation	3
FIN:3900	Advanced Entrepreneurial Finance	3
MGMT:3250	Leading Innovation	3
MKTG:4201	Professional Selling	3

Entrepreneurship Elective Courses

Students complete two courses (6 s.h.) from one of the following categories: entrepreneurial finance [p. 1248], entrepreneurial leadership [p. 1248], new ventures [p. 1248], technology entrepreneurship [p. 1248], or general entrepreneurship [p. 1248]. Students are not guaranteed specific elective options. The availability of courses may be subject to prerequisites or restricted to students who have declared a second major within the respective department.

Entrepreneurial Finance

Course #	Title	Hours
This course:		
ENTR:4650	Applied Venture Finance	3
3 s.h. from these:		
ENTR:4200	Entrepreneurship: Business Consulting	3
ENTR:4900	Academic Internship	arr.

Entrepreneurial Leadership

Course #	Title	Hours
Both of these:		
ENTR:3800	Entrepreneurial Leadership Academy I	3
ENTR:3850	Entrepreneurial Leadership Academy II	3

New Ventures

Course #	Title	Hours
Both of these:		
ENTR:4300	Launching an Entrepreneurial Venture	3
ENTR:4400	Managing the Growth Business	3

Technology Entrepreneurship

Course #	Title	Hours
Both of these:		
ENTR:3550	Commercializing New Technology I	3
ENTR:3575	Commercializing New Technology II	3

General Entrepreneurship

Course #	Title	Hours
This course:		
ENTR:4400	Managing the Growth Business	3
3 s.h. from these:		
ENTR:3500	Social Entrepreneurship	3
ENTR:3550	Commercializing New Technology I	3
ENTR:3800	Entrepreneurial Leadership Academy I	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3
ENTR:4300	Launching an Entrepreneurial Venture	arr.
ENTR:4650	Applied Venture Finance	3
ENTR:4900	Academic Internship	arr.
MGMT:4100	Dynamics of Negotiations	3

Career Advancement

Recent graduates are successful innovators, entrepreneurial leaders, and business founders. The Pomerantz Career Center offers multiple resources to help students find internships and jobs. For more information, visit the Pomerantz Career Center website.

Iowa JPEC offers a wide variety of applied learning experiences designed to develop entrepreneurial-minded problem solvers and leaders capable of quickly moving into a management position with an existing organization or successfully launching a new business venture. These programs range from team-based strategic business consulting with entrepreneurial ventures and existing small-to-medium-size businesses to professional internships with high-potential ventures and select growth organizations. For students wanting to launch a new venture while in school or expand an existing side hustle, Iowa JPEC directs a comprehensive student incubation program that includes office space, mentoring, training, and access to capital. To learn more visit Student Ventures on the Iowa JPEC website.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs. For more information, visit the Pomerantz Career Center website.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Entrepreneurship, BBA

Course	Title	Hours
Academic Career		
Any Semester		
Students are required to complete 52 s.h. of non-business coursework. Courses with a prefix of ACCT, BAIS, BUS, ECON, ENTR, FIN, MGMT, and MKTG will not count towards non-business hours. Check degree audit for non-business hours or confer with academic advisor.		
Students who need to complete the World Language requirement should consult with their academic advisor about when to add courses to plan of study. World Language counts as non-business coursework.		
To fulfill the Tippie RISE experiential learning requirement, complete an approved course in at least one of the following categories: research with faculty, internship course, study abroad, experiential course. [a]		
Students must satisfy the Tippie College of Business residence requirement: 45 s.h. of UI coursework after admission to Tippie.		
	Hours	**0**
First Year		
Fall		
BUS:2200	Discover Business at Tippie	1
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business [b]	4
RHET:1030	Rhetoric: Writing and Communication	4
GE: Social Sciences [c]		3
CSI:1600	Success at Iowa	1
	Hours	**17**
Spring		
BAIS:1500	Business Computing Essentials	2
ECON:1200	Principles of Macroeconomics	4
STAT:1030	Statistics for Business	4
ENGL:1200	The Interpretation of Literature	3
GE: Understanding Cultural Perspectives [c]		3
	Hours	**16**
Second Year		
Fall		
ACCT:2100	Introduction to Financial Accounting	3
BAIS:2800	Foundations of Business Analytics	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
GE: Natural Sciences without Lab [c]		3
	Hours	**15**
Spring		
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
BUS:3000	Business Communication and Professionalism [d]	3
ENTR:3050	Professional Preparation for Enterprise Leadership and Entrepreneurship	1
ENTR:3350	Entrepreneurial Strategy	3
GE: Values and Society [c]		3
Minor, certificate, or non-business elective		1
	Hours	**15**
Third Year		
Fall		
BAIS:3150	Emerging Technology Driving Business Innovation	3
FIN:3000	Introductory Financial Management	3
MGMT:3250	Leading Innovation	3
MKTG:3000	Introduction to Marketing Strategy	3
GE: International and Global Issues [c]		3
	Hours	**15**
Spring		
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
FIN:3900	Advanced Entrepreneurial Finance	3
MKTG:4201	Professional Selling	3
GE: Historical Perspectives [c]		3
Minor, certificate, or non-business elective		3
	Hours	**15**
Fourth Year		
Fall		
Major: entrepreneurship elective [e]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
	Hours	**15**
Spring		
Major: entrepreneurship elective [e]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [f]		
	Hours	**15**
	Total Hours	**123**

a See degree audit for course options.
b Enrollment in math courses requires completion of a placement exam.

c GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
d Must be admitted to Tippie to enroll in BUS:3000. Generally completed during the second year, but should be taken no later than the third year.
e Complete two courses (6 s.h.) from one of the following categories: entrepreneurial finance, entrepreneurial leadership, new ventures, technology entrepreneurship, or general entrepreneurship. See the General Catalog for lists of approved courses.
f Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Management, BBA

Common BBA Requirements

The Bachelor of Business Administration (BBA) requires a minimum of 120 s.h. of credit, including at least 48 s.h. earned in business courses and at least 52 s.h. earned in non-business courses.

BBA students must earn 45 s.h. at the University of Iowa following admission to the BBA program. At least 24 s.h. in business courses must be earned with Tippie College of Business coursework. At least two-thirds of the semester hours in a student's major must be earned in the student's major department at the Tippie College of Business. Nonresident instruction includes coursework at colleges and universities other than the University of Iowa.

To graduate, BBA students must have a cumulative grade-point average of at least 2.00 in all college-level coursework attempted, all college-level business coursework attempted, all college-level major coursework attempted, all college-level coursework attempted at the University of Iowa, all college-level business coursework attempted at the University of Iowa, and all college-level major coursework attempted at the University of Iowa.

Common BBA Requirements

BBA students must fulfill the following common requirements or approved equivalents. For approved equivalents, consult the college's Undergraduate Program Office.

General Education

Students may not count courses taken to fulfill General Education Program requirements toward other course requirements for the BBA.

Course #	Title	Hours
Historical Perspectives		3
International and Global Issues		3
Interpretation of Literature		3
Natural Sciences (without lab)		3
Rhetoric		4
Social Sciences (excluding ECON:1100 and ECON:1200)		3
Understanding Cultural Perspectives		3
Values and Society		3
World Languages		0-10

World Languages

Tippie College of Business students may complete the World Languages requirement using one of three options. One year of high school language study is generally equivalent to one semester of college language study.

Option One

Attain fourth level proficiency in a single world language. Students attain fourth level proficiency in a single world language by completing four years of that language in high school or four semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at fourth level proficiency.

Option Two

Attain third level proficiency in a single world language and complete a World Language and Cultural Exploration course. Students attain third-level proficiency in a single world language by completing three years of that language in high school or three semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at third-level proficiency. Option two does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Option Three

Attain second level proficiency in each of two world languages. Students attain second level proficiency in each of two world languages by completing two years of each language in high school or two semesters of each language in college, or an equivalent combination of high school and college coursework, or pass achievement tests and/or evaluations at second-level proficiency in each language. Option three does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Prerequisites for Admission to the BBA Program

Course #	Title	Hours
BAIS:1500	Business Computing Essentials	2
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business	4
RHET:1030	Rhetoric: Writing and Communication	4
STAT:1030	Statistics for Business	4

Prerequisites for Declaring a BBA Major

Course #	Title	Hours
ACCT:2100	Introduction to Financial Accounting	3
ECON:1200	Principles of Macroeconomics	4

BBA Core

Course #	Title	Hours
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:2800	Foundations of Business Analytics	3
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
BUS:2200	Discover Business at Tippie	1
BUS:3000	Business Communication and Professionalism	3
FIN:3000	Introductory Financial Management	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
MKTG:3000	Introduction to Marketing Strategy	3

Experiential Learning Requirement: Tippie RISE

RISE is an acronym for hands-on experiential learning in the form of research with faculty, internship course, study abroad, and experiential course. All BBA students in the Tippie College of Business students must successfully complete at least one of these four experiences. Courses that satisfy Tippie RISE are as follows.

Research With Faculty

Working closely with a faculty mentor, students explore a research question of interest for a semester or more. By conducting academic research, students enhance their critical thinking skills, learn techniques to collect and analyze data, and apply their findings to business practices. These skills are highly useful for a variety of businesses and graduate programs.

Course #	Title	Hours
ACCT:4999	Honors Thesis in Accounting	arr.
BAIS:4999	Honors Thesis in Business Analytics	arr.
BUS:3600	Mentored Research	arr.
BUS:4999	Honors Thesis in Business	arr.
ECON:4999	Honors Thesis in Economics	arr.
FIN:4999	Honors Thesis in Finance	arr.
MGMT:4999	Honors Thesis in Management	arr.
MKTG:3702	Marketing Institute Seminar II	2
MKTG:4999	Honors Thesis in Marketing	arr.
URES:3992	Undergraduate Research and Creative Projects	0
URES:3993	Undergraduate Research and Creative Projects	1-4
URES:3994	Undergraduate Research and Creative Projects	1-4
URES:3995	Independent Creative Research by Undergraduates Summer Internship	0

Internship Course

As students gain valuable hands-on work experience in a professional internship, they complete one of the approved internship courses to assist them in having a meaningful learning experience. The internship courses encourage students to take on relevant job responsibilities, outline strategies to meet internship goals, regularly communicate with their supervisors, explore the career field, and reflect on their growth throughout the experience.

Course #	Title	Hours
BUS:3100	Academic Internship or Cooperative Education	0
BUS:3900	Business Communication Internship I	3
BUS:4900	Academic Internship	arr.
CCP:1201	Academic Internship	1-3
CCP:2020	Washington Center Internship Program	arr.
CCP:2202	International Student Full-Time Academic Internship	9
ENTR:4300	Launching an Entrepreneurial Venture	arr.
ENTR:4900	Academic Internship	arr.
EVNT:2110	Internship in Event Management	3
LS:3011	Leadership Certificate Capstone	0-2
SRM:4199	Independent Sport and Recreation Field Experience	arr.

Study Abroad

By taking advantage of short-term, summer, semester, or academic year programs, students can expand their worldview and learn alternative business and cultural practices outside of the United States. Students can participate in Tippie RISE study abroad programs such as London Winter, International Business in Sydney, CIMBA Italy, Global Internships, spring break programs through the John Pappajohn Entrepreneurial Center, or any of the many UI study abroad programs in over 40 countries. Any study abroad program is accepted for credit, including virtual programs, short-term faculty-led programs, and summer, semester, or year-long programs. These courses may be study abroad courses (prefix ABRD) or select study abroad international activities courses (prefix INTL) but are not required to be; see Study Abroad [p. 2215] in the catalog.

Experiential Course

In approved experiential courses, students improve their understanding of academic concepts by applying them to a class project with a company or nonprofit organization. Using real circumstances and issues, students engage with the organization to make a lasting impact. Students have support from classmates and guidance from their instructor throughout the duration of the project. Experiential courses are offered in many BBA majors and as business and non-business electives. Courses must be taken at the University of Iowa to satisfy Tippie RISE.

Course #	Title	Hours
ACCT:3451	Tax Practicum (VITA) II (spring only)	1
BAIS:4150	Business Analytics and Information Systems Capstone	3
BUS:3920	Business Case Competitions Professional Preparation	arr.
ECON:3360	Experimental Economics	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3
FIN:4250	Applied Equity Valuation	3
FIN:4310	Advanced Corporate Finance	3
FIN:4350	Applied Wealth Management	3
FIN:4410	Enterprise Risk Management	3
FIN:4420	Property and Liability Insurance	3
FIN:4460	Insurer Operations and Captive Management	3
LS:1024	Hawkeye Service Breaks (spring only)	3

LS:3002	Career Leadership Academy Part 2: Leadership in Action	3
MGMT:3600	Nonprofit Organizational Effectiveness II	3
MGMT:3850/ ENTR:3850	Entrepreneurial Leadership Academy II	3
MGMT:4600	Nonprofit Ethics and Governance	3
MKTG:3100	Marketing Research	3
MKTG:3103	Advanced Marketing Research	3
MKTG:3700	Marketing Institute Seminar I	2
MKTG:3701	Marketing Institute Field Studies	2
MKTG:4250	Marketing and Sustainability	3
MKTG:4800	Marketing Consulting Project	3
SRM:4197	Sport and Recreation Field Experience (not fans first section)	arr.

Major Area of Study

All BBA students must complete a major area of study. The college offers BBA majors in accounting [p. 1140], business analytics and information systems [p. 1158], economics [p. 1185], entrepreneurship, finance [p. 1208], management [p. 1236], marketing [p. 1261], and risk management and insurance [p. 1219]. The requirements for each major are established by the department that offers the major.

Students With Associate of Arts Degrees

Students who have been granted an Associate of Arts (AA) from a community college participating in the Iowa and Illinois Community College/Regents Articulation Agreements are considered to have met all high school unit requirements for admission to the BBA and all of the General Education Program requirements listed under "General Education Requirements," except the Understanding Cultural Perspectives and World Languages requirements. The program of study for which a student was awarded the AA must have included:

- a minimum of 60 s.h. (or 90 quarter hours) of credit acceptable toward graduation from the University of Iowa;
- completion of the agreed-upon group of courses at the community college; and
- a GPA of at least 2.00.

Mathematics courses comparable to MATH:0100 Basic Algebra I are not accepted toward graduation. Completion of an Associate of Arts does not guarantee admission to the BBA program in the Tippie College of Business. See Admission in Undergraduate Programs [p. 1132] for a complete list of requirements for admission to the BBA.

Students who use the provisions of the articulation agreement are granted a maximum of 60 s.h. of transferable credit from two-year colleges toward the 120 s.h. required for a BBA. Credit earned for the AA beyond the 60 s.h. transferable maximum is used in computing a student's grade-point average, and it may be used to satisfy course requirements, but it does not count toward the BBA. Transfer credit for business courses taken during the first and second years is counted toward the BBA only if such courses are usually offered as lower-division courses at the University of Iowa.

Transfer Courses

Students who have taken courses at another institution that are similar to those approved for the common business requirements at Iowa may request that these courses be evaluated for transfer credit. Students who transfer fewer hours than needed to meet a common business requirement may use only approved courses to complete the remainder of the requirement. Only courses taken at accredited four-year institutions may be used to satisfy business course requirements numbered 3000 or above. Students must complete a minimum of 24 s.h. of business coursework at Iowa and at least two-thirds of the coursework in the major in the department awarding the major. They must also meet the 45 s.h. residence requirement of the Tippie College of Business. Credit earned through online courses may be counted toward all requirements for graduation, subject to approval by a student's major department.

Multiple Majors in Business

Students may earn the BBA degree with more than one major; they may also combine the BBA degree with the Bachelor of Arts or Bachelor of Science in economics (except for the BBA in economics). The Four-Year Graduation Plan is not available to students earning more than one major or degree. Students have access to degree audits in MyUI for all of the programs of study they have officially declared. They also have access to all program courses, with some limitations, during early registration. A student must be in good academic standing in order to declare more than one major. See Double Majors and Joint Degrees on the Tippie College of Business website.

Requirements

The Bachelor of Business Administration with a major in management requires a minimum of 120 s.h., including 22 s.h. of work for the major. To graduate, students must have a cumulative grade-point average of at least 2.00 in all college coursework attempted, all coursework attempted at the University of Iowa, all college business coursework attempted, all business coursework attempted at the University of Iowa, all college management and entrepreneurship coursework attempted, and all management and entrepreneurship coursework attempted at the University of Iowa.

The program is designed to give students a thorough background in the department's study areas as well as an understanding of their application to real-life situations. Specific courses, research projects, and other experiences, such as simulations, are blended to include both theoretical and pragmatic aspects of the field.

All BBA students majoring in management choose one of two subprograms: human resource management or leadership and management. The human resource management subprogram prepares students to pursue careers in human resources or to earn a degree in law. The leadership and management subprogram focuses on the skills and competencies needed to lead a project, a team, or an organization; it is best suited for students considering management or consulting careers. Each subprogram provides a solid background in general management principles in addition to a specialized focus.

Students may not earn credit for both MGMT:3200 Individuals, Teams, and Organizations and MGMT:3250 Leading Innovation due to overlap in course content.

Students are not guaranteed specific elective options. The availability of courses outside the Department of Management and Entrepreneurship may be subject to prerequisites or restricted to students who have declared a second major within the respective department.

The BBA with a major in management requires the following coursework.

Human Resource Management Subprogram Courses

Students in the human resource management subprogram complete the following coursework.

Course #	Title	Hours
All of these:		
MGMT:3050	Professional Preparation for Management	1
MGMT:3200	Individuals, Teams, and Organizations	3
MGMT:3300	Strategic Human Resource Management	3
MGMT:3400	Employment Law	3
MGMT:4100	Dynamics of Negotiations	3
MGMT:4200	Staffing and Talent Management	3
MGMT:4350	Performance Management and Strategic Rewards	3
And 3 s.h. from these:		
MGMT:3450	International Business Environment	3
MGMT:3500	Nonprofit Organizational Effectiveness I	3
MGMT:3600	Nonprofit Organizational Effectiveness II	3
MGMT:3800	Entrepreneurial Leadership Academy I	3
MGMT:4300	Leadership and Personal Development	3
or MGMT:3999	CIMBA Italy Experiential Leadership	
MGMT:4325	Team and Project Management	3
MGMT:4500	Strategy, Innovation and Global Competition	3
MGMT:4600	Nonprofit Ethics and Governance	3
ENTR:4200	Entrepreneurship: Business Consulting	3
ENTR:4400	Managing the Growth Business	3

Leadership and Management Subprogram Courses

Students in the leadership and management subprogram complete the following coursework.

Course #	Title	Hours
All of these:		
MGMT:3050	Professional Preparation for Management	1
MGMT:3200	Individuals, Teams, and Organizations	3
MGMT:3300	Strategic Human Resource Management	3
MGMT:4100	Dynamics of Negotiations	3
MGMT:4300	Leadership and Personal Development	3
or MGMT:3999	CIMBA Italy Experiential Leadership	
MGMT:4325	Team and Project Management	3
or MGMT:3800	Entrepreneurial Leadership Academy I	
MGMT:4500	Strategy, Innovation and Global Competition	3
And 3 s.h. from these:		
MGMT:3400	Employment Law	3
MGMT:3450	International Business Environment	3
MGMT:3500	Nonprofit Organizational Effectiveness I	3
MGMT:3600	Nonprofit Organizational Effectiveness II	3
MGMT:3850	Entrepreneurial Leadership Academy II	3
MGMT:4200	Staffing and Talent Management	3
MGMT:4350	Performance Management and Strategic Rewards	3
MGMT:4600	Nonprofit Ethics and Governance	3
ENTR:3350	Entrepreneurial Strategy	3
ENTR:4200	Entrepreneurship: Business Consulting	3
ENTR:4400	Managing the Growth Business	3

Career Advancement

Recent graduates have found jobs as team leads, project managers, people managers, human resource managers, and entrepreneurs at a range of organizations.

Over 90% of students reported that they found permanent employment, were accepted to graduate school, or were not seeking employment six months after graduation.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs. For more information, visit the Pomerantz Career Center website.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Management, BBA

- Human Resource Management Subprogram [p. 1255]
- Leadership and Management Subprogram [p. 1256]

Human Resource Management Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
Students are required to complete 52 s.h. of non-business coursework. Courses with a prefix of ACCT, BAIS, BUS, ECON, ENTR, FIN, MGMT, and MKTG will not count towards non-business hours. Check degree audit for non-business hours or confer with academic advisor.		
Students must satisfy the Tippie College of Business residence requirement: 45 s.h. of UI coursework after admission to Tippie.		
Students who need to complete the World Language requirement should consult with their academic advisor about when to add courses to plan of study. World Language counts as non-business coursework.		
To fulfill the Tippie RISE experiential learning requirement, complete an approved course in at least one of the following categories: research with faculty, internship course, study abroad, experiential course. [a]		0 - 3
	Hours	**0-3**
First Year		
Fall		
BUS:2200	Discover Business at Tippie	1
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business [b]	4
RHET:1030	Rhetoric: Writing and Communication	4
GE: Social Sciences [c]		3
CSI:1600	Success at Iowa	1
	Hours	**17**
Spring		
BAIS:1500	Business Computing Essentials	2
ECON:1200	Principles of Macroeconomics	4
STAT:1030	Statistics for Business	4
ENGL:1200	The Interpretation of Literature	3
GE: Understanding Cultural Perspectives [c]		3
	Hours	**16**
Second Year		
Fall		
ACCT:2100	Introduction to Financial Accounting	3
MGMT:2000	Introduction to Law [d]	3
MGMT:2100	Introduction to Management [d]	3
GE: Natural Sciences without Lab [c]		3
Minor, certificate, or non-business elective		2
	Hours	**14**
Spring		
BAIS:2800	Foundations of Business Analytics	3
BUS:3000	Business Communication and Professionalism [e]	3
MGMT:3050	Professional Preparation for Management	1
MGMT:3200	Individuals, Teams, and Organizations [f]	3
GE: International and Global Issues [c]		3
GE: Values and Society [c]		3
	Hours	**16**
Third Year		
Fall		
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
MGMT:3300	Strategic Human Resource Management [f]	3
GE: Historical Perspectives [c]		3
Minor, certificate, or non-business elective		2
	Hours	**15**
Spring		
FIN:3000	Introductory Financial Management	3
MGMT:3400	Employment Law	3
MKTG:3000	Introduction to Marketing Strategy	3
Major: human resource management course [g]		3
Minor, certificate, or non-business elective		3
	Hours	**15**
Fourth Year		
Fall		
MGMT:4100	Dynamics of Negotiations	3
MGMT:4200	Staffing and Talent Management	3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
	Hours	**15**
Spring		
MGMT:4350	Performance Management and Strategic Rewards	3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**14**
	Total Hours	**122-125**

a See degree audit for course options.
b Enrollment in math courses requires completion of a placement exam.
c GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
d MGMT:2000 and MGMT:2100 should both be taken during second year; may be taken in either order.
e Must be admitted to Tippie to enroll in BUS:3000. Generally completed during the second year, but should be taken no later than the third year.
f MGMT:3200 and MGMT:3300 should be taken before the end of the third year; may be taken in either order or concurrently.

g See the General Catalog for list of approved courses.
h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Leadership and Management Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
Students are required to complete 52 s.h. of non-business coursework. Courses with a prefix of ACCT, BAIS, BUS, ECON, ENTR, FIN, MGMT, and MKTG will not count towards non-business hours. Check degree audit for non-business hours or confer with academic advisor.		
Students who need to complete the World Language requirement should consult with their academic advisor about when to add courses to plan of study. World Language counts as non-business coursework.		
To fulfill the Tippie RISE experiential learning requirement, complete an approved course in at least one of the following categories: research with faculty, internship course, study abroad, experiential course. [a]		0 - 3
Students must satisfy the Tippie College of Business residence requirement: 45 s.h. of UI coursework after admission to Tippie.		
	Hours	**0-3**
First Year		
Fall		
BUS:2200	Discover Business at Tippie	1
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business [b]	4
RHET:1030	Rhetoric: Writing and Communication	4
GE: Social Sciences [c]		3
CSI:1600	Success at Iowa	1
	Hours	**17**
Spring		
BAIS:1500	Business Computing Essentials	2
ECON:1200	Principles of Macroeconomics	4
STAT:1030	Statistics for Business	4
ENGL:1200	The Interpretation of Literature	3
GE: Understanding Cultural Perspectives [c]		3
	Hours	**16**
Second Year		
Fall		
ACCT:2100	Introduction to Financial Accounting	3
MGMT:2000	Introduction to Law [d]	3
MGMT:2100	Introduction to Management [d]	3
GE: Natural Sciences without Lab [c]		3
Minor, certificate, or non-business elective		2
	Hours	**14**
Spring		
BAIS:2800	Foundations of Business Analytics	3
BUS:3000	Business Communication and Professionalism [e]	3
MGMT:3050	Professional Preparation for Management	1
MGMT:3200	Individuals, Teams, and Organizations [f]	3
GE: International and Global Issues [c]		3
GE: Values and Society [c]		3
	Hours	**16**
Third Year		
Fall		
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
MGMT:3300	Strategic Human Resource Management [f]	3
GE: Historical Perspectives [c]		3
Minor, certificate, or non-business elective		2
	Hours	**15**
Spring		
FIN:3000	Introductory Financial Management	3
MGMT:3999 or MGMT:4300	CIMBA Italy Experiential Leadership or Leadership and Personal Development	3
MGMT:4500	Strategy, Innovation and Global Competition	3
MKTG:3000	Introduction to Marketing Strategy	3
Minor, certificate, or non-business elective		3
	Hours	**15**
Fourth Year		
Fall		
MGMT:3800 or MGMT:4325	Entrepreneurial Leadership Academy I or Team and Project Management	3
MGMT:4100	Dynamics of Negotiations	3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
	Hours	**14**
Spring		
Major: leadership and management course [g]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**122-125**

a See degree audit for course options.

b Enrollment in math courses requires completion of a placement exam.
c GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
d MGMT:2000 and MGMT:2100 should both be taken during second year; may be taken in either order.
e Must be admitted to Tippie to enroll in BUS:3000. Generally completed during the second year, but should be taken no later than the third year.
f MGMT:3200 and MGMT:3300 should be taken before the end of the third year; may be taken in either order or concurrently.
g See the General Catalog for list of approved courses.
h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Entrepreneurial Management, Certificate

Requirements

The undergraduate Certificate in Entrepreneurial Management requires a minimum of 18 s.h. of credit. Students must maintain a grade-point average of at least 2.00 in work for the certificate.

The certificate program is open to all current University of Iowa undergraduate students and to individuals who have earned a bachelor's degree and are not enrolled in a UI graduate or professional degree program, except to students earning the BBA in entrepreneurship, the BBA in management (entrepreneurial management subprogram), or the BA in enterprise leadership. Undergraduate students can declare the certificate on MyUI.

Students earning the certificate in conjunction with the Bachelor of Applied Studies [p. 2174] (University College) or the Bachelor of Liberal Studies [p. 2177] (University College) may complete the certificate's coursework by distance education.

Students may begin working toward the Certificate in Entrepreneurial Management during their first year. They may count a maximum of 6 s.h. of transfer credit toward the certificate, with approval from the entrepreneurship program director. Credit earned in entrepreneurship courses (prefix ENTR) is counted as semester hours earned in business.

Many certificate courses have prerequisites and other requirements for registration; students must complete a course's prerequisites and must meet its registration requirements before they may register for the course.

The Certificate in Entrepreneurial Management requires the following coursework.

Entrepreneurship Core

To begin work on the certificate, students should first enroll in ENTR:2000 Entrepreneurship and Innovation or its equivalent; for non-business and non-engineering students, ENTR:1350 Foundations in Entrepreneurship must be taken prior to or concurrently with ENTR:2000.

Course #	Title	Hours
This course:		
ENTR:2000	Entrepreneurship and Innovation	3
All of these:		
ENTR:3100	Entrepreneurial Finance	3
ENTR:3200	Entrepreneurial Marketing	3
ENTR:4400	Managing the Growth Business	3

Electives

Students must complete an additional 6 s.h. in elective courses from the following lists. Students are not guaranteed specific elective options, however, there are many options that can tie closely to students' career interests. They may also simply choose 6 s.h. from the courses to complete the certificate. Some courses may be subject to prerequisites or restricted to students who have declared a second major within the respective department. Students who wish to use a course not on these lists must consult with the director of undergraduate studies for entrepreneurship in the Department of Management and Entrepreneurship.

Recommended course options for specialty areas include the following.

Social Entrepreneurship

Course #	Title	Hours
This course:		
ENTR:3500	Social Entrepreneurship	3
And one of these:		
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4900	Academic Internship (must be a social entrepreneurship internship)	arr.

Technology Entrepreneurship

Course #	Title	Hours
These:		
ENTR:3400	Strategic Management of Technology and Innovation	3
ENTR:4900	Academic Internship (must be a technology internship)	arr.
Or these:		
ENTR:3550	Commercializing New Technology I	3
ENTR:3575	Commercializing New Technology II	3

International Entrepreneurship

Course #	Title	Hours
This course:		
ENTR:4460	Entrepreneurship and Global Trade	3
And one of these:		
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3
ENTR:4900	Academic Internship (must be an international entrepreneurship internship)	arr.

General Entrepreneurship

Course #	Title	Hours
ENTR:1800	Innovation in Action: Sustainability	0-1
ENTR:2800	Entrepreneurial Experience	1-3
ENTR:3000	Practicum in Entrepreneurship	1-3
ENTR:3400	Strategic Management of Technology and Innovation	3
ENTR:3500	Social Entrepreneurship	3
ENTR:3550	Commercializing New Technology I	3
ENTR:3575	Commercializing New Technology II	3

ENTR:3595	Nonprofit Organizational Effectiveness I	3
ENTR:3600	Social Media Strategies for Entrepreneurial Ventures	3
ENTR:3700	Sustainable Innovation and Management	3
ENTR:3800	Entrepreneurial Leadership Academy I	3
ENTR:3850	Entrepreneurial Leadership Academy II	3
ENTR:4000	Topics in Entrepreneurship	1-3
ENTR:4050	Directed Readings in Entrepreneurship	arr.
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3
ENTR:4300	Launching an Entrepreneurial Venture	arr.
ENTR:4460	Entrepreneurship and Global Trade	3
ENTR:4510	Arts Leadership Seminar	3
ENTR:4900	Academic Internship	arr.
ENTR:4999	Honors Thesis in Entrepreneurial Studies	arr.
MGMT:4100	Dynamics of Negotiations	3

Doctor of Philosophy

Graduate students in management and entrepreneurship may earn a Doctor of Philosophy in business administration. For a description of the PhD program and requirements, see the PhD in business administration [p. 1179] in the catalog and visit the Department of Management and Entrepreneurship website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Learning Outcomes

- To demonstrate proficiency and knowledge in the specialization discipline, students will demonstrate expertise in reading and interpreting academic research articles in their specialized discipline. They will be knowledgeable in the major theoretical perspectives and prior research findings in their area and be able to integrate prior research from various streams of literature.
- To demonstrate the ability to conduct independent, original research that leads to publications, students will be able to identify important research questions, provide theory-based reasoning to develop original hypotheses, execute an appropriate research design, and summarize their efforts in a working paper. This includes being able to read and summarize existing research into their paper and understanding the prior literature in a variety of substantive areas, paradigms, and methodologies.
- To be effective teachers in their disciplines, students will demonstrate proficiency as instructors in courses in their specialized discipline. This includes preparing course syllabi, giving lectures, writing assignments and exams, and evaluating students on the various deliverables.
- To demonstrate effective communication skills, students will be effective at communicating ideas in academic writing and how these ideas relate to each other within the context of an academic paper. This includes the ability to establish a position, show why that position matters, and situate that position within a context that is determined by the appropriate audience. International students will demonstrate the ability to effectively lecture and communicate in English.

Marketing

Interim Chair

- Catherine A. Cole

Undergraduate major: marketing (BBA)

Graduate degree: marketing subprogram for the PhD in business administration

Faculty: https://tippie.uiowa.edu/people?keywords=&departments=176&category=All

Website: https://tippie.uiowa.edu/about/marketing-department

The study of marketing concerns itself with all activities related to the marketing and distribution of goods and services, from producers to consumers. The goal of the department is to make strong contributions to marketing practice and marketing theory with innovative teaching, cutting-edge research, and active community outreach. The marketing curriculum provides a broad foundation in marketing concepts along with opportunities to specialize in areas of vocational interests. The department utilizes multiple teaching methods, including experiential learning, research experiences, case analyses, and online and face-to-face classroom training to prepare students to solve a variety of marketing problems that arise in our increasingly complex global economy.

The Department of Marketing offers the undergraduate major in marketing with five possible concentrations and the subprogram in marketing that leads to the PhD in business administration. Additionally, the department participates in the MBA program; see Master of Business Administration Program [p. 1272] in the catalog.

Related Certificate

Event Management

The Department of Marketing (Tippie College of Business), the departments of Communication Studies and Health, Sport, and Human Physiology, and the School of Journalism and Mass Communication (College of Liberal Arts and Sciences) collaborate to offer the undergraduate Certificate in Event Management. Students who earn the certificate will know and be able to demonstrate the basic principles of organizing a successful event. They will gain a robust understanding of the diverse field of event management and careers in the event management industry. For information about the certificate, see the Certificate in Event Management [p. 466] in the catalog.

Programs

Undergraduate Program of Study

Major

- Major in Marketing (Bachelor of Business Administration) [p. 1265]

Graduate Program of Study

- Marketing subprogram for the Doctor of Philosophy [p. 1271] in Business Administration

Courses

Marketing Courses

MKTG:1300 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities).

MKTG:3000 Introduction to Marketing Strategy **3 s.h.**
Philosophy and activities of marketing; marketing environment of an organization; strategies with respect to marketing decisions, buyer behavior; spreadsheet analysis of marketing problems.

MKTG:3050 Professional Preparation in Marketing **1 s.h.**
Overview of alternative marketing careers; required skills and personal characteristics that drives success in these fields; hard and soft skills required in major types of marketing careers; development of a professional brand identity and strategy to find marketing internships and permanent employment opportunities; marketing's relationship to other business and organizational functions and to external environment. Corequisites: MKTG:3000.

MKTG:3055 Career Preparation for Marketing **1 s.h.**
Finding and successfully competing for career opportunities in marketing; online exercises, interactions with executives, and participation in a national organization representing professionals. Prerequisites: MKTG:3000 and MKTG:3050 and (MKTG:3100 or MKTG:3200). Requirements: 90 s.h. completed.

MKTG:3100 Marketing Research **3 s.h.**
Marketing, research methods; role of marketing research information as a tool in management decision-making. Prerequisites: MKTG:3000 and (BAIS:2800 or STAT:2020 with a minimum grade of B or ECON:4800 or STAT:4101).

MKTG:3101 Marketing Metrics **3 s.h.**
Identifying and measuring key metrics that are the focus for marketing plans and the backbone for evaluating marketing performance (e.g., penetration, share of requirements, customer satisfaction, churn rates, click-through rates, and customer lifetime value); relationship between conceptual models of business-to-business and business-to-consumer behaviors and the selection of appropriate metrics; emphasis on use of metrics as basic inputs for goal setting, marketing decision-making, and evaluation. Prerequisites: MKTG:3000 and MKTG:3100.

MKTG:3102 Marketing Analytics **3 s.h.**
Marketing science models used in strategic and tactical marketing decisions; application of consumer behavior in the development of quantitative models that inform marketing mix decisions (advertising, pricing, and salesforce effort), new product development, product line management, and category management; topics may include product mapping, latent class (segmentation) analysis, conjoint analysis, choice modeling (binary and multinomial logic), diffusion models (word-of-mouth), decision-calculus ("models and manager" technology), churn analysis and web analytics. Prerequisites: MKTG:3000 and MKTG:3100.

MKTG:3103 Advanced Marketing Research **3 s.h.**
Traditional and nontraditional research techniques to address business problems that have a relationship to basic research; primary focus on hands-on experience and peer-based learning. Prerequisites: MKTG:3000 and MKTG:3100.

MKTG:3104 Sports Marketing 3 s.h.
Overview of the strategies and analytical tools used to meet the needs of fans and improve marketing decisions in the sports industry. Topics addressed include understanding the sports consumer, fan segmentation strategies, the role of marketing research and analytics in understanding fan needs, the use of database marketing in reaching fans, managing sports brands, promotion and sponsorship in sports, and ticket sales and pricing strategies. Analytics skills discussed include data collection and aggregation, data visualization, and basic modeling techniques such as regression and clustering. Prerequisites: MKTG:3000 and MKTG:3100.

MKTG:3200 Consumer Behavior 3 s.h.
Behavioral and social aspects of marketing; research methods and findings from behavioral sciences, their relation to production, consumption, and marketing of products, services. Prerequisites: MKTG:3000.

MKTG:3300 Web Business Strategy 3 s.h.
Introduction to World Wide Web business and marketing; concepts, methods, and applications associated with doing business on the web; web page construction and design; case studies and/or entrepreneurial projects. Prerequisites: MKTG:3000.

MKTG:3400 Retail Strategies 3 s.h.
Strategies for retail site selection, store design, supply chain management, customer relationship management/ customer service; merchandising management strategies for planning merchandise assortments, buying systems, buying merchandise, pricing, promotion. Prerequisites: MKTG:3000.

MKTG:3401 Merchandise Management 3 s.h.
Merchandise and service mix strategies for alternative retail concepts, including various store and online formats; topics include national brands versus private label, multi-channel distribution, logistics, replenishment strategies, pricing, promotion, product assortment, store layout, and point-of-sale and in-store merchandising. Prerequisites: MKTG:3000.

MKTG:3600 Product and Pricing 3 s.h.
Create and capture value through product and service design, including stage-gate evaluation models; implementation of pricing strategy for new products and existing product lines. Prerequisites: MKTG:3000.

MKTG:3605 Strategic Brand Positioning 3 s.h.
Strategic decisions, research processes, and tactics managers undertake to create effective brand strategies; students examine how to conduct strategic analyses of customers, competitors, and the company to identify attractive markets and sustainable competitive positions; sustainable competitive positions serve as the foundation for subsequent discussions regarding brand naming, identity, architecture, equity, and audits. Prerequisites: MKTG:3000.

MKTG:3700 Marketing Institute Seminar I 2 s.h.
Soft skills and professional expertise to succeed in marketing and consulting careers; résumé and interview training, industry presentations, business case assignments, lectures. Prerequisites: MKTG:3000. Requirements: admission to the Marketing Institute.

MKTG:3701 Marketing Institute Field Studies 2 s.h.
Plan, design, carry out, and report on a marketing research project for a profit or nonprofit client organization; communicate with managers, apply knowledge of marketing research, meet deadlines, and convert research findings into actionable recommendations for management. Prerequisites: MKTG:3000 and MKTG:3700. Requirements: admission to the Marketing Institute.

MKTG:3702 Marketing Institute Seminar II 2 s.h.
Development of soft skills and professional expertise to succeed in marketing and consulting careers; résumé and interview training, industry presentations, business case assignments, lectures; mentor students in marketing institute seminar. Prerequisites: MKTG:3000 and MKTG:3700 and MKTG:3701. Requirements: admission to the Marketing Institute.

MKTG:4000 Contemporary Topics in Marketing 3 s.h.
Topics not regularly offered in other courses. Prerequisites: MKTG:3000.

MKTG:4050 Directed Readings in Marketing arr.

MKTG:4101 Integrated Marketing Communications 3 s.h.
Making marketing communication decisions and understanding how marketing communications work; planning and evaluation of marketing communications; theories, models, and tools to make better marketing communication decisions; course uses an Integrated Marketing Communications perspective, which involves understanding the role of the different promotional mix elements and coordinating them to develop effective marketing communication programs. Prerequisites: MKTG:3000.

MKTG:4200 Sales Management 3 s.h.
Personal selling, management of sales force; emphasis on recruitment, selection, training of sales representatives; problems in allocation of sales effort, supervision, control. Prerequisites: MKTG:3000.

MKTG:4201 Professional Selling 3 s.h.
Personal selling function in overall business strategy and professional selling process that underlies successful sales careers; emphasis on hands-on experiences in developing practical skills in sales strategy, analytics, and communications skills; students develop and make sales presentations, engage in role-playing exercises, and complete applied selling exercises as individuals or in sales teams; focus is on professional selling in a business environment, but students will also apply course concepts in other interpersonal business communications settings. Prerequisites: MKTG:3000.

MKTG:4250 Marketing and Sustainability 3 s.h.
Concepts for developing and implementing sustainable marketing strategies; developing more environmentally friendly products, more sustainable logistical systems, socially responsible pricing, and promoting sustainable products in a socially responsible way. Prerequisites: MKTG:3000.

MKTG:4300 International Marketing 3 s.h.
Differences in global environment: how cultural considerations, political, legal, and economic conditions affect market entry strategies and marketing mix decisions; development of marketing plan for non-U.S. environments. Prerequisites: MKTG:3000.

MKTG:4400 Digital Marketing 3 s.h.
Foundational understanding of digital marketing and how successful (and unsuccessful) marketing campaigns use online and mobile platforms; fundamentals of digital marketing including internet marketing strategies, user-generated content, search engine optimization, website design and management, inbound marketing, email marketing, social media marketing, and data analytics. Prerequisites: MKTG:3000.

MKTG:4405 Marketing Sales and Promotion 3 s.h.
While there will always be some need for selling, the aim of marketing is to know the customer so well that a product or service sells itself—marketing done well should result in customers ready to buy; starting with the customer and working backwards, students gain insight into common customer pain points, and how companies improve customer experience and produce what customers will purchase; use of case studies to analyze real-world marketing problems; discussion of strategies and tactics to increase sales and compete successfully in today's challenging business environment. Prerequisites: MKTG:3000.

MKTG:4410 Customer Relationship Management 3 s.h.
Analytical approaches to customer relationship management; issues, techniques, and terminology associated with database marketing and data mining; analysis of customer databases; assessing lifetime valuation (LTV) of customers, identifying "high potential" customers, estimating return on marketing investment, and building predictive models to estimate the probability of response to a marketing campaign. Prerequisites: MKTG:3000.

MKTG:4500 Marketing Capstone 3 s.h.
Marketing problems of organizations; emphasis on marketing manager's role in developing, presenting goal-oriented marketing strategies; application of marketing concepts to real business situations. Prerequisites: MKTG:3000 and MKTG:3050 and MKTG:3100 and MKTG:3200 and (MKTG:3101 or MKTG:3102 or MKTG:3103 or MKTG:3104 or MKTG:3300 or MKTG:3400 or MKTG:3401 or MKTG:3600 or MKTG:3605 or MKTG:3701 or MKTG:4000 or MKTG:4101 or MKTG:4200 or MKTG:4201 or MKTG:4250 or MKTG:4300 or MKTG:4400 or MKTG:4405 or MKTG:4410 or MKTG:4800). Requirements: completion of 90 s.h.

MKTG:4800 Marketing Consulting Project 3 s.h.
Experience in planning, designing, carrying out, reporting on a marketing research project for a profit or nonprofit client organization; communication with managers, application of marketing research, meeting deadlines, converting research findings into action recommendations for management. Prerequisites: MKTG:3000 and MKTG:3100.

MKTG:4999 Honors Thesis in Marketing arr.
Independent student project directed by faculty or staff advisor; culminates in thesis that conforms to University Honors Program guidelines; may include empirical research, library research, applied projects. Prerequisites: BUS:1999.

MKTG:7800 Seminar in Consumer Behavior - PhD 3 s.h.
Key facets of consumer behavior: information processing, perception, memory, learning, attitude formation, attitude change, decision-making, and emotion; behavioral research methods.

MKTG:7825 Problems and Solutions in Behavioral Research 3 s.h.
Cultivation of PhD students' ability to be independent scholars with regard to theory building, testing, and assessing contributions; heavy focus on theory development and construction of nomological nets with an emphasis on behavioral research.

MKTG:7850 Seminar in Marketing Models - PhD 3 s.h.
Theoretical, operational models in marketing, with emphasis on recent advances; in-depth criticism of models, participation in model development project.

MKTG:7950 Directed Readings in Marketing - PhD arr.

MKTG:7975 Thesis in Marketing arr.

MKTG:9000 Directed Readings in Marketing arr.

MKTG:9010 Contemporary Topics in Marketing 1-3 s.h.
Topics not regularly offered in other courses. Prerequisites: MBA:8110.

MKTG:9015 Social Media Marketing 3 s.h.
Fundamentals of social media marketing; establishing clear organizational goals for engaging in social media to market a product or service, developing solid strategies for implementation, and determining other key campaign logistics. Prerequisites: MBA:8110.

MKTG:9120 Customer Relationship Management 3 s.h.
Analytical approaches to customer relationship management; issues, techniques and terminology associated with database marketing and data mining; analysis of customer databases; assessing lifetime valuation (LTV) of customers, identifying "high potential" customers, estimating return on marketing investment, building predictive models to estimate the probability of response to a marketing campaign. Prerequisites: MBA:8110.

MKTG:9155 Digital Marketing Insights, Strategies, and Applications 3 s.h.
Introduction and examination of foundational, strategic and operational concepts of digital marketing through a combination of interactive lectures, case discussion, and project work; materials taught from a business-to-business (B2B) and business-to-consumer (B2C) perspective and considers marketplace dynamics, emerging technology, consumer insights, and data driven digital channels that inform a corporate vision for digital, a go-to-market strategy, and executional roadmap; introduction and knowledge advancement of tools and levers of digital marketing, followed by application to real world scenarios. Prerequisites: MBA:8110.

MKTG:9165 Digital Marketing Analytics 3 s.h.
Comprehensive introduction to current analytic tools and technologies used in digital marketing; hands-on analyses with JMP, a state-of-the-art visually stunning data analysis software; strategic applications of marketing analytics to data from B2C and B2B cases. Prerequisites: (MBA:8150 or BAIS:9100) and MBA:8110.

MKTG:9170 Business to Business Marketing 3 s.h.
Industrial buyer behavior, buyer-seller relationships, interactive product policy and market segmentation, distribution and selling systems; skill development in market strategy formulation for industrial products and services, and in solving problems and making decisions about industrial marketing. Prerequisites: MBA:8110.

MKTG:9190 International Marketing 3 s.h.
Domestic versus international perspective; identification and evaluation of opportunities and risks in non-U.S. markets; research problems in global markets; effects of international organizations, foreign exchange, macroeconomic policies, local law, and cultural differences on consumer behavior and marketing decisions; multinational versus global marketing strategies (entry, product adaptation, channel logistics, pricing, promotion); emphasis on practical applications. Prerequisites: MBA:8110.

MKTG:9310 Marketing Analytics 2-3 s.h.
Quantitative tools to support marketing planning decisions, including forecasting, elasticity analysis, conjoint analysis, and customer LTV; analysis of syndicated data. Prerequisites: BAIS:9100 or MBA:8150.

MKTG:9320 Strategic Brand Positioning 2-3 s.h.
Define market boundaries; use customer and competitor analyses to create sustainable market positions; create and manage brand identities; brand architecture, brand equity measurement. Prerequisites: MBA:8110.

MKTG:9330 Product and Portfolio Strategy 2-3 s.h.
Why product strategy serves as the foundation for business success; effective product development and growth strategies from product ideation to product retirement. Gain insights into managing product portfolios in both business-to-business and business-to-consumer markets, building tools to drive innovation and sustained performance. Prerequisites: MBA:8110.

MKTG:9340 Customer Analysis 2-3 s.h.
Use customer insights to support successful marketing programs; organizational, individual, and joint decision-making; post sale satisfaction behaviors. Prerequisites: MBA:8110.

MKTG:9350 Marketing Communication and Promotions 2-3 s.h.
Develop effective communication programs for business and consumer markets; manage agency relationships; integrate media/vehicle platforms; track and evaluate investments in communications and promotions. Prerequisites: MBA:8110.

MKTG:9370 Customer Experience 3 s.h.
Fundamentals of customer experience (CX) management leveraging principles of behavioral science and design thinking; value creation through journey mapping; experience prototyping; creating a customer-centric culture; CX technology and trends, including AI, AR/VR, IoT, and personalization; multisensory product and service design; measuring and evaluating CX initiatives. Prerequisites: MBA:8110.

Marketing, BBA

Several decades ago, the study of marketing dealt almost exclusively with business activities involved in the flow of goods from production to consumption. Today it includes principles that are more widely applicable; they are as relevant to the success of arts, sports, and social programs as they are to firms selling goods and services. A major in marketing includes study in the behavioral sciences, communications, statistical analysis, and computer methods as well as marketing decision-making.

Common BBA Requirements

The Bachelor of Business Administration (BBA) requires a minimum of 120 s.h. of credit, including at least 48 s.h. earned in business courses and at least 52 s.h. earned in non-business courses.

BBA students must earn 45 s.h. at the University of Iowa following admission to the BBA program. At least 24 s.h. in business courses must be earned with Tippie College of Business coursework. At least two-thirds of the semester hours in a student's major must be earned in the student's major department at the Tippie College of Business. Nonresident instruction includes coursework at colleges and universities other than the University of Iowa.

To graduate, BBA students must have a cumulative grade-point average of at least 2.00 in all college-level coursework attempted, all college-level business coursework attempted, all college-level major coursework attempted, all college-level coursework attempted at the University of Iowa, all college-level business coursework attempted at the University of Iowa, and all college-level major coursework attempted at the University of Iowa.

Common BBA Requirements

BBA students must fulfill the following common requirements or approved equivalents. For approved equivalents, consult the college's Undergraduate Program Office.

General Education

Students may not count courses taken to fulfill General Education Program requirements toward other course requirements for the BBA.

Course #	Title	Hours
Historical Perspectives		3
International and Global Issues		3
Interpretation of Literature		3
Natural Sciences (without lab)		3
Rhetoric		4
Social Sciences (excluding ECON:1100 and ECON:1200)		3
Understanding Cultural Perspectives		3
Values and Society		3
World Languages		0-10

World Languages

Tippie College of Business students may complete the World Languages requirement using one of three options. One year of high school language study is generally equivalent to one semester of college language study.

Option One

Attain fourth level proficiency in a single world language. Students attain fourth level proficiency in a single world language by completing four years of that language in high school or four semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at fourth level proficiency.

Option Two

Attain third level proficiency in a single world language and complete a World Language and Cultural Exploration course. Students attain third-level proficiency in a single world language by completing three years of that language in high school or three semesters in college, or an equivalent combination of high school and college coursework, or pass an achievement test or evaluation at third-level proficiency. Option two does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Option Three

Attain second level proficiency in each of two world languages. Students attain second level proficiency in each of two world languages by completing two years of each language in high school or two semesters of each language in college, or an equivalent combination of high school and college coursework, or pass achievement tests and/or evaluations at second-level proficiency in each language. Option three does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Prerequisites for Admission to the BBA Program

Course #	Title	Hours
BAIS:1500	Business Computing Essentials	2
ECON:1100	Principles of Microeconomics	4
MATH:1350	Quantitative Reasoning for Business	4
RHET:1030	Rhetoric: Writing and Communication	4
STAT:1030	Statistics for Business	4

Prerequisites for Declaring a BBA Major

Course #	Title	Hours
ACCT:2100	Introduction to Financial Accounting	3
ECON:1200	Principles of Macroeconomics	4

BBA Core

Course #	Title	Hours
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
BAIS:2800	Foundations of Business Analytics	3
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
BUS:2200	Discover Business at Tippie	1
BUS:3000	Business Communication and Professionalism	3

FIN:3000	Introductory Financial Management	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
MKTG:3000	Introduction to Marketing Strategy	3

Experiential Learning Requirement: Tippie RISE

RISE is an acronym for hands-on experiential learning in the form of research with faculty, internship course, study abroad, and experiential course. All BBA students in the Tippie College of Business students must successfully complete at least one of these four experiences. Courses that satisfy Tippie RISE are as follows.

Research With Faculty

Working closely with a faculty mentor, students explore a research question of interest for a semester or more. By conducting academic research, students enhance their critical thinking skills, learn techniques to collect and analyze data, and apply their findings to business practices. These skills are highly useful for a variety of businesses and graduate programs.

Course #	Title	Hours
ACCT:4999	Honors Thesis in Accounting	arr.
BAIS:4999	Honors Thesis in Business Analytics	arr.
BUS:3600	Mentored Research	arr.
BUS:4999	Honors Thesis in Business	arr.
ECON:4999	Honors Thesis in Economics	arr.
FIN:4999	Honors Thesis in Finance	arr.
MGMT:4999	Honors Thesis in Management	arr.
MKTG:3702	Marketing Institute Seminar II	2
MKTG:4999	Honors Thesis in Marketing	arr.
URES:3992	Undergraduate Research and Creative Projects	0
URES:3993	Undergraduate Research and Creative Projects	1-4
URES:3994	Undergraduate Research and Creative Projects	1-4
URES:3995	Independent Creative Research by Undergraduates Summer Internship	0

Internship Course

As students gain valuable hands-on work experience in a professional internship, they complete one of the approved internship courses to assist them in having a meaningful learning experience. The internship courses encourage students to take on relevant job responsibilities, outline strategies to meet internship goals, regularly communicate with their supervisors, explore the career field, and reflect on their growth throughout the experience.

Course #	Title	Hours
BUS:3100	Academic Internship or Cooperative Education	0
BUS:3900	Business Communication Internship I	3
BUS:4900	Academic Internship	arr.
CCP:1201	Academic Internship	1-3
CCP:2020	Washington Center Internship Program	arr.
CCP:2202	International Student Full-Time Academic Internship	9
ENTR:4300	Launching an Entrepreneurial Venture	arr.
ENTR:4900	Academic Internship	arr.
EVNT:2110	Internship in Event Management	3
LS:3011	Leadership Certificate Capstone	0-2
SRM:4199	Independent Sport and Recreation Field Experience	arr.

Study Abroad

By taking advantage of short-term, summer, semester, or academic year programs, students can expand their worldview and learn alternative business and cultural practices outside of the United States. Students can participate in Tippie RISE study abroad programs such as London Winter, International Business in Sydney, CIMBA Italy, Global Internships, spring break programs through the John Pappajohn Entrepreneurial Center, or any of the many UI study abroad programs in over 40 countries. Any study abroad program is accepted for credit, including virtual programs, short-term faculty-led programs, and summer, semester, or year-long programs. These courses may be study abroad courses (prefix ABRD) or select study abroad international activities courses (prefix INTL) but are not required to be; see Study Abroad [p. 2215] in the catalog.

Experiential Course

In approved experiential courses, students improve their understanding of academic concepts by applying them to a class project with a company or nonprofit organization. Using real circumstances and issues, students engage with the organization to make a lasting impact. Students have support from classmates and guidance from their instructor throughout the duration of the project. Experiential courses are offered in many BBA majors and as business and non-business electives. Courses must be taken at the University of Iowa to satisfy Tippie RISE.

Course #	Title	Hours
ACCT:3451	Tax Practicum (VITA) II (spring only)	1
BAIS:4150	Business Analytics and Information Systems Capstone	3
BUS:3920	Business Case Competitions Professional Preparation	arr.
ECON:3360	Experimental Economics	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3
FIN:4250	Applied Equity Valuation	3
FIN:4310	Advanced Corporate Finance	3
FIN:4350	Applied Wealth Management	3
FIN:4410	Enterprise Risk Management	3

FIN:4420	Property and Liability Insurance	3
FIN:4460	Insurer Operations and Captive Management	3
LS:1024	Hawkeye Service Breaks (spring only)	3
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3
MGMT:3600	Nonprofit Organizational Effectiveness II	3
MGMT:3850/ ENTR:3850	Entrepreneurial Leadership Academy II	3
MGMT:4600	Nonprofit Ethics and Governance	3
MKTG:3100	Marketing Research	3
MKTG:3103	Advanced Marketing Research	3
MKTG:3700	Marketing Institute Seminar I	2
MKTG:3701	Marketing Institute Field Studies	2
MKTG:4250	Marketing and Sustainability	3
MKTG:4800	Marketing Consulting Project	3
SRM:4197	Sport and Recreation Field Experience (not fans first section)	arr.

Major Area of Study

All BBA students must complete a major area of study. The college offers BBA majors in accounting [p. 1140], business analytics and information systems [p. 1158], economics [p. 1185], entrepreneurship, finance [p. 1208], management [p. 1236], marketing [p. 1261], and risk management and insurance [p. 1219]. The requirements for each major are established by the department that offers the major.

Students With Associate of Arts Degrees

Students who have been granted an Associate of Arts (AA) from a community college participating in the Iowa and Illinois Community College/Regents Articulation Agreements are considered to have met all high school unit requirements for admission to the BBA and all of the General Education Program requirements listed under "General Education Requirements," except the Understanding Cultural Perspectives and World Languages requirements. The program of study for which a student was awarded the AA must have included:

- a minimum of 60 s.h. (or 90 quarter hours) of credit acceptable toward graduation from the University of Iowa;
- completion of the agreed-upon group of courses at the community college; and
- a GPA of at least 2.00.

Mathematics courses comparable to MATH:0100 Basic Algebra I are not accepted toward graduation. Completion of an Associate of Arts does not guarantee admission to the BBA program in the Tippie College of Business. See Admission in Undergraduate Programs [p. 1132] for a complete list of requirements for admission to the BBA.

Students who use the provisions of the articulation agreement are granted a maximum of 60 s.h. of transferable credit from two-year colleges toward the 120 s.h. required for a BBA. Credit earned for the AA beyond the 60 s.h. transferable maximum is used in computing a student's grade-point average, and it may be used to satisfy course requirements, but it does not count toward the BBA. Transfer credit for business courses taken during the first and second years is counted toward the BBA only if such courses are usually offered as lower-division courses at the University of Iowa.

Transfer Courses

Students who have taken courses at another institution that are similar to those approved for the common business requirements at Iowa may request that these courses be evaluated for transfer credit. Students who transfer fewer hours than needed to meet a common business requirement may use only approved courses to complete the remainder of the requirement. Only courses taken at accredited four-year institutions may be used to satisfy business course requirements numbered 3000 or above. Students must complete a minimum of 24 s.h. of business coursework at Iowa and at least two-thirds of the coursework in the major in the department awarding the major. They must also meet the 45 s.h. residence requirement of the Tippie College of Business. Credit earned through online courses may be counted toward all requirements for graduation, subject to approval by a student's major department.

Multiple Majors in Business

Students may earn the BBA degree with more than one major; they may also combine the BBA degree with the Bachelor of Arts or Bachelor of Science in economics (except for the BBA in economics). The Four-Year Graduation Plan is not available to students earning more than one major or degree. Students have access to degree audits in MyUI for all of the programs of study they have officially declared. They also have access to all program courses, with some limitations, during early registration. A student must be in good academic standing in order to declare more than one major. See Double Majors and Joint Degrees on the Tippie College of Business website.

Requirements

The Bachelor of Business Administration with a major in marketing requires a minimum of 120 s.h., including 22 s.h. of work for the major. Students must have a cumulative grade-point average of at least 2.00 in all college coursework attempted, all college coursework attempted in business, all college coursework attempted in the major, all coursework attempted at the University of Iowa, all business coursework attempted at the University of Iowa, and all coursework in the major attempted at the University of Iowa.

The program is designed to provide undergraduate students with an understanding of the business, social, and economic roles of marketing and to prepare them for marketing careers.

The BBA with a major in marketing requires the following coursework.

Requirements	Hours
Marketing Common Required Courses	10
Marketing Elective Courses	12

Marketing Common Required Courses

Course #	Title	Hours
All of these:		
MKTG:3050	Professional Preparation in Marketing	1
MKTG:3100	Marketing Research	3
MKTG:3200	Consumer Behavior	3
MKTG:4500	Marketing Capstone (must be taken at the University of Iowa)	3

Marketing Elective Courses

Students are not guaranteed specific elective options. The availability of courses may be subject to prerequisites or restrictions; students must complete all of a course's prerequisites before they may register for the course.

Course #	Title	Hours
12 s.h. from these:		
MKTG:3101	Marketing Metrics	3
MKTG:3102	Marketing Analytics	3
MKTG:3103	Advanced Marketing Research	3
MKTG:3104	Sports Marketing	3
MKTG:3300	Web Business Strategy	3
MKTG:3400	Retail Strategies	3
MKTG:3401	Merchandise Management	3
MKTG:3600	Product and Pricing	3
MKTG:3605	Strategic Brand Positioning	3
MKTG:4000	Contemporary Topics in Marketing	3
MKTG:4101	Integrated Marketing Communications	3
MKTG:4200	Sales Management	3
MKTG:4201	Professional Selling	3
MKTG:4250	Marketing and Sustainability	3
MKTG:4300	International Marketing	3
MKTG:4400	Digital Marketing	3
MKTG:4405	Marketing Sales and Promotion	3
MKTG:4410	Customer Relationship Management	3
MKTG:4800	Marketing Consulting Project	3
Marketing Institute students may count the following courses if all are taken:		
MKTG:3700	Marketing Institute Seminar I	2
MKTG:3701	Marketing Institute Field Studies	2
MKTG:3702	Marketing Institute Seminar II	2

Marketing Concentrations

Students may focus the major by selecting concentration courses to fulfill the electives requirement. Suggested elective courses for each optional concentration are listed as follows.

Marketing Communication and Strategy

Course #	Title	Hours
Both of these:		
MKTG:4101	Integrated Marketing Communications	3
MKTG:4400	Digital Marketing	3
Two of these:		
MKTG:3101	Marketing Metrics	3
MKTG:3300	Web Business Strategy	3
MKTG:3605	Strategic Brand Positioning	3
MKTG:4250	Marketing and Sustainability	3
MKTG:4405	Marketing Sales and Promotion	3

Marketing Research and Analytics

Course #	Title	Hours
Both of these:		
MKTG:3101	Marketing Metrics	3
MKTG:3102	Marketing Analytics	3
Two of these:		
MKTG:3103	Advanced Marketing Research	3
MKTG:3104	Sports Marketing	3
MKTG:3600	Product and Pricing	3
MKTG:4400	Digital Marketing	3
MKTG:4410	Customer Relationship Management	3

Product and Brand Management

Course #	Title	Hours
Both of these:		
MKTG:3600	Product and Pricing	3
MKTG:3605	Strategic Brand Positioning	3
Two of these:		
MKTG:3101	Marketing Metrics	3
MKTG:3102	Marketing Analytics	3
MKTG:4101	Integrated Marketing Communications	3
MKTG:4250	Marketing and Sustainability	3
MKTG:4300	International Marketing	3
MKTG:4400	Digital Marketing	3
MKTG:4405	Marketing Sales and Promotion	3

Professional Sales Management

Course #	Title	Hours
Both of these:		
MKTG:4200	Sales Management	3
MKTG:4201	Professional Selling	3
Two of these:		
MKTG:3101	Marketing Metrics	3
MKTG:3400	Retail Strategies	3
MKTG:4410	Customer Relationship Management	3

Retailing and E-Commerce

Course #	Title	Hours
Both of these:		
MKTG:3400	Retail Strategies	3
MKTG:3401	Merchandise Management	3
Two of these:		
MKTG:3101	Marketing Metrics	3
MKTG:3102	Marketing Analytics	3
MKTG:3103	Advanced Marketing Research	3
MKTG:3300	Web Business Strategy	3
MKTG:4101	Integrated Marketing Communications	3
MKTG:4250	Marketing and Sustainability	3
MKTG:4300	International Marketing	3
MKTG:4405	Marketing Sales and Promotion	3
MKTG:4410	Customer Relationship Management	3

Marketing Institute

Marketing institute students can pursue any of the above concentrations by completing the two foundational concentration courses (6 s.h.) plus the following marketing institute requirements (6 s.h.).

Course #	Title	Hours
All of these:		
MKTG:3700	Marketing Institute Seminar I	2
MKTG:3701	Marketing Institute Field Studies	2
MKTG:3702	Marketing Institute Seminar II	2

Career Advancement

The Bachelor of Business Administration (BBA) program in marketing prepares students for positions in sales, market research, retailing, purchasing, or advertising. Employment opportunities exist for positions as market analysts, merchandise managers, buyers, purchasing agents, advertising managers, brand managers, consultants, and sales representatives in a variety of for-profit and nonprofit organizations.

Over 90% of students reported that they found permanent employment, were accepted to graduate school, or were not seeking employment within six months of graduation.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs. For more information about careers, visit the Pomerantz Career Center website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Marketing, BBA

Course	Title	Hours
Academic Career		
Any Semester		
Students are required to complete 52 s.h. of non-business coursework. Courses with a prefix of ACCT, BAIS, BUS, ECON, ENTR, FIN, MGMT, and MKTG will not count towards non-business hours. Check degree audit for non-business hours or confer with academic advisor.		
Students who need to complete the World Language requirement should consult with their academic advisor about when to add courses to plan of study. World Language counts as non-business coursework.		
To fulfill the Tippie RISE experiential learning requirement, complete an approved course in at least one of the following categories: research with faculty, internship course, study abroad, experiential course. [a]		0 - 3
Students must satisfy the Tippie College of Business residence requirement: 45 s.h. of UI coursework after admission to Tippie.		
	Hours	**0-3**
First Year		
Fall		
BUS:2200	Discover Business at Tippie [b]	1
MATH:1350	Quantitative Reasoning for Business [c]	4
ECON:1100	Principles of Microeconomics	4
RHET:1030	Rhetoric: Writing and Communication	4
GE: Social Sciences [d]		3
CSI:1600	Success at Iowa	1
	Hours	**17**
Spring		
BAIS:1500	Business Computing Essentials	2
ECON:1200	Principles of Macroeconomics	4
STAT:1030	Statistics for Business	4
ENGL:1200	The Interpretation of Literature	3
GE: Understanding Cultural Perspectives [d]		3
	Hours	**16**
Second Year		
Fall		
ACCT:2100	Introduction to Financial Accounting	3
BAIS:2800	Foundations of Business Analytics	3
MGMT:2100	Introduction to Management	3
GE: Natural Sciences without Lab [d]		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
	Hours	**15**
Spring		
BUS:3000	Business Communication and Professionalism [e]	3
MGMT:2000	Introduction to Law	3
MKTG:3000	Introduction to Marketing Strategy	3
MKTG:3050	Professional Preparation in Marketing	1

GE: International and Global Issues [d]		3
Minor, certificate, or non-business elective		3
	Hours	**16**
Third Year		
Fall		
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
MKTG:3100	Marketing Research [f]	3
MKTG:3200	Consumer Behavior	3
GE: Values and Society [d]		3
Minor, certificate, or non-business elective		2
	Hours	**15**
Spring		
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
Major: marketing elective [g]		3
Major: marketing elective [g]		3
GE: Historical Perspectives [d]		3
Minor, certificate, or non-business elective		3
	Hours	**15**
Fourth Year		
Fall		
Major: marketing elective [g]		3
Major: marketing elective [g]		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
	Hours	**15**
Spring		
FIN:3000	Introductory Financial Management	3
MKTG:4500	Marketing Capstone [h, i]	3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		3
Minor, certificate, or non-business elective		2
Minor, certificate, or non-business elective		1
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**124-127**

a See degree audit for course options.
b Complete BUS:2200 by the end of the second year, before enrolling in MKTG:3050.
c Enrollment in math courses requires completion of a placement exam.
d GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
e Must be admitted to Tippie to enroll in BUS:3000. Generally completed during the second year, but should be taken no later than the third year.
f BAIS:2800 and MKTG:3000 are required prerequisite courses.
g Select from list of approved courses in the General Catalog or on degree audit.
h Must be taken at the University of Iowa.
i MKTG:3000, MKTG:3050, MKTG:3100, MKTG:3200, and one additional MKTG course numbered above 3100 are required prerequisite courses.
j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Doctor of Philosophy

Graduate students in marketing may earn a Doctor of Philosophy in business administration. For a description of the PhD program and requirements, see the PhD in business administration [p. 1179] in the catalog and visit the Department of Marketing website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Learning Outcomes

- To demonstrate proficiency and knowledge in the specialization discipline, students will demonstrate expertise in reading and interpreting academic research articles in their specialized discipline. They will be knowledgeable in the major theoretical perspectives and prior research findings in their area and be able to integrate prior research from various streams of literature.
- To demonstrate the ability to conduct independent, original research that leads to publications, students will be able to identify important research questions, provide theory-based reasoning to develop original hypotheses, execute an appropriate research design, and summarize their efforts in a working paper. This includes being able to read and summarize existing research into their paper and understanding the prior literature in a variety of substantive areas, paradigms, and methodologies.
- To be effective teachers in their disciplines, students will demonstrate proficiency as instructors in courses in their specialized discipline. This includes preparing course syllabi, giving lectures, writing assignments and exams, and evaluating students on the various deliverables.
- To demonstrate effective communication skills, students will be effective at communicating ideas in academic writing and how these ideas relate to each other within the context of an academic paper. This includes the ability to establish a position, show why that position matters, and situate that position within a context that is determined by the appropriate audience. International students will demonstrate the ability to effectively lecture and communicate in English.

Master of Business Administration Program

Associate Dean, Tippie Professional Programs

- Erin Nelson

Assistant Deans

- Jill J. Tomkins

Professional degree: MBA

Professional certificates: artificial intelligence and technology management; business communication; business fundamentals; corporate finance; finance; financial decision-making; innovation; investment management; leadership; marketing; responsible resource management; risk management and insurance; strategy

Faculty: https://tippie.uiowa.edu/people

Website: https://tippie.uiowa.edu/iowa-mba

The Master of Business Administration (MBA) program provides students with a foundation for future growth and flexibility in professional management. The program, which is fully accredited by AACSB International—the Association to Advance Collegiate Schools of Business, enables students to build broad-based professional portfolios of analytical skills, knowledge, leadership, and applied experiences. The curriculum is rigorous, yet learning takes place in a collaborative environment that builds teamwork skills and encourages independent problem-solving.

Students in Iowa's MBA program represent a variety of backgrounds, undergraduate majors, and professional experience. The curriculum is designed for college graduates in any field; previous business coursework is not required. However, full-time work experience is required for admission.

The departments of Accounting, Business Analytics, Economics, Finance, Management and Entrepreneurship, and Marketing all contribute to the Master of Business Administration program through faculty participation and coursework.

Programs

Professional Programs of Study

- Master of Business Administration [p. 1274]
- Certificate in Artificial Intelligence and Technology Management [p. 1278]
- Certificate in Business Communication [p. 1279]
- Certificate in Business Fundamentals [p. 1280]
- Certificate in Corporate Finance [p. 1281]
- Certificate in Finance [p. 1282]
- Certificate in Financial Decision-Making [p. 1283]
- Certificate in Innovation [p. 1284]
- Certificate in Investment Management [p. 1285]
- Certificate in Leadership [p. 1286]
- Certificate in Marketing [p. 1287]
- Certificate in Responsible Resource Management [p. 1288]
- Certificate in Risk Management and Insurance [p. 1289]
- Certificate in Strategy [p. 1290]

Courses

The following courses are offered by Tippie Professional Programs. See each program of study page for required and elective courses.

Tippie Professional Programs (MBA Program)

MBA:8110 Marketing Management 2-3 s.h.
Concepts, principles, models of marketing management; focus on strategic planning, management decision-making, and implementation of marketing programs.

MBA:8120 Management in Organizations 2-3 s.h.
How to explain, predict, and influence behavior in organizations; decision-making, leadership, communication, group skills in management positions; motivation, leadership, teams, organizational culture, organizational design, individual differences, organizational change.

MBA:8130 Business Communication 1-3 s.h.
Build executive-ready communication skills in writing, presenting, and visualizing. Learn to communicate effectively, efficiently, and in a compelling manner to capture interest and drive action. Students get practice, feedback, and coaching with personal/individual communication assignments in a variety of formats.

MBA:8140 Corporate Financial Reporting 2-3 s.h.
Contemporary financial reporting practices in the United States; how alternative accounting treatments affect the usefulness of financial information in applied decision settings.

MBA:8150 Data and Decisions 2-3 s.h.
Introduction to business analytics; utilizing Excel to apply descriptive and predictive analytical tools to solve practical business problems using real world data; dealing with uncertainty in decision-making; formal probability concepts and statistical methods for describing variability (decision trees, random variables, hypothesis testing); application of techniques (linear regression, Monte Carlo simulation, linear optimization) to model, explain, and predict for operational, tactical, and strategic decisions.

MBA:8160 Managerial Economics 1-3 s.h.
Models of consumer and firm behavior with applications; market equilibrium and structure; pricing decisions.

MBA:8170 International Economic Environment of the Firm 2-3 s.h.
Basic determinants of aggregate output, employment, wages, unemployment, consumption, investment, international trade flows, interest rates, exchange rates, prices and inflation in open economies; sources and nature of economic growth; effects of domestic and foreign monetary, fiscal policies; effects of trade, exchange rate policies.

MBA:8180 Managerial Finance 2-3 s.h.
Time value of money, applications of present value techniques; stock and bond valuation, capital budgeting, cost of capital calculation, portfolio formation and efficient market analysis, financial statement analysis, pro forma analysis, hedging financial risks. Recommendations: for Professional Program students—MBA:8140 or an undergraduate-level financial accounting or finance course.

MBA:8240 Operations and Supply Chain 2-3 s.h.
Planning and decision-making activities for managing an organization's operations in both manufacturing and services, with an emphasis on production and service delivery strategy, process design, capacity planning, process analytics, queueing, and an introduction to supply chain management including supply chain design and coordination.

MBA:8300 Foundations in Strategy 2-3 s.h.
Key elements of domestic competitive and corporate strategy; industry analysis (understanding the importance of industry for firm performance); strategies for achieving competitive advantage (cost focus, differentiation focus); corporate strategy (corporate scope, horizontal diversification, vertical integration); topics of global strategy, which may include challenges of attaining competitive advantage in foreign markets, such as cross-national distance and liabilities of foreignness, as well as international strategies (replication strategy, adaptation strategy, arbitrage strategy).

MBA:8310 Business Integration 1-3 s.h.
Student teams run an operational business simulation, conduct organizational/industry analysis, assess market opportunities, define strategic direction, compete for company profitability and market share. Prerequisites: 5 of the following are required: MBA:8110, MBA:8140, MBA:8150, MBA:8180, MBA:8240, MBA:8300. Recommendations: completion of all six prerequisites.

MBA:8320 Strategic Business Growth 3 s.h.
Key decisions that leaders must make to significantly grow their business and achieve exceptional profitability in their industry; students create a 10x growth plan for their current business or startup using an applied learning model and based on fundamental principles of scaling a business including leading people, formulating strategy, executing effectively, and managing financial resources; development of an executive-level, actionable growth plan that is ready for implementation. Prerequisites: 5 of the following are required: MBA:8110, MBA:8120, MBA:8150, MBA:8160, MBA:8180, MBA:8300.

MBA:8330 Seminar in Strategic Management I 1-3 s.h.
Introduction to strategic management; the role of marketing, operations, and finance in strategic planning; case studies.

MBA:8430 Communication With Artificial Intelligence and Business Technology 3 s.h.
Harnessing Artificial Intelligence (AI) programs to produce and enhance business writing; developing professional presentation skills with feedback from instructor and specialized apps; optimizing program-generated visualizations for human audiences; and exploring the role of critical thinking when using technology in business environments.

MBA:8500 Seminar in International Business 0-6 s.h.
Issues and challenges facing organizations doing business in international markets; social, economic, political factors, business policies and customs in the global environment; may include travel, study abroad. Requirements: MBA enrollment.

MBA:9130 Leadership Communication and Story 3 s.h.
Learn how effective communication drives effective leadership, including during difficult conversations and crises, and how stories can be used to create a vision and empower others to follow it. Assignments include a mix of individual reflections and experiential group learning activities.

MBA:9300 Strategy in Action 3 s.h.
Focus on a company's current strategic plan and describe the strategy of the firm; conduct an internal analysis to determine whether the firm has the ability to execute the strategic plan with its existing business model and core competencies; develop a strategy map and aligned balance scorecard to identify the most important initiatives and metrics to deliver on the strategy; propose recommendations for how the firm can improve its ability to turn strategy into action. Prerequisites: MBA:8300 and 4 of the following are required: MBA:8120, MBA:8110, (MBA:8150 or BAIS:9100), MBA:8160, MBA:8180.

Master of Business Administration, MBA

The Master of Business Administration includes two programs: the Iowa MBA and the MBA in Italy (CIMBA Italy MBA).

Students in the Iowa MBA Program have the opportunity to enroll in combined degree programs in business analytics, healthcare administration, law, medicine, strategic communication, and social work, or to earn the Certificate in Healthcare Management. See "Combined Programs" under the Iowa MBA Program section of the catalog.

Learning Outcomes

Graduates will:

- demonstrate the ability to be leaders in a diverse and complex world;
- demonstrate the ability to be effective team members;
- demonstrate executive-ready communication skills; and
- create integrative solutions to business problems that impact organizations and communities.

Iowa MBA

The Iowa MBA Program is tailored for working professionals building on the synergies of concurrent work and learning. It also prepares graduates to be effective managers and leaders in the global marketplace.

The curriculum is designed for students with varied backgrounds, undergraduate majors, and professional experience. Previous coursework in business is not required.

Requirements

The Iowa MBA Program requires 45 s.h. of graduate credit, which encompasses a core of nine courses (27 s.h.) and six electives (18 s.h.). Students must maintain a program grade-point average (GPA) of at least 2.75.

The core develops competency in general management skills and key functional business areas. The electives contribute to the development of an area of expertise and foster a deeper understanding of management and business practices. Electives are offered in analytics, economics, entrepreneurship, finance, marketing, accounting, leadership, and management. Students may take part in global learning opportunities in international locations to increase their understanding of the global business environment and its implications for business conduct and decision-making. Courses are offered each semester during evening hours online and select offerings are available in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Students may earn a professional certificate in artificial intelligence and technology management [p. 1278], business communication [p. 1279], corporate finance [p. 1281], finance [p. 1282], financial decision-making [p. 1283], innovation [p. 1284], investment management [p. 1285], leadership [p. 1286], marketing [p. 1287], responsible resource management [p. 1288], risk management and insurance [p. 1289], or strategy [p. 1290] while fulfilling requirements for the MBA, often without taking courses beyond the 45 s.h. required for the degree. Students may also earn the Certificate in Business Analytics [p. 1177] or Certificate in Artificial Intelligence and Machine Learning [p. 1176] while fulfilling requirements for the MBA degree, though additional coursework may be needed beyond the 45 s.h. of the MBA for the Certificate in Artificial Intelligence and Machine Learning due to prerequisites. Certificate courses are offered online and select offerings may be available occasionally in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Students can complete the degree requirements in as few as five semesters or extend their study to as long as 10 years. Most students earn the MBA in three years by taking two courses each fall and spring semester and one course during the summer semester.

Core Courses

Course #	Title	Hours
All of these:		
MBA:8110	Marketing Management	3
MBA:8120	Management in Organizations	3
MBA:8140	Corporate Financial Reporting	3
MBA:8150	Data and Decisions	3
or BAIS:9100	Data and Decisions	
MBA:8160	Managerial Economics	3
MBA:8180	Managerial Finance	3
MBA:8240	Operations and Supply Chain	3
MBA:8300	Foundations in Strategy	3
MBA Capstone		
One of these:		
MBA:8310	Business Integration	3
MBA:8320	Strategic Business Growth	3
MBA:9300	Strategy in Action	3

Electives

The following courses are all approved electives for the program. Not all courses are offered on a regular basis. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

Course #	Title	Hours
Six of these:		
ACCT:9020	Strategic Cost Analysis	3
ACCT:9040	Financial Statement Analysis and Forecasting	3
BAIS:6040	Data Programming in Python	3
BAIS:6050	Data Management	3
BAIS:6060	Data Analysis With R	3
BAIS:6070	Data Science	3
BAIS:6100	Text Analytics	3
BAIS:6105	Social Analytics	3
BAIS:6110	Big Data Management and Analytics	3
BAIS:6130	Applied Optimization	3
BAIS:6140	Visual Analytics	3
BAIS:6150	Financial Analytics	3
BAIS:6180	Healthcare Analytics	3
BAIS:6190	Forecasting	3
BAIS:6210	Data Leadership and Management	3
BAIS:6230	People Analytics	3

BAIS:6240	Value Creation Using Artificial Intelligence	3
BAIS:6250	Applied Deep Learning	3
BAIS:6260	Generative Artificial Intelligence	3
BAIS:6280	Cybersecurity	3
BAIS:7900	Special Topics in Business Analytics	3
BAIS:9010	Contemporary Topics in Analytics	3
BAIS:9110	Advanced Analytics	3
BAIS:9120	Managing the Supply Chain	3
BAIS:9130	Lean Process Improvement	3
BAIS:9140	Agile Project Management	3
BAIS:9300	Innovations in Technology	3
ECON:9100	Digital Economics	3
ENTR:9100	Entrepreneurship and Innovation	3
ENTR:9200	Entrepreneurial Finance	3
ENTR:9300	Design Thinking	3
ENTR:9450	Strategic Management of Technology and Innovation	3
ENTR:9500	Managing the Growth Business	3
FIN:9010	Contemporary Topics in Finance	3
FIN:9130	Corporate Risk Management and Insurance	3
FIN:9140	Enterprise Risk Management	3
FIN:9150	Financial Modeling and Firm Valuation	3
FIN:9160	Quantitative Finance and Machine Learning	3
FIN:9200	Portfolio Management	3
FIN:9210	Derivatives	3
FIN:9220	Fixed Income Securities	3
FIN:9230	Real Estate Finance and Investments	3
FIN:9240	International Finance	3
FIN:9270	Security Analysis	3
FIN:9290	Alternative Investments and Portfolio Strategies	3
FIN:9300	Corporate Finance	3
FIN:9310	Corporate Financial Strategy	3
FIN:9330	Investment Banking	3
FIN:9350	Wealth Management	3
MBA:8130	Business Communication	3
MBA:8310	Business Integration (if not taken as capstone)	3
MBA:8320	Strategic Business Growth (if not taken as capstone)	3
MBA:8430	Communication With Artificial Intelligence and Business Technology	3
MBA:8500	Seminar in International Business	3
MBA:9130	Leadership Communication and Story	3
MBA:9300	Strategy in Action (if not taken as capstone)	3
MGMT:7900	Contemporary Topics in Management & Entrepreneurship	3
MGMT:9090	Influence and Constructive Persuasion	3
MGMT:9091	Corporate Social Responsibility and Sustainability	3
MGMT:9092	Effective Managerial Communication	3
MGMT:9110	Dynamics of Negotiations	3
MGMT:9120	Leadership and Personal Development	3
MGMT:9130	Strategic Management of Change	3
MGMT:9150	Nonprofit Organizational Effectiveness I	3
MGMT:9160	Nonprofit Organizational Effectiveness II	3
MGMT:9170	Human Resources Analytics	3
MGMT:9185	Project Management	3
MGMT:9210	Law and Ethics	3
MGMT:9220	Maximizing Team Performance	3
MGMT:9230	Managing and Preventing Conflict	3
MGMT:9240	Inclusive Leadership	3
MGMT:9250	Managing Employee Performance	3
MGMT:9260	Strategic Employee Development	3
MGMT:9270	Human Resource Management	3
MGMT:9290	Global Business Management	3
MKTG:9010	Contemporary Topics in Marketing	3
MKTG:9015	Social Media Marketing	3
MKTG:9120	Customer Relationship Management	3
MKTG:9155	Digital Marketing Insights, Strategies, and Applications	3
MKTG:9165	Digital Marketing Analytics	3
MKTG:9170	Business to Business Marketing	3
MKTG:9190	International Marketing	3
MKTG:9310	Marketing Analytics	3
MKTG:9320	Strategic Brand Positioning	3
MKTG:9330	Product and Portfolio Strategy	3
MKTG:9340	Customer Analysis	3
MKTG:9350	Marketing Communication and Promotions	3
MKTG:9370	Customer Experience	3

Admission

The Iowa MBA Program admits students for entry in summer, fall, or spring; applications are accepted throughout the year. Admission decisions are based on completed application materials, including quality of work experience, undergraduate GPA, and optional scores on the Graduate

Management Admission Test (GMAT) or Graduate Record Examination (GRE) General Test. While not required for admission purposes, applicants can submit GMAT/GRE scores to strengthen an application and those scores may be used in consideration for scholarship awards. For guidelines, view Iowa MBA Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the Admissions website.

Admission decisions are made before registration begins for completed applications received by the priority application deadline. Admitted applicants who have met the priority application deadline may request registration for classes on the first registration date. See the Iowa MBA Admissions website for priority and final application deadlines.

Combined Programs

Combined degree programs allow students to pursue two degrees simultaneously, earning both more quickly than if each degree were pursued separately.

Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

MBA/JD

The Iowa MBA Program collaborates with the College of Law to offer the combined Master of Business Administration/Juris Doctor degree program.

For more information about the law degree, see the Juris Doctor, JD [p. 1833] (College of Law) section of the catalog.

MBA/MA in Strategic Communication

The Iowa MBA Program collaborates with the School of Journalism and Mass Communication to offer the combined Master of Business Administration/Master of Arts in strategic communication degree program.

For more information about the strategic communication degree, see the Strategic Communication, MA [p. 654] (College of Liberal Arts and Sciences) section of the catalog or contact the Iowa MBA Program.

MBA/MD

The Iowa MBA Program collaborates with the Carver College of Medicine to offer the combined Master of Business Administration/Doctor of Medicine degree program.

For more information about the medicine degree, see the Doctor of Medicine, MD [p. 1881] (Carver College of Medicine) section of the catalog.

MBA/MS in Business Analytics (Professional Subprogram)

The Iowa MBA Program along with the Department of Business Analytics offers a combined Master of Business Administration/Master of Science in business analytics (professional subprogram) degree option. Students complete 33 s.h. of MBA credit paired with 27 s.h. of business analytics credit for a total of at least 60 s.h. at the University of Iowa.

For more information, see the MS in business analytics [p. 1169] in the Tippie College of Business section of the catalog or contact the Iowa MBA Program.

MBA/MSW

The Iowa MBA Program collaborates with the School of Social Work to offer the combined Master of Business Administration/Master of Social Work degree program.

For more information, see the Master of Social Work, MSW [p. 1010] (College of Liberal Arts and Sciences) section of the catalog or contact the Iowa MBA Program.

MBA/MHA

The Iowa MBA Program collaborates with the College of Public Health to offer the combined Master of Business Administration/Master of Healthcare Administration degree program.

For more information, see the Master of Healthcare Administration [p. 2092] (College of Public Health) section of the catalog or contact the Iowa MBA Program.

MBA/Certificate in Healthcare Management

The Iowa MBA Program collaborates with the College of Public Health to offer a combined Master of Business Administration/Certificate in Healthcare Management. Iowa MBA students complete four specified healthcare management courses (12 s.h.) in place of four MBA electives to earn the certificate.

For more information, see the Certificate in Healthcare Management [p. 2153] (College of Public Health) section of the catalog or contact the Iowa MBA Program.

CIMBA Italy MBA

The CIMBA Italy MBA program focuses on personal leadership development and emphasizes strategic management, consulting, and international business. Students apply what they learn through a consulting project with local and international companies. In addition to the MBA degree, students earn certificates through Kepner-Tregoe in problem solving and decision making, and in project management. The program draws its faculty from the University of Iowa and from institutions across the United States and Europe.

The 11-month full-time program is held primarily at the CIMBA campus in Paderno del Grappa, Italy, but the final course is completed on the University of Iowa campus in Iowa City. The full-time program admits students only for fall semester entry. A two-year part-time program is also available for working professionals living in Italy. Part-time applicants typically start in the fall but may be permitted to begin the program at other times.

Requirements

The CIMBA Italy MBA program requires 52–55 semester hours of graduate credit. Students must maintain a program grade-point average of at least 2.75.

The CIMBA Italy MBA program requires the following coursework. Available electives can vary each year in the program; students should consult their advisor.

Course #	Title	Hours
All of these:		
MBA:8110	Marketing Management	3
MBA:8120	Management in Organizations	3
MBA:8140	Corporate Financial Reporting	3
MBA:8150	Data and Decisions	3
MBA:8160	Managerial Economics	3
MBA:8170	International Economic Environment of the Firm	2
MBA:8180	Managerial Finance	3
MBA:8240	Operations and Supply Chain	3
MBA:8310	Business Integration	1-3
ACCT:9020	Strategic Cost Analysis	3
BAIS:9110	Advanced Analytics	2-3
BAIS:9120	Managing the Supply Chain	2-3
BAIS:9220	Introduction to Information Systems	3
ENTR:9100	Entrepreneurship and Innovation	3
FIN:9300	Corporate Finance	3
MGMT:9210	Law and Ethics	2
MGMT:9120	Leadership and Personal Development	3
Electives as needed to meet program requirements		

Admission

Admission decisions are based on an applicant’s completed application, which includes a résumé, academic qualifications, essays, an interview demonstrating experience and English proficiency, and scores on the Graduate Management Admission Test (GMAT) or Graduate Record Exam (GRE) General Test. Additionally, applicants are recommended to have at least two years of professional work experience.

Artificial Intelligence and Technology Management, Professional Certificate

Requirements

The professional Certificate in Artificial Intelligence and Technology Management requires 12 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to learn to leverage artificial intelligence (AI) and other technology to gain competitive advantages and improve business practices.

It is also open to current Iowa MBA Program and MS business analytics (MSBA) professional students and alumni. Students may complete the certificate as they work toward their degree; the certificate is designed to fit into the MBA or MSBA curriculum allowing students to earn their degree and certificate without additional coursework.

Certificate courses are offered online. Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Artificial Intelligence and Technology Management requires the following coursework.

Required Courses

Course #	Title	Hours
Both of these:		
BAIS:6210	Data Leadership and Management	3
BAIS:6240	Value Creation Using Artificial Intelligence	3

Electives

Course #	Title	Hours
Two of these (6 s.h.):		
BAIS:6280	Cybersecurity	3
BAIS:9140	Agile Project Management	3
BAIS:9300	Innovations in Technology	3
ECON:9100	Digital Economics	3
ENTR:9450	Strategic Management of Technology and Innovation	3
MBA:8430	Communication With Artificial Intelligence and Business Technology	3
MGMT:9185	Project Management	3

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Artificial Intelligence and Technology Management concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance and quality and quantity of work experience. For specific guidelines, view Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

Business Communication, Professional Certificate

Requirements

The professional Certificate in Business Communication requires 12 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to build their business communication knowledge and skills. It is also open to current Iowa MBA Program students. Students in the Iowa MBA Program may complete the certificate as they work toward their degree; the certificate is designed to fit into the MBA curriculum allowing students to earn the MBA and certificate without additional coursework.

Certificate courses are offered online and select courses may occasionally be offered in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Business Communication requires the following coursework.

Course #	Title	Hours
This course:		
MBA:8130	Business Communication	3
Three of these:		
MBA:8430	Communication With Artificial Intelligence and Business Technology	3
MBA:9130	Leadership Communication and Story	3
MGMT:9110	Dynamics of Negotiations	3
or MGMT:9230	Managing and Preventing Conflict	

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Business Communication concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance along with quality and quantity of work experience. For specific guidelines, see Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

Business Fundamentals, Professional Certificate

Requirements

The professional Certificate in Business Fundamentals requires 15 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to build core business knowledge and skills. Students who have completed this certificate may use its courses to fulfill degree requirements if admitted to the Iowa MBA Program as long as the courses are less than ten years old at the time of MBA conferral.

This certificate is designed to introduce students to the core principles of business. Coursework covers select disciplines within business—accounting, analytics, finance, managing organizations, marketing, and strategy. Students gain knowledge and develop skills that will immediately strengthen their performance as employees and managers. The certificate is comprised of Iowa MBA Program courses, allowing students to benefit from the same coursework and faculty members as MBA students.

Certificate courses are offered online and select courses may occasionally be offered in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

The Certificate in Business Fundamentals requires the following coursework.

Course #	Title	Hours
All of these:		
MBA:8110	Marketing Management	3
MBA:8120	Management in Organizations	3
MBA:8140	Corporate Financial Reporting	3
MBA:8180	Managerial Finance	3
One of these:		
MBA:8150	Data and Decisions	3
or BAIS:9100	Data and Decisions	
MBA:8300	Foundations in Strategy	3

If any required courses are waived, they must be replaced with another approved course from the preceding list.

If two required courses are waived, the student should take all of the remaining courses from the preceding list and choose between MBA:8160 Managerial Economics or MBA:8240 Operations and Supply Chain.

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Business Fundamentals concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance and quality and quantity of work experience. For specific guidelines, view Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

Corporate Finance, Professional Certificate

Requirements

The professional Certificate in Corporate Finance requires 12 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to build their corporate finance knowledge and skills. It is also open to current Iowa MBA Program students. Students in the Iowa MBA Program may complete the certificate as they work toward their degree; the certificate is designed to fit into the MBA curriculum allowing students to earn the MBA and certificate without additional coursework.

Certificate courses are offered online and select courses may occasionally be offered in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Corporate Finance requires the following coursework.

Course #	Title	Hours
All of these:		
MBA:8140	Corporate Financial Reporting	3
MBA:8180	Managerial Finance	3
FIN:9300	Corporate Finance	3
FIN:9310	Corporate Financial Strategy	3

If MBA:8140 Corporate Financial Reporting or MBA:8180 Managerial Finance are waived, the student must take FIN:9150 Financial Modeling and Firm Valuation in its place.

If both courses are waived, the student must take FIN:9150 Financial Modeling and Firm Valuation and FIN:9230 Real Estate Finance and Investments.

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Corporate Finance concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance along with quality and quantity of work experience. For specific guidelines, view Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

Finance, Professional Certificate

Requirements

The professional Certificate in Finance requires 12 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to build their financial knowledge and skills. It is also open to current Iowa MBA Program students. Students in the Iowa MBA Program may complete the certificate as they work toward their degree; the certificate is designed to fit into the MBA curriculum allowing students to earn the MBA and the certificate without additional coursework.

This certificate is ideal for students who wish to gain specialized knowledge of financial concepts. Students can select courses to focus their study in specific areas of finance such as corporate finance, investments, portfolio management, and wealth management.

Certificate courses are offered online and select courses may occasionally be offered in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Finance requires the following coursework.

Course #	Title	Hours
All of these:		
MBA:8180	Managerial Finance	3
FIN:9200	Portfolio Management	3
FIN:9300	Corporate Finance	3
One of these:		
BAIS:6150	Financial Analytics	3
ENTR:9200	Entrepreneurial Finance	3
FIN:9010	Contemporary Topics in Finance	3
FIN:9130	Corporate Risk Management and Insurance	3
FIN:9140	Enterprise Risk Management	3
FIN:9150	Financial Modeling and Firm Valuation	3
FIN:9160	Quantitative Finance and Machine Learning	3
FIN:9210	Derivatives	3
FIN:9220	Fixed Income Securities	3
FIN:9230	Real Estate Finance and Investments	3
FIN:9240	International Finance	3
FIN:9270	Security Analysis	3
FIN:9290	Alternative Investments and Portfolio Strategies	3
FIN:9310	Corporate Financial Strategy	3
FIN:9350	Wealth Management	3

If MBA:8180 Managerial Finance is waived, it must be replaced with an approved course from the preceding list.

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Finance concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance along with quality and quantity of work experience. For specific guidelines, view Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

Financial Decision-Making, Professional Certificate

Requirements

The professional Certificate in Financial Decision-Making requires 12 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to build their financial decision-making knowledge and skills. It is also open to current Iowa MBA Program students. Students in the Iowa MBA Program may complete the certificate as they work toward their degree; the certificate is designed to fit into the MBA curriculum allowing students to earn the MBA and the certificate without additional coursework.

This certificate provides students with tools to evaluate financial information and make mission-driven management decisions. Students will learn to analyze, identify, and evaluate problems and solutions. This certificate is designed for managers involved in financial forecasting and investing or those looking to pivot into that area.

Certificate courses are offered online and select courses may occasionally be offered in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Financial Decision-Making requires the following coursework.

Course #	Title	Hours
All of these:		
MBA:8140	Corporate Financial Reporting	3
MBA:8150	Data and Decisions	3
ACCT:9040	Financial Statement Analysis and Forecasting	3
One of these:		
BAIS:6150	Financial Analytics	3
BAIS:6190	Forecasting	3
FIN:9300	Corporate Finance	3
FIN:9310	Corporate Financial Strategy	3
MGMT:9185	Project Management	3

If MBA:8140 Corporate Financial Reporting or MBA:8150 Data and Decisions are waived, it must be replaced with an approved course from the preceding list.

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Financial Decision-Making concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance along with quality and quantity of work experience. For specific guidelines, see Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

Innovation, Professional Certificate

Requirements

The professional Certificate in Innovation requires 12 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to build their innovation knowledge and skills. It is also open to current Iowa MBA Program students. Students in the Iowa MBA Program may complete the certificate as they work toward their degree; the certificate is designed to fit into the MBA curriculum allowing students to earn the MBA and the certificate without additional coursework.

This certificate provides students with skills that help them generate innovative solutions to problems, advance innovation within organizations, and develop new ventures. Innovation requires both an entrepreneurial mindset and an understanding of collaborative processes. Students learn to understand problems, identify new market opportunities, and develop solutions. They learn how organizations can become more agile and encourage innovation throughout the organization. Students also learn how to start and grow a new venture around an innovative idea. The certificate program of study leverages the strengths of the Department of Management and Entrepreneurship and the John Pappajohn Entrepreneurship Center (Iowa JPEC).

Certificate courses are offered online and select courses may occasionally be offered in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Innovation requires the following coursework.

Course #	Title	Hours
All of these:		
ENTR:9100	Entrepreneurship and Innovation	3
ENTR:9200	Entrepreneurial Finance	3
ENTR:9450	Strategic Management of Technology and Innovation	3
One of these:		
ENTR:9300	Design Thinking	3
ENTR:9500	Managing the Growth Business	3
or MBA:8320	Strategic Business Growth	
MGMT:9220	Maximizing Team Performance	3

If ENTR:9100 Entrepreneurship and Innovation is waived, it must be replaced with an approved course from the preceding list.

ENTR:9500 Managing the Growth Business (prior to summer 2023) and MBA:8320 Strategic Business Growth (available fall 2023 and beyond) are the same course. Only one of these courses will count toward certificate requirements.

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Innovation concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance along with quality and quantity of work experience. For specific guidelines, see Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

Investment Management, Professional Certificate

Requirements

The professional Certificate in Investment Management requires 12 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to build their investment management knowledge and skills. It is also open to current Iowa MBA Program students. Students in the Iowa MBA Program may complete the certificate as they work toward their degree; the certificate is designed to fit into the MBA curriculum allowing students to earn the MBA and the certificate without additional coursework.

Certificate courses are offered online and select courses may occasionally be offered in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Investment Management requires the following coursework.

Course #	Title	Hours
Both of these:		
MBA:8180	Managerial Finance	3
FIN:9200	Portfolio Management	3
Two of these:		
FIN:9150	Financial Modeling and Firm Valuation	3
FIN:9160	Quantitative Finance and Machine Learning	3
FIN:9210	Derivatives	3
FIN:9220	Fixed Income Securities	3
FIN:9230	Real Estate Finance and Investments	3
FIN:9350	Wealth Management	3

If MBA:8180 Managerial Finance is waived, it must be replaced with another approved course from the preceding list.

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Investment Management concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance along with quality and quantity of work experience. For specific guidelines, see Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

Leadership, Professional Certificate

Requirements

The professional Certificate in Leadership requires 15 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to build their leadership knowledge and skills. It is also open to current Iowa MBA Program students. Students in the Iowa MBA Program may complete the certificate as they work toward their degree; the certificate is designed to fit into the MBA curriculum allowing students to earn the MBA and the certificate without additional coursework.

Modern-day leadership is about facilitating change, maximizing team and employee performance, influencing others, and leading companies and people to greatness. Students who pursue the leadership certificate learn the skills to effectively lead others. The certificate is appropriate for working professionals in all business functions and industries.

Certificate courses are offered online and select courses may occasionally be offered in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Leadership requires the following coursework.

Course #	Title	Hours
Both of these:		
MBA:8120	Management in Organizations	3
MGMT:9120	Leadership and Personal Development	3
Three of these:		
MBA:9130	Leadership Communication and Story	3
MGMT:9090	Influence and Constructive Persuasion	3
MGMT:9091	Corporate Social Responsibility and Sustainability	3
MGMT:9092	Effective Managerial Communication	3
MGMT:9110	Dynamics of Negotiations	3
MGMT:9130	Strategic Management of Change	3
MGMT:9170	Human Resources Analytics	3
MGMT:9185	Project Management	3
MGMT:9210	Law and Ethics	3
MGMT:9220	Maximizing Team Performance	3
MGMT:9230	Managing and Preventing Conflict	3
MGMT:9240	Inclusive Leadership	3
MGMT:9250	Managing Employee Performance	3
MGMT:9260	Strategic Employee Development	3
MGMT:9270	Human Resource Management	3
MGMT:9290	Global Business Management	3

If MBA:8120 Management in Organizations is waived, it must be replaced with another approved course from the preceding list.

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Leadership concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance along with quality and quantity of work experience. For specific guidelines, see Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

Marketing, Professional Certificate

Requirements

The professional Certificate in Marketing requires 12 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to build their marketing knowledge and skills. It is also open to current Iowa MBA Program students. Students in the Iowa MBA Program may complete the certificate as they work toward their degree; the certificate is designed to fit into the MBA curriculum allowing students to earn the MBA and the certificate without additional coursework.

The study of marketing includes the activities and processes for creating, communicating, and delivering products and services that add value for customers. Students learn the foundations of marketing and build specialized skills in a diversity of marketing functions, including the newest concepts and tools in digital and social marketing.

Certificate courses are offered online and select courses may occasionally be offered in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Marketing requires the following coursework.

Course #	Title	Hours
This course:		
MBA:8110	Marketing Management	3
Three of these:		
MKTG:9010	Contemporary Topics in Marketing	3
MKTG:9015	Social Media Marketing	3
MKTG:9120	Customer Relationship Management	3
MKTG:9155	Digital Marketing Insights, Strategies, and Applications	3
MKTG:9165	Digital Marketing Analytics	3
MKTG:9170	Business to Business Marketing	3
MKTG:9190	International Marketing	3
MKTG:9310	Marketing Analytics	3
MKTG:9320	Strategic Brand Positioning	3
MKTG:9330	Product and Portfolio Strategy	3
MKTG:9340	Customer Analysis	3
MKTG:9350	Marketing Communication and Promotions	3
MKTG:9370	Customer Experience	3

If MBA:8110 Marketing Management is waived, it must be replaced with another approved course from the preceding list.

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Marketing concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance along with quality and quantity of work experience. For specific guidelines, see Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

Responsible Resource Management, Professional Certificate

Requirements

The professional Certificate in Responsible Resource Management requires 12 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to build skills in evaluating and optimizing resource performance with attention to socially responsible management practices. It is also open to current Iowa MBA Program students. Students in the Iowa MBA Program may complete the certificate as they work toward their degree; the certificate is designed to fit into the MBA curriculum allowing students to earn the MBA and the certificate without additional coursework.

This certificate focuses on financial acumen and data analysis to support decision-making with particular attention to the impact on the environment, society, and governance.

Certificate courses are offered online and select courses may occasionally be offered in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Responsible Resource Management requires the following coursework.

Course #	Title	Hours
All of these:		
ACCT:9020	Strategic Cost Analysis	3
MBA:8140	Corporate Financial Reporting	3
MGMT:9091	Corporate Social Responsibility and Sustainability	3
One of these:		
BAIS:6050	Data Management	3
BAIS:6280	Cybersecurity	3
ENTR:9500	Managing the Growth Business	3
or MBA:8320	Strategic Business Growth	
FIN:9140	Enterprise Risk Management	3
MBA:8240	Operations and Supply Chain	3
MGMT:9250	Managing Employee Performance	3

If MBA:8140 Corporate Financial Reporting is waived, it must be replaced with an approved course from the preceding list.

ENTR:9500 Managing the Growth Business (prior to summer 2023) and MBA:8320 Strategic Business Growth (available fall 2023 and beyond) are the same course. Only one of those courses will count toward certificate requirements.

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Responsible Resource Management concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance along with quality and quantity of work experience. For specific guidelines, see Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

Risk Management and Insurance, Professional Certificate

Requirements

The professional Certificate in Risk Management and Insurance requires 12 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to complete the certificate to build their knowledge and skills in risk management and insurance. It is also open to current Iowa MBA Program students. Students in the Iowa MBA Program may complete the certificate as they complete their degree; the certificate is designed to fit into the MBA curriculum allowing students to earn the MBA and the certificate without additional coursework.

Certificate courses are offered online and select courses may occasionally be offered in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Risk Management and Insurance requires the following coursework.

Course #	Title	Hours
All of these:		
MBA:8140	Corporate Financial Reporting	3
MBA:8180	Managerial Finance	3
FIN:9130	Corporate Risk Management and Insurance	3
FIN:9140	Enterprise Risk Management	3

If MBA:8140 Corporate Financial Reporting and/or MBA:8180 Managerial Finance are waived, they must replace the waived course(s) with an approved course from the following list.

Course #	Title	Hours
ACCT:9040	Financial Statement Analysis and Forecasting	3
FIN:9150	Financial Modeling and Firm Valuation	3
FIN:9230	Real Estate Finance and Investments	3
FIN:9300	Corporate Finance	3
MGMT:9110	Dynamics of Negotiations	3

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Risk Management and Insurance concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance along with quality and quantity of work experience. For specific guidelines, see Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

Strategy, Professional Certificate

Requirements

The professional Certificate in Strategy requires 12 s.h. of credit. Students must earn a cumulative grade-point average of at least 2.75 in certificate coursework.

The certificate is open to individuals with a desire to gain tools for formulating and executing strategies for a competitive business advantage. It is also open to current Iowa MBA Program students. Students in the Iowa MBA Program may complete the certificate as they work toward their degree; the certificate is designed to fit into the MBA curriculum allowing students to earn the MBA and certificate without additional coursework.

Certificate courses are offered online and select courses may occasionally be offered in Des Moines at the John and Mary Pappajohn Education Center (JMPEC).

Not all courses listed are regularly offered. Students should consult MyUI for course availability and/or discuss course offerings with their advisor.

The Certificate in Strategy requires the following coursework.

Course #	Title	Hours
Both of these:		
MBA:8300	Foundations in Strategy	3
MBA:9300	Strategy in Action	3
Two of these:		
MBA:8310	Business Integration	3
or MBA:8320	Strategic Business Growth	
MBA:8500	Seminar in International Business	3
ENTR:9450	Strategic Management of Technology and Innovation	3
or ENTR:9100	Entrepreneurship and Innovation	
MKTG:9320	Strategic Brand Positioning	3

Combined Programs

Certificate/Graduate Degrees

Students can pursue a professional Certificate in Strategy concurrently with their graduate degree. A separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

With graduate program approval, students may count up to 9 s.h. from the professional certificate toward their graduate degree.

With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate.

Students should contact their degree program and the certificate program to work out combined program details.

Admission

Admission decisions are based upon completed application materials, including academic performance along with quality and quantity of work experience. For specific guidelines, see Certificate-Only Admissions on the Tippie College of Business website.

Applicants whose first language is not English must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL) or must have a successful admission interview. In place of the TOEFL, the certificate program accepts satisfactory International English Language Testing System (IELTS) scores or a Duolingo score of 120 or higher. For more information, see English Requirements for MBA Admission on the University of Iowa Admissions website.

Applications are accepted throughout the year; admission is for summer, fall, or spring entry.

College of Dentistry

Dean

- Clark M. Stanford

Executive Associate Dean

- Galen B. Schneider

Associate Dean for Academic and Student Affairs

- Sherry R. Timmons

Associate Dean, Finance and Facilities

- Paulina Janczuk

Associate Dean, Patient Care

- Kecia S. Leary

Assistant Dean of Academic Affairs

- Dharini van der Hoeven

Professional degree: DDS

Professional certificates: endodontics; geriatric and special needs dentistry; operative dentistry; oral and maxillofacial surgery; oral and maxillofacial pathology; oral and maxillofacial radiology; orthodontics; pediatric dentistry; periodontics; prosthodontics

Graduate degrees: MS; PhD

Website: https://dentistry.uiowa.edu/

The College of Dentistry is an integral part of the University of Iowa and its health sciences campus. Its mission, which embraces the university's academic values as well as the ethical responsibilities implicit in educating future members of a profession, rests on a foundation representing every aspect of collegiate activity: education of students as general practitioners and specialists; research into all aspects of oral and dental disease and the delivery of health care; and service to the community, the state, and the profession.

Faculty members, DDS students, dental specialty residents, and staff provide oral health care to patients at clinics in the Dental Science Building and the Center for Disabilities and Development. Faculty, staff, and students participate in interdisciplinary research and training activities involving the university's five health science colleges as well as other university colleges and departments.

Dentistry at the University of Iowa began in 1882 as a single department. In 1900 the university underwent general reorganization and the Dental Department became the College of Dentistry. Today the college is Iowa's only provider of predoctoral dental education and ranks as a leader in dental education nationwide.

The college and its educational programs are accredited by the Commission on Dental Accreditation of the American Dental Association, an independent tripartite commission authorized and recognized by the Office of Postsecondary Education.

Programs offered by the college cover the full spectrum of dentistry and closely integrated fields. They include the Doctor of Dental Surgery program (DDS), which prepares general dentists. The college has advanced education programs in nine dental disciplines, each of which may lead to certification in a specialized area of dentistry. In addition, advanced education programs in operative dentistry, geriatrics and special needs dentistry, and post-DDS residency programs in hospital-based dentistry are available. The college has an oral science program, which offers an MS or PhD with or without a specialty certificate. To emphasize commitment to learning, the College of Dentistry has a wide variety of continuing education programs for dental and allied professions.

Faculty

Iowa's dental faculty are predominantly full-time. In addition, more than 100 part-time adjunct faculty members assist with clinical teaching in the DDS and advanced residency programs. Approximately 88% of the college's faculty members hold DDS or DMD degrees and 12% represent other disciplines. The vast majority of faculty dentists have advanced education past the DDS, generally with master's degrees in specialty areas; about one-fifth hold a PhD.

The College of Dentistry is committed to the principle that diversity is essential to a strong educational environment—one that prepares new generations of dentists to provide high-quality care to patients from many backgrounds. The college's full-time faculty reflects that commitment.

Programs

Professional Program of Study (DDS)

The Doctor of Dental Surgery program prepares students to practice general dentistry. It requires a minimum of three years of preprofessional study and four years of study in the College of Dentistry. See Doctor of Dental Surgery [p. 1294] in this section of the catalog for a description of the program's curriculum and information about a combined bachelor's degree and a DDS, the dentistry licensure examination, student organizations, expenses, admission, financial support, and academic rules and procedures.

Post-DDS and Graduate Programs of Study

Several College of Dentistry departments offer professional certificate programs designed to prepare dentists for clinical specialty practice: endodontics [p. 1299]; operative dentistry [p. 1305]; oral pathology, radiology, and medicine [p. 1310]; orthodontics [p. 1319]; pediatric dentistry [p. 1324]; periodontics [p. 1326]; and prosthodontics [p. 1332]. Students who complete these programs satisfactorily are awarded a certificate. The Department of Oral and Maxillofacial Surgery [p. 1308] offers a four-year residency program that culminates in a certificate. The college also offers a Certificate in Geriatric and Special Needs Dentistry [p. 1302].

The College of Dentistry offers a Doctor of Philosophy and a Master of Science in oral science [p. 1314]. The MS is only offered in conjunction with a specialty certificate. Students earning the Certificate in Endodontics or the Certificate in Prosthodontics may earn an MS or a PhD in oral science. Those earning the Certificate in Operative Dentistry, Certificate in Oral and Maxillofacial Pathology, Certificate in Oral and Maxillofacial Radiology (Department of Oral Pathology, Radiology, and Medicine), or the Certificate in Periodontics may earn an MS in oral science.

In addition, the Department of Orthodontics [p. 1319] offers a Master of Science in orthodontics, and the Department of Preventive and Community Dentistry [p. 1328] offers a Master of Science in dental public health.

For information about post-DDS and graduate programs of study, see the College of Dentistry departmental sections in the catalog.

Facilities

The College of Dentistry is located in the Dental Science Building on the University of Iowa health sciences campus, in proximity to the Roy J. and Lucille A. Carver College of Medicine, College of Nursing, College of Pharmacy, College of Public Health, and University of Iowa Health Care. The Bowen Science Building and the Hardin Library for the Health Sciences are nearby.

The south wing of the Dental Science Building is devoted to clinical teaching. There are 248 operatories in departmental clinics, student laboratories, clinical research space, and a cafeteria.

The west wing contains two floors of patient treatment areas and one floor of space for students. The clinical spaces include 44 dental operatories in the Geriatric and Special Needs Clinic, the Endodontics Clinic, faculty general practice, and the Craniofacial Clinical Research Center. Student areas include a classroom accommodating 80 people, small-group study rooms, a seminar room, a student lounge, lockers, and showers.

The north wing houses the simulation clinic and technique bench teaching laboratory, the electronic classroom, college administrative offices, technology and media services, the academic Department of Preventive and Community Dentistry, and the research laboratories and faculty offices of the Iowa Institute for Oral Health Research.

Dental Education and Patient Care

Patient care is integral to dental education. Students and faculty members deliver oral health care in clinics on the health sciences campus and at several off-campus sites, including nursing homes. More than 45,600 people receive oral health care yearly in the college's clinics. Patients from throughout Iowa, western Illinois, and northern Missouri account for most of the 167,300 patient visits each year.

Interdisciplinary Centers and Research

Iowa Institute for Oral Health Research

The Iowa Institute for Oral Health Research occupies the first and fourth floors of the Dental Science Building's north wing. Laboratories are equipped to support a wide variety of research projects reflecting the complex nature of modern health care needs. Research at the institute is coordinated by the College of Dentistry.

There are four focus areas of research. The first area includes bioengineering, tissue engineering, stem cells, and biomaterials and materials research. The second area encompasses craniofacial, oral biology, genetics, and dental development. The third area includes public health, epidemiology, and behavioral sciences. The fourth area encompasses immunology, inflammation, microbiology, and caries and microbiome research. All focus areas are supported by the Division of Biostatistics and Computational Biology. Clinical and translational research involving new innovative methods and products designed in the research laboratories is carried out in the Craniofacial Clinical Research Center.

Although research is concentrated in these program areas, one of the unit's strengths has been the consistent level of interaction and collaboration among individuals and programs across the college and the university.

Craniofacial Anomalies Research Center

The role of the Craniofacial Anomalies Research Center is to understand the molecular mechanisms of genes and gene interactions that contribute to craniofacial/dental anomalies and birth defects. These genetic defects arise from inherited and somatic gene mutations due to environmental effects. The center researchers use mouse, ferret, and zebrafish models; human genetic material; cell lines; and molecular/biochemistry approaches to understand gene function. With the advent of human genome sequencing and the decreasing costs of genomic analyses, it has become somewhat more efficient to identify genetic defects associated with human genetic defects and diseases. The use of these genetic screening approaches provides invaluable data and resources in the search for new genes involved in human craniofacial development and associated anomalies. The center collaborators reside in the Carver College of Medicine, and the colleges of Dentistry, Pharmacy, and Public Health.

Craniofacial Clinical Research

For more than two decades, the College of Dentistry has offered outpatient research support for National Institutes of Health (NIH), U.S. Food and Drug Administration (FDA), and related federally supported research grants. Protocol-based studies are performed by faculty scientists and supported by oral health care industries. Scientists also engage in translational research that involves laboratory-to-clinical-research outcomes. College of Dentistry faculty use new technology to improve dental procedures and provide state-of-the-art methods to obtain the best outcomes for patients. A biorepository program helps researchers understand the causes of dental and oral diseases and genetic anomalies. It benefits Iowans by the potential diagnoses of diseases and their effects and provides new, improved patient treatment.

Through integrated research, education, and clinical programs, craniofacial clinical research facilitates the development of implants and their use as a therapeutic modality in dentistry. The program also integrates basic and clinical research with technology transfer to the clinical setting, enhancing predoctoral, postgraduate, and continuing education and expanding treatment options available to patients served by the college. Craniofacial clinical research also provides vital coordination of dental specialties that participate in this treatment modality.

Courses

College of Dentistry Courses

Most College of Dentistry courses are offered by the college's departments and programs. They are listed and described in the corresponding General Catalog sections. The college also offers the following nondepartmental courses.

DENT:4000 Pre-Dental Academy 0 s.h.
Hands-on experience for undergraduate students interested in dentistry; interaction with faculty, residents, and current students in simulation clinic; didactic sessions; admissions information; changing health care environment, digital dentistry, dental esthetics, introduction to dental specialties, drilling and filling. Offered summer session.

DENT:8100 First-Year Continuing Session arr.

DENT:8110 Patient Management: Interprofessional Education II 0 s.h.
Application of previously learned concepts to relevant health care experiences using interprofessional skills and team-based health care concepts; development of skills related to leadership in health care teams, pain management from an interprofessional team, and application of ethics and professionalism concepts; online modules and group activities.

DENT:8120 Foundations in Microbiology and Immunology 3 s.h.
Essential knowledge of microorganisms, their role in oral and systemic health, and the body's immune response. Students explore the diversity of bacteria, viruses, fungi, and parasites, focusing on those relevant to dental practice and the role of the oral microbiome and other key microbiomes of the human body in relation to overall health. Integrates theoretical concepts with clinical relevance, preparing students to understand and manage infectious diseases in dental settings and to apply immunological principles in patient care and treatment planning. Requirements: DDS enrollment.

DENT:8200 Second-Year Continuing Session arr.

DENT:8210 Patient Management: Interprofessional Education III 0 s.h.
Application of previously learned concepts to relevant health care experiences using interprofessional skills and team-based health care concepts; development of skills related to leadership in health care teams, pain management from an interprofessional team, and application of ethics and professionalism concepts; online modules and group activities.

DENT:8220 Dental Independent Study arr.
Introduction to dental topics on the basic principles of dentistry in preparation for seminars, discussion sessions, and patient care. The Iowa Dental Advanced Standing Program offers dentists trained outside the United States the opportunity to earn a CODA (Commission on Dental Accreditation) accredited DDS degree. Recommendations: enrollment in the Iowa Dental Advanced Standing Program.

DENT:8230 Biomedical Sciences in Clinical Practice 2 s.h.
Topics in medicine and dentistry related to biochemistry, physiology, microbiology, anatomy, histology, pharmacology, and pathology. Expand foundational science knowledge to understand real-life clinical circumstances.

DENT:8300 Third-Year Continuing Session arr.

DENT:8360 Introduction to Clinical Orofacial Pain 1 s.h.
Major sources and types of orofacial pain; students build knowledge and skills to recognize temporomandibular disorders and other common orofacial pain conditions, differentiate odontogenic from nonodontogenic orofacial pain, and apply interdisciplinary pain management concept in developing appropriate patient management plan.

DENT:8371 Quality Assurance I 1 s.h.
Patient management, record writing skills, and quality assurance concepts; students coordinate treatment, patient relations, and issues of quality assurance for a group of patients.

DENT:8372 Quality Assurance II 1 s.h.
Continuation of DENT:8371; patient management, record writing skills, and quality assurance concepts; students coordinate treatment, patient relations, and issues of quality assurance for a group of patients; ethical and moral dilemmas in relation to dental practice.

DENT:8400 Fourth-Year Lectures and Clinics arr.

DENT:8485 Clinical Admissions Emergency 2 s.h.
Clinical evaluation, diagnosis, and treatment of patients with dental emergencies; patient assessment and referral to appropriate department for treatment.

DENT:8489 Clinical Practice and Professionalism V1 s.h.
Dental quality assurance from the viewpoints of patients, practicing dentists, dental educators, legal, insurers, and social workers. Evaluating dental practice in relation to quality assurance.

DENT:9000 Advanced Clinical Comprehensive Dentistry 0 s.h.
Clinical experience for professional improvement. Requirements: dental degree.

Doctor of Dental Surgery

Professional degree: DDS

Website: https://dentistry.uiowa.edu/

The Doctor of Dental Surgery program prepares students to practice general dentistry. The DDS is a professional degree awarded by the College of Dentistry.

Dentistry Licensure Examination

The State of Iowa accepts clinical examination results from all Regional Dental Testing Services including a manikin exam in lieu of a patient exam. Examinations are administered at several testing sites located at dental schools in the United States. A separate license application is then filed with the individual state board of dentistry.

For licensure, all states also require the National Boards, conducted by the Joint Commission on National Dental Examinations. Many states, including Iowa, also require a jurisprudence examination. For further details on licensure requirements for each state, refer to individual state dental board websites.

Student Organizations

The Academy of General Dentistry, the American Dental Education Association, the American Association of Dental Research (Student Research Group), the American Association for Women Dentists, the American Academy of Pediatric Dentistry student chapter, the American Association of Public Health Dentistry student chapter, the Christian Dental Association, the Student National Dental Association, the Hispanic Dental Association student chapter, and the Tau Sigma Military Dental Club also have local chapters. The College of Dentistry also has interest clubs in oral and maxillofacial surgery, orthodontics, periodontics, and prosthodontics.

Students who rank in the upper 20% of their senior class are eligible for election to Omicron Kappa Upsilon, a national scholastic honorary dental society.

The national dental professional fraternity, Delta Sigma Delta, has a chapter at Iowa. The fraternity provides academic and social activities for students and their spouses.

Programs

Professional Program of Study

- Doctor of Dental Surgery [p. 1295]

Academic Rules and Procedures

Promotions and Graduation

Student promotions and graduation are determined by the Collegiate Academic and Professional Performance (CAPP) Committee, which is made up of individuals appointed by the dean from the biomedical, preclinical, and clinical sciences and from other academic areas of the college. The performance committee may recommend to the executive associate dean that a student withdraw from the college or repeat specific courses when the student is deemed generally unprepared to be promoted or to enter the dental profession.

Appeals

When a student has been asked to withdraw from the college or wants special consideration of problems concerning promotion or graduation, the student may appeal to the dean.

Doctor of Dental Surgery, DDS

The Doctor of Dental Surgery (DDS) is a professional degree awarded by the College of Dentistry. Admission requirements include 90 s.h. of undergraduate credit, including specific required courses, completed at an accredited college; see Admission [p. 1297] in this section of the catalog.

Students working toward a bachelor's degree in the University of Iowa College of Liberal Arts and Sciences before being admitted to the College of Dentistry may be able to complete their bachelor's degree during their first year in dentistry; see "Bachelor's Degree/DDS" under Requirements [p. 1295] in this section of the catalog.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Requirements

The Doctor of Dental Surgery requires a minimum of three years of preprofessional study and four years of study in the College of Dentistry. Students are required to maintain a cumulative grade-point average of at least 2.00 to earn the degree.

Coursework during the first and second years in the College of Dentistry integrates the biomedical sciences with preclinical and clinical disciplines. The biomedical sciences include gross anatomy, biochemistry, general histology, microbiology, pathology, pharmacology, and physiology. Students also study topics specific to dentistry, such as principles of occlusion, anesthesia and pain control, operative dentistry, periodontics, prosthodontics, cariology, and preventive dentistry. During the latter part of the first year, students are introduced to their first clinical patient treatment situation.

Second-year dental students continue their study of biomedical sciences, take preclinical courses, have additional patient treatment experiences in restorative and preventive dentistry, and are introduced to aesthetic and implant dentistry.

Third-year dental students rotate through a series of clerkships that expose them to eight clinical disciplines: endodontics, operative dentistry, oral and maxillofacial surgery, oral pathology, pediatric dentistry, periodontics, prosthodontics, and oral radiology and medicine.

Fourth-year dental students deliver comprehensive dental care in conditions that closely approximate those in private dental practice. They are also exposed to varied community dentistry health programs throughout Iowa and other states that include hospitals, nursing homes, and special care clinics. They may choose to participate in the Colorado Migrant Worker Program or the Indian Health Service Program. The community dentistry programs provide exposure to facets of dentistry usually not observable in an academic setting.

Students may gain research experience by enrolling in PCD:8500 Dental Student Research Honors Program.

The Doctor of Dental Surgery requires the following coursework.

First Year, Fall

Course #	Title	Hours
BMB:8101	Biochemistry for Dental Students	3
DENT:8120	Foundations in Microbiology and Immunology	3
MPB:8115	Human Physiology for Dental Students	4
OPER:8120	Dental Anatomy	3
OPER:8122	Introduction to Operative Dentistry	1
PCD:8115	Patient Management: Ethics and Interprofessional Education	1
PCD:8116	Preventive Dentistry: Introduction	2
PCD:8117	Cariology and Preventive Therapies	2
PCD:8120	Introduction to Evidence-Based Dentistry I	1
PROS:8120	Treatment of Dentulous Patients: Introduction to Occlusion Lecture	1
PROS:8121	Treatment of Dentulous Patients: Introduction to Occlusion Lab	1

First Year, Spring

Course #	Title	Hours
DENT:8110	Patient Management: Interprofessional Education II	0
ACB:8120	Human Gross Anatomy for Dental Students	6
ACB:8121	General Histology for Dental Students	4
OMFS:8115	Anesthesia and Pain Control I	1
OPER:8124	Operative Dentistry I	5
OPRM:8120	Fundamentals of Oral Radiology	1
PCD:8118	Preventive Dentistry Assessment and Patient Care	4
PCD:8119	Patient Management: Communication Fundamentals	1
PCD:8121	Introduction to Evidence-Based Dentistry II	1
PROS:8122	Treatment of Dentulous Patients: Fixed Prosthodontics for Single Anterior Teeth Lecture	1
PROS:8123	Treatment of Dentulous Patients: Fixed Prosthodontics for Single Anterior Teeth Lab	1
PROS:8124	Treatment of Dentulous Patients: Fixed Prosthodontics for Single Posterior Teeth Lecture	1

PROS:8125	Treatment of Dentulous Patients: Fixed Prosthodontics for Single Posterior Teeth Lab	1

Second Year, Fall

Course #	Title	Hours
DENT:8210	Patient Management: Interprofessional Education III	0
DENT:8230	Biomedical Sciences in Clinical Practice	2
OMFS:8230	Basic Oral and Maxillofacial Surgery	2
OPER:8240	Operative Dentistry II	3
OPRM:8235	Oral Pathology I	2
OPRM:8245	Introduction to Clinical Oral Radiology	1
ORDN:8215	Growth and Development	1
PATH:8133	Introduction to Human Pathology for Graduate Students	2
PCD:8218	Critical Thinking and Evidence-Based Dentistry in Treatment Planning	1
PCD:8245	Clinical Preventive Dentistry	2
PROS:8240	Treatment of Partially Edentulous Patients: Fixed Multi-Unit Prosthodontics Lecture	1
PROS:8241	Treatment of Partially Edentulous Patients: Fixed Multi-Unit Prosthodontics Patient Simulation I	1
PROS:8242	Treatment of Partially Edentulous Patients: Single Tooth Implant Lecture	1
PROS:8243	Treatment of Partially Edentulous Patients: Single Tooth Implant Patient Simulation	1

Second Year, Spring

Course #	Title	Hours
ENDO:8240	Preclinical Endodontics Lecture	1
ENDO:8241	Preclinical Endodontics Laboratory	1
OMFS:8245	Anesthesia and Pain Control II	1
OPER:8243	Introduction to Clinical Operative Dentistry	3
OPRM:8236	Oral Pathology II	2
OPRM:8240	Basic Pharmacology	3
ORDN:8235	Orthodontic Laboratory	1
ORDN:8236	Orthodontic Treatment	1
PCD:8219	Patient Management: Communication Challenges	1
PEDO:8240	Pediatric Dentistry Diagnosis and Treatment	3
PERI:8230	Fundamentals in Periodontology II	1
PROS:8244	Treatment of Partially Edentulous Patients: Removable Partial Prosthodontics Lecture	1
PROS:8245	Treatment of Partially Edentulous Patients: Removable Partial Prosthodontics Patient Simulation	1
PROS:8246	Treatment of Edentulous Patients: Removable Complete Prosthodontics Lecture	1
PROS:8247	Treatment of Edentulous Patients: Removable Complete Prosthodontics Patient Simulation	1

Third Year Clinical Rotations

In addition to fall and spring coursework, students complete the following multidisciplinary rotations throughout the year.

Course #	Title	Hours
ENDO:8370	Clinical Endodontics (20 weeks)	4
OMFS:8360	Clinical Oral and Maxillofacial Surgery (5 weeks)	4
OPER:8370	Operative Dentistry III (10 weeks)	4
OPRM:8360	Clinical Oral Diagnosis (5 weeks)	1
OPRM:8361	Clinical Oral Radiology (5 weeks)	1
OPRM:8365	Clinical Oral Pathology (5 weeks)	1
PEDO:8370	Pediatric Dentistry: Clinical Applications (10 weeks)	4
PERI:8370	Clinical Periodontology (20 weeks)	4
PROS:8370	Introduction to Clinical Prosthodontics (20 weeks)	8

Third Year, Fall

Course #	Title	Hours
DENT:8371	Quality Assurance I	1
OPRM:8355	Systemic Disease Manifestations	1
OPRM:8362	Applied Oral Radiology	1
OPRM:8368	Applied Dental Pharmacology	2
PCD:8319	Patient Management: Special Populations	1
PCD:8360	The Practice of Dentistry in the Community I	1

Third Year, Spring

Course #	Title	Hours
DENT:8360	Introduction to Clinical Orofacial Pain	1

DENT:8372	Quality Assurance II	1
PCD:8355	Introduction to Geriatric Dentistry	2
PCD:8361	The Practice of Dentistry in the Community II	2

Fourth Year Clinical Rotations

Students complete one yearlong course, FAMD:8488 Comprehensive Dental Patient Care. In addition to fall and spring coursework, students complete the following specialized rotations throughout the year.

Course #	Title	Hours
DENT:8485	Clinical Admissions Emergency	2
FAMD:8482	Dental Auxiliary Utilization	2
PCD:8489	Geriatrics and Special Needs Program (5 weeks)	4
PCD:8494	Extramural Rotation in Oral Health (5 weeks)	5

Fourth Year, Fall

Course #	Title	Hours
FAMD:8484	Dental Practice Management I	1
FAMD:8490	Seminar on Comprehensive Dental Care Topics	1
FAMD:8495	Advanced Treatment Planning I	1

Fourth Year, Spring

Course #	Title	Hours
DENT:8489	Clinical Practice and Professionalism V	1
FAMD:8485	Dental Practice Management II	1
FAMD:8497	Advanced Treatment Planning II	1

Dental Public Health Distinction Track

Students who seek this track take an additional four courses, participate in the Dental Public Health (DPH) club, and engage in community outreach activities. Students completing this track will graduate with distinction in dental public health.

The College of Dentistry also supports a fully accredited DPH graduate program for those who want to specialize in the discipline after dental school. See the Department of Preventive and Community Dentistry [p. 1328] in the catalog for more information.

Course #	Title	Hours
Four of these:		
DPH:5000	Introduction to Dental Public Health	0,2
DPH:5005	Administration of Public Dental Programs	0,2
DPH:5014	Dental Care Policy and Financing	0,2
DPH:6003	Independent Study: Dental Public Health	1-3
ABRD:3352	International Perspectives: Xicotepec	arr.
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
CPH:5100	Introduction to Public Health	3
EPID:4400	Epidemiology I: Principles	3
HMP:4000	Introduction to the U.S. Health Care System	3
HMP:5200	Healthcare Management	3
OEH:4240	Global Environmental Health	3

Combined Programs

Bachelor's Degree/DDS

The College of Liberal Arts and Sciences (CLAS) allows its students to count 30 s.h. of elective credit earned in any other University of Iowa college toward graduation with a bachelor's degree. Under this policy, CLAS students who enroll in the College of Dentistry before completing their bachelor's degree may be able to complete their degree during their first year in dentistry. Students planning to take advantage of this plan must satisfy the CLAS residence requirement in order to enroll in the College of Dentistry. They must also fulfill all requirements for the bachelor's degree, including the GE CLAS Core [p. 22]requirements and the requirements for a major. Contact the College of Liberal Arts and Sciences for more information.

Admission

Applicants must submit a completed Associated American Dental Schools Application Service (AADSAS) application form to the American Dental Education Association (ADEA). The AADSAS application must be completed online at the American Dental Education Association website.

Applications are accepted in June of the year that precedes the year of entry. Completed applications must be on file at ADEA by Oct. 1. Applicants should apply as early as possible. Notifications of acceptance are sent beginning in December.

Predental Studies

The basic academic requirement for admission to the College of Dentistry is completion of at least 90 s.h. of academic study at an accredited college. No more than 60 s.h. of credit is accepted from a community college or two-year institution. The predental program of study should include the following.

- English: satisfactory accomplishment in English composition, rhetoric, and speech commensurate with the academic requirements for a bachelor's degree at the college attended.
- Physics: one year (equivalent to 8 s.h.), of which one-fourth must be laboratory work.
- Chemistry: two years (equivalent to 16 s.h.), of which one year (equivalent to 8 s.h.) must be in organic chemistry; one-fourth of each year's study must be laboratory work.
- Biological science: one year (equivalent to 8 s.h.), which must include appropriate laboratory work; the requirement may be satisfied by a one-year course in principles of biology, with instruction in cell biology, metabolism, organismic biology, animal biology, genetics, development, ecology, and evolution. Preference is given to applicants who have completed more than 8

s.h. Courses in human anatomy and cell physiology are strongly recommended.
- Biochemistry: one course (3 s.h.) that covers basic concepts in modern biochemistry and molecular biology.
- Electives: sufficient coursework in the social sciences, philosophy, psychology, history, world languages, business, and mathematics to provide a well-rounded educational background.

Grade-Point Average Requirement

Applicants should have a cumulative grade-point average (GPA) higher than 2.50 on a 4.00 scale; a GPA above 3.50 is preferred. The admissions committee gives special consideration to the quality of applicants' coursework in the predental sciences, in addition to the cumulative GPA.

Interviews

Personal interviews are required of applicants for admission to the College of Dentistry. After a complete AADSAS application is received by the admissions office, select applicants are contacted to arrange an interview.

Required Dental Admission Test

All applicants must complete the Dental Admission Test (DAT) sponsored by the Council on Dental Education and Licensure of the American Dental Association. A computerized DAT is available throughout the year at designated Prometric centers. Tests must be scheduled in advance.

Test application forms are available online or by mail from the American Dental Association, 211 East Chicago Avenue, Chicago, IL 60611.

Deposit by Accepted Applicants

Applicants accepted before Feb. 1 are required to submit a $500 deposit within 30 days after notification of admittance. Applicants admitted after Feb. 1 must submit the deposit within two weeks after notification of admittance. This deposit is not refundable but is credited toward the first fee payment. Applicants who fail to make the deposit within the time specified forfeit their place in the entering class.

Additional Admission Considerations

Fulfillment of the specific requirements listed for admission does not ensure admission to the College of Dentistry. The admissions committee reviews applicants who meet the minimum requirements and selects those who appear best qualified for the study and practice of dentistry. The committee considers quantitative and qualitative components of the application, letters of recommendation, the interview, and other factors.

Financial Support

Financial assistance for dental students is based on need. Dental students who demonstrate need are eligible for Health Professions, Stafford, and Grad PLUS loans. Students applying for loans must submit the Free Application for Federal Student Aid (FAFSA), including the parental information form on MyUI in order to be considered for the Health Professions loan. Loans are repayable over an extended period of time after the course of study is completed.

Collegiate short-term and long-term loans are available through the financial aid coordinator at the College of Dentistry.

Tuition scholarships are awarded each year to qualified entering dental students. The awards provide financial support up to $15,000 per year for as many as four years, if the student maintains an appropriate level of academic and professional performance.

Information on financial assistance for dental students is available from the university's Office of Student Financial Aid as well as the College of Dentistry Office of Student Affairs.

Expenses

The College of Dentistry maintains the Supply-Instrument Management System (SIMS), which provides students with instruments and supplies necessary throughout their dental training. The SIMS usage fee for the DDS is payable in installments over the four-year program.

A fee for expendable laboratory supplies is charged each of the first two years. A $100 breakage fee also must be deposited; the deposit is refundable upon graduation or termination of enrollment.

Career Advancement

The Doctor of Dental Surgery program prepares students to practice general dentistry.

Endodontics

Chair

- Leonardo Marchini

Director, Graduate Program

- Manuel Gomez

Professional certificate: endodontics

Faculty: https://dentistry.uiowa.edu/directory

Website: https://dentistry.uiowa.edu/departments/endodontics

The Department of Endodontics provides education and training to predoctoral students and to professional students who may work toward a graduate degree along with their professional training. Some students participate with departmental faculty in research that contributes to the knowledge base of the specialty. Faculty members and advanced students in the department also provide care to patients at the College of Dentistry.

DDS Student Training

Coursework and clinical experiences in endodontics are vital in the overall education of Doctor of Dental Surgery students. Preclinical endodontics, conducted during the sophomore year, includes a didactic and a laboratory component. In clinical endodontics, taught during the junior year, students study both normal and pathological conditions of the dental pulp and periapex. Diagnosing pulpal and periradicular disease and various specialized aspects of endodontic treatment are emphasized. Students treat endodontic patients under the direct supervision of faculty and staff.

Programs

Professional Program of Study

Certificate

- Certificate in Endodontics [p. 1300]

Facilities

The Department of Endodontics is located in the west section (third floor) of the Dental Science Building (DSB). The clinic is adjacent to the west entrance and well-equipped with the latest technology in endodontics and the disciplines involved.

Courses

Endodontics Courses

ENDO:5201 Update in Endodontics 0-1 s.h.
Recommended for second year certificate students.

ENDO:5225 Endodontic Literature Review I 0,2 s.h.
Current and historical research.

ENDO:5226 Endodontic Literature Review II 0,2 s.h.
Continuation of ENDO:5225.

ENDO:5260 Current Literature in Endodontics 0-1 s.h.
Current literature relevant to endodontics, including diagnosis or treatment of endodontic cases; dental journals with endodontic-related content; landmark research.

ENDO:5700 Endodontic Surgery Conference 0,2 s.h.
Attendance at Endodontic Surgery Conference.

ENDO:5701 Advanced Clinical Endodontics 0,3 s.h.
Advanced study.

ENDO:5710 Research in Endodontics arr.

ENDO:5720 Seminar in Endodontics I 0,2 s.h.
First in a series of lectures in endodontics.

ENDO:5721 Seminar in Endodontics II 0,2 s.h.
Continuation of ENDO:5720.

ENDO:6227 Endodontic Literature Review III 0,2 s.h.
Continuation of ENDO:5226.

ENDO:6228 Endodontic Literature Review IV 0,2 s.h.
Continuation of ENDO:6227.

ENDO:6701 Seminar in Endodontics III 0,2 s.h.
Continuation of ENDO:5721.

ENDO:6702 Seminar in Endodontics IV 0,2 s.h.
Continuation of ENDO:6701.

ENDO:8240 Preclinical Endodontics Lecture 1 s.h.
Examination of coronal and radicular dental anatomy, diagnosis of pulpal and periapical disease, and clinical protocols in endodontics; includes endodontic microbiology, endodontic procedural errors, and endodontic prognosis; also includes restoration of endodontically treated teeth. Prerequisites: MICR:8230 and OPER:8240 and OPRM:8245.

ENDO:8241 Preclinical Endodontics Laboratory 1 s.h.
Completion of clinical protocols in endodontics; includes access, straight-line access, working length determination, cleaning and shaping, and obturation; also includes rubber dam isolation, intracanal medicaments, and provisional restorations. Prerequisites: MICR:8230 and OPER:8240 and OPRM:8245.

ENDO:8370 Clinical Endodontics 4 s.h.
Completion of diagnosis, treatment planning, and treatment of pulpal and periapical disease; includes management of endodontic emergencies, local anesthesia, and radiology related to endodontics; also includes review and management of dental traumatic injuries.

Endodontics, Professional Certificate

Requirements

The professional Certificate in Endodontics requires a minimum of 24 months of full-time formal training. Students must maintain a cumulative grade-point average of at least 3.00 to earn the certificate.

The certificate is a clinical specialty program designed to provide qualified dentists with the scientific knowledge and clinical skills needed to practice endodontics and/or pursue a dental education and research career. The curriculum includes clinical and didactic courses. Students complete an original research project in endodontics and write a scientific paper on their research for submission to a refereed journal.

The program's goal is to develop competent diagnosticians and clinicians. Students learn the scientific and clinical basis of endodontics; develop clinical skills; gain knowledge of and experience in the educational process to function confidently as dental educators; and develop skills in designing, conducting, reporting, and publishing the results of original research.

The certificate program satisfies training requirements for eligibility for certification by the American Board of Endodontics. Students who complete the program are encouraged to seek board certification. Various activities throughout the course of study prepare students for the board examination process. Once students enroll in the certificate program, they cannot involve themselves in private dental practice enterprises outside the college. Please adhere to this policy to avoid dismissal from the program.

Students should complete the certificate program without interruption. Students who demonstrate a need to discontinue the program temporarily should limit their time away to a maximum of one calendar year. Students must have permission from the endodontics graduate program director to interrupt their study.

Graduate Study

Certificate students may work toward a Master of Science or a Doctor of Philosophy in oral science while earning the certificate. Both graduate degree programs provide students with in-depth knowledge in a scientific training discipline as preparation for careers in academia and research.

Students typically require three years of full-time study to complete the Certificate in Endodontics and the MS, or at least four years to complete the certificate and the PhD. Both graduate degree programs require more didactic coursework than the certificate program. The MS requires a thesis; the PhD requires a dissertation. See Oral Science [p. 1314] in the catalog.

Other graduate programs are available to endodontics certificate students, such as master's degrees in other disciplines or a certificate in combination with a PhD in a basic science area. Such programs are available by special arrangement, depending on a candidate's experience and goals. Consult the Department of Endodontics for more information.

Admission

Applicants to the endodontics certificate program must apply through the American Dental Education Association's Postdoctoral Application Support Services (ADEA PASS). Applicants must hold a DDS or DMD degree or an international equivalent and meet the application requirements of the Graduate College. When available, they should take the National Board Dental Examination (NBDE) Part 1 and Part 2.

Applications should include official transcripts from all undergraduate and graduate institutions, an updated curriculum vitae, three letters of recommendation, a personal statement, and a photograph (two-inch head-and-shoulders view).

The certificate program begins July 1; ADEA PASS applications should be submitted by July 1 for admission the following summer. Finalists for admission are asked for a personal interview in July; admission decisions are made following interviews.

Financial Support

Applicants to the certificate program must be able to support themselves financially until they complete the program.

Prospective students should plan to pay for living expenses, tuition, books, specialized equipment (e.g., surgical operating microscope, notebook computer, and ultrasonic system), instrument usage, and other costs.

Family Dentistry

Head

- Christopher A. Barwacz

Faculty: https://dentistry.uiowa.edu/directory

Website: https://dentistry.uiowa.edu/departments/family-dentistry

The Department of Family Dentistry reinforces and refines the comprehensive approach to managing patients' oral health care needs.

DDS Student Training

The senior year of the Doctor of Dental Surgery program integrates basic science knowledge, clinical skills, and dental laboratory experiences acquired during the first three years of dental school into a systematic approach to providing patient care.

Students who complete their education in family dentistry should:

- conduct themselves in a professional and ethical manner;
- understand the principles of comprehensive dental treatment planning;
- know the medical, ethical, and legal issues involved in patient care;
- be able to recognize the need for specialty consultation;
- be competent in coordinating and sequencing patient treatments;
- be effective members of the dental team;
- be prepared to enter general practice;
- be educated and trained for licensure examination; and
- appreciate the importance and value of lifelong learning.

Students spend five days a week in a clinical setting, where they gain experience in total patient management and care. Their didactic coursework builds on their previous education. All areas of clinical and didactic instruction, patient awareness, and sensitivity to patients' needs are stressed.

The department's practice management curriculum prepares students to evaluate practice locations and manage the business aspects of a dental practice.

Courses

Family Dentistry Courses

FAMD:8482 Dental Auxiliary Utilization 2 s.h.
Delivery of comprehensive dental treatment in a simulated group practice clinical setting with chairside dental assistants.

FAMD:8484 Dental Practice Management I 1 s.h.
Principles and philosophies of dental practice management.

FAMD:8485 Dental Practice Management II 1 s.h.
Principles and philosophies of dental practice management.

FAMD:8488 Comprehensive Dental Patient Care 26 s.h.
Refinement of didactic knowledge, clinical skills, judgment, and critical self-evaluation in the delivery of integrated, comprehensive dental care.

FAMD:8490 Seminar on Comprehensive Dental Care Topics 1 s.h.
Exploration of contemporary dental practices, covering various topics in preventive care, advanced restorative techniques, and specialist referrals in the comprehensive care management of patients. Requirements: DDS enrollment.

FAMD:8495 Advanced Treatment Planning I 1 s.h.
Development of critical thinking to implement comprehensive treatment plans involving a multidisciplinary approach in management of patients through case-based learning and didactic seminars.

FAMD:8497 Advanced Treatment Planning II 1 s.h.
Builds on FAMD:8495; continue the development of critical thinking and advanced clinical knowledge to implement complex comprehensive treatment plans involving a multidisciplinary approach in management of patients with complex medical and dental needs through case-based learning, peer discussion, and student case and portfolio presentations.

Geriatric and Special Needs Dentistry

Head

- Leonardo Marchini

Director, Geriatric and Special Needs Dentistry

- Rohit Nair

Professional certificate: geriatric and special needs dentistry

Faculty: https://dentistry.uiowa.edu/directory

Website: https://dentistry.uiowa.edu/pcd/geriatric-grad

The certificate program in geriatric and special needs dentistry prepares dentists to be leaders and teachers in this critical area of practice. The multidisciplinary program incorporates medicine and psychiatry and blends clinical and didactic experiences in varied settings, such as acute, palliative, rehabilitative, and long-term care. Its goal is to provide dental professionals with the knowledge and skills they need to provide patient-centered, sound, and realistic treatment plans for their geriatric and special needs patients.

The Certificate in Geriatric and Special Needs Dentistry is administered by the Department of Preventive and Community Dentistry [p. 1328].

Programs

Professional Program of Study

- Certificate in Geriatric and Special Needs Dentistry [p. 1303]

Courses

Geriatric and Special Needs Dentistry Courses

GSND:5700 Advanced Clinical Geriatric Dentistry I **0,4 s.h.**
Advanced clinical education in geriatric dentistry.

GSND:5702 Advanced Clinical Geriatric Dentistry II **0,4 s.h.**

GSND:5703 Advanced Clinical Geriatric Dentistry III **0,4 s.h.**

GSND:5704 Advanced Clinical Geriatric Dentistry IV **0,4 s.h.**

GSND:5720 Outreach/Advanced Clinical Geriatric Dentistry I **0,3 s.h.**

GSND:5721 Outreach/Advanced Clinical Geriatric Dentistry II **0,3 s.h.**

GSND:5730 Interdisciplinary Geriatric Patient Assessment I **0,2 s.h.**

GSND:5731 Interdisciplinary Geriatric Patient Assessment II **0,2 s.h.**

GSND:5740 Advanced Topics in Geriatric Dentistry and Special Needs I **0,2 s.h.**

GSND:5742 Advanced Topics in Geriatric Dentistry and Special Needs II **0,2 s.h.**

GSND:5750 Geriatric Dental Case Study Seminar I **0,2 s.h.**

GSND:5751 Geriatric Dental Case Study Seminar II **0,2 s.h.**

GSND:5760 Teaching Practicum in Geriatric Dentistry I **0,2 s.h.**

GSND:5770 Advanced Clinical Training for Developmentally Disabled Adults I **0,2 s.h.**

GSND:5771 Advanced Clinical Training for Developmentally Disabled Adults II **0,2 s.h.**

Geriatric and Special Needs Dentistry, Professional Certificate

Requirements

The professional Certificate in Geriatric and Special Needs Dentistry requires at least 40 s.h. over a minimum of one year of full-time study. Students must earn a minimum grade of C in each course. The program prepares dentists to evaluate and manage the oral health problems of older adults and adults with special health care needs across the spectrum of health care services. It also prepares professionals for scholastic positions in geriatric and special needs dental education.

Graduate students collaborate with medical residents and other allied health care professionals while providing holistic care for patients who have complex dental, medical, or behavioral conditions. Students gain experience in the College of Dentistry's patient care clinics and, in tandem with the Geriatric Mobile Dental Unit, travel to nursing homes to provide on-site dental care with state-of-the-art mobile and portable dental equipment.

Highlights of the curriculum include experiences in advanced clinical geriatric and special needs dentistry, interdisciplinary geriatric patient assessment, geriatric and special needs dentistry case studies, outreach, and teaching practicum.

The Certificate in Geriatric and Special Needs Dentistry requires the following coursework.

First Summer

Course #	Title	Hours
This course:		
GSND:5700	Advanced Clinical Geriatric Dentistry I	4

First Fall

Course #	Title	Hours
All of these:		
GSND:5702	Advanced Clinical Geriatric Dentistry II	4
GSND:5720	Outreach/Advanced Clinical Geriatric Dentistry I	3
GSND:5730	Interdisciplinary Geriatric Patient Assessment I	2
GSND:5740	Advanced Topics in Geriatric Dentistry and Special Needs I	2
GSND:5750	Geriatric Dental Case Study Seminar I	2
GSND:5770	Advanced Clinical Training for Developmentally Disabled Adults I	2

First Spring

Course #	Title	Hours
All of these:		
GSND:5703	Advanced Clinical Geriatric Dentistry III	4
GSND:5721	Outreach/Advanced Clinical Geriatric Dentistry II	3
GSND:5731	Interdisciplinary Geriatric Patient Assessment II	2
GSND:5742	Advanced Topics in Geriatric Dentistry and Special Needs II	2
GSND:5751	Geriatric Dental Case Study Seminar II	2
GSND:5760	Teaching Practicum in Geriatric Dentistry I	2
GSND:5771	Advanced Clinical Training for Developmentally Disabled Adults II	2

Second Summer

Course #	Title	Hours
This course:		
GSND:5704	Advanced Clinical Geriatric Dentistry IV	4

Admission

Applicants must hold a DDS or DMD degree from an accredited dental school. International applicants should have at least three years of clinical experience in general dentistry and/or postgraduate prosthodontics training and be licensed dentists. All applicants must meet the admission requirements of the Graduate College. Contact the Geriatric and Special Needs Dentistry Certificate Program to learn more.

Hospital Dentistry

Head

- Kirk L. Fridrich (Oral and Maxillofacial Surgery)

Director, Graduate Program

- Alison M. Uhl

Faculty: https://gme.medicine.uiowa.edu/american-dental-association-general-practice-residency/our-people

Website: https://gme.medicine.uiowa.edu/hospital-dentistry-general-practice-residency

The College of Dentistry operates a hospital dentistry clinical service at University of Iowa Health Care. The service includes divisions of general dentistry, maxillofacial prosthodontics, and oral and maxillofacial surgery, and it interacts with the college's specialties of orthodontics, periodontics, pediatric dentistry, endodontics, diagnosis, oral pathology, and prosthodontics.

The Hospital Dentistry Program offers a one-year general practice residency.

Residency

The general practice residency program prepares dentists for a broader scope of private practice in general dentistry. The program combines clinical and didactic training on an individual basis and meets the fundamental requirements of the Commission on Dental Accreditation of the American Dental Association (ADA).

The residency covers one year of hospital-based training. Through postdoctoral clinical, didactic, and hospital experience, residents prepare to meet the oral health needs of a wide range of ambulatory and nonambulatory patients. Rotations and patient experiences are located at University of Iowa Health Care.

Residency training includes the use of hospital resources, management of ambulatory patients, inpatients, same-day surgery patients, and emergency medical and dental patients. Residents participate in consultations with other hospital services and are assigned to appropriate hospital services to fulfill the objectives of the training program. They are appointed to the hospital's house staff and have the same privileges and responsibilities as residents in other professional education programs.

Admission

Applicants must be U.S. citizens or permanent residents and must be graduates of a dental school accredited by the American Dental Association. They also must be eligible for licensure to practice dentistry in the United States. The application deadline is Dec. 1 for the following July 1. See the Hospital Dentistry–General Practice Residency website for admission and application requirements.

Operative Dentistry

Interim Head

- Cristina de Mattos Pimenta Vidal

Professional certificate: operative dentistry

Faculty: https://dentistry.uiowa.edu/directory

Website: https://dentistry.uiowa.edu/departments/operative-dentistry

The Department of Operative Dentistry teaches the foundational concepts of dentistry to predoctoral dental students in caries management (diagnosis, prevention, repair, and restorative techniques) and dental materials. The primary departmental focus is to provide the knowledge, technical skills, critical thinking, and judgment for the diagnosis, prevention, and management of dental caries, non-caries dental defects (attrition, abrasion, erosion, abfraction, developmental abnormalities, discoloration, and trauma), and elective aesthetic smile enhancements. It also serves an equally important position to provide national leadership in dental research and advanced restorative technology in its collective faculty efforts and through the professional Certificate in Operative Dentistry.

DDS Student Training

Coursework and clinical experiences in operative dentistry are fundamental to the overall education of Doctor of Dental Surgery students. Operative dentistry coursework covers roughly one-quarter of curriculum time during the first three years of dental school as students progress toward competency in operative dentistry. The department's primary goal is to educate dental students, using the best evidence available and the latest proven technological approaches, to achieve and maintain optimal patient oral comfort, function, and aesthetics through risk-based diagnosis, prevention, and minimally invasive treatment of caries and noncarious lesions of the teeth.

Programs

Professional Program of Study

- Certificate in Operative Dentistry [p. 1307]

Courses

Operative Dentistry Courses

OPER:5126 Operative Dentistry Seminar 0-1 s.h.
Review and critical analysis of operative dentistry literature.

OPER:5127 Introduction to Operative Dentistry Advanced Education arr.
Broad introduction to key operative dentistry concepts in preparation for clinical patient care and teaching; overriding objectives are to reinforce fundamental principles of operative dentistry, refine clinical skills, enhance/add approaches of clinical problem solving, establish concepts of acceptable clinical performance levels, and preparation for resident instructors in predoctoral simulation clinic courses.

OPER:5140 Operative Dentistry Advanced Clinic 0-3 s.h.
Medical and surgical clinical management of dental disease; special emphasis on minimally invasive dentistry using advanced aesthetic principles.

OPER:5234 Selected Applications of Operative Dentistry 0-3 s.h.
Advanced techniques completed on simulated patients.

OPER:5240 Advanced Operative Dental Implants and Digital Dentistry 0-1 s.h.
Treatment of partially edentulous area with implant therapy for single tooth replacement; builds on operative dentistry knowledge base with emphasis on fundamental biomechanical principles, materials, and techniques required to rehabilitate form and function of a single tooth implant; demonstration of successful implant treatment predicated upon a sound diagnosis, appropriate treatment plan, precise prosthetically driven placement of implant, logical sequence of treatment, appropriate abutment selection, appropriate materials selection, routine prosthodontic maintenance, and patient education.

OPER:5245 Pre-Clinical Teaching 0-3 s.h.
Teaching predoctoral dental students on simulated patients.

OPER:6225 Graduate Restorative Materials 0,2 s.h.
Dental materials science; mechanical, physical, and chemical properties of restorative materials; selection and manipulation. Same as PROS:6224.

OPER:6226 Applied Dental Restorative Materials 1 s.h.
Addresses materials properties, characterization, and testing; review important concepts that influence materials' properties and degradation behavior and the latest laboratory techniques for materials characterization, including mechanical assays, chemical and surface analysis of materials, and thermal analysis; discuss the importance of regulatory agencies such as the International Organization for Standardization (ISO) and the American Dental Association (ADA). Prerequisites: OPER:6225.

OPER:6246 Clinical Teaching 0-2 s.h.
Clinical teaching instruction in operative dentistry clinics.

OPER:8120 Dental Anatomy 3 s.h.
Basic dental terminology and nomenclature, human tooth morphology, creation of tooth crowns with wax.

OPER:8122 Introduction to Operative Dentistry 1 s.h.
Introduction to basic didactic knowledge and psychomotor skills in the practice of operative dentistry in a preclinical setting with simulated scenarios; for first-year dental students.

OPER:8124 Operative Dentistry I 5 s.h.
Basic didactic knowledge and psychomotor skills of principles, terminology, instruments, materials, and techniques utilized in the practice of operative dentistry in a preclinical setting with simulated scenarios; for first-year dental students. Prerequisites: OPER:8120.

OPER:8240 Operative Dentistry II 3 s.h.
Principles of cavity preparation and digital workflow for designing and fabrication of partial cuspal coverage restorations using CAD/CAM; dental material properties and applications; principles of esthetic restorations and peer exercises on basic clinical concepts. Prerequisites: OPER:8120 and OPER:8122 and OPER:8124.

OPER:8243 Introduction to Clinical Operative Dentistry 3 s.h.
Students provide clinical care from diagnosis and treatment planning to caries and non-carious lesion management in patients; clinical experience in restoring teeth with small to moderate lesions or defects; demonstration of effective patient management skills including pain control, professionalism, and critical thinking; esthetic dentistry including tooth bleaching. Prerequisites: OPER:8120 and OPER:8122 and OPER:8124 and OPER:8240.

OPER:8370 Operative Dentistry III arr.
Combination of didactic and clinical aspects of operative dentistry; medical and surgical management of dental disease; emphasis on minimally invasive dentistry with advanced aesthetic principles. Prerequisites: OPER:8120 and OPER:8122 and OPER:8124 and OPER:8240 and OPER:8243.

Operative Dentistry, Professional Certificate

Requirements

Students can earn the professional Certificate in Operative Dentistry in conjunction with an MS or PhD in oral science. Completion of the certificate and the MS requires 36 months of full-time study. Students must maintain a cumulative grade-point average (GPA) of at least 3.00 to earn the certificate.

The MS requires additional coursework as well as a thesis and oral and written comprehensive exams. Students have some flexibility in their curriculum to take courses that particularly interest them; see Oral Science [p. 1314] in the catalog.

The Certificate in Operative Dentistry is a professional clinical advanced educational program that provides dentists with training for teaching, research, and the clinical practice of operative dentistry. The Operative Dentistry Advanced Education Program meets the educational requirements for application to take the board certification examinations of the American Board of Operative Dentistry. Operative dentistry is recognized by the American Dental Association as an interest area in general dentistry.

Admission

Applicants to the certificate program must be graduates of an accredited United States or recognized international dental school and must meet the admission requirements of the Graduate College. The department may request an interview with an applicant.

Students must provide their own financial support for the certificate and degree programs, including research and thesis expenses.

For more information, visit the Department of Operative Dentistry website.

Oral and Maxillofacial Surgery

Head

- Kirk L. Fridrich

Assistant Head

- Steven L. Fletcher

Director, Graduate Program

- Douglas E. Kendrick

Professional certificate: oral and maxillofacial surgery

Faculty: https://gme.medicine.uiowa.edu/oral-and-maxillofacial-surgery-residency/our-people/faculty

Website: https://gme.medicine.uiowa.edu/oral-and-maxillofacial-surgery-residency

The Department of Oral and Maxillofacial Surgery combines clinical and didactic training to fit the individual interests, abilities, and development of residents. Its training program for predoctoral students is based in the College of Dentistry, with some clinical assignments in the oral and maxillofacial surgery division at University of Iowa Health Care. Its certificate program is based primarily in the Oral and Maxillofacial Surgery Residency program at UI Health Care.

DDS Student Training

The Doctor of Dental Surgery curriculum in oral and maxillofacial surgery is designed to develop a foundation of professional knowledge and surgical skills that will enable students to diagnose and manage surgical problems related to general dentistry practice. The program emphasizes high ethical standards and the development of good surgical concepts and judgment.

The clinical portion of the curriculum allows students to develop surgical skills and apply the theoretical knowledge acquired in didactic courses. Theory and application of anesthesia-analgesia, intravenous sedation, and nitrous oxide analgesia techniques are presented through didactic and clinical experiences.

Programs

Professional Program of Study

Certificate

- Certificate in Oral and Maxillofacial Surgery [p. 1309]

Facilities

The University of Iowa health sciences campus has outstanding basic and clinical science departments that stimulate and support scholarly research and superior clinical practice. Appropriate environments for residency training in oral and maxillofacial surgery are provided by University of Iowa Health Care, the College of Dentistry, and the Carver College of Medicine.

Courses

Oral and Maxillofacial Surgery Courses

OMFS:5208 Pain and Anxiety Control 0-3 s.h.
Nitrous oxide; intravenous, oral, intramuscular anxiety and pain control; pharmacology of agents; complications, their management.

OMFS:5220 Research Methodology arr.
Research terminology; application of ethical, quantitative, and qualitative approaches to research; critical analysis of published research; guide and oversee Institutional Review Board (IRB) protocol processes.

OMFS:8115 Anesthesia and Pain Control I 1 s.h.
Principles, techniques of complete medical history, head and neck examination, cardiovascular and respiratory examination; neuroanatomical, psychophysiological aspects of pain; pharmacologic action and techniques for using local anesthetics.

OMFS:8230 Basic Oral and Maxillofacial Surgery 2 s.h.
In-depth review and instruction pertaining to systemic medical considerations which may affect oral and maxillofacial surgery (OMFS), wound repair, principles of asepsis, routine and complicated exodontia, surgical complications and informed consent, preprosthetic surgery, medical emergencies, management of patients undergoing radiation therapy and chemotherapy, infections, OMFS trauma, temporomandibular disorders, and maxillary sinus and salivary gland disorders.

OMFS:8245 Anesthesia and Pain Control II 1 s.h.
Theory, application, and instrumentation of nitrous oxide and IV sedation; emphasis on cardiovascular and respiratory physiology; pre-anesthetic evaluation of patients and practical techniques for nitrous oxide sedation.

OMFS:8355 Advanced Oral and Maxillofacial Surgery 1 s.h.
History, evaluation, diagnosis, and treatment of diseases and traumatic injuries of the oral and maxillofacial region.

OMFS:8360 Clinical Oral and Maxillofacial Surgery arr.
Develop a foundation of professional knowledge and enhance skills to enable diagnosis and management of surgical problems related to the practice of general dentistry.

Oral and Maxillofacial Surgery, Professional Certificate

Requirements

Residency Program

The department offers a four-year residency program that culminates in the professional Certificate in Oral and Maxillofacial Surgery. The program combines clinical and didactic training to prepare dentists for specialty practice. Every effort is made to adapt the program to the individual interests, abilities, and development of students, but it is essential that all students meet certain fundamental requirements.

Recommendations of the American Dental Association, the Committee on Graduate Training of the American Association of Oral and Maxillofacial Surgeons, and the American Board of Oral and Maxillofacial Surgery have been considered carefully in planning the structure and scope of training.

The residency period covers four years of hospital training, providing an orientation to hospital procedures, integration of basic and clinical sciences, acquisition of surgery principles, and familiarization with varied aspects of health services.

Competence in clinical oral and maxillofacial surgery requires knowledge of the basic medical sciences related to the specialty. In addition to hospital and clinical training, residents take advanced coursework in subjects such as applied pharmacology, surgical anatomy, pathology, physiology, and microbiology. They also review closely related disciplines such as radiology, anesthesiology, physical diagnosis, and laboratory procedures. Development and implementation of a research project under staff supervision enhance the value of the residency training.

The assumption of increased responsibility and the opportunity for clinical and operating room experience are important aspects of residency training. Residents gain clinical training in anesthesia through an assigned rotation in the Department of Anesthesia (Carver College of Medicine). Previous advanced training in physical diagnosis, physiology, pharmacology, and pathology take on greater clinical significance, and increased responsibility in the operating room as first assistant and surgeon further develops surgical judgment and skills.

Senior residents may be given responsibility for major oral and maxillofacial surgical cases during rotations at University of Iowa Health Care. Each fourth-year resident is assigned to a rotation as a clinical and didactic coordinator and assumes responsibility to qualify for examination by the American Board of Oral and Maxillofacial Surgery. To learn more about Iowa's program, visit the Oral and Maxillofacial Surgery Residency website.

Admission

Students may begin the four-year certificate program only on July 1. Applicants are selected through a postdoctoral dental matching program. The application deadline for the match in oral and maxillofacial surgery is Sept. 1 for admission the following July. Appointments are made after the match results are revealed and the staff elects to take official action. Appointments are offered on or before Feb. 1 for the following July.

Applicants must have graduated from an accredited college of dentistry, should be in the upper one-fourth of their graduating class, and must be eligible to be licensed to practice dentistry in the United States.

Oral Pathology, Radiology, and Medicine

Chair

- Lina M. Morena Uribe

Professional certificates: oral and maxillofacial pathology; oral and maxillofacial radiology

Faculty: https://dentistry.uiowa.edu/directory

Website: https://dentistry.uiowa.edu/oprm

The Department of Oral Pathology, Radiology, and Medicine educates predoctoral and graduate students. The department has diverse curricular responsibilities and faculty members with widely varied disciplinary expertise.

DDS Student Training

The department teaches dental students about diseases that manifest in and around the oral and maxillofacial region. Students learn about the clinical, radiographic, laboratory, histopathologic, and therapeutic management of these diseases and about their etiology and natural history. They also study the identification of systemic diseases and the oral implications through the physical evaluation of patients.

Programs

Professional Programs of Study

- Certificate in Oral and Maxillofacial Pathology [p. 1312]
- Certificate in Oral and Maxillofacial Radiology [p. 1313]

Facilities

Facilities reserved for the Department of Oral Pathology, Radiology, and Medicine include a radiology special procedures area, an interpretation room, a surgical oral pathology laboratory, a clinical pathology laboratory with areas for histopathology, and a seminar room for small groups of graduate and undergraduate students.

In addition, the College of Dentistry has joint-use research laboratories that are well-equipped and staffed for conducting research involving histology, histochemistry, materials technology, radiobiology, ultrastructure, and electron probe analysis and quantification.

Courses

Oral Pathology, Radiology, and Medicine Courses

OPRM:5200 Stomatology Literature Review 0-3 s.h.
Current literature in oral and maxillofacial pathology and radiology; presentation of graduate student research; development of lectures or seminars for DDS or graduate students, or continuing education for peers and practicing dentists.

OPRM:5225 Manifestations of Oral and Paraoral Disease 0-3 s.h.
Clinical experience in diagnosing, managing patients.

OPRM:5226 Oral Pathology for Graduate Students 0-1 s.h.
Head and neck diseases, abnormalities.

OPRM:5227 Surgical Oral Pathology 0-1 s.h.
Experience in day-to-day operations of surgical oral pathology laboratory; advanced training in histopathologic diagnosis of oral and maxillofacial diseases. Corequisites: OPRM:5240, if not taken as a prerequisite.

OPRM:5228 Introduction to Surgical Oral Pathology 0-1 s.h.
Day-to-day operations of surgical oral pathology laboratory; histopathologic diagnosis of oral and maxillofacial diseases.

OPRM:5230 Research in Oral Pathology, Radiology, and Medicine 0-3 s.h.
Includes thesis preparation.

OPRM:5238 Introduction to Histopathology 0-1 s.h.
Case studies; histopathologic diagnosis of diseases that affect oral and maxillofacial region.

OPRM:5240 Histopathology 0-1 s.h.
Case studies; advanced training in histopathologic diagnosis of diseases that affect oral and maxillofacial region. Corequisites: ORDN:5202, if not taken as a prerequisite.

OPRM:5241 Hospital Oral Pathology, Radiology, and Medicine 0-3 s.h.
Management of patient consultations, diagnosis, therapy at a hospital-based dental service.

OPRM:5242 Clinical Oral and Maxillofacial Radiology 0-3 s.h.
Radiologic manifestations of diseases; emphasis on craniofacial complex.

OPRM:5243 Practical Oral and Maxillofacial Radiology 0-3 s.h.
Clinic participation; supervision of dental and dental hygiene students, review of their cases; participation in clinical radiology conferences, laboratory exercises.

OPRM:5244 Technical Oral and Maxillofacial Radiology 0-3 s.h.
Experience with technical maintenance of darkroom, clinical equipment; troubleshooting under supervision of radiology staff.

OPRM:5245 Head and Neck Radiology 0-3 s.h.
Hospital-based rotation in diagnostic radiology with participation in interpretation sessions; CT, MRI, nuclear medicine, ultrasound.

OPRM:5246 Craniofacial Radiology 0-3 s.h.
Hospital-based rotation in diagnostic radiology; exposure to interpretive sessions on ultrasound, CT, MRI, nuclear medicine.

OPRM:5256 Advanced Oral Pathology 0-1 s.h.
Diseases involving orofacial organs; emphasis on bibliographic research, biodynamic analysis of pathologic processes, diagnostic interpretation; content adapted to student interests. Requirements: graduate standing in oral pathology.

OPRM:8120 Fundamentals of Oral Radiology 1 s.h.
Methods of clinical, radiographic examination, record keeping; correlation of basic, clinical sciences.

OPRM:8235 Oral Pathology I 2 s.h.
Application of biomedical science knowledge to diagnosis and management of oral and maxillofacial diseases, primarily surface epithelial diseases; classification of lesions and diseases of the oral and maxillofacial region into clinical categories, formulation of a clinical differential diagnosis, and recommendation of initial management based on clinical differential diagnosis.

OPRM:8236 Oral Pathology II 2 s.h.
Application of biomedical science knowledge to diagnosis and management of oral and maxillofacial diseases, primarily hard and soft tissue diseases/neoplasms and syndromes; identification of cause, pathogenesis, historical features, signs, symptoms, laboratory abnormalities, radiographic findings (where applicable), and recommended initial management of the most common and/or serious diseases and lesions of the oral and maxillofacial region. Prerequisites: OPRM:8235.

OPRM:8240 Basic Pharmacology 3 s.h.
Principles of pharmacology, pharmacologic actions of drugs, and correlation with therapeutic uses.

OPRM:8245 Introduction to Clinical Oral Radiology 1 s.h.
Principles, techniques of diagnosis, radiology, clinical pathology in clinical practice.

OPRM:8355 Systemic Disease Manifestations 1 s.h.
Clinical medicine for dental students; basic information for patient evaluation.

OPRM:8360 Clinical Oral Diagnosis 1 s.h.
Diagnosis of orofacial diseases by clinical, laboratory, radiographic and treatment planning methods; clinical case analysis.

OPRM:8361 Clinical Oral Radiology arr.
Making and processing intraoral, extraoral radiographs; principles of radiographic interpretation.

OPRM:8362 Applied Oral Radiology 1 s.h.
Builds on foundational knowledge learned in OPRM:8120 and OPRM:8245; emphasis on understanding disease process on radiographs and its interpretation. Prerequisites: OPRM:8120 and OPRM:8245.

OPRM:8365 Clinical Oral Pathology 1 s.h.
Oral and maxillofacial diseases: integration of the clinical, historical, radiographic features; therapeutic management.

OPRM:8368 Applied Dental Pharmacology 2 s.h.
Patients' medications and their implications for dental treatment; clinical use of medications that dentists may prescribe; guidelines for dental prescribing.

Oral and Maxillofacial Pathology, Professional Certificate

Requirements

The department offers the professional Certificate in Oral and Maxillofacial Pathology. The educational requirements of the certificate program meet the requirements for the preparation of dental specialists set by the Commission on Dental Accreditation, the American Board of Oral and Maxillofacial Pathology. Students must maintain a cumulative grade-point average of at least 3.00 to earn the certificate.

Oral science involves the study of structure, function, and diseases of the oral and maxillofacial region. Study methods include examination of related histories, evaluation of clinical signs and symptoms, and use of biochemical, microscopic, and radiologic procedures to establish a diagnosis and plan for therapeutic management.

The department's programs are diverse and flexible, allowing students to obtain advanced clinical, didactic, and research-related education while earning a professional certificate. Students working toward the certificate may pursue a Master of Science in oral science in conjunction with the certificate; see "Graduate Study."

Graduate Study

Students earning the department's certificate may pursue a Master of Science in oral science with a subprogram in oral and maxillofacial pathology while they work toward the certificate. Each program combines the minimum requirements of the MS and the certificate; completion time is usually 36 to 48 months.

All students in the combined programs pursue a comprehensive study of basic biological and health sciences in preparation for teaching and research. They must complete the following courses, including the core courses and the basic science and departmental courses listed for their MS track. They must also prepare, submit, and defend their thesis based on the results of research conducted during their course of study. See the MS in oral science [p. 1315] in the catalog for additional information about requirements and admission.

Core Courses

Course #	Title	Hours
OPRM:5200	Stomatology Literature Review	0-1
OPRM:5226	Oral Pathology for Graduate Students	0-1
OPRM:5242	Clinical Oral and Maxillofacial Radiology	0-1
ORSC:5200	Seminars in Dental Research	1
ORSC:5210	Dental Sciences Research Methodology	2
ORSC:5212	Statistical Methods for Dental Research	3
ORSC:5215	Research Design in Dentistry	2
ORSC:5600	Research in Oral Science	9
OTO:8199	Foundations of Otolaryngology	2

Track Courses

Course #	Title	Hours
OPRM:5225	Manifestations of Oral and Paraoral Disease	0-1
OPRM:5227	Surgical Oral Pathology	1
OPRM:5240	Histopathology	1
OPRM:5256	Advanced Oral Pathology	0-1
DPH:6017	Teaching Methods and Evaluation	2
MED:8133	Mechanisms of Health and Disease II	7
MED:8134	Mechanisms of Health and Disease III	11
ORSC:5280	Advanced Dental Therapeutics	1

Admission

Applicants must have successfully completed an accredited program leading to the DDS or DMD, or an international equivalent, and must meet the admission requirements of the Graduate College. They must have a cumulative grade-point average of at least 3.00 (or international equivalent) to be considered for admission.

The department's faculty makes final decisions on the acceptance of applicants who meet the requirements for admission. A personal interview is required.

Oral and Maxillofacial Radiology, Professional Certificate

Requirements

The department offers the professional Certificate in Oral and Maxillofacial Radiology. The educational requirements of the certificate program meet the requirements for the preparation of dental specialists in oral and maxillofacial radiology set by the Commission on Dental Accreditation and the American Board of Oral and Maxillofacial Radiology. Students must maintain a cumulative grade-point average of at least 3.00 to earn the certificate.

Oral and maxillofacial radiology involves the study of structure, function, and diseases of the oral and maxillofacial region. Study methods include examination of related histories, evaluation of clinical signs and symptoms, and use of radiologic procedures for interpretation and to establish a diagnosis and plan for therapeutic management.

The department's programs are diverse and flexible, allowing students to obtain advanced clinical, didactic, and research-related education while earning a professional certificate. Students working toward the certificate may pursue a Master of Science in oral science in conjunction with the certificate; see "Graduate Study."

Graduate Study

Students earning the department's certificate may pursue a Master of Science in oral science with a subprogram in oral and maxillofacial radiology while they work toward the certificate. Each program combines the minimum requirements of the MS and the certificate; the completion time usually is 36 to 48 months.

All students in the combined programs pursue a comprehensive study of basic biological and health sciences in preparation for teaching and research. They must complete the following courses, including the core courses and the basic science and departmental courses listed for their MS track. They must also prepare and submit a thesis based on the results of research conducted during their course of study. See the MS in oral science [p. 1315] in the catalog for additional information about requirements and admission.

Core Courses

Course #	Title	Hours
OPRM:5200	Stomatology Literature Review	0-1
OPRM:5226	Oral Pathology for Graduate Students	0-1
OPRM:5242	Clinical Oral and Maxillofacial Radiology	0-2
ORSC:5200	Seminars in Dental Research	1
ORSC:5210	Dental Sciences Research Methodology	2
ORSC:5212	Statistical Methods for Dental Research	3
ORSC:5215	Research Design in Dentistry	2
ORSC:5600	Research in Oral Science	9
OTO:8199	Foundations of Otolaryngology	2

Track Courses

Course #	Title	Hours
OPRM:5243	Practical Oral and Maxillofacial Radiology	0-2
OPRM:5244	Technical Oral and Maxillofacial Radiology	0-2
OPRM:5245	Head and Neck Radiology	0-2
FRRB:3110/ RSTH:3110	Medical Physics I	2
FRRB:3130/ RSP:3130	Introduction to Radiation Safety and Radiobiology	1
PATH:8133	Introduction to Human Pathology for Graduate Students	3-4

Admission

Applicants must have successfully completed an accredited program leading to the DDS or DMD, or an international equivalent, and must meet the admission requirements of the Graduate College. They must have a cumulative grade-point average of at least 3.00 (or international equivalent) to be considered for admission.

Passing the National Board Dental Examinations (NBDE) Part I and Part II or the Integrated (INBDE) is recommended but not required.

The department's faculty makes final decisions on the acceptance of applicants who meet the requirements for admission. A personal interview is required.

Oral Science

Director

- Jeffrey A. Banas (Pediatric Dentistry)

Graduate degrees: MS in oral science; PhD in oral science

Faculty: https://dentistry.uiowa.edu/directory

Website: https://dentistry.uiowa.edu/education/specialty-programs/oral-science-graduate-program

Graduate programs in oral science require that students complete courses from a core curriculum and conduct independent research leading to a thesis. The programs prepare and equip graduates for a variety of career options for which the ability to conduct research and understand the principles of scientific inquiry are essential.

Students must enroll in a professional certificate program offered by a College of Dentistry department in order to enroll in the Master of Science program in oral science. The following departments offer their certificate students the opportunity to earn MS degrees in oral science: endodontics, prosthodontics, operative dentistry, periodontics, and oral pathology, radiology, and medicine.

Programs

Graduate Programs of Study

- Master of Science in Oral Science [p. 1315]
- Doctor of Philosophy in Oral Science [p. 1318]

Courses

Oral Science Courses

ORSC:5200 Seminars in Dental Research 0-1 s.h.

ORSC:5210 Dental Sciences Research Methodology 0,2 s.h.
Practical, experimental procedures in dental research; literature and design; writing of research protocols. Offered summer session.

ORSC:5212 Statistical Methods for Dental Research 0,3 s.h.
Descriptive methods, elementary probability, distributions, populations and samples, methods for analyzing percentage data and paired and unpaired measurement data, regression, correlation, and analysis of variance.

ORSC:5215 Research Design in Dentistry 0,2 s.h.
Types of studies used in dentistry; design validity; sampling methodologies; major descriptive and experimental designs used in dental research; application of statistical tests to these designs. Offered spring semesters.

ORSC:5240 Pathophysiology of the Pulp-Dentin Complex 0-3 s.h.
Biology of tissue; emphasis on pathological changes. Offered spring semesters of even years. Prerequisites: ORSC:5210.

ORSC:5250 Current Concepts of Cariology 0,2 s.h.
Etiology of dental caries; pathogenesis, development of preventive measures. Offered spring semesters of odd years. Prerequisites: ORSC:5210.

ORSC:5260 Bone and Tooth Support Structure and Implants 0,2 s.h.
Biology of bone and periodontal structures; biologic basis for therapeutic use of dental implants. Offered fall semesters of odd years.

ORSC:5275 Oral Microbiology and Immunology 0,2 s.h.
Principles of microbiology and immunology, aspects of microbial community development in the oral cavity, basic concepts of host/parasite interactions related to development of oral diseases; biological, immunological, and clinical manifestations induced by major oral pathogens. Offered spring semesters of odd years. Requirements: microbiology, biochemistry, and biology. Recommendations: immunology.

ORSC:5280 Advanced Dental Therapeutics 0-1 s.h.
Antimicrobial, analgesic, related therapies; emphasis on drug/drug interactions, dental implications of chronic cardiovascular and central nervous system medications. Offered fall semesters.

ORSC:5300 Dental Management for Patients With Complex Medical History 0-1 s.h.
Risk assessment, treatment planning, medically compromised patients, systemic complications, medical emergency in dental offices. Offered fall semesters of odd years.

ORSC:5600 Research in Oral Science arr.
Thesis research. Requirements: oral science MS or PhD candidacy.

ORSC:5610 Independent Study 0-3 s.h.
Opportunity to pursue in-depth study in a particular area of interest; students meet with faculty member to design plan of study.

ORSC:5620 Oral Sciences Colloquium arr.
Presentations, seminars, and discussion sessions on research presentations; career and individual development plans for graduate and postdoctoral students in the oral sciences program.

Oral Science, MS

Learning Outcomes

Acquisition of Broad-Based Foundational Knowledge in Oral Science

- Demonstrate a broad-based understanding of the scientific disciplines relevant to oral science.
- Demonstrate mastery of the literature and background knowledge pertaining to one's chosen area of research.
- Understand the principles of biostatistical analyses and appropriate engagement with biostatisticians.

Development of Critical Thinking Skills

- Critically analyze primary scientific literature.
- Rationally debate and defend scientific viewpoints using scientific principles and critical analysis skills.
- Demonstrate problem-solving skills.

Understanding of the Scientific Method and Its Application

- Formulate hypotheses or experimental objectives that address knowledge gaps in the literature.
- Formulate a logical and feasible approach to test a hypothesis or accomplish research objectives.
- Critically evaluate results and draw appropriate conclusions from the data.

Proficiency in Research

- Conduct research in a responsible and ethical manner.
- Carry out an in-depth research project and contribute intellectually and technically to all parts of its development, execution, and analysis.

Proficiency in Scientific Communication

- Demonstrate proficiency in scientific writing as evidenced by first-author manuscripts and by composing grant applications.
- Organize, defend, and communicate ideas effectively in scientific oral presentations and settings.

Interpersonal and Leadership Skills

- Demonstrate an ability to work, when appropriate, in teams or collaborative settings with a diverse workforce.
- Develop leadership skills, commensurate with experience, facilitate group discussions, teach, and/or conduct meetings.
- Effectively mentor and motivate subordinates and/or peers.
- Respond appropriately to positive or negative feedback.

Requirements

The Master of Science program in oral science requires a minimum of 30–33 s.h. of graduate credit, including independent research leading to a thesis and a final examination.

Students pursuing the MS must be enrolled in a clinical specialty training program offered by a College of Dentistry department. Specific course requirements vary depending on the clinical specialty. Students typically complete the MS and the clinical specialty training program in three years of study.

The master's program is offered in conjunction with a certificate in one of six clinical subprograms: endodontics [p. 1315], operative dentistry [p. 1315], oral and maxillofacial pathology [p. 1316], oral and maxillofacial radiology [p. 1316], periodontics [p. 1316], or prosthodontics [p. 1317].

Core Courses

The following courses are required for all students seeking the MS in oral science.

Course #	Title	Hours
All of these:		
ORSC:5210	Dental Sciences Research Methodology	2
ORSC:5212	Statistical Methods for Dental Research	3
ORSC:5215	Research Design in Dentistry	2

Endodontics Subprogram

The subprogram in endodontics requires a minimum of 32 s.h. of graduate credit (24 s.h. of didactic credit including the core courses and 8 s.h. of research credit). Students enrolled in the professional certificate in endodontics have the option to complete the MS in oral science, endodontics subprogram and may be able to use some courses to satisfy requirements in both programs. The following coursework is required.

Course #	Title	Hours
All of these:		
ORSC:5240	Pathophysiology of the Pulp-Dentin Complex	2
ORSC:5260	Bone and Tooth Support Structure and Implants	2
ORSC:5275	Oral Microbiology and Immunology	2
ORSC:5280	Advanced Dental Therapeutics	1
ORSC:5300	Dental Management for Patients With Complex Medical History	1
ENDO:5260	Current Literature in Endodontics	1
ENDO:5700	Endodontic Surgery Conference	2
ENDO:5701	Advanced Clinical Endodontics (taken twice for 3 s.h. each)	6
This research course:		
ORSC:5600	Research in Oral Science (taken multiple times for a total of 8 s.h.)	8

Operative Dentistry Subprogram

The MS in oral science with a subprogram in operative dentistry requires a minimum of 30 s.h. of graduate credit (21 s.h. of didactic credit including the core courses and 9 s.h. of research credit). Students enrolled in the professional certificate in operative dentistry are required to complete the MS or PhD in oral science, operative dentistry subprogram and may be able to use some courses to satisfy requirements in both programs. If students have already completed a master's or doctoral program equivalent to a U.S. program, they may

contact the program director to see if this requirement may be waived. The following coursework is required.

Course #	Title	Hours
All of these:		
ORSC:5200	Seminars in Dental Research (taken three times for 1 s.h. each)	3
ORSC:5240	Pathophysiology of the Pulp-Dentin Complex	2
ORSC:5250	Current Concepts of Cariology	2
ORSC:5280	Advanced Dental Therapeutics	1
DPH:6002	Research Protocol Seminar	2
GRAD:6217	Seminar in College Teaching	2
PROS:6224/ OPER:6225	Graduate Restorative Materials	2
This research course:		
ORSC:5600	Research in Oral Science (taken multiple times for a total of 9 s.h.)	9

Oral and Maxillofacial Pathology Subprogram

The MS in oral science with a subprogram in oral and maxillofacial pathology requires a minimum of 33 s.h. of graduate credit (24 s.h. of didactic credit including the core courses and 9 s.h. of research credit). Students enrolled in the professional certificate in oral and maxillofacial pathology have the option to complete the MS in oral science, oral and maxillofacial pathology subprogram and may be able to use some courses to satisfy requirements in both programs. The following coursework is required.

Course #	Title	Hours
All of these:		
ORSC:5200	Seminars in Dental Research (taken twice for 1 s.h. each)	2
ORSC:5280	Advanced Dental Therapeutics	1
DPH:6017	Teaching Methods and Evaluation	2
MED:8133	Mechanisms of Health and Disease II	7
OPRM:5200	Stomatology Literature Review	1
OPRM:5226	Oral Pathology for Graduate Students	1
OPRM:5256	Advanced Oral Pathology	1
OTO:8199	Foundations of Otolaryngology	2
This research course:		
ORSC:5600	Research in Oral Science (taken multiple times for a total of 9 s.h.)	9

Oral and Maxillofacial Radiology Subprogram

The MS in oral science with a subprogram in oral and maxillofacial radiology requires a minimum of 30 s.h. of graduate credit (22 s.h. of didactic credit including the core courses and 8 s.h. of research credit). Students enrolled in the professional certificate in oral and maxillofacial radiology have the option to complete the MS in oral science, oral and maxillofacial radiology subprogram. The following coursework is required.

Course #	Title	Hours
All of these:		
FRRB:3110	Medical Physics I	1
FRRB:3130	Introduction to Radiation Safety and Radiobiology	1
FRRB:3215	Medical Physics II	2
OPRM:5200	Stomatology Literature Review	1
OPRM:5226	Oral Pathology for Graduate Students	1
OPRM:5242	Clinical Oral and Maxillofacial Radiology	1
OPRM:5243	Practical Oral and Maxillofacial Radiology	1
OPRM:5244	Technical Oral and Maxillofacial Radiology	1
OPRM:5245	Head and Neck Radiology	1
OTO:8199	Foundations of Otolaryngology	2
PATH:8133	Introduction to Human Pathology for Graduate Students	3
This research course:		
ORSC:5600	Research in Oral Science (taken at least once, may be taken multiple times for a total of 8 s.h.)	8

Periodontics Subprogram

The MS in oral science with a subprogram in periodontics requires a minimum of 32 s.h. of graduate credit (23 s.h. of didactic credit including the core courses and 9 s.h. of research credit). Students enrolled in the professional certificate in periodontics are required to complete the MS in oral science, periodontics subprogram and may be able to use some courses to satisfy requirements in both programs. The following coursework is required.

Course #	Title	Hours
All of these:		
ORSC:5260	Bone and Tooth Support Structure and Implants	2
ORSC:5275	Oral Microbiology and Immunology	2
ORSC:5280	Advanced Dental Therapeutics	1
OMFS:5208	Pain and Anxiety Control	1
OPRM:5226	Oral Pathology for Graduate Students	1
PERI:5220	Periodontics Classic Literature Review (taken multiple times for a total of 6 s.h.)	6
PERI:5710	Case Management Seminar	1
PERI:7208	Recent Advances in Periodontics	1

PERI:7701	Practice Teaching in Periodontics	1
This research course:		
ORSC:5600	Research in Oral Science (taken multiple times for a total of 9 s.h.)	9

Prosthodontics Subprogram

The MS in oral science with a subprogram in prosthodontics requires a minimum of 30 s.h. of graduate credit (22 s.h. of didactic credit including the core courses and 8 s.h. of research credit). Students enrolled in the professional certificate in prosthodontics are required to complete the MS in oral science, prosthodontics subprogram and may be able to use some courses to satisfy requirements in both programs. The following coursework is required.

Course #	Title	Hours
All of these:		
ORSC:5240	Pathophysiology of the Pulp-Dentin Complex	1
ORSC:5260	Bone and Tooth Support Structure and Implants	2
ORSC:5275	Oral Microbiology and Immunology	2
ORSC:5280	Advanced Dental Therapeutics	1
DPH:6002	Research Protocol Seminar	2
OMFS:5208	Pain and Anxiety Control	1
OPRM:5226	Oral Pathology for Graduate Students	1
OTO:8199	Foundations of Otolaryngology	3
PROS:6224	Graduate Restorative Materials	2
This research course:		
ORSC:5600	Research in Oral Science (taken multiple times for a total of 8 s.h.)	8

Admission

Applicants to the MS program must meet the admission requirements of the Graduate College and those specified by the clinical department.

A personal interview may be requested. Programs normally begin July 1 each year.

Oral Science, PhD

Learning Outcomes

Acquisition of Broad-Based Foundational Knowledge in Oral Science

- Demonstrate a broad-based understanding of the scientific disciplines relevant to oral science.
- Demonstrate mastery of the literature and background knowledge pertaining to one's chosen area of research.
- Understand the principles of biostatistical analyses and appropriate engagement with biostatisticians.

Development of Critical Thinking Skills

- Critically analyze primary scientific literature.
- Rationally debate and defend scientific viewpoints using scientific principles and critical analysis skills.
- Demonstrate problem-solving skills.

Understanding of the Scientific Method and Its Application

- Formulate hypotheses or experimental objectives that address knowledge gaps in the literature.
- Formulate a logical and feasible approach to test a hypothesis or accomplish research objectives.
- Critically evaluate results and draw appropriate conclusions from the data.

Proficiency in Research

- Conduct research in a responsible and ethical manner.
- Carry out an in-depth research project and contribute intellectually and technically to all parts of its development, execution, and analysis.

Proficiency in Scientific Communication

- Demonstrate proficiency in scientific writing as evidenced by first-author manuscripts and by composing grant applications.
- Organize, defend, and communicate ideas effectively in scientific oral presentations and settings.

Interpersonal and Leadership Skills

- Demonstrate an ability to work, when appropriate, in teams or collaborative settings with a diverse workforce.
- Develop leadership skills, commensurate with experience, facilitate group discussions, teach, and/or conduct meetings.
- Effectively mentor and motivate subordinates and/or peers.
- Respond appropriately to positive or negative feedback.

Requirements

The Doctor of Philosophy program in oral science requires a minimum of 72 s.h. of graduate credit, including advanced coursework and original research that culminates in the successful defense of a dissertation. Students must pass a comprehensive examination, prepare and gain approval of a research project, and complete and successfully defend a dissertation that describes the results of their research.

Completion of the program usually requires four to six years of full-time study. Students must maintain a cumulative grade-point average of at least 3.00 to earn the degree.

Dental Public Health Distinction Track

The PhD in oral science is a research-intensive degree program. Students may elect, with program approval, to follow a special track dedicated to dental public health.

In addition to an in-depth research project leading to a dissertation, students must complete a minimum of 72 s.h. that includes a minimum of 30 s.h. of coursework. Required courses include seminars in dental research, dental science research methodology, statistical methods for dental research, research design in dentistry, and scholarly integrity and responsible conduct in research. The dental public health track will have additional required courses.

Students also have the opportunity to take elective courses that are chosen to supplement their specific area of research. Most courses are completed in the first two years of the program. Students must then pass a comprehensive examination. Thereafter, the focus is on continuing a line of research that leads to peer-reviewed publications and a dissertation. Students must then pass a final exam. The average time to program completion is five years.

Admission

Applicants to the PhD program must meet the admission requirements of the Graduate College and those specified by the program.

Applicants to the PhD program must submit a statement describing past research experience and current research interests, and state how completion of the PhD program fits their career goals. A personal interview may be requested.

Applications must be received by Dec. 1 for full consideration of financial support.

Programs normally begin July 1 each year.

Orthodontics

Head

- Lina M. Moreno Uribe

Professional certificate: orthodontics

Graduate degree: MS in orthodontics

Faculty: https://dentistry.uiowa.edu/directory

Website: https://dentistry.uiowa.edu/departments/orthodontics

The Department of Orthodontics educates predoctoral, professional, and resident/graduate students for careers as practicing dentists, orthodontists, researchers, and teachers. The department also conducts major research programs and receives significant funding from the National Institutes of Health (NIH). It delivers state-of-the-art treatment to patients—adults, children, and adolescents—with a range of orthodontic, craniofacial, and related issues.

The goal of the resident/graduate program in orthodontics is to educate competent individuals to initially practice orthodontics and dentofacial orthopedics. Additional goals include providing clinical services for citizens of Iowa and educating students in methods of scientific inquiry. The program's objectives are to provide students with an in-depth education in biological and biomechanical principles related to orthodontics; to teach students to diagnose, plan, and deliver comprehensive orthodontic health care service; and to develop students' research and service skills.

Opportunities are available for research and independent study in the department, and there are special facilities for research in biomechanics and craniofacial growth. Interaction with other departments provides learning and research opportunities in surgical orthodontics, cleft lip and palate treatment, speech pathology, animal experimentation, and human growth.

DDS Student Training

The Department of Orthodontics prepares Doctor of Dental Surgery students to competently recognize malocclusions of teeth in preparation for decision-making regarding treatment or referral. The lecture course guides DDS students in learning concepts of dental development and facial growth to maturity, as well as treatment-oriented subject matter ranging from limited, interceptive treatment through possible comprehensive treatment options. In a laboratory course, case-based material is utilized to give students experience with evaluating diagnostic casts, radiographs, and clinical findings for space management decision-making purposes.

Programs

Professional Program of Study

- Certificate in Orthodontics [p. 1321]

Graduate Program of Study

- Master of Science in Orthodontics [p. 1322]

Courses

Orthodontics Courses

ORDN:5200 Temporomandibular Joints and Advanced Topics in Orthodontics **0-1 s.h.**

ORDN:5201 Orthodontic Theory: Diagnosis and Treatment Plan **0,2 s.h.**
Diagnosis, treatment planning implementation.

ORDN:5202 Advanced Case Analysis **0,2 s.h.**
Literature concerning orthodontic diagnosis; treatment of particular problems; case histories of patients treated in graduate clinic.

ORDN:5203 Principles of Biomechanics **0-3 s.h.**
Skills for treatment of disfiguring malocclusions; use of edgewise biomechanical therapy; laboratory focus on typodont exercises.

ORDN:5204 Applied Biomechanics **0-3 s.h.**

ORDN:5205 Facial Growth **0-2 s.h.**
Theories, processes; use of accepted facial growth concepts in treatment of individuals with malocclusions during active growth period.

ORDN:5209 Orthodontic Practicum **0-3 s.h.**
Clinical practice.

ORDN:5210 Orthodontic Seminar **0-3 s.h.**
Evaluation, discussion, criticism, defense of diagnostic and treatment approaches to orthodontic cases that need, are undergoing, or have completed orthodontic treatment.

ORDN:5211 Clinical Skills and Laboratory Techniques **1 s.h.**
A survey of current technology and techniques for the application of tooth moving appliances to patient care.

ORDN:5212 Pediatric Orthodontic Treatment Theory **1 s.h.**
Provides didactic knowledge of early-phase orthodontic treatment indications and educates on orthodontic treatment modalities.

ORDN:5217 Cephalometrics and Lab Skills **0-3 s.h.**
Use of skull X-ray (lateral and/or postero-anterior) in formulating orthodontic diagnosis, treatment plans for malocclusions; cephalometrics as a tool for craniofacial structure research.

ORDN:5220 Craniofacial Diagnosis, Treatment, and General Topics in Orthodontics **0-3 s.h.**
Literature on anatomy, phylogeny, ontogenesis, physiology of craniofacial structures.

ORDN:5221 Surgical Orthodontic Seminar **0-1 s.h.**
Evaluation, discussion, criticism, defense of diagnostic and treatment approaches to orthodontic cases that need, are undergoing, or have completed surgical-orthodontic treatment.

ORDN:5400 Craniofacial Practicum **0,2 s.h.**

ORDN:6211 Problems: Orthodontics **0-3 s.h.**

ORDN:6212 Research: Orthodontics **0-3 s.h.**

ORDN:6215 Orthodontic Journal Club **0-3 s.h.**
Current biological, technical publications.

ORDN:8215 Growth and Development **1 s.h.**
Normal human growth and development; emphasis on craniofacial region.

ORDN:8235 Orthodontic Laboratory 1 s.h.
Application of the terminology, methodology, and principles of orthodontic diagnosis using case-based studies. Corequisites: ORDN:8236.

ORDN:8236 Orthodontic Treatment 1 s.h.
Terminology, methodology, and principles used in orthodontic diagnosis. Corequisites: ORDN:8235.

Orthodontics, Professional Certificate

Requirements

The professional Certificate in Orthodontics requires satisfactory completion of 24 months of intensive study, including lecture courses, seminars, clinical practicum, and a research paper. Students earn the certificate while they complete work for the MS in orthodontics. They must maintain a cumulative grade-point average of at least 3.00 to earn the certificate.

Admission

Applicants must have a DDS degree or equivalent and meet the admission requirements of the Graduate College. Three letters of recommendation are required: one letter from their respective dental school dean stating their class rank or that no class ranks are provided, and two recommendation letters from dental school faculty.

Application deadline is Aug. 1 for entry the following July 1. Applicants are required to travel to the University of Iowa for interviews with department faculty.

Orthodontics, MS

Learning Outcomes

Individuals will be:

- credentialed to practice orthodontics and dentofacial orthopedics;
- proficient in the scientific method, demonstrated by the successful defense of their MS thesis;
- proficient in biological and biomechanical principles of tooth movement as demonstrated by clinical treatment of orthodontic patients with malocclusions;
- proficient in diagnosis, treatment planning, and treatment delivery as demonstrated by clinical treatment of orthodontic patients with malocclusions;
- proficient in diagnosis, treatment planning, and treatment delivery as demonstrated by clinical treatment of craniofacial anomalies patients; and
- proficient in interdisciplinary interaction with other dental specialties such as oral surgery, pediatric dentistry, periodontics, and endodontics as demonstrated by opportunities to coordinate care of orthodontic and craniofacial anomalies patients.

Requirements

The Master of Science in orthodontics requires 65 s.h. of graduate credit. Students must satisfactorily complete a thesis based on an original research project to qualify for the MS. They must maintain a Graduate College program grade-point average of at least 3.00 to earn the degree.

Students begin the two-year program in July.

The MS in orthodontics requires the following coursework.

First Year, Summer

Course #	Title	Hours
All of these:		
ORDN:5203	Principles of Biomechanics	2
ORDN:5209	Orthodontic Practicum	2
ORDN:5217	Cephalometrics and Lab Skills	3

First Year, Fall

Course #	Title	Hours
All of these:		
ORDN:5203	Principles of Biomechanics	2
ORDN:5204	Applied Biomechanics	1
ORDN:5205	Facial Growth	2
ORDN:5209	Orthodontic Practicum	2
ORDN:5210	Orthodontic Seminar	2
ORDN:5211	Clinical Skills and Laboratory Techniques	1
ORSC:5212	Statistical Methods for Dental Research	3
ORDN:5220	Craniofacial Diagnosis, Treatment, and General Topics in Orthodontics	1
ORDN:5221	Surgical Orthodontic Seminar	1

First Year, Spring

Course #	Title	Hours
All of these:		
ORDN:5200	Temporomandibular Joints and Advanced Topics in Orthodontics	1
ORDN:5202	Advanced Case Analysis	2
ORDN:5203	Principles of Biomechanics	1
ORDN:5204	Applied Biomechanics	1
ORDN:5209	Orthodontic Practicum	2
ORDN:5210	Orthodontic Seminar	2
ORDN:5220	Craniofacial Diagnosis, Treatment, and General Topics in Orthodontics	1
ORDN:5221	Surgical Orthodontic Seminar	1
ORDN:5400	Craniofacial Practicum	2

Second Year, Summer

Course #	Title	Hours
Both of these:		
ORDN:5209	Orthodontic Practicum	3
ORDN:6212	Research: Orthodontics	2

Second Year, Fall

Course #	Title	Hours
All of these:		
ORDN:5204	Applied Biomechanics	1
ORDN:5209	Orthodontic Practicum	2
ORDN:5210	Orthodontic Seminar	2
ORDN:5220	Craniofacial Diagnosis, Treatment, and General Topics in Orthodontics	1
ORDN:5221	Surgical Orthodontic Seminar	1
ORDN:5400	Craniofacial Practicum	2
ORDN:6211	Problems: Orthodontics	1
ORDN:6212	Research: Orthodontics	2
ORDN:6215	Orthodontic Journal Club	1

Second Year, Spring

Course #	Title	Hours
All of these:		
ORDN:5204	Applied Biomechanics	1
ORDN:5209	Orthodontic Practicum	2
ORDN:5210	Orthodontic Seminar	2
ORDN:5220	Craniofacial Diagnosis, Treatment, and General Topics in Orthodontics	1
ORDN:5221	Surgical Orthodontic Seminar	1
ORDN:5400	Craniofacial Practicum	2
ORDN:6212	Research: Orthodontics	2
ORDN:6215	Orthodontic Journal Club	1

For more information, contact the Department of Orthodontics.

Admission

Applicants must have a DDS degree or equivalent and meet the admission requirements of the Graduate College. The application deadline is Aug. 1 for entry the following July 1. Applicants are required to travel to the University of Iowa for interviews with department faculty.

Pediatric Dentistry

Head

- Karin Weber-Gasparoni

Graduate Program Director

- Heidi M. Steinkamp

Associate Graduate Program Director

- Amy B. Miers

Professional certificate: pediatric dentistry

Website: https://dentistry.uiowa.edu/departments/pediatric-dentistry

The Department of Pediatric Dentistry instructs predoctoral and professional students in the prevention and treatment of dental diseases in children as well as individuals with special health care needs. Instruction combines didactic, laboratory, and clinical experiences and gives special consideration to reviewing current literature and managing dental problems of children and individuals with special health care needs. It also emphasizes efficient treatment through the proper use of dental auxiliary personnel and record management.

DDS Student Training

All second-year Doctor of Dental Surgery students participate in a one-semester lecture course that includes preclinical exercises in the Simulation Clinic. Third-year DDS students participate in a clerkship, which includes a combined seminar and clinical course. During their fourth year, DDS students participate in a rotation through the department's clinics.

Research Opportunities

Clinical and laboratory research projects have financial support from federal agencies and other sources. Major research areas include cariology, microbiology, immunology, dental materials, dentistry for persons with special health care needs, growth and development, fluoride therapy, child behavior management, nutrition, prevention, and access to care.

Faculty

Faculty members hold numerous professional offices at national and state levels, committee memberships, consultantships, and honors in professional organizations. They serve as reviewers for professional journals and federal granting agencies. They also participate regularly in continuing education programs for dentists and other health science personnel.

Programs

Professional Program of Study

- Certificate in Pediatric Dentistry [p. 1325]

Courses

Pediatric Dentistry Courses

PEDO:5220 Social, Cultural, and Public Health Issues in Pediatric Dentistry **0-1 s.h.**

PEDO:5700 Advanced Didactic Pediatric Dentistry **0-1 s.h.**
Lectures in advanced pediatric dentistry.

PEDO:5704 Pediatric Dentistry Grand Rounds **0-1 s.h.**
Pediatric dentistry rounds.

PEDO:5706 Journal Review Practicum **0-1 s.h.**
Review of journal material in pediatric dentistry.

PEDO:5724 Oral Health Care for People With Special Health Care Needs **0-1 s.h.**
Providing oral health care for individuals with disabilities.

PEDO:5730 Advanced Clinical Pediatric Dentistry **0-2 s.h.**
Advanced study in clinical pediatric dentistry.

PEDO:5732 Pediatric Physical Diagnosis **0-1 s.h.**
Pediatric physical diagnosis for dental practice.

PEDO:5738 Clinical Application of Pediatric Conscious Sedation **0-1 s.h.**

PEDO:6710 Practical Teaching in Pediatric Dentistry **0-1 s.h.**

PEDO:8240 Pediatric Dentistry Diagnosis and Treatment **3 s.h.**
Growth and development, behavior management, diagnostic-preventive-restorative techniques for pediatric patients.

PEDO:8370 Pediatric Dentistry: Clinical Applications **arr.**
Combination of didactic and clinical aspects of pediatric dentistry; radiographic interpretations, treatment planning, preventative and restorative treatment supported by didactic seminars; clinical examinations and treatments provided to infants and children less than 16 years of age.

Pediatric Dentistry, Professional Certificate

Requirements

The professional Certificate in Pediatric Dentistry is a two-year residency program that prepares students for certification by the American Board of Pediatric Dentistry. Certificate students are trained in all phases of pediatric dentistry and have career choices in private practice, public health, education, or research. Special emphasis is placed on the development of leadership skills and strategies for serving vulnerable populations.

The department's certificate program is accredited by the Commission on Dental Accreditation of the American Dental Association.

Approximately 60% of the certificate program is devoted to advanced clinical activity, 30% to didactic courses and practice teaching, and 10% to original research. The program includes a core of didactic, clinical, and research-oriented courses supplemented by electives determined by students' individual interests.

The program maintains close associations with the University of Iowa Stead Family Children's Hospital, Stead Family Department of Pediatrics [p. 2001] in the Roy J. and Lucille A. Carver College of Medicine, the Center for Disabilities and Development, and University of Iowa Health Care. These associations provide experiences with oral rehabilitation under general anesthesia, treatment of children with oral conscious sedation, instruction in physical diagnosis, and management of medically complex children and those with special healthcare needs.

A three-year graduate program in pediatric dentistry and dental public health allows individuals to earn a Certificate in Pediatric Dentistry and an MS in dental public health. For more information, visit Pediatric Combined Residency on the College of Dentistry and Dental Clinics website.

Admission

Openings in the program are filled through the Postdoctoral Dental Matching Program. Prospective students apply through the American Dental Education Association PASS program. Applications must be complete by September 1 the year prior to program matriculation. Applicants must meet the admission requirements of the Graduate College.

Financial Support

Stipends for the two-year program are provided by federal agencies and other sources for qualified candidates.

Periodontics

Head

- Sivaraman Prakasam

Graduate Program Director

- Sukirth M. Ganesan

Professional certificate: periodontics

Faculty: https://dentistry.uiowa.edu/directory?cohort=440255

Website: https://dentistry.uiowa.edu/departments/periodontics

The Department of Periodontics educates predoctoral students as well as professional students who may elect to pursue graduate study along with their professional training. The department also provides interdisciplinary care for patients with complex treatment needs; generates new knowledge through its research programs; and provides professional service and leadership at all levels, from local to worldwide.

DDS Student Training

The periodontal program instructs Doctor of Dental Surgery students in the diagnosis and management of periodontal and peri-implant diseases and conditions. It combines didactic, laboratory, and clinical experiences and applies the biological concepts of periodontology to the comprehensive clinical management of patients.

Programs

Professional Program of Study

- Certificate in Periodontics [p. 1327]

Facilities

The department has 22 modern, well-equipped operatories devoted exclusively to periodontics.

Research facilities include laboratories in histology, microscopy, biomaterials, quantitation, tissue culture, biochemistry and molecular biology, and microbiology. Other facilities are available by arrangement with University of Iowa Health Care, Eckstein Medical Research Building, and Medical Laboratories.

Courses

Periodontics Courses

PERI:5220 Periodontics Classic Literature Review **arr.**
Foundation of core concepts pertaining to the field of periodontology; includes review and critical analysis of landmark studies that have shaped the development of contemporary concepts in diagnosis and management of periodontal conditions and diseases and implant dentistry in a multidisciplinary context.

PERI:5700 Advanced Periodontology **0-1 s.h.**

PERI:5710 Case Management Seminar **0-2 s.h.**
Case management seminar in periodontics.

PERI:5720 Current Topics **0-1 s.h.**
Current topics in periodontics.

PERI:5740 Periodontal Implant Provisionalization **0-1 s.h.**

PERI:5750 Advanced Clinical Periodontics **0,2 s.h.**

PERI:7208 Recent Advances in Periodontics **0-3 s.h.**
Review of current literature.

PERI:7700 Practice Management **1 s.h.**
Practice management in periodontics.

PERI:7701 Practice Teaching in Periodontics **1 s.h.**

PERI:8120 Fundamentals in Periodontology I **2 s.h.**
Normal periodontium, periodontal diseases, diagnosis etiology, epidemiology of periodontal diseases.

PERI:8230 Fundamentals in Periodontology II **1 s.h.**
Periodontal treatment planning, prognosis, initial phase of periodontal therapy, treatment of acute periodontal problems, overview of surgical procedures.

PERI:8370 Clinical Periodontology **4 s.h.**
Comprehensive concepts of periodontology and clinical management of patients.

Periodontics, Professional Certificate

Requirements

The professional Certificate in Periodontics requires 36 months of full-time study, including satisfactory completion of required didactic and clinical courses, satisfactory completion of comprehensive written and oral examinations, and an acceptable literature review or research paper. Opportunities are provided for experience in clinical and basic research.

Students working toward the Certificate in Periodontics must pursue the Master of Science in oral science in conjunction with the certificate; see "Graduate Study."

The certificate program provides a sound foundation for the clinical practice of periodontics. It meets all requirements of the American Dental Association's Commission on Dental Accreditation for advanced dental education programs in periodontics. It also meets the educational requirements for application to take board certification examinations of the American Board of Periodontology.

Certificate students must be financially prepared for the uninterrupted pursuit of their program of study.

Graduate Study

Students earning the Certificate in Periodontics must pursue a Master of Science in oral science concurrently while working toward certificate completion. The MS program requires 36 months of full-time study, including satisfactory completion of required and elective courses, preparation and defense of an acceptable thesis based on original research, and satisfactory completion of comprehensive written and oral examinations. See Oral Science [p. 1314] in the catalog.

Admission

Applicants to the periodontics certificate program must have a DDS degree or the equivalent and meet the admission requirements of the Graduate College. Visit the College of Dentistry page on the Graduate Admissions website to learn more about applying to the certificate program.

Preventive and Community Dentistry

Head

- Leonardo Marchini

Graduate degree: MS in dental public health

Faculty: https://dentistry.uiowa.edu/directory

Website: https://dentistry.uiowa.edu/pcd

The Department of Preventive and Community Dentistry educates future and practicing dental and oral health professionals, preparing them to understand and recognize:

- conditions that compromise patients;
- social, cultural, community, and political influences on dental practice;
- principles of preventive dentistry for individuals, groups, and communities; and
- considerations for preventing and treating oral disease in geriatric and special needs patients.

In addition to offering educational programs, the department provides patient care at the College of Dentistry and in a variety of off-campus settings. It is also home to research that advances dental public health. The department offers an MS in dental public health and the Certificate in Geriatric and Special Needs Dentistry [p. 1303].

DDS Student Training

Predoctoral training in preventive, community, and geriatric dentistry is designed to increase Doctor of Dental Surgery students' awareness of preventive dental practices, aspects of dental practices affected by community factors, and care of compromised adult patients.

Community dentistry programs give students opportunities to interact with health care teams and the public in Iowa and around the world. The department conducts off-site community programs statewide, nationwide, and worldwide. It also operates the Geriatric and Special Needs Clinic, which is housed in the Dental Science Building.

Using the community dentistry programs as the classroom, DDS students observe and participate in a variety of activities that nurture their awareness of the societal obligations they must assume in order to become effective practitioners.

Programs

Graduate Program of Study

- Master of Science in Dental Public Health [p. 1330]

Courses

- Preventive and Community Dentistry Courses [p. 1328]
- Dental Public Health Courses [p. 1329]

Preventive and Community Dentistry Courses

PCD:8115 Patient Management: Ethics and Interprofessional Education 1 s.h.
Preparation to deliver team-based interprofessional care through authentic lectures and group activities that reinforce interprofessional education (IPE) concepts by providing relevant and applicable health care experience; concepts and skills related to interprofessional education, team-based health care, interprofessional networking, ethics and professionalism, and person-centered care.

PCD:8116 Preventive Dentistry: Introduction 2 s.h.
Identification of health and disease in the mouth through self-assessment, nutritional self-assessment, practical methods of disease control, primary preventive dentistry methods and materials, and philosophy of preventive dentistry.

PCD:8117 Cariology and Preventive Therapies 2 s.h.
Principles of research design; introduction to microbiology and immunology; principles of oral microbiology with an emphasis on plaque development; microbiology of caries; coronal and root caries disease processes; dental caries epidemiology; roles of saliva and diet in dental health and disease; radiographic interpretation and clinical diagnosis; dental fluorosis; preventive dentistry treatment planning. Prerequisites: PCD:8116.

PCD:8118 Preventive Dentistry Assessment and Patient Care 4 s.h.
Patient oral assessment; charting sulcus depth, recession and hard tissues; progress notes, and entries in electronic patient record; preventive dentistry, caries, and periodontal risk assessment; oral hygiene instruction for collegiate recall patients; instrumentation for detection and removal of calculus deposits; practice with patient management skills and ergonomics. Prerequisites: PCD:8116 and PCD:8117.

PCD:8119 Patient Management: Communication Fundamentals 1 s.h.
Introduction to patient-centered care, interpersonal and professional communication with patient, information exchange, and preventive treatment plan formulation in patient encounters.

PCD:8120 Introduction to Evidence-Based Dentistry I 1 s.h.
Fundamental concepts needed to critique clinical research articles and health-related websites.

PCD:8121 Introduction to Evidence-Based Dentistry II 1 s.h.
Application of concepts needed to critique scientific literature.

PCD:8218 Critical Thinking and Evidence-Based Dentistry in Treatment Planning 1 s.h.
Continuation of PCD:8120; evidence-based dentistry, critical thinking and treatment planning sessions; online and small group sessions. Prerequisites: PCD:8120.

PCD:8219 Patient Management: Communication Challenges 1 s.h.
Continuation of PCD:8119; assessing patient understanding of practices for improving/maintaining oral health; overview of patient challenges to effective communication; application of behavioral science principles in dentistry and behavior theories. Prerequisites: PCD:8119.

PCD:8245 Clinical Preventive Dentistry 0,2 s.h.
Experience providing complete prophylaxis and preventive services for college patients; application of nutrition principles and communication skills in a clinic setting. Prerequisites: PCD:8118.

PCD:8319 Patient Management: Special Populations 1 s.h.
Continuation of PCD:8219; standardized patient exercises with chairside feedback and evaluation of communication skills; reflection regarding application of communication skills and behavioral science principles in patient encounters.

PCD:8355 Introduction to Geriatric Dentistry 2 s.h.
Biological, psychological, and social aspects of aging; normal aging and disease processes associated with aging; pathological changes that affect oral health treatment of dental diseases; and patient-centered treatment planning and management. Requirements: DDS enrollment or completion of dental hygiene program.

PCD:8360 The Practice of Dentistry in the Community I 1-2 s.h.
Factors that affect the practice of dentistry and the dental profession including health care systems in the U.S. and abroad, Medicaid/Medicare, health/dental insurance, health care delivery systems, malpractice, role of the Iowa Dental Board, dental workforce, and quality of care.

PCD:8361 The Practice of Dentistry in the Community II 1-2 s.h.
Issues related to the role of dental professionals at local and state levels; students build skills and knowledge in development of a community outreach dental program.

PCD:8489 Geriatrics and Special Needs Program arr.
Experience in the Delta Dental of Iowa Geriatric and Special Needs Clinic and the Geriatric Mobile Dental Unit providing comprehensive care for medically, physically, intellectually, and/or cognitively compromised adults, functionally dependent elderly nursing home residents with portable dental equipment, and other underserved populations.

PCD:8494 Extramural Rotation in Oral Health 5 s.h.
Dental care for underserved populations; community experiences in a variety of settings including hospital-based clinics, federally qualified health centers, community health centers, and private practices.

PCD:8500 Dental Student Research Honors Program arr.
Experience in conducting research. Requirements: DDS enrollment and approval of mentor and program director.

Dental Public Health Courses

DPH:5000 Introduction to Dental Public Health 0,2 s.h.
Science, philosophy, practice of dental public health.

DPH:5001 Literature Review Methods: Dental Public Health 0,2 s.h.
Concepts and process of literature review, particularly in area of student's interest.

DPH:5005 Administration of Public Dental Programs 0,2 s.h.
Application of general management concepts; practical aspects of planning, financing, staffing, implementing, operating, evaluating dental public health programs at federal, state, local levels.

DPH:5006 Preventive Programs in Dental Public Health 0,2 s.h.
Prevention and control methods for major dental conditions, primarily dental caries and periodontal diseases; clinical efficacy and cost-effectiveness; development of comprehensive preventive oral health plan for a community.

DPH:5008 Field Experience in Dental Public Health arr.
Arranged with public and voluntary health agencies according to students' and agencies' needs.

DPH:5009 Advanced Field Experience in Dental Public Health 1-3 s.h.
Opportunity to research, develop, and implement programmatic objectives with local, state, national, and/or federal agencies and organizations on an issue that is both relevant to the student and the agency; may require off-site visits to agencies or organizations. Prerequisites: DPH:5008.

DPH:5014 Dental Care Policy and Financing 0,2 s.h.
Dental financing and policy issues: payment mechanisms for health care service providers, third-party prepayment plans, salaried and public-financed programs, Medicaid and Medicare programs, dental insurance systems, and care of the underserved.

DPH:5016 Introduction to Statistical Computing arr.
Use of statistical packages on a personal computer for data management and analysis. Offered summer session.

DPH:5031 Geriatric Care 0,2 s.h.
Aging demographics; effects of aging on the human body with emphasis on the masticatory system; diseases commonly found among the elderly; and dental care for the elderly in different settings.

DPH:6002 Research Protocol Seminar 0,2 s.h.
Development of a master's thesis protocol; identification of thesis topic, review of relevant literature, development of research methods, writing.

DPH:6003 Independent Study: Dental Public Health 1-3 s.h.

DPH:6004 Principles of Oral Epidemiology 0-3 s.h.
Interpretation of scientific literature, with respect to the distribution and determinants of oral diseases and conditions, including caries, periodontal diseases, tooth loss, oral cancer, and more.

DPH:6011 Thesis: Dental Public Health arr.
Protocol preparation; data collection, analysis, organization; writing, defense of research.

DPH:6017 Teaching Methods and Evaluation arr.
Philosophies of dental education, teaching methodologies, evaluation; focus on learning to write educational objectives, writing and analyzing exam items.

DPH:6018 Clinical Teaching Practicum: Preventive Dentistry 0-3 s.h.
Teaching experience in preventive dentistry clinic setting with first-year dental students; outcomes focused on methods in clinical teaching, evaluation, and remediation.

Dental Public Health, MS

Learning Outcomes

Students will demonstrate:

- in-depth knowledge of the core concepts of public health, including those within the disciplines of epidemiology, biostatistics, behavioral science, environmental health, and health care policy and management; and
- in-depth knowledge of, and the ability to apply, the 10 competencies that define dental public health; manage oral health programs for population health; evaluate systems of care that impact oral health; demonstrate ethical decision-making in the practice of dental public health; design surveillance systems to measure oral health status and its determinants; communicate on oral and public health issues; lead collaborations on oral and public health issues; advocate for public health policy, legislation, and regulations to protect and promote the public's oral health and overall health; critically appraise evidence to address oral and public health issues for individuals and populations; conduct research to address oral and public health problems; integrate the social determinants of health into dental public health practice; and critical thinking skills to develop and complete an evidenced-based research project as part of their master's thesis.

Requirements

The Master of Science program in dental public health requires 40 s.h. of coursework and is designed to be completed in two academic years of full-time study. Students must maintain a cumulative grade-point average of at least 3.00 to earn the degree.

The program prepares dentists and dental hygienists to be specialists in dental public health. It emphasizes research and requires a research project culminating in the completion and defense of a thesis. Successful dentist graduates meet the educational requirements for eligibility to take the certifying examination of the American Board of Dental Public Health.

Admission

Applicants must have a DDS degree or equivalent or be a dental hygienist with a baccalaureate degree. They also must meet the admission requirements of the Graduate College and complete the Graduate Record Examination (GRE) General Test.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Dental Public Health, MS

Course	Title	Hours
Academic Career		
Any Semester		
40 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
	Hours	**0**
First Year		
Any Semester		
First Year Comprehensive Exam [d]		
	Hours	**0**
Fall		
DPH:5000	Introduction to Dental Public Health	2
DPH:5001	Literature Review Methods: Dental Public Health	2
DPH:5005	Administration of Public Dental Programs	2
DPH:5008	Field Experience in Dental Public Health	1
ORSC:5212	Statistical Methods for Dental Research	3
	Hours	**10**
Spring		
PSQF:6243 or BIOS:5120	Intermediate Statistical Methods or Regression Modeling and ANOVA in the Health Sciences	3
DPH:5006	Preventive Programs in Dental Public Health	2
DPH:6018 or DPH:5009	Clinical Teaching Practicum: Preventive Dentistry or Advanced Field Experience in Dental Public Health	1
DPH:6002	Research Protocol Seminar	2
ORSC:5215	Research Design in Dentistry	2
	Hours	**10**
Summer		
EPID:4400	Epidemiology I: Principles	3
PEDO:5220	Social, Cultural, and Public Health Issues in Pediatric Dentistry	1
ORSC:5210	Dental Sciences Research Methodology [e]	0,2
	Hours	**4-6**
Second Year		
Fall		
Complete Thesis Data Collection		
DPH:6011	Thesis: Dental Public Health	2
DPH:6017	Teaching Methods and Evaluation	2
Elective course (if needed) [f]		2
	Hours	**6**
Spring		
Thesis Completion		

CBH:5220 or CBH:4105	Health Behavior and Health Education or Introduction to Health Promotion and Disease Prevention	3
DPH:5014	Dental Care Policy and Financing	2
DPH:6004	Principles of Oral Epidemiology	2
DPH:6011	Thesis: Dental Public Health	2
Final Exam [g]		
	Hours	**9**
Summer		
DPH:5016	Introduction to Statistical Computing	1
DPH:6011	Thesis: Dental Public Health	1
HMP:4000	Introduction to the U.S. Health Care System	3
	Hours	**5**
	Total Hours	**44-46**

a Note: Upon completion of the program, graduates are educationally qualified to take the ABDPH exam and become board-certified in Dental Public Health.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Taken at the end of first year.

e Note: International students who must be enrolled full-time are required to take ORSC:5210 for 2 s.h.; does not count towards degree requirements.

f Work with faculty advisor to choose appropriate graduate elective coursework.

g Thesis defense; may complete during the summer after second year if necessary.

Prosthodontics

Head

- Seok Hwan "Aaron" Cho

Professional certificate: prosthodontics

Faculty: https://dentistry.uiowa.edu/directory

Website: https://dentistry.uiowa.edu/departments/prosthodontics

Prosthodontics is the dentistry specialty involving restoring or replacing teeth using crowns, fixed partial dentures (bridges), removable partial dentures, complete dentures, maxillofacial prostheses, and dental implants.

DDS Student Training

The Department of Prosthodontics instructs Doctor of Dental Surgery students in the basic principles, practices, and concepts of prosthodontics required for the practice of general dentistry. Students learn through laboratory projects and treatment of patients with differing prosthodontic needs.

Programs

Professional Program of Study

- Certificate in Prosthodontics [p. 1334]

Facilities

Most didactic, clinical, and laboratory instruction and patient treatment takes place in the Department of Prosthodontics, which is located in the Dental Science Building. The building also houses the Doctor of Dental Surgery (DDS) program, training programs in specialties recognized by the American Dental Association, and the Iowa Institute for Oral Health Research.

The college and the department provide supporting technologies that include cone beam CT radiography, implant imaging software, laboratory CAD/CAM (computer-aided design/computer-aided manufacturing) systems, and dental lasers.

Advanced prosthodontic students spend time at University of Iowa Health Care, where they work closely with medical professionals in other disciplines to treat medically compromised prosthodontic patients and those who require maxillofacial rehabilitation.

Courses

Prosthodontics Courses

PROS:5700 Advanced Clinical Prosthodontics 0,2 s.h.

PROS:5710 Advanced Removable Prosthodontic Technique 0,2 s.h.

PROS:5720 Advanced Instrument Technique 1 s.h.

PROS:5730 Advanced Implant Techniques 0-2 s.h.

PROS:5740 Advanced Fixed Prosthodontics Technique 0,2 s.h.

PROS:5750 Clinical Issues and Treatment Planning in Prosthodontics 0-1 s.h.

PROS:6220 Fixed Prosthodontics Literature Review I 0-4 s.h.
Fixed prosthodontic procedures; assigned readings, discussion of related research.

PROS:6221 Fixed Prosthodontics Literature Review II 0-4 s.h.
Porcelain-fused-to-metal and ceramic restorations, color science and esthetics; assigned readings, discussion of related research.

PROS:6222 Implant Literature Review 0-4 s.h.
Implant prosthodontics; assigned readings, discussion of related research.

PROS:6223 Occlusion Seminar 0-4 s.h.
Occlusion and the temporomandibular system; assigned readings and discussion of related research.

PROS:6224 Graduate Restorative Materials 0,2 s.h.
Dental materials science; mechanical, physical, and chemical properties of restorative materials; selection and manipulation. Same as OPER:6225.

PROS:6225 Complete Denture Literature Review 0-4 s.h.
Complete denture prosthodontics; assigned readings, discussion of related research.

PROS:6226 RPD Literature Review 0-4 s.h.
Removable partial denture prosthodontics; assigned readings, discussion of related research.

PROS:6700 Maxillofacial Prosthodontics Seminar 0-1 s.h.

PROS:6710 Dental Implant Surgery for Prosthodontic Residents arr.
Lecture and literature review covering implant surgery and complications for prosthodontics residents.

PROS:7700 Maxillofacial Prosthodontics Rotation 0-1 s.h.

PROS:8120 Treatment of Dentulous Patients: Introduction to Occlusion Lecture 1 s.h.
Introduction to principles of occlusion and their clinical application.

PROS:8121 Treatment of Dentulous Patients: Introduction to Occlusion Lab 1 s.h.
Patient simulation exercises demonstrating principles of occlusion.

PROS:8122 Treatment of Dentulous Patients: Fixed Prosthodontics for Single Anterior Teeth Lecture 1 s.h.
Basic principles of fixed prosthodontics for single-unit anterior teeth; basic principles of tooth preparation, clinical steps, and digital procedures for fabrication of anterior single-tooth all-ceramic crowns and interim crowns. Prerequisites: PROS:8120 and PROS:8121.

PROS:8123 Treatment of Dentulous Patients: Fixed Prosthodontics for Single Anterior Teeth Lab 1 s.h.
Patient simulation exercises in single anterior tooth preparation, and fabrication of single-unit anterior all-ceramic and interim restorations. Prerequisites: PROS:8120 and PROS:8121.

PROS:8124 Treatment of Dentulous Patients: Fixed Prosthodontics for Single Posterior Teeth Lecture 1 s.h.
Basic biomechanical principles of fixed posterior single tooth prosthodontics; diagnosis and treatment planning for dentate patients including occlusion. Prerequisites: PROS:8120 and PROS:8121 and PROS:8122 and PROS:8123.

PROS:8125 Treatment of Dentulous Patients: Fixed Prosthodontics for Single Posterior Teeth Lab 1 s.h.
Patient simulation exercises in single posterior tooth preparation and laboratory fabrication of single-unit posterior definitive and interim restorations. Prerequisites: PROS:8120 and PROS:8121 and PROS:8122 and PROS:8123.

PROS:8240 Treatment of Partially Edentulous Patients: Fixed Multi-Unit Prosthodontics Lecture 1 s.h.
Basic biomechanical principles of fixed prosthodontics for multiple-unit fixed prostheses; diagnosis and treatment planning for partially edentulous patient, including occlusion and esthetic concerns.

PROS:8241 Treatment of Partially Edentulous Patients: Fixed Multi-Unit Prosthodontics Patient Simulation I 1 s.h.
Patient simulation exercises in preparation and fabrication of a three-unit fixed partial dental prosthesis and interim restoration.

PROS:8242 Treatment of Partially Edentulous Patients: Single Tooth Implant Lecture 1 s.h.
Principles, clinical steps, materials, and laboratory procedures necessary for single tooth fixed implant treatment. Prerequisites: PROS:8240 and PROS:8241.

PROS:8243 Treatment of Partially Edentulous Patients: Single Tooth Implant Patient Simulation 1 s.h.
Clinical steps in laboratory procedures for single tooth implant surgical guide fabrication and restoration. Prerequisites: PROS:8240 and PROS:8241.

PROS:8244 Treatment of Partially Edentulous Patients: Removable Partial Prosthodontics Lecture 1 s.h.
Basic biomechanical principles of tooth replacement with removable partial prosthodontics; diagnosis and treatment planning for partially edentulous patients. Prerequisites: PROS:8240 and PROS:8241 and PROS:8242 and PROS:8243.

PROS:8245 Treatment of Partially Edentulous Patients: Removable Partial Prosthodontics Patient Simulation 1 s.h.
Laboratory exercises in basic principles, clinical steps, and laboratory procedures necessary for fabrication of removable partial dentures. Prerequisites: PROS:8240 and PROS:8241 and PROS:8242 and PROS:8243.

PROS:8246 Treatment of Edentulous Patients: Removable Complete Prosthodontics Lecture 1 s.h.
Fundamental principles of diagnosis and treatment planning for edentulous patients, surgical and prosthodontic protocols for oral rehabilitation of edentulism. Prerequisites: PROS:8240 and PROS:8241 and PROS:8242 and PROS:8243 and PROS:8244 and PROS:8245.

PROS:8247 Treatment of Edentulous Patients: Removable Complete Prosthodontics Patient Simulation 1 s.h.
Laboratory exercises in basic principles, clinical steps, and laboratory procedures necessary for fabrication of complete dentures, including implant over-dentures. Prerequisites: PROS:8240 and PROS:8241 and PROS:8242 and PROS:8243 and PROS:8244 and PROS:8245.

PROS:8370 Introduction to Clinical Prosthodontics 8 s.h.
Application of knowledge in principal, biological, basic sciences, and techniques to clinical fixed, removable, and implant prosthodontics procedures; clinical prosthodontics experience supplemented by individual supervision, demonstration.

Prosthodontics, Professional Certificate

Requirements

The professional Certificate in Prosthodontics requires a minimum of 36 months of study. Students must maintain a cumulative grade-point average of at least 3.00 to earn the certificate. It prepares individuals for specialty clinical practice in the discipline.

The curriculum includes didactic courses and clinical training in all of the disciplines that make up the broad specialty of prosthodontics, including fixed and removable prosthodontics, digital dentistry, dental implants, and maxillofacial prosthetics. Patient care is completed in close collaboration with the other dental specialties. Clinically-related basic science instruction complements the clinical curriculum.

Students working toward the Certificate in Prosthodontics must pursue the Master of Science in oral science in conjunction with the certificate.

The certificate program is accredited by the Commission on Dental Accreditation of the American Dental Association. Successful completion of the program satisfies the formal training requirement for eligibility to take the American Board of Prosthodontics certification examination.

Graduate Study

The MS program prepares individuals for careers in dental education and research and for independent study and professional growth. Students must prepare and defend a thesis for the MS in oral science based on original research. Facilities and support personnel for research are available through the college's Iowa Institute for Oral Health Research. See the MS in oral science [p. 1315] in the catalog. Successful completion of the MS may allow further PhD study.

Admission

Applicants must meet the admission requirements of the Graduate College. They must hold a DDS or a DMD degree from a dental school accredited by the American Dental Association or an equivalent degree.

The certificate program begins around July 1 each year. Applications are only made through Match, which places applicants into positions for their first year of training in postdoctoral dental education programs. A personal interview is required for select applicants; selection for an interview is based on qualifications and is by invitation only.

For more information, see the Department of Prosthodontics website.

College of Education

Dean

- Daniel L. Clay

Associate Dean for Faculty and Graduate Education

- Pamela M. Wesely

Interim Associate Dean for Research

- Ariel Aloe

Associate Dean for Undergraduate Education and Educator Preparation

- Mark A. McDermott

Undergraduate major: BA

Undergraduate minors: educational psychology; human relations

Graduate degrees: MA; MAT; MS; EdS; EdD; PhD

Graduate certificates: applied behavior analysis; institutional research and effectiveness; K-12 equity and inclusion; online teaching; talent development

Website: https://education.uiowa.edu/

The University of Iowa College of Education offers more than 80 undergraduate and graduate degree programs, including licensure, endorsements, certificates, and online programs, many of which are regularly ranked among the best in the nation. The college's vision is to be a world-class college of education: leading research, engaging communities, and preparing education and mental health professionals for innovation and impact.

In 1847, Iowa legislators created the State University of Iowa, the state's first public institution of higher education to provide teacher training. More than 175 years later, students from across the state, nation, and globe are drawn to the College of Education, where they can experience the rigor of an R1 research university with a personal touch, a strong sense of community, and Hawkeye pride.

The college is also home to a number of research centers, including the Scanlan Center for School Mental Health, highlighting the college's expertise in school and community mental health counseling. Other areas of expertise include gifted education and talent development, thanks to the Belin-Blank Center, and educational testing and measurement due to the legacy of alumnus E.F. Lindquist. Lindquist created the Iowa Academic Meet, the impetus for the development of the world-renowned Iowa Testing Programs (ITP). Soon after in 1935, ITP experts authored the first Iowa Tests of Basic Skills (renamed Iowa Assessments), which revolutionized test scoring by inventing the first optical scanner, allowing tests to be accurately scored by high-speed equipment rather than by hand. Then in 1959, ITP spun off the most widely accepted college entrance exam to American College Testing Program, Inc., now known as ACT.

The University of Iowa Wildlife Instruction and Leadership Development (UI WILD) joined the College of Education in 2021, bringing a variety of experiential learning opportunities to our students. Students have the unique opportunity to take their learning outside of the classroom. There are opportunities to teach middle school students across Iowa with School of the Wild, take science education to the next level with the Iowa Raptor Project, and work hands-on with youth at Iowa Wildlife camps.

The college has four departments—the departments of Counselor Education [p. 1356], Educational Policy and Leadership Studies [p. 1372], Psychological and Quantitative Foundations [p. 1398], and Teaching and Learning [p. 1431].

Extramural Education

Through Distance and Online Education, selected College of Education courses are offered at off-campus sites and hours outside the traditional schedule. If taken after formal admission to a specific program, some of these courses may be applied to meet the requirements for degrees. Students who plan to complete a degree program should apply for admission to the Graduate College and satisfy all application requirements for the degree program they wish to enter.

Special regulations govern such coursework. Students should obtain prior approval from their program advisor before registering for extramural courses. Students not regularly admitted to the University of Iowa also may register for extramural courses, but credit earned before admission does not count toward residency requirements.

Honors in Education

The Honors Opportunity Program is open to undergraduates in the College of Education who are interested in pursuing either a research-based or context-based culminating project. Honors Opportunity Program students must take EHOP:4100 Honors Seminar in Education, EHOP:4101 Senior Honors Project, and complete five additional honors experiences while working with a self-selected mentor and the HOP facilitator at the Belin-Blank Center. Students in the program typically have a grade-point average (GPA) of at least 3.50 in their major and 3.33 overall but interested students with lower GPAs are encouraged to apply. Successful completion of the program results in recognition of the student as a College of Education honors graduate.

Faculty

All tenure-track faculty members hold earned doctorates in their teaching fields, and many have had teaching or administrative experience in public schools. Several hold joint appointments in the College of Liberal Arts and Sciences.

Programs

Undergraduate Programs of Study

Bachelor of Arts

The College of Education awards a Bachelor of Arts (BA) degree with eight majors related to the Teacher Education Program (TEP) and two non-licensure majors. Requirements for earning a Bachelor of Arts degree from the College of Education include all of the following.

- Complete a minimum of 120 semester hours of credit toward graduation, as defined under College of Education credit hour policies.
- Meet the University of Iowa residence requirement. The University of Iowa residence requirement is the minimum number of semester hours that must be earned at the University of Iowa in order to be eligible for an

undergraduate degree. See the section titled "University of Iowa Residence Requirement."
- Meet the general education requirements to earn a Bachelor of Arts degree from the College of Education: the GE CLAS Core [p. 22] of the College of Liberal Arts and Sciences (CLAS).
- Complete one of the Bachelor of Arts (BA) majors that is awarded by the College of Education.
- Achieve a minimum major, overall cumulative, and UI cumulative grade-point average (GPA) of 2.00 as defined in the College of Education Academic Standards.
- Resolve any grades of "I" (Incomplete) and "O" (Unreported).

Students in majors related to the TEP must also maintain TEP academic and professional standards.

University of Iowa Residence Requirement

The University of Iowa residence requirement is the minimum number of semester hours that must be earned at the University of Iowa in order to be eligible for an undergraduate degree. Credit hours earned in all courses offered by the University of Iowa are considered UI residence hours. Credit hours earned from colleges and universities other than the University of Iowa are considered non-resident credit.

To earn an undergraduate degree from the College of Education, students must satisfy the University of Iowa residence requirement by satisfying one of the following:

- earn the final 30 semester hours after admission to the University of Iowa;
- earn 45 of the final 60 semester hours after admission to the University of Iowa; or
- earn an overall total of 90 semester hours after admission to the University of Iowa.

Credit by examination may be resident or non-resident credit. Credit by examination earned while a student is enrolled in a college of the University of Iowa is considered UI residence credit. Credit by examination earned while a student is enrolled in a college or university other than the University of Iowa and brought to Iowa as part of a transfer transcript is considered non-resident credit.

This requirement is unrelated to Classification of Residents and Nonresidents for Admission and Tuition Purposes.

Undergraduate Degree Programs Offered

The College of Education offers a BA in education studies and human relations [p. 1345].

The BA in education studies and human relations is available without a subprogram with a subprogram in education studies or human relations.

Department of Psychological and Quantitative Foundations

The Department of Psychological and Quantitative Foundations offers a BA in counseling and behavioral health services [p. 1408].

Department of Teaching and Learning

The College of Education offers eight undergraduate majors in teacher education licensure areas. Students pursuing any of the undergraduate majors complete a Teacher Education Program (TEP) approved by the State of Iowa through the College of Education. See TEP Licensure [p. 1339] in this section of the catalog. See the Department of Teaching and Learning [p. 1431] in the catalog for details about the majors.

Undergraduate degrees include the BA in art education, elementary education, English education, mathematics education, music education, science education, social studies education, or world language education.

Undergraduate Combined Degrees

College of Education BA/College of Liberal Arts and Sciences Degree

The College of Education and the College of Liberal Arts and Sciences offer a combined degree program in which students earn two University of Iowa bachelor's degrees: a Bachelor of Arts (BA) from the College of Education and a Bachelor of Arts (BA), Bachelor of Science (BS), Bachelor of Fine Arts (BFA), or Bachelor of Music (BM) from the College of Liberal Arts and Sciences.

This combined degree program is available with any of the Bachelor of Arts majors in the College of Education. The combined degree program is required for the seven secondary teaching majors; the seven secondary teaching majors require a corequisite College of Liberal Arts and Sciences major, generally in the main subject the student is preparing to teach.

To learn about liberal arts and sciences majors, see the College of Liberal Arts and Sciences [p. 20] in the catalog.

College of Education BA/Tippie College of Business Bachelor of Business Administration

The College of Education and the Tippie College of Business offer a combined degree program in which students earn two University of Iowa bachelor's degrees: a Bachelor of Arts (BA) from the College of Education and a Bachelor of Business Administration (BBA) from the Tippie College of Business. This combined degree program is available with the College of Education's Bachelor of Arts major in education studies and human relations and the Bachelor of Arts major in elementary education. The program is not available with the seven secondary teaching majors.

The Bachelor of Business Administration requires admission to the Tippie College of Business [p. 1132]. Students in the combined education/business degree program must declare the Tippie College of Business program of study as their primary (first) major.

To learn about the Bachelor of Business Administration majors, see Tippie College of Business in the catalog.

Combined Elementary Education BA (Special Education Subprogram)/MA in Teaching and Learning (Special Education Subprogram)

Bachelor of Arts students interested in pursuing a graduate degree in special education may apply to the combined Bachelor of Arts with a special education subprogram/Master of Arts with a special education subprogram (K–8 instructional strategist I: mild/moderate; nonthesis) offered by the College of Education. Designed for undergraduate students majoring in elementary education who are currently enrolled in the TEP program, the combined program enables students to earn a BA and MA in five years by beginning to earn graduate credit during their last year of undergraduate study and counting up to 12 s.h. of qualifying credit toward both degrees. For more information, see Combined Programs [p. 1451] in the

BA in elementary education section of the catalog. Interested students should consult an advisor.

Minors

The College of Education offers two undergraduate minors for students who wish to be better informed about education and related fields: one in educational psychology and one in human relations, offering students an overview of various educational areas beyond, but supportive of, traditional education programs. The minors may help support students' future career objectives and benefit students in their roles as parents, taxpayers, or future members of local boards of education. View the minor in educational psychology [p. 1411] (Department of Psychological and Quantitative Foundations) and the minor in human relations [p. 1362] (Department of Counselor Education) in the catalog to learn more.

Graduate Programs of Study

Graduate study in the College of Education is guided by the policies of the Graduate College, with additional requirements set by the College of Education's faculty. Graduate students in education enroll in the Graduate College and receive their degrees from that college. See the Manual of Rules and Regulations on the Graduate College website.

Majors

The College of Education offers the following graduate degrees and programs.

Graduate Degree Programs Offered

Department of Counselor Education

MA and PhD in counselor education; the following programs are available.

- Clinical mental health counseling (offered in the MA)
- Counselor education and supervision (offered in the PhD)
- Rehabilitation counseling program (offered in the MA)
- School counseling (offered in the MA)

Department of Educational Policy and Leadership Studies

MA, EdD, EdS, and PhD in educational policy and leadership studies; the following programs are available.

- Educational leadership (offered in the MA, EdS, and PhD)
- Higher education (offered in the EdD)
- Higher education and student affairs (offered in the MA, EdS, and PhD)
- PK–12 administration (offered in the EdD)

Department of Psychological and Quantitative Foundations

MA, EdS, and PhD in psychological and quantitative foundations; the following programs are available.

- Counseling psychology (offered in the PhD)
- Educational measurement and statistics (offered in the MA and PhD)
- Learning sciences and educational psychology (offered in the MA and PhD)
- School psychology (offered in the EdS and PhD)

Department of Teaching and Learning

MA, MAT, MS, and PhD in teaching and learning; the following programs are available.

- Art education (offered in the MA and MAT)
- English education (offered in the MA and MAT)
- Language, literacy, and social studies education (offered in the PhD)
- Mathematics education (offered in the MA, MAT, and PhD)
- Multilingual education (offered in the MA)
- Science education (offered in the MS, MAT, and PhD)
- Social studies education (offered in the MA and MAT)
- Special education (offered in the MA and PhD)
- Teaching, leadership, and cultural competency (offered in the MA)
- World language education (offered in the MAT)

Master of Arts

The College of Education offers a Master of Arts. Some of the college's MA programs are offered with a thesis as well as without a thesis. Nonthesis programs usually provide more specialized coursework than thesis programs. Although a nonthesis program is not necessarily terminal, students who expect to continue their studies in a doctoral program are urged to select a thesis program in order to gain more experience in research procedures. Students who complete a nonthesis MA and are admitted to a PhD program may be asked to submit evidence of writing and research skills to their advisor or department during the early part of their doctoral program. For information about programs that offer a thesis option, see the program descriptions under "Graduate Programs of Study" in College of Education department sections of the catalog.

Coursework completed more than 10 years before the session in which the degree is to be conferred must be evaluated to determine how much credit may be accepted toward the degree requirements. Students must earn at least 24 s.h. in University of Iowa courses after formal admission to a master's degree.

Master of Arts in Teaching

The MAT programs are designed for academically superior liberal arts and sciences graduates who completed few or no professional education courses in their undergraduate programs. It is a nonthesis program with requirements that range from 45 s.h. to 67 s.h. of credit. See the MAT in teaching and learning [p. 1493] in the catalog.

The programs lead to a master's degree and include preparation for licensure as a secondary school teacher in the fields of art, English, mathematics, science, and social studies education, or world languages. Admission to the program requires a grade-point average (GPA) of at least 3.00 in undergraduate coursework.

Combined BA/MAT (Science Education Subprogram)

Bachelor of Arts students interested in pursuing a graduate degree in teaching may apply to the combined Bachelor of Arts/Master of Arts in Teaching with a science education subprogram offered by the College of Liberal Arts and Sciences and the College of Education. The MAT with a science education subprogram is open to any undergraduate student majoring in the sciences, but draws most typically from students in the following majors: biology, chemistry,

earth and environmental sciences, geographical and sustainability sciences, mathematics, or physics. The combined program enables students to earn a BA and MAT in five years by beginning to earn graduate credit during their fourth year of undergraduate study and by counting up to 19 s.h. of qualifying credit toward both degrees. For more information, see "Combined BA/MAT" under Science Education [p. 1497] in the Master of Arts in Teaching, MAT section of the catalog. Interested students should consult an advisor.

Combined BA/MAT (Mathematics Education Subprogram)

The College of Liberal Arts and Sciences and the College of Education offer students the opportunity to earn their Bachelor of Arts in Mathematics/Master of Arts in Teaching degree in education with a mathematics education subprogram in as little as five years. The combined BA/MAT Undergraduate to Graduate (U2G) program is a seamless process whereby students can progress from undergraduate to graduate status. The usual period of study for both the Bachelor of Arts and the Master of Arts in Teaching degree is six years. Through careful planning, many of the courses required for the MAT program can be taken during the undergraduate years, creating an opportunity to focus the fifth year of study on the comprehensive and student teaching requirements. For more information, see "BA in Mathematics/MAT" under Mathematics Education [p. 1495] in the Master of Arts in Teaching, MAT section of the catalog.

Master of Science

The College of Education offers a Master of Science in teaching and learning with a science education subprogram. The degree requirements are similar to those for a Master of Arts.

Specialist in Education

The EdS is granted upon completion of a prescribed two-year postbaccalaureate program designed for students preparing for professional work in fields such as administration and supervision, and special services. Of the minimum 60 s.h. required for the degree, 28 s.h. must be in the specialization area; the rest may be earned in cognate fields, supervised experience, research, and elective courses. The research must culminate in a written report.

Other requirements for the EdS are the same as for the master's degree, except that an EdS requires students to complete 30 s.h. of resident work on campus after admission to the program. Coursework completed 10 years before the final examination must be evaluated to determine the amount of credit that may be accepted toward program requirements.

Not all programs offer an EdS degree. For a list of programs and degrees offered, see "Graduate Programs of Study."

Doctor of Education

The EdD is designed for educators seeking a terminal doctoral degree to practice upper-level leadership in PK–20 educational settings. Based on the scholar-practitioner model, the EdD differs from the PhD in that it allows for a more practical-based approach, grounded in problem-based learning pedagogy, to use and perform applied research in educational settings. EdD students must complete 75 s.h. post-baccalaureate, with at least 27 s.h. completed at the University of Iowa after formal program admission. Students are expected to already have a related master's degree when admitted to the program and to have been practicing in education for a minimum of three years. Up to 36 s.h. may be transferred from the previous graduate degree for elective credit toward the 75 s.h. to earn the EdD degree.

Doctor of Philosophy

The PhD is the most advanced academic degree. It is conferred upon students who have demonstrated superior scholarship and mastery of research skills in coursework as well as in the preparation and defense of a dissertation. PhD students must complete at least 39 s.h. while registered in the University of Iowa Graduate College and after formal program admission.

Certificates

The Certificate in Applied Behavior Analysis requires 21 s.h. of graduate credit. The certificate program is open to students enrolled in University of Iowa graduate degree programs and to individuals who are enrolled in the Graduate College as nondegree students. The purpose of the certificate is to provide professionals who have a background in education, psychology, and related services with expertise in behavior intervention and intensive educational interventions. Students who complete the program are eligible for national certification as board-certified behavior analysts. To learn more or apply, see the Certificate in Applied Behavior Analysis [p. 1352] in the catalog.

The Certificate in College Teaching requires 12 s.h. of graduate credit. The certificate program is open to all University of Iowa students working toward a PhD or other terminal graduate degree. The certificate program complements discipline-oriented graduate programs and prepares students for careers in postsecondary education. It requires coursework, supervised teaching experience, and preparation of a teaching portfolio. To learn more or to apply, see the Certificate in College Teaching [p. 1732] (Graduate College) in the catalog.

The Certificate in Institutional Research and Effectiveness (IRE) requires 15 s.h. of graduate credit and is offered with hybrid and conventional courses. The certificate program prepares professionals to use data for institutional decision-making, reporting, and accountability in higher education and K–12 contexts. This certificate amends and complements students' competence in other areas (business affairs, information technology, student affairs, and development, among other areas) to prepare them with the skills and capabilities to use data for educational improvement, accountability, quality, and equity. To learn more or apply, see the Certificate in Institutional Research and Effectiveness [p. 1393] in the catalog.

The Certificate in K–12 Equity and Inclusion requires 12 s.h. of graduate credit and is offered with hybrid and conventional courses. The certificate program offers educational professionals or nondegree-seeking students currently working in K–12 schools, districts, and area education agencies expertise in equity and inclusion to better support the needs and interests of a diversifying K–12 student population. To learn more or apply, see the Certificate in K–12 Equity and Inclusion [p. 1395] in the catalog.

The Certificate in Online Teaching requires 12 s.h. of graduate credit and is offered completely online. The certificate program is open to students enrolled in University of Iowa graduate degree programs and to individuals who are enrolled in the Graduate College as nondegree students. The certificate program develops students' skills in using technology to solve instructional problems associated with distance and time. The certificate's online format uses the

techniques and approaches that the program teaches. To learn more or apply, see the Certificate in Online Teaching [p. 1397] in the catalog.

The Certificate in Talent Development requires 14 s.h. of graduate credit. The certificate is open to students enrolled in University of Iowa graduate degree programs and to individuals who are enrolled in the Graduate College as nondegree students. The purpose of the certificate is to increase the understanding of talented individuals, the process of talent development and the creative process, and to prepare advocates for talented individuals. In addition to coursework, students design a culminating original project aligned with a career objective or personal interest. Students may use the coursework embedded in the certificate to apply to the State of Iowa Gifted and Talented teaching endorsement. To learn more or apply, see the Certificate in Talent Development [p. 1429] in the catalog.

Professional Improvement

Students who are interested in taking courses as nondegree students should apply for nondegree status to the Graduate College. They can then be admitted by a department on a nondegree basis by contacting the department. Students must be admitted to a department in order to complete a program objective such as teacher licensure.

TEP/Licensure

Teacher Education Programs (TEP) and Student Teaching

The College of Education offers a Teacher Education Program (TEP) that includes preparation for teaching in elementary education (teaching kindergarten through grade 6 or grade 8); and secondary education (teaching one or more subjects in grades 5 through 12). Secondary teacher education is offered in art education, English education, mathematics education, music education, science education, social studies education, and world language education. Two secondary education programs, art education and music education, prepare students to teach kindergarten through grade 12. Preparation for special education teaching is offered primarily as a master's degree program, but undergraduate students in the elementary education major may complete a special education endorsement for teaching elementary school students with mild or moderate disabilities. In cooperation with the School of Library and Information Science [p. 1768], the college offers graduate-level preparation for school teacher librarians.

Preparation is available for teaching additional subjects; see the section titled "Added Endorsements."

With the Teacher Education Program, the College of Education awards the Bachelor of Arts degree with majors in elementary education and seven other majors. Majors in art education, English education, mathematics education, music education, science education, social studies education, and world language education require a corequisite content major from the College of Liberal Arts and Sciences. See the Department of Teaching and Learning section of the catalog for details about these majors. The majors require admission to the TEP.

Individuals with a previous bachelor's degree or a more advanced degree also may complete a TEP major. See the section titled "Graduate and Nondegree Admission to the TEP" and the Department of Teaching and Learning section of the catalog.

The Office of Student Services provides information on TEP; offers assistance with admission, student field experiences, and teacher licensure/certification; and serves as a liaison with other university units and external agencies. For more information, visit the Office of Student Services website.

Admission to the Teacher Education Program

Admission to a TEP major is required in order to register for most TEP courses, to participate in field experiences/practicums, and to student teach.

Elementary Education

First-year undergraduate applicants to the bachelor of arts major in elementary education are admitted to the major and the College of Education upon acceptance to the University of Iowa; these students are guided through TEP application requirements as a part of their first two semesters of coursework. Transfer applicants and current University of Iowa students in other colleges may be admitted to the major; these students complete TEP application requirements independently.

Secondary and K–12 Teacher Education Programs

Undergraduate applicants to the University of Iowa who wish to become teachers in secondary education apply for a College of Liberal Arts and Sciences major in the subject they would like to teach. They may also indicate secondary education interest on their application.

Requirements for admission to the TEP include admission to the University of Iowa, a minimum of 30 s.h. of college credit, and a preadmission school field experience. Some programs have additional requirements. Complete application requirements and procedures can be found on the Office of Student Services website. TEP applications are submitted through a web application, Tk20 (Watermark).

For secondary and K–12 programs, admission to the TEP is selective and is based on a faculty review of academic achievement as reflected in grade-point average (GPA), aptitude as reflected by recommendations and personal statements, and the ability of the given program area to provide quality instruction and clinical and field experiences. Meeting the minimum criteria does not ensure program admission.

Application Deadlines

For spring semester admission, applications are open from Sept. 1 to Dec. 1. For summer session or fall semester admission, applications are open from Feb. 1 to May 1. For timely advising and registration, applicants are encouraged to submit the application by Oct. 1 or March 1. See the College of Education website for additional information on TEP application requirements and procedures.

Direct Admission to Music Education

The College of Education offers early admission into the K–12 music education TEP. First-year students who upon graduation from high school have a high school GPA of 3.00 or higher and have been accepted into a music studio are directly admitted into the K–12 music education TEP. This admission is conditional until the minimum admission requirements are complete. The requirements include admission to the School

of Music, completion of an essay of 500 words or less on why the applicant wishes to be a music teacher, and completion of a 10-hour preadmission school field experience.

Graduate and Nondegree Admission to the TEP

Students with a previous bachelor's degree may be admitted to a TEP major as graduate or undergraduate students and may have the option to pursue an additional undergraduate or graduate degree or to pursue a TEP major as a nondegree student. See the Department of Teaching and Learning [p. 1431] for degree program options. Students must apply to the TEP through the web application, Tk20 (Watermark), and University of Iowa Admissions. Application information is available from the Office of Student Services. Graduate applicants must be eligible for admission to the Graduate College, which requires a GPA of at least 3.00 in all previous college coursework. See the Graduate Admissions website. Undergraduate applicants must meet the general requirements for undergraduate admission to the University of Iowa; see the Undergraduate Admissions website.

TEP Academic and Professional Standards

Teacher candidates in the TEP, including students in TEP Majors who have not yet progressed to full admission to the TEP, must meet grade and GPA requirements and maintain appropriate professional dispositions each semester.

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Because of this, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. The specific criteria that apply to a student depend on the degree program(s) in which the student is enrolled (or if they are a nondegree student), and whether the student is an undergraduate-level or graduate-level, but may include the following.

- University of Iowa cumulative GPA and overall cumulative GPA, based on total hours earned
  - 0–29 overall earned semester hours: minimum of 1.85 (2.70 for good standing)
  - 30 or more overall earned semester hours: minimum of 2.00 (2.70 for good standing)
  - Non-degree students: minimum of 2.00 (2.70 for good standing)
- UI cumulative GPA on graded graduate courses: minimum of 2.75 (consistent with the academic standing policy of the Graduate College)
- University of Iowa term GPA: minimum of 1.50 during fall or spring enrollment
- TEP major GPA (overall cumulative): minimum of 2.00 (2.70 for good standing)
- A grade of C-minus or higher in TEP major courses
- No notices of concern in professional dispositional qualities
- Academic good standing in the College of Liberal Arts and Sciences
- Major GPA in the TEP CLAS content major: minimum of 2.00
- UI major GPA in the TEP CLAS content major: minimum of 2.00

For additional information about these standards, contact the Office of Student Services.

InTASC Standards-Based Assessments

Once admitted to the TEP, progress toward meeting professional standards is documented in Tk20 (Watermark), a web-based assessment system. Throughout the program, students submit assignments designated by their respective program area for standards-based scoring on rubrics in common across all program areas.

Teacher Leader Certificate Professional Development Program

Teachers from the University of Iowa are distinguished by their preparation with world-class faculty researchers and clinical practitioners and a one-of-a-kind professional development program that highlights contemporary issues in 21st-century education, the Teacher Leader Certificate. The Teacher Leader Certificate is not a teaching license or a university recognition but it supplements the TEP courses, practicums, and student teaching requirements with a series of competencies and experiences offered through intensive and innovative workshops and 10 hours of volunteer work in an education setting. All TEP students are required to complete the requirements of the certificate prior to their student teaching semester.

The Teacher Leader Certificate is supported by the Baker Teacher Leader Center (Baker TLC) and provides professional development programs for in-service teachers and other school professionals.

Student Teaching

The final phase of the TEP is the professional semester, devoted to supervised student teaching and directed observation in a variety of situations. All coursework in education, for the major, and for the degree must be completed before the student teaching semester. The student teaching semester is a full-time, all-day experience with a full registration, typically a 15 s.h. enrollment. Student teachers are expected to follow the calendar of the district in which they are placed; breaks may not align with the University of Iowa semester calendar. Transfer credit may not be used to satisfy the student teaching requirement.

Faculty members, professional staff, and advanced graduate students who are experienced teachers serve as supervisors. Periodic seminars provide for discussion and evaluation of student-teacher experiences.

To be admitted to the student teaching semester, students submit their application to the Office of Student Services. Student teaching applications are due the calendar year before the student teaching semester: by Nov. 15 for student teaching the following fall semester and by April 15 for student teaching the following spring semester.

Admission to student teaching requires faculty approval based on grade-point average requirements and appropriate professional dispositions. Students on TEP Probation are not permitted to student teach. For more information, contact the Office of Student Services.

Placement Options

Student teaching placements typically are in schools within a 60–70 mile radius of Iowa City, referred to as local placements. Placements also may be available in some school districts in other parts of Iowa, the Midwest region, urban districts in other parts of the United States, and international

settings. These placements are referred to as special sites. Special site placements have higher grade-point average requirements and expectations for appropriate professional dispositions.

International student teaching experiences are available primarily through Global Gateway for Teachers, an Indiana University Program working in collaboration with the University of Iowa. International sites vary, depending on available placements and international conditions, but have included Australia, Costa Rica, Ecuador, England and Wales, Greece, India, Ireland, Italy, Japan, New Zealand, Scotland, and Spain. In most locations, students are assisted with housing by an on-site coordinator.

International assignments are for eight weeks. Students complete an eight-week assignment in a local placement or another special site placement followed by an eight-week assignment in an international placement. Secondary education students in some program areas (for instance, English education) are required to complete a full semester of student teaching in the United States before student teaching at an international site.

For more information about international student teaching options, see Student Teaching and Classroom Experience on the College of Education website.

Course Substitutions

Students who have completed courses that they wish to substitute for program requirements should consult with their advisors.

Community college human relations courses are not accepted as substitutes for EPLS:4180 Human Relations for the Classroom Teacher.

Teacher Licensure/Certification

The Iowa Board of Educational Examiners issues teacher, support service, and administrator licenses on the recommendation of Iowa colleges and universities whose programs have been approved by the Iowa State Board of Education.

All University of Iowa educator preparation programs have approval from the Iowa State Board of Education (and Iowa Department of Education) as preparation for a teacher, support service, or administrator license and/or one or more endorsements. For students who declare their intention to seek educator licensure or certification in another state, the College of Education attempts to advise those students of the applicability of the University of Iowa's curriculum to the requirements for licensure in the other state. Students whose primary program of study is an on-campus program are assumed to be located in Iowa.

In general, an educator license in one state is a good basis for licensure in another state and in many cases, states will issue a license to an applicant who is licensed in another state. But, states may require deficiencies to be fulfilled, which could include additional training, courses, tests, or field experiences. Names, terms, and renewal requirements of licenses vary from state to state. Endorsements awarded on another state's license or certificate and the authority provided by those endorsements may be different than those on an Iowa license. For additional information, visitProfessional Licensure Disclosures on the Office of the Provost website.

Licensure/certification requirements across the nation are subject to change. Students who plan to seek employment in a state other than Iowa are encouraged to inform themselves about current requirements in that state. In most cases, students applying for an out-of-state license or certificate should first secure an Iowa license.

To be recommended by the University of Iowa, applicants must complete all requirements of the appropriate approved program. A minimum of 20 s.h. of coursework applied to meet program requirements must be earned at the University of Iowa.

The Iowa Board of Educational Examiners requires a national criminal history background check, an Iowa Division of Criminal Investigation background check, and registries and records check for all new applicants for Iowa licensure. Disqualifying criminal convictions and founded child abuse are set out in Iowa Code 272.2 and Iowa Administrative Code 282-25.

The College of Education Office of Student Services provides instructions on application for licenses, fingerprinting procedures, and licensure/certification assistance to all students completing approved programs offered by the college. It also provides assistance to in-service teachers and other school professionals who are interested in adding endorsements to their Iowa license based on completion of State of Iowa minimum licensure requirements.

Liberal Arts Core

State of Iowa teacher preparation standards require a core of liberal arts knowledge including but not limited to English composition, mathematics, natural sciences, social sciences, and humanities. The general education requirements of the College of Education, GE CLAS Core [p. 22], satisfy this requirement if a course in mathematics, statistics, or computer science is selected for the Quantitative or Formal Reasoning general education requirement. Students who have not completed these requirements with their previous coursework will need additional coursework. For additional information about these standards, contact the Office of Student Services.

Added Endorsements

Current TEP students and in-service teachers may prepare for teaching additional subjects through added endorsement programs and courses.

Most added endorsements for kindergarten through 8th grade (K–8) are intended for TEP students and in-service teachers in elementary education. See the BA in elementary education [p. 1449] for these added endorsements. Other endorsements, including most secondary (grades 5–12) endorsements for which the University of Iowa offers a TEP major, can also be available to elementary, secondary, or K–12 TEP students and teachers as added endorsements.

In addition, preparation is offered for these added endorsements.

- Grades 5–8 middle school (language arts, mathematics, science, and/or social studies)
- Grades 5–12 reading
- K–12 athletic coach
- K–12 dyslexia specialist
- K–12 English as a second language (ESL)
- PK–12 talented and gifted

For additional information contact an academic advisor or licensure staff in the Office of Student Services.

Resources

Linda R. Baker Teacher Leader Center

The Linda R. Baker Teacher Leader Center is a transformative space where educators are empowered to excel throughout their careers. Aligned with their mission to advance comprehensive teacher development and well-being, the center serves as a catalyst for lifelong learning, professional growth, and innovative practices in education. The center fosters creativity, builds a sense of community, and champions excellence, inclusion, and integrity in every program and initiative they offer.

Pre-Service Teacher Leadership Certificate Program

For aspiring educators, the BTLC offers the Teacher Leader Certificate, a dynamic professional development program designed to prepare students for leadership roles in education. This program equips participants with essential skills in collaboration, cultural competency, and evidence-based teaching practices. By completing the certificate, pre-service teachers not only strengthen their resumes but also gain a competitive edge in the education job market. This initiative reflects the center's commitment to fostering the next generation of teacher-leaders who are prepared to meet the challenges of today’s diverse classrooms.

In-Service Professional Development for Educators

For practicing educators, the BTLC delivers customized professional development (PD) opportunities tailored to the unique needs of PK–12 teachers, administrators, and schools. The center's offerings include research-based workshops, coaching, and support programs designed to unlock each educator's full potential. Whether through on-campus events, virtual sessions, or licensure renewal credit opportunities, the PD programs empower educators to innovate, collaborate, and lead in their schools and communities. These initiatives reflect the center's dedication to fostering ongoing professional growth and creating lasting impact within the field of education.

The Belin-Blank Center

Located in the Blank Honors Center, the Belin-Blank Center creates opportunities for equitable talent development through outreach, professional learning, psychological services, research and assessment, and student programs. Professional development opportunities include a graduate certificate in talent development, coursework in gifted education and talent development (including coursework for the state of Iowa talented and gifted endorsement), the Belin-Blank Talent Development Fellowship, and practicum experiences.

Precollege student programs include Scholastic Art and Writing Awards, above-level testing for students in grades 3–9, precollege summer and academic year programs for high-ability students in grades 3–11, and the Iowa Online Advanced Placement Academy.

Other services include the Assessment and Counseling Clinic, which specializes in twice-exceptionality, and the Acceleration Institute, which is dedicated to the study of academic acceleration for talented students. The center also administers the Bucksbaum Early Entrance Academy, a highly selective early-entrance program for accelerated students who are ready to enroll as full-time University of Iowa honors students, and the Academy for Twice-Exceptionality, a support program for talented, neurodiverse UI students, specifically those diagnosed with autism.

For more information, contact the Belin-Blank Center.

Blommers Measurement Resources Library

The Paul Blommers Measurement Resources Library maintains a noncirculating archival collection of books, journals, research reports, and reference materials related to educational and psychological measurement, testing, assessment, and evaluation, as well as an extensive, noncirculating collection of published and unpublished tests. The library supports the teaching and research needs of faculty, staff, and students at the University of Iowa, primarily serving the College of Education through consultation and special access.

Center for Advanced Studies in Measurement and Assessment

The Center for Advanced Studies in Measurement and Assessment (CASMA) pursues interdisciplinary research-based initiatives that lead to advances in the methods and practice of educational measurement and assessment. CASMA performs, promotes, fosters, and disseminates research in measurement and psychometric methodologies that respond to contemporary needs and initiatives in testing.

The center devotes considerable resources to research on equating/scaling/linking, generalizability theory, diagnostic classification models, Bayesian psychometric techniques, computerized adaptive testing, multilevel modeling, research synthesis, meta-analytic methods, and causal inference. It also offers workshops and training sessions on those topics. Extensive free suites of computer programs are available on the CASMA website. The site also features research reports and technical notes on measurement and statistics topics.

Center for Evaluation and Assessment

The Center for Evaluation and Assessment (CEA) provides third-party program evaluation, assessment, and other research services to a broad range of clients working in multiple programmatic areas. The center's mission is to provide high-quality program evaluation and research services to support data-driven decision-making, train graduate students, and advance evaluation theory and practice.

Center for Research on Undergraduate Education

The Center for Research on Undergraduate Education (CRUE) is dedicated to the study of undergraduate education in the United States and beyond. This rigorous research explores various topics, with an emphasis on understanding dynamics and improving equity within college experiences, environments, interventions, and outcomes.

College of Education Writing Resource

The College of Education Writing Resource provides academic writing support for graduate students at the College of Education. Students sign up to work collaboratively with a writing tutor throughout the composing process—from conceptualizing ideas to polishing and publishing/finalizing the paper. The mission is to facilitate each student's individual growth as a writer and to foster a collaborative writing community. Services are free to graduate students in the College of Education.

Cooperating Schools Program

The Cooperating Schools Program (CSP) is a university-wide service that facilitates the placement of research projects and service-learning projects conducted by faculty, staff, and students in public schools throughout Iowa. The program provides information to help researchers obtain permission to conduct research in Iowa schools. The Cooperating Schools Program was instituted at the request of school administrators charged with the responsibility of approving research projects in their schools.

Education Technology Center

The Education Technology Center (ETC) offers a wide range of services to the College of Education's faculty, staff, and students. Their services include technical support, collegiate file and application servers, standard office tools, and specialized applications for media production. The center also provides secure folders and directories, electronic mailing lists for various groups, and digital signage. Additionally, the ETC supports faculty with instructional technology for courses, including online teaching tools and media production platforms like ICON and UICapture/Panopto.

Throughout the college, SMART Boards and wireless access are readily available in open and private spaces for individual and group work. Every classroom and conference room is equipped with digital presentation systems and videoconferencing capabilities. Faculty, staff, and students can reserve and check out a variety of devices and services from the center, including laptops, web cameras, computer projectors, audio recorders, video cameras, robots, podcasting studio equipment, and more. Overall, the College of Education maintains over 1000 computers, laptops, and mobile devices, along with dozens of digital signs and SMART Boards.

Grants and Research Services Center

The Grants and Research Services Center (GRSC) works with faculty, staff, and students to ensure success across the full life cycle of grant development and management. GRSC staff members offer expertise and services in identifying internal and external sources of funding, budget development, pre- and post-award management, and research design and methods. The college also provides limited funds for faculty research, professional development, and travel.

Iowa Testing Programs

Iowa Testing Programs (ITP) provides assessment expertise to schools in the state of Iowa and consultation with the Iowa Department of Education and area education agencies. Its faculty and staff develop standardized educational tests, such as the widely used Iowa Assessments, for use in elementary and secondary schools worldwide, and the Iowa Statewide Assessment of Student Progress, for use in the state of Iowa for summative assessment. Iowa Testing Programs also conducts research studies in educational measurement, publishes the results of these studies, sponsors lectures and symposia, provides consulting and in-service training to educators and school systems, and provides training experience and financial support for graduate students in educational measurement, statistics, and evaluation.

Libraries

The University of Iowa Libraries is the largest library system in Iowa. Along with six branch libraries, the Main Library houses a wide variety of resources in print and online including books, journals, databases, media materials, and archival collections. An education librarian provides specialized research support to College of Education students, staff, and faculty, and assists faculty and teaching assistants with their instructional needs.

Office of Graduate Teaching Excellence

The Office of Graduate Teaching Excellence (OGTE) is dedicated to excellence in college teaching and the preparation of future faculty. The office facilitates opportunities for research, teaching, and service. Through the Iowa Education Fellows Program (i-fellows), OGTE develops and conducts workshops and seminars that address the developmental needs of College of Education doctoral students, from their first semester on campus through the completion of their degrees. The office also guides students through the process of earning the graduate Certificate in College Teaching (Graduate College).

Office of Student Services

The Office of Student Services assists students, faculty, staff, and the general public in graduate and undergraduate admission, undergraduate advising, recruitment for the Teacher Education Program (TEP) and undergraduate programs, Graduate College examinations, student field experiences, and teacher licensure/certification. It also serves as a liaison with other university units, including the Graduate College, the College of Liberal Arts and Sciences, Admissions, and the Office of the Registrar, and with external agencies, including the Iowa Department of Education, out-of-state teacher licensure/certification departments, and school district personnel in Iowa and outside of the state. A variety of applications and information materials are available at the office and on its website.

Scanlan Center for School Mental Health

The Scanlan Center for School Mental Health (SCSMH) aims to positively impact school mental health and well-being across Iowa and beyond. Through its comprehensive approach of innovative research, professional development, training, clinical services, and actionable resources, SCSMH supports K–12 schools and college campuses in creating nurturing learning environments where both students and staff can thrive.

Wildlife Instruction and Leadership Development

Wildlife Instruction and Leadership Development (UI WILD) includes the Iowa Raptor Project, Iowa Wildlife Camps, and School of the Wild programs. Each program has a unique educational focus, but a shared commitment to awaken awareness, nurture appreciation, and inspire action for all things wild in program participants. The Iowa Raptor Project (founded in 1985) is dedicated to the conservation of birds of prey and their habitats through live raptor education programming and research. The Iowa Wildlife Camps (founded in 1991) provide weeklong conservation education programming for campers from preschool through high school during winter, spring, and summer breaks. The accredited and multidisciplinary School of the Wild (founded in 1998) offers weeklong experiences in the wild for participating schools introducing students from all backgrounds to the woodlands, wetlands, and prairies of Iowa. The UI WILD programs are centered at the university's Macbride Nature Recreation Area but are growing throughout Iowa and beyond, and provide many educational opportunities for College of Education students including volunteer roles, internships, camp instructor positions, practicum experiences, and student teaching opportunities.

Financial Support

College of Education students may be eligible for scholarships, awards, or graduate assistantships. Information about financial support for students is available; visit Scholarships on the college's website. The college posts a list of assistantships on its website; visit Graduate Student Resources on the college's website.

The Graduate Record Exam (GRE) General Test is currently not required for graduate assistantships, teaching assistantships, or research assistantships in the College of Education.

Students interested in employment opportunities in the college's support units and special resources should contact the director of each facility and indicate their interests, their academic and experience records, and their career or degree goals at the University of Iowa.

Graduate Assistantships

Individual academic programs provide opportunities for teaching, research, or service assistantships as well as for fellowships and related employment opportunities. Inquiries should be addressed to the chair of the department or the director of the program in which students believe they can provide service or achieve an outstanding academic record. Assistantship appointments are usually, but not always, made by the program area.

Special Graduate Research Assistantships in Education

Iowa Testing Programs provides funds to support a limited number of special graduate assistantships in education, in which students do research work under the direction of a faculty member of their choice. Students must be enrolled for at least 6 s.h. but not more than 12 s.h. per semester; assistantships are for the academic year and are renewable for a limited number of years. Students admitted to or pursuing any advanced degree program offered by the College of Education are eligible to apply, provided they are committed to a professional career in the United States.

Applicants must submit transcripts of all completed college work (undergraduate and graduate), recommendation forms specific to the assistantship, and scores on the Graduate Record Exam (GRE) General Test. For assistantship application forms, contact the Iowa Testing Programs directors. The application deadline is late February.

Scholarships and Awards

The College of Education presents many scholarships funded by generous donors. Students apply through the College of Education scholarships website.

Courses

- Education Interdepartmental Courses [p. 1344]
- Education Honors Opportunity Program Courses [p. 1344]

Most College of Education courses are offered by the college's departments and programs. They are listed and described in their corresponding General Catalog sections. The college also offers the following interdepartmental courses.

Education Interdepartmental Courses

EALL:4130 Introduction to Grant Writing 3 s.h.
Comprehensive training in grant proposal writing; basics of project development and management; core principles for writing small and large proposals to public and private funding sources; finer points of grant writing to increase competitiveness of future proposals and applications; for students with limited grant writing experience. Same as MUSM:4150.

EALL:4200 Education Studies and Human Relations Academic Internship arr.
Experiential learning opportunity to support career exploration and professional development in education and human relations related careers; students secure and participate in an internship, make connections between their internship experience, academic coursework, and future career goals; assignments support students in their internship role and allow for reflection on their ongoing experience; supplemental material and units aid in professional development.

EALL:7475 ePortfolio in College Teaching 3 s.h.
Framework for connecting authentic evidence of scholarly work and teaching competencies; use of advanced web and multimedia technologies to link artifacts to ePortfolio templates.

Education Honors Opportunity Program Courses

EHOP:4100 Honors Seminar in Education 2 s.h.
Introduction to research in education and related professions in preparation for honors exploratory final product; specific focus on a literature review.

EHOP:4101 Senior Honors Project 1-2 s.h.
Collaboration with a faculty member on research project; written report. Prerequisites: EHOP:4100.

Education Studies and Human Relations, BA

The education studies and human relations major in the College of Education blends the principles of education with the dynamics of human interactions. This multidisciplinary program enhances broad liberal arts and sciences education for students who want to make a difference in professions related to helping, learning, and instruction while building strong, positive relations, effective communication, and leadership skills.

This major focuses on foundational knowledge from both education studies and human relations. Students explore the foundations of how people learn beyond the traditional classroom and how to support them in that process, how to work effectively with a variety of people, and how systems of education affect how people are supported. Elective coursework allows students to gain an additional understanding of how people learn and grow by engaging in coursework that focuses on the study of instructional design, human development, communication, diverse perspectives, and learning how to manage and improve interpersonal relationships.

Students who plan to earn the major pursue their academic interests with a variety of courses from across the College of Education's four academic departments to further career goals or prepare for future graduate study. They may choose to select among all the course offerings for the education studies and human relations major or select one of two subprograms.

The education studies subprogram is for students interested in pursuing careers in higher education, nonprofit organizations, companies that develop training, learning technology companies, health care settings, community organizations, school district support roles, and informal learning spaces such as nature environments, maker spaces, museums, and athletic teams, as well as competitive preparation for future graduate study in learning sciences, educational measurement, education policy, educational psychology, higher education, and student affairs.

The human relations subprogram is for students who are interested in careers in helping fields that rely on interpersonal communication and personal problem solving (e.g., addiction, case management), as well as competitive preparation for future graduate study in professional counseling, health service psychology, couple and family therapy, community leadership, and related fields.

Learning Outcomes

- Understand learning and instruction, broadly construed, as it may be realized in a number of different contexts, situations, and learners.
- Understand how to support learners via teaching, counseling, advocacy, and other intervention relationships.
- Think critically, conceptually, and psychologically about issues and problems in and the social purposes of education in a variety of contexts.
- Develop interpersonal skills that enhance helping relationships and foster collaboration in a variety of contexts.
- Develop increased sensitivity to and understanding of values, beliefs, lifestyles, and attitudes of individuals and diverse groups found in a pluralistic society by exploring diversity, diversity consciousness, and the causes, implications, and resolutions of systemic inequities.
- Draw on research to understand and implement instructional and intervention practices, assessment processes, and leadership and advocacy skills to foster positive outcomes in education and related organizations.
- Understand ethical and professional issues that may arise in education-related contexts.

Requirements

The Bachelor of Arts with a major in education studies and human relations (ESHR) requires a minimum of 120 s.h., including the general education requirements for the degree and at least 30 s.h. of courses for the major. General education requirements to earn a bachelor of arts degree from the College of Education (EDUC) are the GE CLAS Core [p. 22] of the College of Liberal Arts and Sciences (CLAS). Students must achieve a cumulative grade-point average of at least 2.00 in all college coursework, in all UI coursework, and in the major in order to earn this degree.

The major can be paired with other majors, minors, and certificates. At most, only 3 s.h. of education studies and human relations courses may be counted toward another major, minor, or certificate.

The major consists of a 15 s.h. core curriculum plus an additional 15 s.h. chosen from the list of approved elective courses in a student's declared program of study. Students may choose education studies and human relations as their major; or one of the two subprograms within the major, either education studies or human relations. Students are required to earn a minimum of 18 s.h. in education studies and human relations coursework at the University of Iowa.

The BA with a major in education studies and human relations requires the following coursework.

Core Courses

Course #	Title	Hours
All of these:		
CSED:4199	Counseling for Related Professions	3
or CSED:4195	Ethics in Human Relations and Counseling	
EDTL:2015	Teaching as a Human Endeavor	3
EPLS:3000	Foundations of Education	3
PSQF:1075	Educational Psychology and Measurement	3

Diverse Perspectives Course

Course #	Title	Hours
One of these:		
CSED:4197	Citizenship in a Multicultural Society	3
EPLS:1240	Student Success in College	3
EPLS:4180	Human Relations for the Classroom Teacher	3
PSQF:3104	Multicultural Issues in Counseling and Psychology	3

Electives

For the remaining 15 s.h. required for the major, students choose from the following list of courses, depending on their choice of subprogram or the major without a subprogram, to build a multidisciplinary slate of skills that enhances their future careers or graduate work. While students may choose any of these courses to earn the major without a subprogram, those who pursue the education studies subprogram or the human relations subprogram select courses relevant to their area.

ESHR Academic Internship

ESHR students are encouraged to explore career opportunities in education beyond traditional classroom teaching through internship and practicum experiences. Students may register for EALL:4200 Education Studies and Human Relations Academic Internship or find an opportunity through the Pomerantz Career Center. Please note that the course credits from internships do not count towards the 30 s.h. needed for the BA.

Concentration Areas

Whether students pursue education studies and human relations or one of its subprograms, guidelines for informal concentration areas may provide a useful resource in choosing electives that are meaningful, useful, and a cohesive program of study. Guidelines for informal concentration areas are offered as a course selection aid to be used in consultation with an academic advisor and are not listed on a student's transcript or diploma. These informal concentration areas are meant to be fluid over time to best reflect trends and issues in the field of education and helping professions. Further, students may create their own concentration focus that will meet their own career trajectory. The guidelines for informal concentration areas are located on the College of Education website.

- Education Studies and Human Relations Electives [p. 1346]
- Education Studies Subprogram Electives [p. 1347]
- Human Relations Subprogram Electives [p. 1347]

Education Studies and Human Relations Electives

Students in the education studies and human relations program must select 15 s.h., including at least two different College of Education areas (CSED, EDTL, EPLS, PSQF), from the following.

Course #	Title	Hours
CSED:1102	Introduction to Helping Skills	3
CSED:2081	Making a Vocational-Educational Choice	2-3
CSED:4111	Building Leadership and Success at Work	3
CSED:4130	Human Sexuality	3
CSED:4131	Loss, Death, and Bereavement	3
CSED:4140	Foundations of Leadership for Community Agencies	3
CSED:4173	Trauma Across the Lifespan	3
CSED:4176	Child Abuse: Assessment, Intervention, and Advocacy	3
CSED:4180	Topical Seminar for Helping Professionals (depending on topic; consult advisor)	3
CSED:4187	Introduction to Assistive Technology	3
CSED:4195	Ethics in Human Relations and Counseling (if not used to meet core class requirement)	3
CSED:4197	Citizenship in a Multicultural Society (if not taken as diverse perspectives course)	3
CSED:4199	Counseling for Related Professions (if not used to meet core class requirement)	3
EDTL:2122	Creativity, Imagination, Play, and Human Development through the Arts	3
EDTL:2630	Introduction to the Psychology of Music	3
EDTL:3002	Teaching and Learning Technologies	2-3
EDTL:3382	Language and Learning	2-3
EDTL:3715	Experiential Teaching and Learning	3
EDTL:4093	Teaching and Learning for a Global Perspective	3
EDTL:4096	Topics in Teaching and Learning (depending on topic; consult advisor)	3
EDTL:4900	Foundations of Special Education	3
EPLS:1240	Student Success in College (if not taken as diverse perspectives course)	3
EPLS:2098	The Student Affairs Profession	3
EPLS:3240	Undergraduate Topics in Education (depending on topic; consult advisor)	3
EPLS:4020	Being in Civic Dialogues	3
EPLS:4180	Human Relations for the Classroom Teacher (if not taken as diverse perspectives course)	3
EPLS:4200	Athletic Administration in Educational Settings	3
EPLS:4250	Education In Black America	3
PSQF:2115	Introduction to Counseling Psychology	3
PSQF:2116	Applied Child and Adolescent Psychology	3
PSQF:2700	Introduction to Understanding Trauma and Resilience	3
PSQF:3104	Multicultural Issues in Counseling and Psychology (if not taken as diverse perspectives course)	3
PSQF:3115	Sport and Performance Psychology	3

PSQF:3333	Special Topics in Psychological and Quantitative Foundations (depending on topic; consult advisor)	3
PSQF:4106	Child Development	3
PSQF:4133	The Adolescent and Young Adult	3
PSQF:4134	Parent-Teacher Communication	1-3
PSQF:4136	Home/School/Community Partnerships	3
PSQF:4143	Introduction to Statistical Methods	3
PSQF:4145	Marriage and Family Interaction	3
PSQF:4162	Introduction to Couple and Family Therapy	3
PSQF:4204	Introduction to the Learning Sciences	3
PSQF:4205	Design Principles for How People Learn	3
PSQF:4281	Cognitive Principles for How People Learn	3
PSQF:4750	Learning Environments: Design, Context, and Activity	3
PSQF:4760	Participatory Learning and Media: Creating, Remixing, Making, and Education	3
SIED:4135	The Nature of Science	3-4

Education Studies Subprogram Electives

Students in the education studies subprogram must select 15 s.h., including at least two different College of Education areas (CSED, EDTL, EPLS, PSQF), from the following.

Course #	Title	Hours
CSED:4111	Building Leadership and Success at Work	3
CSED:4140	Foundations of Leadership for Community Agencies	3
CSED:4187	Introduction to Assistive Technology	3
CSED:4197	Citizenship in a Multicultural Society (if not taken as diverse perspectives course)	3
EDTL:2122	Creativity, Imagination, Play, and Human Development through the Arts	3
EDTL:2630	Introduction to the Psychology of Music	3
EDTL:3002	Teaching and Learning Technologies	2-3
EDTL:3382	Language and Learning	2-3
EDTL:3715	Experiential Teaching and Learning	3
EDTL:4093	Teaching and Learning for a Global Perspective	3
EDTL:4096	Topics in Teaching and Learning (depending on topic; consult advisor)	3
EDTL:4900	Foundations of Special Education	3
EPLS:1240	Student Success in College (if not taken as diverse perspectives course)	3
EPLS:2098	The Student Affairs Profession	3
EPLS:3240	Undergraduate Topics in Education (depending on topic; consult advisor)	3
EPLS:4180	Human Relations for the Classroom Teacher (if not taken as diverse perspectives course)	3
EPLS:4200	Athletic Administration in Educational Settings	3
EPLS:4250	Education In Black America	3
PSQF:2700	Introduction to Understanding Trauma and Resilience	3
PSQF:3104	Multicultural Issues in Counseling and Psychology (if not taken as diverse perspectives course)	3
PSQF:3115	Sport and Performance Psychology	3
PSQF:3333	Special Topics in Psychological and Quantitative Foundations (depending on topic; consult advisor)	3
PSQF:4106	Child Development	3
PSQF:4133	The Adolescent and Young Adult	3
PSQF:4143	Introduction to Statistical Methods	3
PSQF:4204	Introduction to the Learning Sciences	3
PSQF:4205	Design Principles for How People Learn	3
PSQF:4281	Cognitive Principles for How People Learn	3
PSQF:4750	Learning Environments: Design, Context, and Activity	3
PSQF:4760	Participatory Learning and Media: Creating, Remixing, Making, and Education	3
SIED:4135	The Nature of Science	3-4

Human Relations Subprogram Electives

Students in the human relations subprogram must select 15 s.h., including at least two different College of Education areas (CSED, EDTL, EPLS, PSQF), from the following.

Course #	Title	Hours
CSED:1102	Introduction to Helping Skills	3
CSED:2081	Making a Vocational-Educational Choice	2-3
CSED:4111	Building Leadership and Success at Work	3
CSED:4130	Human Sexuality	3

CSED:4131	Loss, Death, and Bereavement	3
CSED:4140	Foundations of Leadership for Community Agencies	3
CSED:4173	Trauma Across the Lifespan	3
CSED:4176	Child Abuse: Assessment, Intervention, and Advocacy	3
CSED:4180	Topical Seminar for Helping Professionals (depending on topic; consult advisor)	3
CSED:4187	Introduction to Assistive Technology	3
CSED:4195	Ethics in Human Relations and Counseling (if not used to meet core class requirement)	3
CSED:4197	Citizenship in a Multicultural Society (if not taken as diverse perspectives course)	3
CSED:4199	Counseling for Related Professions (if not used to meet core class requirement)	3
EDTL:4096	Topics in Teaching and Learning (if not taken as diverse perspectives course)	3
EPLS:3240	Undergraduate Topics in Education (depending on topic; consult advisor)	3
EPLS:4020	Being in Civic Dialogues	3
EPLS:4180	Human Relations for the Classroom Teacher (if not taken as diverse perspectives course)	3
PSQF:2115	Introduction to Counseling Psychology	3
PSQF:2116	Applied Child and Adolescent Psychology	3
PSQF:2700	Introduction to Understanding Trauma and Resilience	3
PSQF:3104	Multicultural Issues in Counseling and Psychology (if not taken as diverse perspectives course)	3
PSQF:3115	Sport and Performance Psychology	3
PSQF:3333	Special Topics in Psychological and Quantitative Foundations (depending on topic; consult advisor)	3
PSQF:4106	Child Development	3
PSQF:4133	The Adolescent and Young Adult	3
PSQF:4134	Parent-Teacher Communication	1-3
PSQF:4136	Home/School/Community Partnerships	3
PSQF:4143	Introduction to Statistical Methods	3
PSQF:4145	Marriage and Family Interaction	3
PSQF:4162	Introduction to Couple and Family Therapy	3

College of Education Academic Standards

The College of Education has established academic standards to ensure students successfully complete their degree program. To be in good academic standing, students in the College of Education must achieve the following minimum grade-point average (GPA) requirements.

- University of Iowa cumulative GPA and overall cumulative GPA, based on total hours earned
  - 0–29 overall earned semester hours: minimum of 1.85
  - 30 or more overall earned semester hours: minimum of 2.00
  - Non-degree students: minimum of 2.00
- Major GPA (overall cumulative): minimum of 2.00
- University of Iowa term GPA: minimum of 1.50 during fall or spring enrollment

For additional information about these standards, contact the Office of Student Services.

Combined Programs

Tippie College of Business/ College of Education

The Tippie College of Business and the College of Education offer a combined degree program in which students earn two bachelor's degrees: a Bachelor of Business Administration (BBA) from the Tippie College of Business and a Bachelor of Arts (BA) from the College of Education. The combined degree program is limited in the College of Education to either the BA in education studies and human relations or the BA in elementary education.

Students in this combined degree program must declare the Tippie College of Business program of study as their primary (first) major.

Education Studies and Human Relations BA/MA in Learning Sciences and Educational Psychology

The undergraduate to graduate (U2G) program in Learning Sciences and Educational Psychology is open to any undergraduate major at the University of Iowa. Students are able to earn their BA and their MA degrees in less time than it would take to complete both degrees separately.

For more information see Undergraduate to Graduate MA Learning Sciences and Educational Psychology on the College of Education website.

BA/JD

The Bachelor of Arts in educational studies and human relations participates in the 3+3 program with the College of Law which allows students the opportunity to apply for admission during their junior year to the College of Law, and if accepted, to begin work on the Juris Doctor during their fourth year of study in the BA degree program.

For more information, see the 3+3 Program for Undergraduates on the College of Law website and the Juris Doctor, JD [p. 1833] (College of Law) in the catalog.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

Before the fifth semester begins: at least three courses in the major.

Before the seventh semester begins: at least three more courses (total of six) in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: at least two more courses (total of eight) in the major.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Education Studies and Human Relations, BA

Course	Title	Hours
Academic Career		
Any Semester		
For specific information regarding requirements in the College of Education, please see the General Catalog.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [b]		3
GE CLAS Core: World Languages First Level Proficiency [c]		4 - 5
CSI:1600	Success at Iowa	1
Elective course [d]		3
	Hours	**14-16**
Spring		
PSQF:1075	Educational Psychology and Measurement	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Natural Sciences without Lab [b]		3
GE CLAS Core: World Languages Second Level Proficiency [c]		4 - 5
Elective course [d]		3
	Hours	**16-18**
Second Year		
Fall		
EPLS:3000	Foundations of Education	3
GE CLAS Core: Historical Perspectives [b]		3
GE CLAS Core: Natural Sciences with Lab [b]		4
GE CLAS Core: World Languages Third Level Proficiency [c]		4 - 5
	Hours	**14-15**
Spring		
EDTL:2015	Teaching as a Human Endeavor	3
GE CLAS Core: International and Global Issues [b]		3
GE CLAS Core: Quantitative or Formal Reasoning [b]		3
GE CLAS Core: World Languages Fourth Level Proficiency [c]		4 - 5
Elective course [d]		3
	Hours	**16-17**
Third Year		
Fall		
Major: Diverse Perspectives Course [e, f]		3
GE CLAS Core: Literary, Visual, and Performing Arts [b]		3
GE CLAS Core: Social Sciences [b]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
CSED:4199	Counseling for Related Professions	3
Major: Elective course [e, g]		3
GE CLAS Core: Values and Society		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Fourth Year		
Fall		
Major: Elective course [e, g]		3
Major: Elective course [e, g]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
Major: Elective course [e, g]		3
Major: Elective course [e, g]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**120-126**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives;

International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e A course used for the GE CLAS Core cannot also be used to count toward major requirements.

f See General Catalog for list of approved courses.

g Students must select major electives to total 15 s.h., including at least two different College of Education areas (CSED, EDTL, EPLS, PSQF). Subprograms or informal concentration areas may guide the selection of major electives. See General Catalog for list of approved courses and more information about subprograms and concentration areas.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Applied Behavior Analysis

Chair, Department of Teaching and Learning

- Lia M. Plakans

Coordinator, Applied Behavior Analysis

- Seth A. King (Teaching and Learning)

Graduate certificate: applied behavior analysis

Faculty: https://education.uiowa.edu/directory

Website: https://education.uiowa.edu/areas-study/continuing-education/certificates-and-endorsements/certificate-applied-behavior

The purpose of the graduate Certificate in Applied Behavior Analysis is to provide professionals who have a background in education, psychology, and related services with expertise in behavior intervention and intensive educational interventions. Students who complete the program are eligible for national certification as board-certified behavior analysts. Applied behavior analysis is a growing service sector with opportunities for employment in schools, universities, and independent clinics.

The certificate program is intended for students who have or are currently pursuing a graduate level degree. Undergraduate students interested in applied behavior analysis should consider the Master of Arts non-licensure degree in special education with a concentration in applied behavior analysis.

The Certificate in Applied Behavior Analysis is administered by the Department of Teaching and Learning [p. 1431] and is granted by the Graduate College.

For more information, visit Certificate in Applied Behavior Analysis on the College of Education website.

Programs

Graduate Program of Study

- Certificate in Applied Behavior Analysis [p. 1352]

Applied Behavior Analysis, Graduate Certificate

Requirements

The graduate Certificate in Applied Behavior Analysis requires 24 s.h. of graduate credit and is offered with hybrid and conventional courses. Students must maintain a grade-point average of at least 2.50 in work for the certificate. They must earn at least a grade of C in each course required for the certificate. Courses must be taken on an A–F graded basis.

The certificate program is open to students enrolled in University of Iowa graduate degree programs and to individuals who are enrolled in the Graduate College as nondegree students.

The certificate program develops skills in behavioral intervention and intensive instruction. The course sequence contributes to eligibility for certification as a board-certified behavior analyst (BCBA). In addition to the course sequence offered through the certification program, obtaining the BCBA requires completion of a supervised practicum experience and successful completion of the behavior certification exam offered through the Behavior Analyst Certification Board. For additional details regarding certification, visit the Behavior Analyst Certification Board website or contact the applied behavior analysis certificate coordinator.

The Certificate in Applied Behavior Analysis requires the following coursework.

Course #	Title	Hours
All of these:		
EDTL:4950	Behavioral and Social Interventions	3
EDTL:4975	Explicit Instruction	3
EDTL:5961	Foundation of Applied Behavior Analysis	3
EDTL:5963	Ethics and Professional Conduct for Behavior Analysts and Psychologists	3
EDTL:5966	Advanced Topics in Applied Behavior Analysis	3
EDTL:5967	Supervision Strategies in Special Education	3
EDTL:5970	Experimental Analysis of Behavior	3
EDTL:7953	Seminar: Single Subject Design Research	3

For more information, visit Certificate in Applied Behavior Analysis on the College of Education website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Applied Behavior Analysis, Graduate Certificate

Course	Title	Hours
Academic Career		
Any Semester		
The graduate certificate in applied behavior analysis requires 24 s.h. of graduate credit and is offered with hybrid and conventional courses.		
	Hours	**0**
First Year		
Fall		
EDTL:4975	Explicit Instruction	3
	Hours	**3**
Spring		
EDTL:4950	Behavioral and Social Interventions	3
	Hours	**3**
Second Year		
Fall		
EDTL:5961	Foundation of Applied Behavior Analysis	3
EDTL:7953	Seminar: Single Subject Design Research	3
	Hours	**6**
Spring		
EDTL:5966	Advanced Topics in Applied Behavior Analysis	3
EDTL:5967	Supervision Strategies in Special Education	3
	Hours	**6**
Third Year		
Fall		
EDTL:5963	Ethics and Professional Conduct for Behavior Analysts and Psychologists	3
	Hours	**3**
Spring		
EDTL:5970	Experimental Analysis of Behavior	3
	Hours	**3**
	Total Hours	**24**

Belin-Blank Center for Gifted Education

Director

- Megan Foley Nicpon

Website: https://belinblank.education.uiowa.edu

The Connie Belin and Jacqueline N. Blank International Center for Gifted Education and Talent Development is dedicated to serving the needs of the gifted community at local, national, and international levels. It offers programs for preservice and inservice educators, including the State of Iowa Talented and Gifted Endorsement. Its online and on-campus courses about the nature and needs of gifted learners, as well as about ways to facilitate talent development, support the professional development of educators worldwide.

The center is home to the Assessment and Counseling Clinic and the Acceleration Institute.

Precollege Program Offerings

The Belin-Blank Center offers a wide variety of programs for precollege students.

Belin-Blank Exceptional Student Talent Search

The Belin-Blank Exceptional Student Talent Search (BESTS) (grades 4–9) helps determine talented students' academic abilities and needs.

Junior Science and Humanities Symposium

The Junior Science and Humanities Symposium (grades 9–12) engages students in original research and experimentation in the STEM fields (science, technology, engineering, and math). Students present the results of their research to a panel of judges and an audience of their peers at the Iowa Regional Junior Science and Humanities Symposium. The top five finalists are invited to attend the national symposium.

Scholastic Art and Writing Awards

The Belin-Blank Center is proud to serve as the Iowa and Midwest region at-large affiliate for the Scholastic Art and Writing Awards (grades 7–12), which recognizes achievement in the literary and visual arts. The Scholastic Art and Writing Awards program is the nation’s longest-running, largest, and most prestigious recognition program for creative teens. Over the past 90 years, the awards have recognized and encouraged artists and writers such as Sylvia Plath, Andy Warhol, Truman Capote, Robert Redford, Tom Otterness, and Zac Posen, among countless others.

Weekend Enrichment Program

The Weekend Enrichment program (grades 3–8) consists of half-day enrichment opportunities for elementary and junior high students that take place on the University of Iowa campus. Classes in STEM, the arts, and the humanities cultivate students' interest and enliven their curiosity.

Summer Programs

The Belin-Blank Center also offers the following summer programs, many of which are residential programs held on the University of Iowa campus. Students in each program participate in cultural and recreational activities and have access to the university's libraries, computer facilities, and study areas. For residential programs, housing and meals are provided at the university's residence halls. Junior Scholars Academy students do not stay on campus.

Blank Summer Institute

The Blank Summer Institute for the Arts and Sciences (BSI) is a program that provides an intensive, advanced educational experience designed to enhance exceptionally talented students' intellectual and social growth. The BSI plan of study complements the regular school curriculum. Students are nominated for program participation.

To be eligible for BSI, students must be Iowa residents, must be completing grade 7 or 8, and must be nominated by their schools. Students selected for BSI receive a scholarship to cover part of the institute's cost.

Junior Scholars Academy

The Junior Scholars Academy (JSA) is a summer program designed specifically for bright elementary and middle school students who want to thoroughly explore a topic while having fun with other kids who share their enthusiasm for learning. Students choose one class to focus on all day, for a full week.

Summer Writing Online

The Summer Writing Online offers a three-week online program for students completing grade 9, 10, or 11. The program immerses students in the creative environments of the University of Iowa world-class faculty in writing. Out-of-class opportunities include evening tours, lectures, and events that are designed to stretch the developing artist or writer. For more information about the center and its programs, contact the Belin-Blank Center or visit its website.

Twice-Exceptional Summer Academy

The Twice-Exceptional Summer Academy is a two-day semi-residential experience that focuses on a variety of topics to help prepare students for success in college and a separate schedule covering relevant information for parents and guardians. In addition to sessions, the camp includes team building and social activities. A parent or guardian must attend for the entire camp.

University-Based Programs

Academy for Twice-Exceptionality

A college journey at the University of Iowa embraces meaningful academic experiences and the development of important skills, including independence, social-emotional maturity, effective communication, and career readiness. The Academy for Twice-Exceptionality partners with neurodiverse college students to foster and support these experiences and skills and enhance community engagement as an Iowa Hawkeye. The academy strives to ensure that neurodiverse students have a positive and fulfilling college experience, nurturing students' talents while also creating a sense of community and helping students connect with resources from the Belin-Blank Center, the University of Iowa, and the broader community.

Bucksbaum Early Entrance Academy

The Bucksbaum Early Entrance Academy gives high-achieving early high school graduates the opportunity to enroll early at the University of Iowa. The Bucksbaum Academy provides

top students with a high-level curriculum while supporting them through the transition from high school to the University of Iowa. The academy focuses on building a community of advanced learners who are striving to become future leaders. They provide support through weekly seminars, merit scholarships, individual weekly meetings, and a variety of social and emotional supports. The program is open to students worldwide.

Courses

Belin-Blank Center for Gifted Education Courses

BBC:1000 Bucksbaum Academy Second-Year Seminar 1 s.h.
Unites self-efficacy skills attained in first-year seminar experience with exploration of how to foster more fulfilling and productive lives; understanding and development of high potential; for Bucksbaum Academy second-year students and early-entrance program supported by the Belin-Blank Center.

BBC:1001 Summer Art Residency 2 s.h.
Partnership between Belin-Blank Center and the UI School of Art, Art History, and Design; designed for talented high school artists from across the country; taught by faculty, staff, and graduate students from the School of Art, Art History, and Design and special visiting artists.

BBC:1002 Summer Writing Residency 2 s.h.
Partnership between Belin-Blank Center and the UI undergraduate creative writing program; designed for talented high school writers from across the country; taught by faculty, staff, and graduate students from the English department, Iowa Writers' Workshop, and special visiting authors.

BBC:1003 Perry Research Scholars Institute 1 s.h.
Perry Research Scholars Institute is an introductory-level, research-preparatory program that grants behind-the-scenes access to ways and places to discover new knowledge on many different topics—spend days with a backstage pass to cutting-edge facilities and spaces at a major research institution, hear from University of Iowa faculty researchers and their teams on how the research process works, the many different ways that research can look, and even the ways one can pursue a research career. Requirements: acceptance to Perry Research Scholars Institute.

BBC:1004 Secondary Student Training Program 3 s.h.
Experience conducting research under the guidance of a faculty mentor; presentation of research findings at concluding seminar.

BBC:1025 Succeeding in College and Beyond 3 s.h.
Foster belonging, develop connections. Includes campus transition/navigation, key university resources, essential skills for collegiate success, goal setting, self-advocacy, campus opportunities and barriers, community student health and wellbeing, leadership skills. Requirements: admission to Bucksbaum Early Entrance Academy. Same as PSQF:1025.

BBC:1030 Belin-Blank Center Seminar 1 s.h.
Presentations and discussions by university resource experts and Belin-Blank Center for Gifted Education staff. Requirements: Bucksbaum Early Entrance Academy student. Same as CSED:1030.

BBC:4023 Twice-Exceptionality Support Seminar 1 s.h.
Areas and issues that typically impact students diagnosed as twice-exceptional in college (specifically autism spectrum disorder); focus on navigating campus and services, communication skills (social and academic based), stress management, executive functioning skills, career and job seeking skills. Same as EDTL:4023.

BBC:4025 Differentiated Instruction for Advanced Learners 1 s.h.
Introduces the concept of a differentiated classroom for K-8 advanced learners for preservice and practicing educators. Specific content relates to understanding the foundation of differentiation, preparing for facilitating a differentiated classroom, establishing routines and classroom management, and sharing instructional strategies to engage advanced learners. Same as EDTL:4025.

BBC:4026 Language Arts for Advanced Learners 1 s.h.
Explores the purposes and methods of language arts instruction with focus on the developmental, social, and emotional needs of high-ability readers featuring the key components and elements necessary for an advanced language arts program in grades K-8; includes criteria for developmentally appropriate literature and grammar with an overview of the role of writing and composition. Prerequisites: EDTL:3095 or EDTL:3160 and EDTL:3164. Same as EDTL:4026.

BBC:4031 Belin-Blank Talent Development Fellowship 1-2 s.h.
Content is approached as a survey of concepts, ideas, and issues pertinent to the development of talent (and its potential) in K-12 students. Key course content includes acceleration, appropriate curriculum and instruction, assessment and identification, collaborating with staff and families, differentiation, diverse student populations, social and emotional needs, and research. Same as EDTL:4031.

BBC:4033 Talent Development in the Arts and Athletics: Models and Methods 1 s.h.
Examines multiple general and domain-specific talent development models relevant to arts and athletics. Students will consider the roles of nature and nurture, the role of the teacher/coach, and the use of creativity while weighing the impact these have on the development of talent. Students will analyze how these talent development processes have played out in the lives of individuals eminent in the arts and athletics. Same as EDTL:4033.

BBC:4035 Talent Development in the Arts and Athletics: Psychosocial Trials and Benefits 1 s.h.
Students will understand and integrate the multiple psychosocial issues (both trials and benefits) experienced during varying stages of the talent development process, including practice, perfectionism, anxiety, failure, shame, motivation, leadership, asynchrony, competition, multipotentiality, performance, grit, and intensities. Students will analyze how these psychosocial issues impacted the talent development process in the lives of individuals eminent in the arts and athletics. Same as EDTL:4035.

BBC:4066 Curriculum and Programming for Advanced Learners 3 s.h.
Designed to assist preservice educators, inservice educators, and anyone interested in curriculum and program development, design, and delivery of qualitatively differentiated experiences in the context of responding to the needs of advanced learners. Primary focus is on research-based curriculum models and programming for advanced learners from experts in the field. Same as EDTL:4066.

BBC:4067 Conceptions of Talent Development 3 s.h.
Students review conceptions of talent development and explore possibilities for appropriate programming in specific fields across various stages in life; traditional opportunities in gifted education programs; stages of development in early childhood; development of knowledge and skills in addition to and beyond organized educational programs. Same as EDTL:4067.

BBC:4074 Differentiation at the Secondary Level 1 s.h.
Importance of differentiation for gifted learners in middle school and high school; differentiation through advanced placement programs as well as broader perspectives on differentiation; essentials for differentiation understood and applied to a lesson that will be implemented with students. Same as EDTL:4074.

BBC:4085 Current Readings and Research in Gifted Education 1 s.h.
Research in the field of gifted education and talent development; applications of research to ensure best practices in providing services and programs for high-ability learners. Same as EDTL:4085.

BBC:4111 Evaluation of Gifted Programs 1 s.h.
Fundamentals of program evaluation essential for exemplary gifted programs. Same as EPLS:4111.

BBC:4118 Meeting the Emotional Needs of Talented Students 1 s.h.
Unique emotional needs of talented students, including twice exceptionality. Theories of and trends in emotional development; identification of needs and myths about skills/challenges; research-based strategies to best meet needs; emotional impact of acceleration; and counseling. Same as PSQF:4118.

BBC:4119 Meeting the Social Needs of Talented Students 1 s.h.
Unique social needs of talented students, including twice exceptionality. Theories of and general trends in social development; identification of needs and myths about skills/challenges; family and peer relationships; research-based strategies to best meet needs; social impact of acceleration; and counseling. Same as PSQF:4119.

BBC:4120 Psychology of Giftedness 3 s.h.
Theories of learning, child development, motivation; issues unique to gifted education. Same as CSED:4120, PSQF:4120.

BBC:4121 Identification of Students for Advanced Programming 3 s.h.
Best practices in assessing and identifying students for advanced programs, including standardized tests and other measurement instruments used to identify academic talent for grades K-12 and current issues in the use of various instruments and tests (e.g., ability, aptitude, achievement, rating scales). Same as CSED:4121, PSQF:4121.

BBC:4123 Academic Acceleration: Providing Excellence and Equity in Education for High Ability Students arr.
Acceleration as an effective curricular intervention for high-ability students; forms of acceleration, research evidence for acceleration, and process of implementing acceleration; reasons for persistent negative attitudes about acceleration; advocation for acceleration; skills for effective practice and implementation. Requirements: computer with internet access, sound card, Adobe Reader, and Adobe Flash Player. Same as PSQF:4123.

BBC:4137 Introduction to Educating Advanced Learners 3 s.h.
Survey of critical topics and issues related to advanced learners and meeting their needs through a research-based, best practice lens. Topics include key terms and definitions, standards, characteristics of advanced learners, social and emotional needs, assessment, acceleration, enrichment, diversity of learners, and accessible programming. Highlights the expertise of leaders in the field to provide current thinking and evidence-based practices on important topics related to advanced learners and meeting their needs. Same as CSED:4137, EDTL:4137.

BBC:4153 Collaboration Between Advanced Academics and General Education 1 s.h.
Examining the need for differentiated learning experiences throughout the school day for advanced learning and the combined effort among varied staff to accomplish this. Specific content related to how classroom teachers and gifted/talented resource teachers can collaborate to provide appropriate instructional services, collaborative models, the planning process, and recommendations for both direct and indirect services. Requirements: internet access. Same as EDTL:4153.

BBC:4188 Practicum in Teaching and Curriculum for Advanced Academics 1-6 s.h.
Completion of product for TAG endorsement. Same as CSED:4188, EDTL:4188.

BBC:4189 Practicum in Talent Development and Advanced Academics 1 s.h.
Combines readings, discussions, field experiences, and reflections. Finish developing a guided, interest-based culminating product for the TAG Endorsement. Same as EDTL:4189.

BBC:5065 Talent Development Capstone Exploration 2 s.h.
Develop and complete a capstone exploration project relevant to a school or other context that focuses on an important topic or issue in talent development. Requirements: completion of all coursework for the graduate Certificate in Talent Development. Same as EDTL:5065.

BBC:5080 Workshop: Teacher Training for Advanced Placement Courses 1-2 s.h.
Focus on a particular academic content area. Same as EDTL:5080.

BBC:5194 Continuing Education Individual Study arr.
Supervised individual study. Same as PSQF:5194.

BBC:5226 Assessment of Students for Advanced Programming 3 s.h.
Best practices in assessing and identifying students for advanced programs, including interpreting standardized tests and other measurement instruments used to identify academic talent for grades K-12 and current issues in the use of various instruments and tests (e.g., ability, aptitude, achievement, rating scales). Same as CSED:5226, PSQF:5226.

Counselor Education

Chair

- Noel Estrada-Hernandez

Undergraduate minor: human relations

Graduate degrees: MA in counselor education; PhD in counselor education

Faculty: https://education.uiowa.edu/directory

Website: https://education.uiowa.edu/about/administration/department-counselor-education

The Department of Counselor Education prepares students to facilitate human development across the lifespan, to advocate for clients and students, and to serve local, national, and international communities through the delivery and creation of state-of-the-art counseling services. The department achieves these goals by advancing knowledge, skills, and attitudes appropriate for effective and ethical professional counseling practice and by conducting and disseminating related research.

The department prepares practitioners and scholars by offering graduate programs in four major areas within counselor education:

- clinical mental health counseling (offered in the MA);
- counselor education and supervision (offered in the PhD);
- rehabilitation counseling program (offered in the MA); and
- school counseling (offered in the MA).

It also offers basic courses in interviewing and interpersonal skills for students in other professional and graduate programs. In addition, the department offers an undergraduate minor in human relations.

Programs

Undergraduate Program of Study

Minor

- Minor in Human Relations [p. 1362]

Graduate Programs of Study

- Master of Arts in Counselor Education [p. 1363]
- Doctor of Philosophy in Counselor Education [p. 1369]

Facilities

An on-campus counseling suite serves as a laboratory for training. In addition, a wide variety of supervised clinical experiences are available in community agencies, schools, and colleges, as well as throughout the university. Internships may be completed at approved sites nationwide.

Financial Support

Students in the department may apply for a wide variety of graduate assistantships. For example, many of the university's student service units award graduate assistantships. Applicants for assistantships should contact the department or the coordinator of the particular graduate program they plan to enter.

Applicants seeking fellowships or assistantships should complete their applications as early as possible.

Courses

Counselor Education Courses

CSED:1029 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

CSED:1030 Belin-Blank Center Seminar **1 s.h.**
Presentations and discussions by university resource experts and Belin-Blank Center for Gifted Education staff. Requirements: Bucksbaum Early Entrance Academy student. Same as BBC:1030.

CSED:1101 Introduction to the Helping Professions **3 s.h.**
Provides an overview of the helping professions and career opportunities in the human services field. Students explore fields of practice such as aging, corrections, counseling, psychology, alcohol and other drug abuse, child welfare, mental health, and disabilities. Intended to help students create awareness and actively research career paths, academic preparation, and service delivery within the helping professions. Same as PSQF:1101.

CSED:1102 Introduction to Helping Skills **3 s.h.**
Problem solving, interviewing skills, and entry-level techniques of mindfulness, motivational interviewing, active listening, crisis management, and conversation facilitation. Use of positive psychology to understand the nuances of human communication; expore the continuum of human emotionality and the impact of emotion on communication and interaction, particularly within helping relationships. Same as PSQF:1102.

CSED:1103 Introduction to Assessment in Counseling and Behavioral Health **3 s.h.**
Within the helping professions, assessment is used to identify individual traits, needs, measure the effectiveness of interventions, and to determine eligibility for programs and services. This course provides an introduction to assessment methods, procedures, and tools used in the helping professions. Students will learn about basic psychometric concepts related to assessment and proper and ethical assessment procedures. Emphasis will be placed on assessments traditionally used in the helping professions within the domains of vocational or career attainment, education, mental health, healthcare satisfaction among others. Same as PSQF:1103.

CSED:2081 Making a Vocational-Educational Choice **2-3 s.h.**
Vocational decision-making process, self-evaluation, exploration of the world of work; for students who are uncertain about their educational and vocational goals.

CSED:4110 Psychology of Food and Mood **3 s.h.**
Neurobehavioral and psychological determinants of food preference, behavior, and mood management; cultural meanings of food in North America, obesity, dieting, disordered eating; how we use food as a means of managing or damaging our food and health.

CSED:4111 Building Leadership and Success at Work 3 s.h.
Learn and apply leadership skills and behaviors to meet and exceed employer expectations; develop skills to evaluate and match interests with company leadership styles; effectively use leadership behaviors to influence, communicate, motivate, work in teams, and manage conflict; gain an understanding of self-identity and how it is used in order to pull all of these skills and behaviors together to create an individualized leadership plan for use in career and personal life.

CSED:4112 How to Interview to Get That Job! 3 s.h.
Two approaches to job interviews—how to interview to obtain a job and how to interview applicants for a job; students gain knowledge and skills necessary to successfully conduct interviews from applicant and employer perspectives; review of interview processes and legal and ethical boundaries within interviews; examination of interview formats and styles to gain confidence and successfully respond to typical interview questions; development of interview questions as an applicant and as an employer; communication best practices prior, during, and following an interview.

CSED:4113 Sleep, Sleep Deprivation, and Sleep Disorders 3 s.h.
Theories and stages of sleep; aging and normal sleep; impact of sleep and sleep deprivation on mental and physical health; overview of sleep disorders and treatments.

CSED:4114 Psychology of Body Modification and Self-Image 3 s.h.
Exploration of psychology and practices of body modification as related to self-image; dynamic relationship between body and identity; body modification accomplished in many ways and for many reasons (beauty, social status, religious expression, improve function, to rebel); how gender, race, culture, age, and health shape our attitudes about our bodies and our decision to make modifications; risks and benefits (physical, emotional, social) of making a body modification to ones' sense of self as it relates to others and to oneself.

CSED:4119 Family Issues in Giftedness 1 s.h.
Family dynamics and issues that arise when one or more children are identified as gifted; parent/child, sibling, school/family relationships.

CSED:4120 Psychology of Giftedness 3 s.h.
Theories of learning, child development, motivation; issues unique to gifted education. Same as BBC:4120, PSQF:4120.

CSED:4121 Identification of Students for Advanced Programming 3 s.h.
Best practices in assessing and identifying students for advanced programs, including standardized tests and other measurement instruments used to identify academic talent for grades K-12 and current issues in the use of various instruments and tests (e.g., ability, aptitude, achievement, rating scales). Same as BBC:4121, PSQF:4121.

CSED:4123 Gender Issues and Giftedness 1 s.h.
Effect of gender on development of giftedness; differential needs of girls, boys; strategies for effective teaching, gender equity.

CSED:4125 Counseling and Psychological Needs of the Gifted 1 s.h.
Psychological aspects of giftedness, counseling techniques appropriate for gifted children, adolescents; socio-emotional concerns, career development, underachievement. Same as PSQF:4125.

CSED:4126 Cognitive and Affective Needs of Underachieving Gifted 1 s.h.
Diagnostic strategy for identifying types of underachievement, teaching and counseling interventions appropriate for each. Same as PSQF:4126.

CSED:4129 Creativity: Issues and Applications in Gifted Education 1 s.h.
Theories that underpin contemporary definitions of creativity; instruments developed to measure creativity; activities in the school environment that enhance or inhibit student creativity. Same as PSQF:4129.

CSED:4130 Human Sexuality 3 s.h.
Introduction to human sexuality from a sociocultural perspective; readings and discussions of sensitive topics and explicit depictions/discussions of sexuality; students may relate their sexual experiences to course content; combination of formats.

CSED:4131 Loss, Death, and Bereavement 3 s.h.
Psychological study of death, grief, loss, bereavement, and coping from a multidimensional and multidisciplinary perspective; loss and grief as natural experiences that are not often explicitly discussed; overview of topics relating to death, including multicultural attitudes toward death, death practices, theories on loss and bereavement, and grieving throughout the life cycle; hospice and palliative care, suicide, and making meaning of life out of death; development of critical thinking skills by engaging in empirically based discussions.

CSED:4132 Introduction to Addictions and Impulse Control Disorders 3 s.h.
Exploration of addictions and impulse control disorders; legal, social, physical, and emotional issues related to addictions and impulse control disorders.

CSED:4137 Introduction to Educating Advanced Learners 3 s.h.
Survey of critical topics and issues related to advanced learners and meeting their needs through a research-based, best practice lens. Topics include key terms and definitions, standards, characteristics of advanced learners, social and emotional needs, assessment, acceleration, enrichment, diversity of learners, and accessible programming. Highlights the expertise of leaders in the field to provide current thinking and evidence-based practices on important topics related to advanced learners and meeting their needs. Same as BBC:4137, EDTL:4137.

CSED:4140 Foundations of Leadership for Community Agencies 3 s.h.
Preparation to become effective employees and leaders; emphasis on leadership roles in clinical and other human service or health care settings; how leadership transcends job title associated with high work performance; experiential activities that illustrate key didactic concepts and didactic lecture review, written assignments, experiential assignment, in-depth discussions illustrating key concepts.

CSED:4142 Working With Youth in Transition in the Helping Professions 3 s.h.
Theories, developmental milestones, models, and resources pertinent to providing effective and ethical support while working with transition-aged youth.

CSED:4145 Marriage and Family Interaction 3 s.h.
Contemporary American couple, marriage, and family relationships; mate selection. Same as PSQF:4145.

CSED:4162 Introduction to Couple and Family Therapy 3 s.h.
Evolution of the family therapy movement and issues related to functional and dysfunctional family systems; significant models of family therapy and specific techniques. Same as PSQF:4162.

CSED:4173 Trauma Across the Lifespan 3 s.h.
Current theory and practice models related to trauma and crisis intervention; overview of multi-system level definitions of trauma experience (historical, individual, interpersonal, family, organizational, community, global); various approaches to trauma response theory; unique contributions that counselors offer (strength, resiliency, coping); commitments to multicultural and systems factors; macro- to micro-level understanding of trauma.

CSED:4174 Positive Psychology 3 s.h.
Promotion of human potential as a focus for counseling professionals that provides a supplement to diagnosis and treatment of pathology; how to achieve happiness, resilience, wellness, and life satisfaction through enhancement of human strengths and virtues.

CSED:4175 Motivational Interviewing 3 s.h.
Motivational Interviewing (Miller & Rollnick) and the stages of change model.

CSED:4176 Child Abuse: Assessment, Intervention, and Advocacy 3 s.h.
Preparation for work involving abused children or child abuse issues; appropriate for careers in counseling, education, health sciences, law, psychology, social work, and so forth; interactive approach.

CSED:4178 Microcounseling 3 s.h.
Basic skills of listening, responding, empathy, focus; advanced skills of meaning, confrontation, reframing, directives, action skills.

CSED:4179 Sexuality Within the Helping Professions 3 s.h.
Relationship between sexuality and mental health; varied ethical and professional issues in sex therapy.

CSED:4180 Topical Seminar for Helping Professionals arr.
Topics for the continuing education of counselors and related professionals.

CSED:4185 Introduction to Substance Abuse 3 s.h.
Theories of addiction and pharmacology of psychoactive drugs; legal, familial, biological, multicultural, historical issues related to substance use and misuse.

CSED:4187 Introduction to Assistive Technology 3 s.h.
How assistive technology can be used for attainment of goals in education or work. Same as EDTL:4987.

CSED:4188 Practicum in Teaching and Curriculum for Advanced Academics 1-6 s.h.
Completion of product for TAG endorsement. Same as BBC:4188, EDTL:4188.

CSED:4193 Individual Instruction - Undergraduate arr.

CSED:4194 Interpersonal Effectiveness 3 s.h.
Paradigms and techniques that enhance interpersonal relationship skills.

CSED:4195 Ethics in Human Relations and Counseling 3 s.h.
Morality and ethics; ethical issues; models and techniques for effective ethical decision-making in personal and professional interactions.

CSED:4197 Citizenship in a Multicultural Society 3 s.h.
Human relationships in the context of societal oppressions such as racism, sexism, able-bodyism, and heterosexism.

CSED:4199 Counseling for Related Professions 3 s.h.
Counseling theories and techniques; ethical and multicultural considerations; small-group discussions, demonstrations, lectures.

CSED:4953 Experiential Learning in Counseling and Behavioral Health Services 3 s.h.
Provides students an opportunity to further explore their interests and apply their acquired knowledge in the field of helping professions. Through experiential learning activities, such as roleplaying, case studies, and fieldwork, students learn to apply foundational skills in communication, critical thinking, empathy, and problem-solving essential for careers in counseling and behavioral health services.

CSED:5100 Introduction to Sandtray Counseling 3 s.h.
Principles of sandtray counseling and their applications in various counseling situations; sandtray counseling theories and techniques.

CSED:5200 Professional School Counselor 3 s.h.
Professional identity of school counselors, K-12 school counseling program delivery systems, legal and ethical issues.

CSED:5202 Introduction to Group Counseling 3 s.h.
Research, theory, ethics, planning, and practice in group counseling; leadership styles and multicultural considerations; group participation. Requirements: counselor education enrollment.

CSED:5203 Career Development and Counseling 3 s.h.
Preparation for counselors and student affairs professionals; career development concepts and theories, family and work, career counseling goals and objectives, exemplary techniques and materials, career program planning, evaluation procedures. Requirements: counselor education enrollment.

CSED:5204 School Culture and Classroom Management for School Counselors 3 s.h.
American public elementary and secondary schools and the school counselor's role; classroom management for school counselors.

CSED:5221 Theories of Counseling and Human Development Across the Life Span 3 s.h.
Philosophical bases, ethical considerations, processes, issues, multicultural and life-span developmental considerations in counseling theories and techniques. Requirements: counselor education MA enrollment.

CSED:5222 Counseling Children and Adolescents in Schools 3 s.h.
Theory and practice of school-based counseling interventions; child and adolescent development; prevention; special topics. Prerequisites: CSED:5221 or CSED:5278.

CSED:5226 Assessment of Students for Advanced Programming 3 s.h.
Best practices in assessing and identifying students for advanced programs, including interpreting standardized tests and other measurement instruments used to identify academic talent for grades K-12 and current issues in the use of various instruments and tests (e.g., ability, aptitude, achievement, rating scales). Same as BBC:5226, PSQF:5226.

CSED:5230 School Counseling Program Leadership and Management 3 s.h.
Comprehensive K-12 school counseling program components and structures; program leadership, planning, accountability; behavioral consultation and collaboration; ethical, multicultural, family considerations.

CSED:5237 Seminar in Gifted Education 2-3 s.h.
Teaching and counseling needs of gifted students K-12; intensive 10-day residential program. Requirements: work as teacher with Belin Fellowship.

CSED:5238 Advanced Seminar in Gifted Education 1 s.h.
Supervisory, administrative, and research issues; fellowships for seminar participants.

CSED:5241 Professional Counseling Orientation and Ethical Practice 3 s.h.
Historical, philosophical, legislative, societal, and multicultural overview of mental health process and practice in community-based settings; roles of rehabilitation and mental health professionals, nature of agencies, resources, contemporary issues, and ethics.

CSED:5248 Diagnosis and Treatment Planning for Traditional, Vulnerable, and Special Populations in Counseling 3 s.h.
Individual and group approaches to assessment and evaluation, including personal and environmental factors; psychiatric conditions, their diagnostic criteria using the DSM-5, and treatment planning considerations; biopsychosocial and psychiatric rehabilitation models used for case conceptualization and treatment planning, including functional assessment and client-driven rehabilitation planning for community reintegration; special considerations for diagnosing and treating vulnerable and special populations. Requirements: counselor education enrollment.

CSED:5249 Medical and Psychopathological Aspects of Chronic Illness and Disability 3 s.h.
Description, classification, and theoretical perspectives related to psychiatric disorders; models of intervention in community-based settings.

CSED:5250 Social and Cultural Foundations of Counseling 3 s.h.
Theory and application of multicultural competency in the helping professions; ethical treatment of clients in the context of a multiculturally diverse society; knowledge, skill, self-awareness components relevant for helping practitioners. Requirements: counselor education enrollment.

CSED:5253 Forensic Rehabilitation and Case Management 3 s.h.
Orientation to the profession of forensic rehabilitation or forensic vocational rehabilitation; development of knowledge and skills to act as a forensic professional in court proceedings involving persons with disabilities; emphasis on multiple areas of practice including social security determination, marital dissolution, personal injury, worker's compensation, and life care planning; students write expert testimony reports from assigned scenarios of injured workers for attorneys, insurance carriers, and administrative law judges.

CSED:5254 Assessment and Appraisal 3 s.h.
Presentation of materials related to assessment and appraisal for those who plan to work as professional counselors; didactic and experiential activities that enhance a counseling professional's work in the field; specifically, development of skills related to the administration, scoring, and interpretation of basic assessment materials and appraisal in a counseling setting.

CSED:5278 Applied Microcounseling 3 s.h.
Development of basic and advanced counseling skills; preparation for work in education and community settings.

CSED:5280 Topical Seminar in Counselor Education arr.
Special topics dealing with contemporary problems of concern to counselors in specific settings.

CSED:5300 Culturally Relevant Social and Emotional Learning 3 s.h.
Social-emotional learning (SEL) focuses on development of student competence in recognizing and managing emotions, developing empathy, making decisions, building relationships, and handling challenging situations; evidence on the impact of effective SEL has driven the introduction of state K-12 SEL standards and competencies; beyond applying principles of SEL, teachers need equitable instructional practices to link principles of learning with an understanding and appreciation for culture; examination of intersection of SEL and culturally relevant pedagogy (CRP); principles and applications of culturally relevant SEL in K-12 schools. Requirements: MA in teaching, leadership, and cultural competency program enrollment.

CSED:5400 Suicide and Crisis Intervention in Counseling 2-3 s.h.
Content related to suicide and crisis intervention work; students encounter many crisis situations in a variety of settings as future counselors and the importance of feeling prepared to engage in these situations; students often become leaders within their settings to carry out interventions; theoretical perspectives and techniques in crisis intervention and crisis counseling; history, models, current trends, and systemic issues of crisis counseling.

CSED:5500 Telehealth Skills in Clinical Mental Health 3 s.h.
In-depth exploration of telehealth counseling as applied to the practice of clinical mental health. Students learn about the theories, techniques, and ethical considerations unique to telehealth counseling. Emphasis is placed on developing practical skills for conducting effective and ethical telehealth sessions, understanding technological tools, and navigating legal and regulatory issues.

CSED:6263 Consultation Theory and Practice 3 s.h.
Review of concepts and practice of consultation and collaboration in educational and human services settings; focus on mental health, organizational, behavioral, and instructional models. Same as PSQF:6263.

CSED:6293 Individual Instruction - Graduate arr.

CSED:6300 Practicum in School Counseling 3 s.h.
Supervised experience counseling and consulting in elementary and secondary school settings. Requirements: completion of school counseling core courses.

CSED:6321 Internship in Elementary School Counseling 6,12 s.h.
Supervised placement in an elementary school setting; performance of tasks, responsibilities of an elementary school counselor. Prerequisites: CSED:6300. Requirements: completion of all required school counseling courses.

CSED:6322 Internship in Secondary School Counseling 6,12 s.h.
Supervised placement in a secondary school setting; performance of tasks, responsibilities of a secondary school counselor. Prerequisites: CSED:6300. Requirements: completion of all required school counseling courses.

CSED:6341 Occupational Information, Job Development, and Job Placement 3 s.h.
Obtaining appropriate jobs for individuals with disabilities who have received rehabilitation services; client, counselor, employer, job specifications.

CSED:6342 Psychosocial Aspects of Health and Disability Across the Developmental Lifespan 3 s.h.
Dynamics of adjustment and coping for persons with chronic illness or those with disabilities through the life span; somatopsychological, psychosocial, and developmental perspectives on disability.

CSED:6345 Winterim Session Field Experiences in Counseling arr.
Clinical experiences in mental health or rehabilitation agencies; supervision by faculty supervisor, site supervisor, and doctoral student in individual, triadic, and group formats; consultation between students, faculty supervisors, and site supervisors includes supervision and performance evaluation. Prerequisites: CSED:6346 or CSED:6349 or CSED:7360.

CSED:6346 Practicum in Rehabilitation Counseling 3 s.h.
Clinical preparation to work specifically with persons with mental health and other disabilities in order to effectively promote positive changes in their employment status (where applicable), level of social integration, level of independence, quality of life, and mental health; individual clinical preparation goals established within the parameters of the clinical continuum to ensure skill development and a strong knowledge base, which serve to promote qualified providers of rehabilitation counseling services.

CSED:6347 Internship in Rehabilitation Counseling arr.
Advanced clinical experiences under faculty supervision in a community rehabilitation agency. Student interns receive both individual and monthly group supervision at regular intervals from qualified supervisors; emphasis on application of rehabilitation counseling and case management methods, techniques, and vocational knowledge in work with clients; consultation with professionals, business, and industry as needed to enhance services to persons with disabilities for the purposes of job development/placement and/or independent living rehabilitation. Prerequisites: CSED:6346.

CSED:6349 Practicum in Clinical Mental Health Counseling arr.
Experience in a community agency serving individuals with mental health disorders, supervised by a qualified clinical supervisor in an approved site. Student interns receive both individual and monthly group supervision at regular intervals from qualified supervisors. Prerequisites: CSED:6353.

CSED:6352 Internship in Clinical Mental Health Counseling arr.
Full-time clinical experience in mental health settings; training in wide range of mental health functions under supervision of a qualified supervisor with appropriate credentials. Prerequisites: CSED:6349.

CSED:6353 Pre-Practicum and Case Management in Counseling 3 s.h.
Development of clinical counseling skills, with an emphasis on the demonstration of diagnostic, clinical, cultural, and treatment formulations; strong applied and experiential approach with special focus on development of self-awareness dexterity necessary for professionals in clinical mental health counseling; students learn and practice clinical skills in class and lab sessions that relate to working with individuals and small groups; applied pre-practicum allows students to work with an analog client as well as didactic instruction.

CSED:6394 Research and Scholarship Internship 1-3 s.h.
Preparation for comprehensive examination.

CSED:6500 Research and Program Evaluation 3 s.h.
Introduction to research methods for counselors; research strategies that have dominated counseling literature; key concepts related to development of researchable questions, use and interpretation of quantitative and qualitative analyses, factors impacting design integrity, and use of findings to effect counseling program modifications; focus on essential approaches needed to conceptualize and develop a research proposal.

CSED:7255 Advanced Career Development and Counseling 3 s.h.
Major concepts and research evidence about life-span vocational behavior; theories of vocational choice, adjustment, development in a multicultural world.

CSED:7338 Essentials of Qualitative Inquiry 3 s.h.
Principles, processes of qualitative research in education; methods of design, data collection and analysis, interpretation, trustworthiness. Requirements: PhD enrollment.

CSED:7347 Home/School/Community: System Interventions 3 s.h.
Interventions used by school and support system personnel; focus on work with parents, siblings. Same as PSQF:7347.

CSED:7353 Advanced Counseling and Psychotherapy 3 s.h.
Theories, techniques, and ethics of counseling clients with personal and interpersonal problems; ethical and multicultural considerations.

CSED:7360 Advanced Doctoral Internship in Counseling arr.
Supervised practice in counseling; intensive analysis of counselor ethics, styles, and methods. Requirements: PhD enrollment, advanced graduate standing in counselor education, and counseling introductory practicum.

CSED:7380 Internship in Teaching arr.
Supervised college teaching experience in counselor education courses; teaching in collaboration with faculty, observation and critiques of teaching, participation in course planning and evaluation procedures; ethical and multicultural considerations.

CSED:7385 Teaching and Learning in Higher Education 3 s.h.
Current theoretical and empirical literature on teaching and learning in higher education; focus on development of effective teaching practice. Same as EDTL:7385, EPLS:7385, GRAD:7385, PSQF:7385.

CSED:7400 Seminar: Ethics and Issues in Counseling 3 s.h.
Ethical, professional, and contemporary issues in counseling practice, education, and research. Requirements: counselor education PhD enrollment.

CSED:7410 Mixed Methods Research 3 s.h.
Introduction to mixed methods research in education; knowledge and skills necessary to conduct mixed methods study; history and language of mixed methods research; identifying and processing arguments for and against mixed methods research; critical and justice-oriented perspectives on mixed methods research; strengths and weaknesses of published mixed methods studies; application of one or more mixed methods research designs to a research proposal. Requirements: formal introduction to quantitative and qualitative research methods, and familiarity with basic steps of research process. Recommendations: direct experience conducting research studies not required. Same as EDTL:7410, EPLS:7392.

CSED:7438 Advanced Qualitative Research Seminar in Counselor Education 3 s.h.
Exploration of qualitative research at advanced theoretical, practical, and technical level, inside and outside a typical classroom environment; scholarly discussions. Prerequisites: CSED:7338.

CSED:7450 Advanced Social Psychology of Disability 3 s.h.
Disability issues from individual and societal perspectives; psychosocial aspects of disability and disability studies; seminar. Requirements: PhD enrollment.

CSED:7451 Advanced Multiculturalism 3 s.h.
Impact of culture, race, ethnicity, and intersections of identity on counseling in higher education and student affairs settings. Prerequisites: CSED:5250.

CSED:7454 Supervision Theory and Practice 3 s.h.
Conceptual models, ethics, multicultural considerations, research, and program design for counselor supervision and consultation.

CSED:7455 Internship in Supervision arr.
Supervision of students enrolled in counseling practicum. Prerequisites: CSED:7454.

CSED:7457 Seminar: Professional Orientation to Counselor Education, Supervision, Leadership, and Advocacy 4 s.h.
Professional orientation for students seeking degrees and employment in counselor education and supervision (CES); analysis of by-laws, competency statements, and professional responsibilities for specialists in CES; identification of key leadership practices; evaluation of leadership principles as applied to CES; development of a plan for future leadership in CES; students analyze needs of client stakeholder groups, evaluate current approaches to advocacy, develop an advocacy plan, and examine their own professional awareness, knowledge, and skill sets for negotiating work/life in academia and/or administration.

CSED:7458 Seminar: Issues and Trends in Counseling Research 4 s.h.
Recent trends, including debates and findings in literature related to best practices for the profession. Same as PSQF:7459.

CSED:7460 Seminar: Research in Counseling 3 s.h.
Methods, examples, ethics, multicultural issues, problems of counseling research. Requirements: PhD enrollment. Same as PSQF:7460.

CSED:7461 Practicum in Research arr.
Experience designing and implementing research relevant to student's plan of study, under supervision of counselor education faculty member.

CSED:7465 Internship in Clinical Practice arr.
Supervised experience in professional counseling, counselor supervision, consultation, and teaching counseling.

CSED:7466 Leadership and Advocacy Internship in Counselor Education 3 s.h.
Supervised experience in service learning activities in a variety of settings to build advocacy and leadership skills; leadership skill development opportunities that enhance doctoral students' future potential as counselor education advocates and consultants. Prerequisites: CSED:7360.

CSED:7470 Counselor Education and Supervision Doctoral Integrated Professional Internships 3 s.h.
Supervised experience for students enrolled in teaching, research, supervision, leadership and advocacy, and advanced clinical counseling internships. Requirements: PhD in counselor education and supervision enrollment.

CSED:7493 PhD Thesis arr.

Human Relations, Minor

Requirements

The undergraduate minor in human relations requires a minimum of 15 s.h. of credit, including 12 s.h. earned at the University of Iowa. Students must maintain a grade-point average of at least 2.50 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass, but may count toward the minor if offered as S/U or S/F. Transfer credit must be approved by the chair of the Department of Counselor Education in order to count toward the minor.

The minor is open to all University of Iowa students enrolled in an undergraduate degree program.

The minor in human relations requires the following coursework.

Course #	Title	Hours
This course:		
CSED:4199	Counseling for Related Professions	3
At least 12 s.h. from these:		
CSED:2081	Making a Vocational-Educational Choice	2-3
CSED:4110	Psychology of Food and Mood	3
CSED:4111	Building Leadership and Success at Work	3
CSED:4112	How to Interview to Get That Job!	3
CSED:4113	Sleep, Sleep Deprivation, and Sleep Disorders	3
CSED:4114	Psychology of Body Modification and Self-Image	3
CSED:4130	Human Sexuality	3
CSED:4131	Loss, Death, and Bereavement	3
CSED:4132	Introduction to Addictions and Impulse Control Disorders	3
CSED:4140	Foundations of Leadership for Community Agencies	3
CSED:4145	Marriage and Family Interaction	3
CSED:4162	Introduction to Couple and Family Therapy	3
CSED:4173	Trauma Across the Lifespan	3
CSED:4174	Positive Psychology	3
CSED:4175	Motivational Interviewing	3
CSED:4176	Child Abuse: Assessment, Intervention, and Advocacy	3
CSED:4178	Microcounseling	3
CSED:4179	Sexuality Within the Helping Professions	3
CSED:4180	Topical Seminar for Helping Professionals	3
CSED:4185	Introduction to Substance Abuse	3
CSED:4187	Introduction to Assistive Technology	3
CSED:4193	Individual Instruction - Undergraduate	arr.
CSED:4194	Interpersonal Effectiveness	3
CSED:4195	Ethics in Human Relations and Counseling	3
CSED:4197	Citizenship in a Multicultural Society	3
EALL:4130	Introduction to Grant Writing	3
EPLS:4180	Human Relations for the Classroom Teacher (requires special permission for students not enrolled in TEP)	3
PSQF:2115	Introduction to Counseling Psychology	3
PSQF:2116	Applied Child and Adolescent Psychology	3
PSQF:2700	Introduction to Understanding Trauma and Resilience	3
PSQF:3104	Multicultural Issues in Counseling and Psychology	3

Contact the Department of Counselor Education for more information about the minor.

Counselor Education, MA

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Maintaining Good Standing

MA students in the Department of Counselor Education must meet the following standards in order to remain in their degree programs and advance to candidacy and remain a candidate for a degree:

- maintain a grade-point average (GPA) of at least 3.00;
- successfully complete practicums and internships;
- maintain professional behavior consistent with the ACA Code of Ethics (American Counseling Association) and any additional code of professional ethics adhered to in any agency in which a student completes a practicum or internship; and
- demonstrate progress toward the degree through successful completion of semester hours specified in the curriculum plan and active registration each session (exceptions may be approved by the advisor).

Each student's academic and professional progress is reviewed annually.

Probational Status

Students who earn a cumulative GPA lower than 3.00 are placed on probational status and are notified in writing. Students on probational status have two consecutive sessions to raise their GPA to the established standard. If that requirement is not met, a student may be removed from the program. Students are allowed one probational status during their program of study.

Learning Outcomes

Counselor Education Standards

The following are the standards of the Department of Counselor Education at the University of Iowa, which are the key performance indicators for MA students:

- acquire the awareness, knowledge, and skills of a professional counselor and/or counselor educator;
- develop a process of ongoing reflective practice in relation to cultural humility and the profession’s multicultural, social justice, and ethical counseling competencies and education;
- develop counseling skills that will address problems in living from a developmental/life span approach;
- cultivate a commitment to ethical practices and behavior in counseling, counselor education, supervision, and research; and
- acquire an understanding of the social, vocational, educational, and psychological needs of individuals served in various settings such as schools, vocational, or counseling centers.

Clinical Mental Health Counseling

The Master of Arts program in counselor education with a clinical mental health counseling subprogram requires a minimum of 60 s.h. of graduate credit. Students must maintain a graduate program grade-point average of at least 3.00. Full-time students can complete the program in approximately 20 months (four semesters).

The program prepares professional counselors to provide assistance with psychological wellness through flexible, consumer-oriented therapy to individuals experiencing various problems in living, including mental disorders and substance abuse. They combine traditional psychotherapy with a practical, problem-solving approach that creates a dynamic efficient path for change and problem resolution.

Clinical mental health counselors work in a variety of settings, including public government agencies; private practice; community mental health agencies; managed behavioral health care organizations; integrated delivery systems; hospitals, including the Veteran’s Administration; employee assistance programs; and substance abuse treatment centers. They provide interventions designed to help individuals with their immediate needs such as assessment and diagnosis, psychotherapy, treatment planning, brief and solution-focused therapy, alcoholism and substance abuse treatment, psychoeducational and prevention, and crisis management.

The MA subprogram in clinical mental health counseling is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). Graduates of the program are eligible for certification by the National Board for Certified Counselors. By completing the program's coursework, students also complete the courses they must take in order to apply for licensure as mental health counselors in Iowa. Students who complete the program and wish to seek licensure in other states should refer to the relevant state licensing board for specific requirements.

The curriculum blends academic work with supervised clinical experiences. Students take practicum and internship concurrently with academic courses. The program concludes with a full-time internship (40 hours per week) during a spring semester. Students are assigned to mental health agencies or facilities that meet CACREP accreditation standards and that have programs or clientele aligned with a student's interests and educational objectives. Clinical placements require criminal background checks. Supervised practicums, internships, and final examinations are not offered during summer sessions.

The MA in counselor education with a clinical mental health counseling subprogram requires the following work.

Required Courses

Course #	Title	Hours
All of these:		
CSED:5202	Introduction to Group Counseling	3
CSED:5203	Career Development and Counseling	3
CSED:5221	Theories of Counseling and Human Development Across the Life Span	3
CSED:5241	Professional Counseling Orientation and Ethical Practice	3
CSED:5248	Diagnosis and Treatment Planning for Traditional, Vulnerable, and Special Populations in Counseling	3

CSED:5249	Medical and Psychopathological Aspects of Chronic Illness and Disability	3
CSED:5250	Social and Cultural Foundations of Counseling	3
CSED:5254	Assessment and Appraisal	3
CSED:5278	Applied Microcounseling	3
CSED:6342	Psychosocial Aspects of Health and Disability Across the Developmental Lifespan	3
CSED:6349	Practicum in Clinical Mental Health Counseling	3
CSED:6352	Internship in Clinical Mental Health Counseling	12
CSED:6353	Pre-Practicum and Case Management in Counseling	3
CSED:6500	Research and Program Evaluation	3

Electives

In consultation with their advisors, students choose 9 s.h. (from a minimum of 3 courses) in elective coursework. Students are permitted to select coursework numbered 3000 and above from counselor education (prefix CSED), teaching and learning (prefix EDTL), educational policy and leadership studies (prefix EPLS), and psychological and quantitative foundations (prefix PSQF). Students are encouraged to select from the following course list, as these courses are curated for counselor education students.

Course #	Title	Hours
CSED:4110	Psychology of Food and Mood	3
CSED:4113	Sleep, Sleep Deprivation, and Sleep Disorders	3
CSED:4114	Psychology of Body Modification and Self-Image	3
CSED:4130	Human Sexuality	3
CSED:4131	Loss, Death, and Bereavement	3
CSED:4132	Introduction to Addictions and Impulse Control Disorders	3
CSED:4162	Introduction to Couple and Family Therapy	3
CSED:4173	Trauma Across the Lifespan	3
CSED:4174	Positive Psychology	3
CSED:4175	Motivational Interviewing	3
CSED:4176	Child Abuse: Assessment, Intervention, and Advocacy	3
CSED:4179	Sexuality Within the Helping Professions	3
CSED:4185	Introduction to Substance Abuse	3
CSED:4187	Introduction to Assistive Technology	3
CSED:5280	Topical Seminar in Counselor Education (may be taken more than once if the topic differs)	arr.
CSED:5400	Suicide and Crisis Intervention in Counseling	2-3
CSED:5500	Telehealth Skills in Clinical Mental Health	3

Final Examination

The final examination consists of a departmental comprehensive portfolio that documents knowledge, skills, and dispositions on the process and practice of clinical mental health counseling. Exams are offered only during fall and spring semesters.

Admission

Applicants must meet the department's general admission requirements. They should have a good academic record and relevant experiences. No specific undergraduate major area of study is required for the MA program, but a major in one of the social sciences is considered good preparation. Postbaccalaureate work and volunteer experiences relevant to the field of mental health counseling are preferred. The program encourages applications from persons historically underrepresented in the field, particularly those with a disability and/or members of underrepresented groups. A personal interview is required.

Although students may be admitted for any semester, the program highly recommends that full-time students begin in the fall.

Rehabilitation Counseling Program

The Master of Arts program in counselor education with a rehabilitation counseling subprogram requires a minimum of 60 s.h. of graduate credit. Students must maintain a graduate program grade-point average of at least 3.00. Full-time students can complete the program in approximately 20 months (four semesters).

The program prepares professional counselors to provide assistance in psychological wellness, employment, independent living, and personal or economic development to persons with disabilities and other individuals who encounter barriers in meeting their own functional needs.

Rehabilitation counselors work in a variety of settings, including public agencies such as state vocational rehabilitation programs and Veterans Affairs vocational rehabilitation programs, independent living centers, community-based rehabilitation centers and supported employment, psychiatric rehabilitation programs, transition from school to work programs, and private for-profit worker's compensation and insurance rehabilitation agencies. They provide interventions designed to help persons with disabilities adapt to the demands of their environments. They also prepare the environments to accommodate an individual's needs. Assessment, personal and vocational counseling, development of rehabilitation and treatment plans, case management, service coordination, psychosocial adjustment, job development, placement, and follow-up are typical services that rehabilitation counselors provide.

The program in rehabilitation counseling is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). Graduates of the program are eligible for certification by the Commission on Rehabilitation Counselor Certification (CRCC).

The curriculum blends academic work with supervised clinical experiences. Students take one semester of practicum and one semester of internship concurrently with academic courses. The program concludes with a full-time internship

(40 hours per week) during a spring semester. Students are assigned to rehabilitation agencies or facilities that meet CACREP accreditation standards and that have programs or clientele aligned with a student's interests and educational objectives. Clinical placements require criminal background checks. Supervised practicums, internships, and final examinations are not offered during summer sessions.

The MA in counselor education with a rehabilitation counseling subprogram requires the following work.

Required Courses

Course #	Title	Hours
All of these:		
CSED:5202	Introduction to Group Counseling	3
CSED:5221	Theories of Counseling and Human Development Across the Life Span	3
CSED:5241	Professional Counseling Orientation and Ethical Practice	3
CSED:5249	Medical and Psychopathological Aspects of Chronic Illness and Disability	3
CSED:5250	Social and Cultural Foundations of Counseling	3
CSED:5253	Forensic Rehabilitation and Case Management	3
CSED:5254	Assessment and Appraisal	3
CSED:5278	Applied Microcounseling	3
CSED:6341	Occupational Information, Job Development, and Job Placement	3
CSED:6342	Psychosocial Aspects of Health and Disability Across the Developmental Lifespan	3
CSED:6346	Practicum in Rehabilitation Counseling	3
CSED:6347	Internship in Rehabilitation Counseling	12
CSED:6500	Research and Program Evaluation	3

Electives

In consultation with their advisors, students choose 12 s.h. from a minimum of four courses in elective coursework. Students are permitted to select coursework numbered 3000 and above from counselor education (prefix CSED), teaching and learning (prefix EDTL), educational policy and leadership studies (prefix EPLS), and psychological and quantitative foundations (prefix PSQF). Students are encouraged to select from the following course list, as these courses are curated for counselor education students.

Course #	Title	Hours
CSED:4110	Psychology of Food and Mood	3
CSED:4113	Sleep, Sleep Deprivation, and Sleep Disorders	3
CSED:4114	Psychology of Body Modification and Self-Image	3
CSED:4131	Loss, Death, and Bereavement	3
CSED:4132	Introduction to Addictions and Impulse Control Disorders	3
CSED:4162	Introduction to Couple and Family Therapy	3
CSED:4173	Trauma Across the Lifespan	3
CSED:4174	Positive Psychology	3
CSED:4175	Motivational Interviewing	3
CSED:4176	Child Abuse: Assessment, Intervention, and Advocacy	3
CSED:4179	Sexuality Within the Helping Professions	3
CSED:4185	Introduction to Substance Abuse	3
CSED:4187	Introduction to Assistive Technology	3
CSED:5248	Diagnosis and Treatment Planning for Traditional, Vulnerable, and Special Populations in Counseling	3
CSED:5280	Topical Seminar in Counselor Education	arr.
CSED:5400	Suicide and Crisis Intervention in Counseling	2-3

Final Examination

The final examination consists of a departmental comprehensive portfolio that documents knowledge, skills, and dispositions on the process and practice of rehabilitation counseling. Exams are offered only during fall and spring semesters.

Admission

Applicants must meet the department's general admission requirements. They should have a good academic record and relevant experience such as assisting individuals with disabilities. No specific undergraduate major area of study is required for the MA program, but a major in one of the social sciences is considered good preparation. Postbaccalaureate work experience relevant to the field of rehabilitation counseling is preferred. The program encourages applications from persons traditionally underrepresented in the field, particularly those with a disability and/or members of minority or ethnic groups. A personal interview is required.

Although students may be admitted for any semester, the program highly recommends that full-time students begin in the fall.

School Counseling

The Master of Arts program in counselor education with a school counseling subprogram requires a minimum of 60 s.h. of graduate credit. Students must maintain a graduate program grade-point average (GPA) of at least 3.00.

The program prepares individuals to work effectively as counselors in K–12 school settings. It is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). Successful graduates are eligible for K–12 school counselor licensure in Iowa.

During the program, students take core counseling courses, including coursework focusing on counseling children and

adolescents, school counseling programs, and courses focusing on clinical practice in the schools (practicum and internship). Students are expected to complete at least 100 clock hours in practicum and 600 clock hours in internship activities in an approved school setting, under the supervision of an experienced licensed school counselor and a university faculty supervisor.

Students who enter without teaching licensure are required to take EDTL:4900 Foundations of Special Education.

All students are required to complete a background check the semester before they enroll in the practicum. Students who are not licensed teachers must complete coursework in education before enrolling in the practicum.

Each student's progress is reviewed periodically by the major advisor and yearly by the school counseling program. Students who have successfully completed all prerequisites for CSED:6300 Practicum in School Counseling are reviewed in the semester before they take the practicum course, to ensure that they are prepared for it. Additionally, students are evaluated to ensure their readiness for the internship CSED:6321 Internship in Elementary School Counseling or CSED:6322 Internship in Secondary School Counseling, which requires assignment to approved schools for the fall and/or spring semesters.

The MA in counselor education with a school counseling subprogram requires the following courses.

Required Courses

The following schedule of required courses reflects a two-year program of study. Students who do not have teacher licensure are required to complete EDTL:4900 Foundations of Special Education. Students who have completed the required courses should consult with their advisor regarding electives in order to fulfill the 60 s.h. requirement.

Course #	Title	Hours
CSED:4137	Introduction to Educating Advanced Learners	3
CSED:5200	Professional School Counselor	3
CSED:5202	Introduction to Group Counseling	3
CSED:5203	Career Development and Counseling	3
CSED:5204	School Culture and Classroom Management for School Counselors	3
CSED:5221	Theories of Counseling and Human Development Across the Life Span	3
CSED:5222	Counseling Children and Adolescents in Schools	3
CSED:5230	School Counseling Program Leadership and Management	3
CSED:5250	Social and Cultural Foundations of Counseling	3
CSED:5254	Assessment and Appraisal	3
CSED:5278	Applied Microcounseling	3
CSED:5400	Suicide and Crisis Intervention in Counseling	3
CSED:6300	Practicum in School Counseling	3
CSED:6321	Internship in Elementary School Counseling (consult advisor for options)	12
or CSED:6322	Internship in Secondary School Counseling	
CSED:6500	Research and Program Evaluation	3
EDTL:4940	Characteristics of Disabilities	3

Electives

In consultation with their advisors, students earn 3 s.h. in elective coursework. Students are encouraged to select coursework numbered 3000 and above from counselor education (prefix CSED), teaching and learning (prefix EDTL), educational policy and leadership studies (prefix EPLS), and psychological and quantitative foundations (prefix PSQF). Additional course options may be approved by the student's advisor as appropriate.

Final Examination

The final examination consists of a departmental examination about the process and practice of professional school counseling. Exams are offered only during fall and spring semesters.

Admission

Applicants must meet the department's general admission requirements. They should have an undergraduate GPA of 3.00 or higher. The department prefers that applicants have either one year of teaching experience or other successful experiences with children and/or adolescents, which they must document in a written statement.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Counselor Education, MA

- Clinical Mental Health Counseling Subprogram [p. 1366]
- Rehabilitation Counseling Program Subprogram [p. 1367]
- School Counseling Subprogram [p. 1368]

Clinical Mental Health Counseling Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
60 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CSED:5202	Introduction to Group Counseling	3
CSED:5203	Career Development and Counseling	3

CSED:5221	Theories of Counseling and Human Development Across the Life Span	3
CSED:5241	Professional Counseling Orientation and Ethical Practice	3
CSED:5248	Diagnosis and Treatment Planning for Traditional, Vulnerable, and Special Populations in Counseling	3
	Hours	**15**
Spring		
CSED:5249	Medical and Psychopathological Aspects of Chronic Illness and Disability	3
CSED:5250	Social and Cultural Foundations of Counseling	3
CSED:5254	Assessment and Appraisal	3
CSED:5278	Applied Microcounseling	3
CSED:6500	Research and Program Evaluation	3
	Hours	**15**
Second Year		
Fall		
CSED:6342	Psychosocial Aspects of Health and Disability Across the Developmental Lifespan	3
CSED:6349	Practicum in Clinical Mental Health Counseling	3
CMHC Elective [b]		3
CMHC Elective [b]		3
CMHC Elective [b]		3
	Hours	**15**
Spring		
CSED:6352	Internship in Clinical Mental Health Counseling	12
CSED:6353	Pre-Practicum and Case Management in Counseling	3
Exam: Master's Final Exam [c]		
	Hours	**15**
	Total Hours	**60**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Work with academic advisor to determine appropriate graduate electives and sequence. Information about elective coursework is included in the General Catalog and on department website.

c The final examination consists of a departmental summative examination on the process and practice of clinical mental health counseling. Exams are offered only during fall and spring semesters.

Rehabilitation Counseling Program Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
60 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CSED:5202	Introduction to Group Counseling	3
CSED:5221	Theories of Counseling and Human Development Across the Life Span	3
CSED:5241	Professional Counseling Orientation and Ethical Practice	3
CSED:5249	Medical and Psychopathological Aspects of Chronic Illness and Disability	3
CSED:5278	Applied Microcounseling	3
	Hours	**15**
Spring		
CSED:5250	Social and Cultural Foundations of Counseling	3
CSED:5253	Forensic Rehabilitation and Case Management	3
CSED:5254	Assessment and Appraisal	3
CSED:6341	Occupational Information, Job Development, and Job Placement	3
CSED:6500	Research and Program Evaluation	3
	Hours	**15**
Second Year		
Fall		
CSED:6342	Psychosocial Aspects of Health and Disability Across the Developmental Lifespan	3
CSED:6346	Practicum in Rehabilitation Counseling	3
RCP Elective [b]		3
RCP Elective [b]		3
RCP Elective [b]		3
	Hours	**15**
Spring		
CSED:6347	Internship in Rehabilitation Counseling	12
RCP Elective [b]		3
Exam: Master's Final Exam [c]		
	Hours	**15**
	Total Hours	**60**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Work with academic advisor to determine appropriate graduate electives and sequence. Information about elective coursework is included in the General Catalog and on department website.

c The final examination consists of a departmental summative examination on the process and practice of rehabilitation counseling. Exams are offered only during fall and spring semesters.

School Counseling Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
60 s.h. must be graduate level coursework; graduate transfer credits and course substitution allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
	Hours	**0**
First Year		
Fall		
CSED:5200	Professional School Counselor	3
CSED:5221	Theories of Counseling and Human Development Across the Life Span	3
CSED:5250	Social and Cultural Foundations of Counseling	3
CSED:5278	Applied Microcounseling	3
CSED:5400	Suicide and Crisis Intervention in Counseling	3
	Hours	**15**
Spring		
CSED:5202	Introduction to Group Counseling	3
CSED:5203	Career Development and Counseling	3
CSED:5204	School Culture and Classroom Management for School Counselors	3
CSED:5222	Counseling Children and Adolescents in Schools	3
CSED:5254	Assessment and Appraisal	3
	Hours	**15**
Second Year		
Fall		
EDTL:4940	Characteristics of Disabilities	3
CSED:4137	Introduction to Educating Advanced Learners	3
CSED:5230	School Counseling Program Leadership and Management	3
CSED:6300	Practicum in School Counseling	3
Elective course [d]		3
	Hours	**15**
Spring		
CSED:6322 or CSED:6321	Internship in Secondary School Counseling or Internship in Elementary School Counseling	12
CSED:6500	Research and Program Evaluation	3
Exam: Master's Final Exam [e]		
	Hours	**15**
	Total Hours	**60**

a Students who enter without teaching licensure are required to take EDTL:4900.

b Prior to fall 2018 a minimum of 57 s.h. were required for degree completion. Therefore, students admitted prior to fall 2018 will complete 57 s.h. and will not be held to the 60 s.h. requirement.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d Work with academic advisor to determine appropriate graduate electives and sequence.

e The final examination consists of a departmental summative examination on the process and practice of school counseling. Exams are offered only during fall and spring semesters.

Counselor Education, PhD

Maintaining Good Standing

PhD students in the Department of Counselor Education must meet the following standards in order to remain in their degree programs and advance to candidacy and remain a candidate for a degree:

- maintain a grade-point average (GPA) of at least 3.00;
- successfully complete a practicum, internship, or equivalent professional experience;
- maintain professional behavior consistent with the ACA Code of Ethics (American Counseling Association) and any additional code of professional ethics adhered to in any agency in which a student completes a practicum or internship; and
- demonstrate progress toward the degree through successful completion of semester hours specified in the curriculum plan and active registration each session (exceptions may be approved by the advisor).

Each student's academic and professional progress is reviewed annually.

Probational Status

Students who earn a cumulative GPA lower than 3.00 are placed on probational status and are notified in writing. Students on probational status have two consecutive sessions to raise their grade-point average to the established standard. If that requirement is not met, a student may be removed from the program. Students are allowed one probational status during their program of study.

Learning Outcomes

Department Standards

The following are the standards of the Department of Counselor Education at the University of Iowa, which are the key performance indicators for PhD students:

- acquire the awareness, knowledge, and skills of a professional counselor and/or counselor educator;
- develop a process of ongoing reflective practice in relation to cultural humility and the profession’s multicultural, social justice, and ethical counseling competencies and education;
- develop counseling skills that will address problems in living from a developmental/life span approach;
- cultivate a commitment to ethical practices and behavior in counseling, counselor education, supervision, and research; and
- acquire an understanding of the social, vocational, educational, and psychological needs of individuals served in various settings such as schools, vocational, or counseling centers.

Requirements

The Doctor of Philosophy program in counselor education with a counselor education and supervision (CES) subprogram requires a minimum of 72 s.h. of graduate credit. The program provides students with knowledge and skills related to general counseling (including mental health, school, and rehabilitation counseling), teaching, consulting, supervising counselors, and conducting research. Graduates enter professional work as counselors, counselor supervisors, counselor educators, researchers and/or consultants, or work in other positions requiring expertise in human relations.

Counselor education and supervision graduates are prepared to teach the knowledge and skills required of professional counselors and to supervise beginning and advanced counselors, perform counseling interventions with individuals and groups, and teach human relations skills in colleges or universities. They provide professional consultation with counseling practitioners, educators, and policymakers about counseling program development and evaluation. They may also perform research that contributes to knowledge about counseling, supervision, and counselor education.

The program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The American Counseling Association (ACA) and the Association for Counselor Education and Supervision (ACES) are the professional organizations most related to program activities.

The curriculum includes required courses in counseling, research tools and applications, and a dissertation.

Most students complete their coursework in three years and take a fourth year to complete the dissertation. Students who have not completed a master's degree program approved by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) may need to remedy deficiencies by taking appropriate coursework at the master's degree level.

The PhD in counselor education with a counselor education and supervision subprogram requires the following work.

Required Courses

Course #	Title	Hours
All of these:		
CSED:6394	Research and Scholarship Internship	1-3
or CSED:7470	Counselor Education and Supervision Doctoral Integrated Professional Internships	
CSED:7255	Advanced Career Development and Counseling	3
CSED:7338	Essentials of Qualitative Inquiry (or collegiate equivalent)	3
CSED:7353	Advanced Counseling and Psychotherapy	3
CSED:7360	Advanced Doctoral Internship in Counseling	3
CSED:7380	Internship in Teaching	3
or CSED:7470	Counselor Education and Supervision Doctoral Integrated Professional Internships	
CSED:7385	Teaching and Learning in Higher Education	3
or PSQF:6217	Seminar in College Teaching	
CSED:7400	Seminar: Ethics and Issues in Counseling	3
CSED:7450	Advanced Social Psychology of Disability	3
CSED:7451	Advanced Multiculturalism	3
CSED:7454	Supervision Theory and Practice	3

CSED:7455	Internship in Supervision	3
or CSED:7470	Counselor Education and Supervision Doctoral Integrated Professional Internships	
CSED:7457	Seminar: Professional Orientation to Counselor Education, Supervision, Leadership, and Advocacy	4
CSED:7458	Seminar: Issues and Trends in Counseling Research	4
CSED:7460	Seminar: Research in Counseling	3
PSQF:6243	Intermediate Statistical Methods	3
PSQF:6265	Program Evaluation	3

Required Research Courses

Students must complete a specific sequence of research courses including distributed coursework in both qualitative and quantitative areas. In consultation with the academic advisor, they select from basic and advanced doctoral research courses listed under CES Doctoral Research Requirements on the Department of Counselor Education website.

Elective Minor Area

Students can elect to take a series of courses, typically a minimum of three, outside the Department of Counselor Education (in consultation with a major and minor advisor) to enhance and support their teaching and research interests.

Master's Thesis Project or Equivalent

Students are required to submit a previously conducted master's thesis for faculty review and approval or to complete a new supervised experiential research project before taking comprehensive exams. Students without an approved MA or MS thesis enroll in the following.

Course #	Title	Hours
CSED:6394	Research and Scholarship Internship	1-3
or CSED:7470	Counselor Education and Supervision Doctoral Integrated Professional Internships	

Comprehensive Examination

The comprehensive examination consists of an oral defense of a student's portfolio, which covers six professional competency domains in counselor education, and an exam on the minor area. The examination may be taken during a student's final semester of coursework.

Dissertation

The major research project culminating in the doctoral thesis may be on any topic related to counseling and counselor education. The thesis advisor and the examining committee approve the topic and procedures at a formal prospectus meeting. The final oral examination on the thesis is conducted by the examining committee. Students usually earn 10 s.h. for dissertation work, but in some instances they may earn up to 15 s.h. The dissertation committee must include at least two counselor education and supervision faculty members.

Course #	Title	Hours
CSED:7493	PhD Thesis	10-15

Admission

Applicants must meet the department's general admission requirements. In addition, applicants must provide evidence of successful experience in counseling or a closely related profession. Applicants without experience may be admitted if their credentials indicate exceptional strengths.

Applicants also must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Applicants must meet the department's general admission requirements.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Counselor Education, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Students are required to submit a previously conducted master's thesis for faculty review and approval or to complete a new supervised experiential research project before taking comprehensive exams. Students without an approved MA or MS thesis should enroll in CSED:6394 Research and Scholarship Internship or CSED:7470 CES Doctoral Integrated Prof Internships.		
Students can elect to take a series of courses, typically a minimum of three, outside the Department of Counselor Education (in consultation with a major or minor advisor) to enhance and support their teaching and research interests.		
	Hours	**0**
First Year		
Fall		
Create a MyPlan [b]		
CSED:7255	Advanced Career Development and Counseling [c]	3
CSED:7457	Seminar: Professional Orientation to Counselor Education, Supervision, Leadership, and Advocacy	4
PSQF:6243	Intermediate Statistical Methods	3
	Hours	**10**
Spring		
CSED:7338	Essentials of Qualitative Inquiry	3
CSED:7385 or PSQF:6217	Teaching and Learning in Higher Education or Seminar in College Teaching	3

CSED:7400	Seminar: Ethics and Issues in Counseling	3
CSED:7451	Advanced Multiculturalism	3
	Hours	**12**
Second Year		
Fall		
CSED:7353	Advanced Counseling and Psychotherapy	3
CSED:7360	Advanced Doctoral Internship in Counseling	3
CSED:7458	Seminar: Issues and Trends in Counseling Research	4
Advanced Quantitative/Qualitative Research course [d]		3
	Hours	**13**
Spring		
CSED:7450	Advanced Social Psychology of Disability	3
CSED:7454	Supervision Theory and Practice	3
Advanced Quantitative/Qualitative Research course [d]		3
	Hours	**9**
Third Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [e]		
Dissertation Prospectus Defense [f]		
	Hours	**0**
Fall		
CSED:7470 or CSED:6394	Counselor Education and Supervision Doctoral Integrated Professional Internships or Research and Scholarship Internship	3
CSED:7470 or CSED:7380	Counselor Education and Supervision Doctoral Integrated Professional Internships or Internship in Teaching	3
PSQF:6265	Program Evaluation	3
	Hours	**9**
Spring		
CSED:7470 or CSED:7455	Counselor Education and Supervision Doctoral Integrated Professional Internships or Internship in Supervision	3
CSED:7460	Seminar: Research in Counseling	3
	Hours	**6**
Fourth Year		
Fall		
CSED:7493	PhD Thesis	7
	Hours	**7**
Spring		
CSED:7493	PhD Thesis	6
Exam: Doctoral Final Exam [g]		
	Hours	**6**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Develop in consultation with faculty advisor.

c Students may complete an equivalent course with faculty advisor approval.

d See College of Education website for lists of approved courses.

e Consists of an oral defense of a student's portfolio, which covers six professional competency domains in counselor education, and an exam on the minor area. The examination may be taken during a student's final semester of coursework, which typically includes an internship.

f See College of Education website for specifics.

g Dissertation defense.

Educational Policy and Leadership Studies

Chair

- Kenneth G. Brown

Graduate degrees: MA in educational policy and leadership studies; EdS in educational policy and leadership studies; EdD in educational policy and leadership studies; PhD in educational policy and leadership studies

Faculty: https://education.uiowa.edu/directory

Website: https://education.uiowa.edu/about/administration/department-educational-policy-and-leadership-studies

The Department of Educational Policy and Leadership Studies offers academic programs that prepare administrators, professional personnel, teachers, and researchers in the fields of educational leadership and higher education and student affairs. The department also offers combined programs with other College of Education departments and with other University of Iowa colleges.

The department offers graduate degree programs in several major areas within educational policy and leadership studies:

- educational leadership (offered in the MA, EdS, and PhD);
- PK–12 administration (offered in the EdD);
- higher education and student affairs (offered in the MA, EdS, and PhD); and
- higher education (offered in the EdD).

The areas are described under "Graduate Study Areas," followed by information about each degree program.

Applicants for admission to graduate degree programs must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Graduate Study Areas

Educational Leadership

Study in educational leadership prepares individuals for leadership positions in schools and related educational organizations. In addition to graduate degree programs, the area includes principal and superintendent endorsements. See the Master of Arts [p. 1380], Specialist in Education [p. 1383], and the Doctor of Philosophy [p. 1388] in this section of the catalog.

Licensure

To be eligible for recommendation by the University of Iowa for licensure in Iowa as a principal or superintendent/area education agency administrator, students must complete the appropriate program. The specific requirements for each program are available from the Department of Educational Policy and Leadership Studies and the Office of Student Services. Because each administrative license has specific requirements, candidates are required to plan their programs with their advisors' approval.

Principal Endorsement

The principal endorsement curriculum is designed to prepare candidates for PK–12 building-level leadership positions, as well as some district leadership positions. The endorsement requires 32 semester hours of credit. A series of eight semester hours of clinicals is woven into the program along with 80 clinical hours embedded into required coursework. Individuals will also receive their evaluator approval endorsement.

To be eligible to accept a district position, a candidate must have completed at least three years of teaching experience.

Superintendent Endorsement

The superintendent endorsement curriculum is designed to prepare individuals for licensure as a school superintendent (PK–12) as well as for other school district leadership positions; for the chief administrator position in Iowa's area education agencies (AEA) as well as other AEA leadership positions; and for leadership positions in state or federal departments of education and related agencies. The superintendent endorsement requires a total of 30 semester hours of credit.

Students in the endorsement program must have an Iowa administrator license. They obtain the superintendent endorsement (State of Iowa Endorsement 171) upon completing the required EdS coursework and at least three years of administrative experience.

PK–12 Administration

The PK–12 administration program prepares educational leaders to be scholar-practitioners who apply the knowledge, skills, and inquiry strategies to solve significant problems related to educational policies and practices in PK–12 educational settings. In addition to the graduate degree, individuals may complete requirements for superintendent endorsement. See the Doctor of Education [p. 1385] in this section of the catalog.

Higher Education and Student Affairs

Advanced study in higher education and student affairs draws upon diverse perspectives from varied disciplines and professional fields to analyze critical issues and policies and their effects on students, faculty, administrators, staff, and other members of the higher education community. It also explores the complex interactive relationships among institutions of higher education, the external environment, and society at large.

The higher education and student affairs (HESA) program coalesces around a shared sense of responsibility to produce research and spark innovative thinking that addresses the contemporary challenges and persistent inequities permeating higher education. HESA offers educational leaders, scholars, and practitioners comprehensive expertise built from a range of intellectual traditions. Faculty have diverse philosophies, methods, disciplinary training, and personal backgrounds, ensuring students gain a deep understanding and interconnected view of the field.

Graduate degree programs in higher education and student affairs prepare professionals and scholar-practitioners to serve as administrators, researchers, educators, and analysts in institutions of higher and postsecondary education and in related public and private agencies. See the Master of Arts [p. 1380], Specialist in Education [p. 1383], and the Doctor of Philosophy [p. 1388] in this section of the catalog.

Higher Education

The higher education program prepares educational leaders to be scholar-practitioners who apply the knowledge, skills, and inquiry strategies to solve significant problems related to educational policies and practices in higher education.

See the Doctor of Education [p. 1385] in this section of the catalog.

Graduate Certificates

Institutional Research and Effectiveness

The graduate Certificate in Institutional Research and Effectiveness develops skills in institutional research appropriate to the education sector, and for fields and professional settings that are associated with educational interventions, programs, and outcomes. The certificate is offered by the Department of Educational Policy and Leadership Studies. To learn more, see the Certificate in Institutional Research and Effectiveness [p. 1393] in the catalog.

K–12 Equity and Inclusion

The graduate Certificate in K–12 Equity and Inclusion provides educational professionals or nondegree-seeking students currently working in K–12 schools, districts, and area education agencies with expertise in equity and inclusion to better support the needs and interests of a diversifying K–12 student population. The certificate is offered by the Department of Educational Policy and Leadership Studies. For more information, see the Certificate in K–12 Equity and Inclusion [p. 1395] in the catalog.

Programs

Graduate Programs of Study

- Master of Arts in Educational Policy and Leadership Studies [p. 1379]
- Specialist in Education in Educational Policy and Leadership Studies [p. 1382]
- Doctor of Education in Educational Policy and Leadership Studies [p. 1385]
- Doctor of Philosophy in Educational Policy and Leadership Studies [p. 1388]

Courses

Educational Policy and Leadership Studies Courses

EPLS:1029 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

EPLS:1240 Student Success in College 3 s.h.
Overviews the liberal arts and history of higher education and the complexities of engaging difference all situated in the context of challenges and opportunities that are inherent to navigating the organizational structures of higher education. Requirements: undergraduate standing. GE: Understanding Cultural Perspectives.

EPLS:2098 The Student Affairs Profession 3 s.h.
Introduction to field of student affairs in context of higher education; focus on foundations of profession, including a brief history of field, professional associations, institutional differences, professional and ethical standards, functional areas in higher education, student learning and developmental theory, overview of graduate preparation, and current topics.

EPLS:3000 Foundations of Education 3 s.h.
Overview of American education, preschool through secondary; aims, history, philosophy of education; professional ethics, legal responsibilities; school curriculum, organization, finance, school law, political and social issues.

EPLS:3240 Undergraduate Topics in Education arr.
Seminar for extensive study of an education topic or issue.

EPLS:4020 Being in Civic Dialogues 3 s.h.
Students learn the skills and practices that will develop the resilience necessary to engage in challenging civic dialogues about organizational, community, and/or societal change. Students develop leadership skills, cultivate personal stamina, and reflect on how they can be part of a civic society through taking daily actions that engage across differences. GE: Values and Society.

EPLS:4060 Kosovo Newborn: Exploring Europe's Youngest Country 2-3 s.h.
The Republic of Kosovo is the world's newest democracy and is forging a path forward in the midst of complex regional and international political and cultural dynamics. Learn about education's role broadly within fledgling democracies using Kosovo as a case study. Address Kosovo's history, political and cultural identities, and a variety of institutions within Kosovo that support democratic development to better understand the role of educational and social institutions in supporting change.

EPLS:4110 Administration and Policy in Gifted Education 2 s.h.
Policy, administrative, evaluation issues in developing and maintaining gifted programs in a school setting; participants develop gifted program and policies for a school; for school executives and coordinators of gifted programs.

EPLS:4111 Evaluation of Gifted Programs 1 s.h.
Fundamentals of program evaluation essential for exemplary gifted programs. Same as BBC:4111.

EPLS:4113 Staff Development for Gifted Programs 1 s.h.
Planning, content, and delivery of staff development regarding gifted students and their needs.

EPLS:4180 Human Relations for the Classroom Teacher 3 s.h.
Influence of social factors such as discrimination, diversity, equity, racism, sexism, and ethnic and socioeconomic pluralism on American schools and classrooms; for teacher education candidates. GE: Values and Society.

EPLS:4200 Athletic Administration in Educational Settings 3 s.h.
Explores engaging difference as major issues for coaches, sports managers, physical activity professionals, and athletic administration staff in their workplaces; defines, discusses, and analyzes the complexity of athletic organizational environment to help future leaders implement successful practices inclusive of all persons.

EPLS:4250 Education In Black America 3 s.h.
Introduction to various educational policies and events germane to the history of African American education from 1900 through the mid-1980s; read works and watch documentaries that examine those policies, concepts, strategies, and events surrounding Black education; analyze and synthesize this information through small and large class discussions, reading responses, quizzes, a debate, a book review, a short essay, and related presentation. GE: Historical Perspectives. Same as AFAM:4250.

EPLS:5090 Instructional Coaching for Teaching Excellence 3 s.h.
Dynamics of coaching to improve K-12 classroom teaching; appropriate for aspiring teacher leaders. Requirements: admission to the online MA in teaching program.

EPLS:5100 Issues and Policies in Higher Education 1-3 s.h.
Development of the idea of a university; selected functions, issues, policies of American higher education.

EPLS:5102 History of American Education 3 s.h.
Purposes of public education, diversity, and control of schooling from a historical perspective; emphasis on conflicting interpretations of pivotal events and educational movements; connections between educational policies and larger historical developments.

EPLS:5123 History of Ethnic/Minority Education 2-3 s.h.
Educational histories of American ethnic and minority groups; comprehensive understanding of American educational history, context for contemporary educational policy discussions.

EPLS:5126 Twentieth-Century Educational Movements 2-3 s.h.
Current educational policy debates concerning diversity and equity, historical roots of these policies; historical context for 20th-century equal education opportunity movements.

EPLS:5130 Sociology of Education 3 s.h.
Effects of school and school organization on educational outcomes; course-taking patterns and tracking, desegregation, differences in school sector; focus on entire span of student's academic career; examination of school and organizational effects at the primary, secondary, and postsecondary levels of education. Same as SOC:5130.

EPLS:5142 Sociology of Higher Education 3 s.h.
Sociological approach to study of higher education; issues of inequality and stratification in higher education; focus on relationship between higher education and larger economic and demographic processes; college access, college destinations, attainment, and returns to a college degree. Same as SOC:5680.

EPLS:5165 Introduction to Program and Project Evaluation 3 s.h.
Skills and knowledge required for conducting evaluations of products, projects, and programs; recent scholarship on evaluation and project management. Same as PSQF:5165.

EPLS:5170 Introduction of Institutional Research and Effectiveness 3 s.h.
Introduces students to the ways universities engage in institutional research (IR) activities. Provides a conceptual understanding of IR and emphasizes the practical and foundational skills and activities expected of IR staff.

EPLS:5210 Education and Social Change 2-3 s.h.
Role of educational institutions, in connection with political and economic structures, in the process of social change; illumination of theories of social change through case studies of educational systems in both less-developed and industrialized nations. Same as SOC:5810.

EPLS:5240 Topics in Education arr.
Seminar for intensive study of one problem, issue, or work field.

EPLS:5245 The American Professoriate 3 s.h.
Research on college and university faculty members; perspectives on faculty careers, values, beliefs, role in shared governance; tenure process and policies; issues unique to faculty members of color and women faculty members.

EPLS:5247 Multiculturalism in Higher Education 3 s.h.
Explores theory, research, and practices of engaging difference as applied to higher education, student affairs, and society. Requirements: PhD, EdD, or MA enrollment.

EPLS:5250 Introduction to Higher Education and Student Affairs 3 s.h.
Foundations of student affairs work; overview of institutional cultures, legal issues, ethical principles, standards of practice in student affairs.

EPLS:5251 College Students and Their Environments 3 s.h.
Conduct environmental assessment and explore characteristics of college students and the historical and contemporary issues that they face; the institutional, social, and cultural environments within higher education; and the impact of environments on student learning and development. Requirements: PhD, EdD, or MA standing.

EPLS:5252 Administration of Higher Education and Student Affairs 3 s.h.
Administrative structures and processes in higher education settings. Requirements: higher education and student affairs major.

EPLS:5253 Research, Assessment, and Evaluation in Higher Education 3 s.h.
Theories, practices, and issues relevant to assessment of student outcomes and institutional effectiveness in higher education; basic overview of research, assessment, and evaluation; elements of assessment design, including methods for data collection and analysis; relevant ethical and political dilemmas; practical assessment activities. Requirements: MA standing in higher education and student affairs program.

EPLS:5260 Introduction to Institutional Research and Effectiveness 3 s.h.
Provides a foundational understanding of the ways universities engage in institutional research (IR) activities.

EPLS:5278 Helping Skills in Student Affairs Work 3 s.h.
Development of ability to identify, understand, and intentionally apply the active attending and influencing skills; readings and class presentations.

EPLS:6201 Foundations of School Administration 3 s.h.
Organization and administration of American public education; principles and concepts of leadership and organizations; socioeconomic, political, and professional factors relating to education and school administration.

EPLS:6206 Research Process and Design 3 s.h.
Research process, with emphasis on fundamentals of experimental design, internal and external validity, correlational designs, and statistical inference.

EPLS:6209 Survey Research and Design 3 s.h.
Survey design and implementation; writing and evaluation of survey questions; error in survey research; techniques to reduce error; sampling; postcollection processing of survey data. Prerequisites: EPLS:6206 or PSQF:4143. Same as PSQF:6209.

EPLS:6216 Finance in Higher Education 3 s.h.
Theory, research, policy, and practice related to public and private funding of higher and postsecondary education.

EPLS:6217 Theory and Practice of Leadership 2-3 s.h.
Theory-based literature and critiques of leadership as applied to educational institutions.

EPLS:6218 The Law and Higher Education 3 s.h.
The role of law as it affects postsecondary institutions; analysis of case law in specific areas of concern to administrators, faculty, staff, students.

EPLS:6220 History of Higher Education 3 s.h.
History of postsecondary education in the United States; emphasis on conflicting interpretations of pivotal developments; consideration of access, curriculum, student life, academic freedom, role of universities in society, and balance of teaching, research and service from a historical perspective.

EPLS:6221 The College Curriculum 3 s.h.
Issues, principles, policies, and practices in college curriculum development; diverse philosophical, historical, cultural, social, psychological, political foundations of contemporary college curricula; perspectives on and models of college curriculum, related processes of teaching and learning; principles and practices that guide design and change of higher education curriculum.

EPLS:6222 Introduction to Educational Policy 3 s.h.
Theoretical and technical approaches to analysis and evaluation of contemporary public policies.

EPLS:6224 Organizational Theory and Administrative Behavior 3 s.h.
Theories and concepts of organizational behavior applied in structural, organizational, administrative contexts of American education.

EPLS:6225 Higher Education Policy 3 s.h.
Overview of state level higher education structures and policies; research on state level policy processes.

EPLS:6226 Educational Management 2-3 s.h.
Literature and research on management; emphasis on American education.

EPLS:6228 K-12 Education Finance and Policy 3 s.h.
Emphasis on policy funding and finance for administration and management in education and other settings.

EPLS:6236 Special Education Administration 3 s.h.
Builds a foundation of dispositions, knowledge, and skills for tasks performed by directors of special education, building leaders, and administrators, when supervising needs of special education students and economically and socially deprived students; knowledge and application of legal aspects, individual educational programs, and continuum of academic and social/emotional behavior supports; for prospective school administrative personnel. Same as EDTL:6936.

EPLS:6237 History of the Teaching Profession 3 s.h.
History of public school teaching, and teachers' problematic professional status; teacher education in the 19th and 20th centuries; formation and activities of teacher unions in the 20th century.

EPLS:6238 Gender and Education in Historical Perspective 3 s.h.
Gender in context of history of education in the United States; coeducation in common schools, academies, and high schools; women's arrival and experiences as college students; masculinity in higher education; single-sex versus coeducation; emphasis on conflicting historical interpretations. Same as GWSS:6238.

EPLS:6239 LGBTQ History in Education 3 s.h.
Lesbian, gay, bisexual, transgender, and questioning (LGBTQ) issues in context of history of education in United States; LGBTQ teachers, students, and studies in K-12 and higher education; emphasis on differences in historical interpretations. Same as GWSS:6239.

EPLS:6242 Research for Effective School Leaders 3 s.h.
Fundamental language of contemporary research; identification and application of basic research components to contemporary educational leadership problems; applicability of research toward effective decision-making.

EPLS:6260 Contemporary Management Strategies for the Pre-K-12 Principal 3 s.h.
Leadership skills and management techniques for daily organization and operation of schools; emphasis on climate, communication, group processes, conflict resolution, curriculum management.

EPLS:6265 Standards-Based Education and Accountability 3 s.h.
Standards-based education; academic content standards, K-12 articulation, alignment studies, use of standardized test results to evaluate academic programs.

EPLS:6266 Program Evaluation 3 s.h.
Theoretical issues and considerations in evaluation of educational and social programs; evaluation design, methodology; metaevaluation; evaluation utilization. Same as PSQF:6265.

EPLS:6270 Policy and Politics 3 s.h.
Current issues from academic journals, states, think tanks, consortia.

EPLS:6273 College Students 3 s.h.
Overview of theories, research, practices, and issues relevant to understanding students in institutions of higher education. Requirements: PhD standing in Higher Education and Student Affairs program.

EPLS:6275 Higher Education and Society 3 s.h.
Explores theory, research, and practices of engaging difference through interdisciplinary lenses and at the intersections of sociopolitical identities and ideologies within the context of higher education/student affairs, K-12, and as it relates to society, government, and community agency settings; examines the implications of sociopolitical contexts on practices in research, teaching, and service within education. Requirements: PhD, EdD, or advanced-level MA standing. Recommendations: introductory course on issues of race, culture, gender, sociopolitical issues, or structural oppression is strongly recommended. Same as GWSS:6275.

EPLS:6277 Readings in Diversity and Equity in Higher Education 3 s.h.
Historical, contemporary, theoretical, and empirical aspects of diversity and equity in higher education; unique experiences of members of historically underrepresented groups; focus on compelling literature in the field.

EPLS:6285 School and Community Relationships 3 s.h.
Community analysis, politics and education, power groups and influences, school issues and public responses, public relations strategies.

EPLS:6290 Master's Project arr.
Research for the nonthesis program; topic approved by advisor.

EPLS:6293 Individualized Instruction arr.
Readings, special projects, and/or studies that reflect joint instructor/student interest.

EPLS:6298 Legal Aspects of School Personnel 3 s.h.
Teacher and student: liability, negotiations, rights, privileges, responsibilities of school personnel; principles of law derived from court decisions; constitutional and statutory provisions; for teachers and administrators.

EPLS:6301 Professional Seminar I 1 s.h.
Orientation to field; writing and academic support.

EPLS:6305 Higher Education and Student Affairs Capstone 3 s.h.
Completion of an applied project that synthesizes the full MA curriculum.

EPLS:6307 Professional Seminar for EdD Students: Orientation to the EdD 2 s.h.
Orientation to the educational doctorate; how to approach courses and professional work as a scholar-practitioner. Requirements: admission to the EdD program in educational policy and leadership studies.

EPLS:6311 Seminar: Research Topic in Education 1-3 s.h.
Topic submitted by students, faculty. Requirements: PhD, EdD, or MA enrollment.

EPLS:6315 Orientation to the Superintendency 2 s.h.
Leadership theory and research of the superintendent's role of increasing student achievement; personal goals for communication; ethics, integrity, flexibility, reflective, and collaborative leadership; expectations of the superintendent by the board of directors; defining one's role; developing an entry plan; dealing with social/emotional isolation of superintendency; and influences in the larger political, social, economic, legal, and cultural context.

EPLS:6317 Operational Leadership and Management 2 s.h.
Managing fiscal and physical resources responsibly, efficiently, and effectively; effective communication of school operations; leadership and management of nutrition program, transportation program, facilities, construction; board policy, legal issues; state reporting, ethical decision-making; relationship building, problem solving amidst barriers and various stakeholder groups.

EPLS:6319 Human Resources Leadership 2 s.h.
Leadership theory and research of the superintendent's role of aligning human resources practice and increasing student achievement; employment law; contract negotiations process/ collective bargaining; contract maintenance; recruiting, selecting, developing, and retaining employees; working with labor unions and Public Employee Relations Board; special education law; Evaluator 2 Training. Requirements: Evaluator 1 Training.

EPLS:6321 Social Advocacy Summit 1 s.h.
Summit format; challenges and opportunities in Iowa's K-12 schools with changing demographics; opportunity for K-12 school districts and higher education institutions to engage in conversation on how to meet the needs of students and local school districts.

EPLS:6323 School Finance 2 s.h.
Manage fiscal and physical resources; communicate effectively with internal and external audiences regarding school operations; comply with state and federal mandates and local board policies; align educational programs, plans, actions, and resources with the district vision and goals.

EPLS:6325 Organizational and Educational Leadership 2 s.h.
Facilitate connections of students and families to health and social services that support a focus on learning as a district level leader in a school district; collaboratively establish a culture that welcomes and honors families and community and seeks ways to engage them in students learning; AEA structure, compliance and regulatory functions including special education.

EPLS:6329 Legislative Summit 1-3 s.h.
Collaborate with families and community members, respond to diverse community interests and needs, and mobilize community resources as a district level leader in a school district; work with legislators, build advocacy groups in a community, engage stakeholders, how to lobby legislators and meet with local senate and house representatives to participate in lobbying.

EPLS:6332 Conceptual Foundations of College Student Development 3 s.h.
Foundations of college student development theory; contexts of student development; theoretical concepts of cognitive growth and developing sense of self; application of concepts to student affairs practice.

EPLS:6333 Practicum in Higher Education and Student Affairs arr.
Small-scale research projects; supervised experience in planning, design, management, analysis, reporting of research activities; assignments to current and personal faculty research projects; student assumes major responsibility.

EPLS:6334 Theoretical Foundations of College Student Development 3 s.h.
Self-authorship; intercultural maturity; reconceptualized and intersectional models of identity; learning partnerships and leadership; socialization; moral decision-making; faith and spirituality; application of theories to student affairs practice. Prerequisites: EPLS:6332.

EPLS:6336 Impact of College on Students 3 s.h.
Introduction to literature; career and economic returns, educational attainment and persistence, values and attitudes, learning and cognitive development, college student theory, assessment and methodological issues of studying college outcomes. Recommendations: introductory graduate-level research design course.

EPLS:6352 Applied Research in Educational Settings 3 s.h.
Examines applied research methods used in the field of education; addresses methods, skills, and knowledge necessary for completion of applied research; dissertation in practice.

EPLS:6353 Advanced Applied Research in Educational Setting 3 s.h.
Exposes students to foundational descriptive statistics, in-depth training on sampling and data collection, and qualitative and quantitative analysis techniques they will use in their dissertation in practice. Prerequisites: EPLS:6352. Requirements: EdD enrollment.

EPLS:6370 Quantitative Methods for Policy Analysis 3 s.h.
Methodological strategies for quantitative research; analysis of secondary data to investigate educational issues and policies; recoding variables, summation scaling and factor analysis, missing data, sample design and survey estimation, model building; implementation of linear and binary regression, regression diagnostics; hands-on experience conducting statistical analysis of social data. Prerequisites: PSQF:4143 and PSQF:6243.

EPLS:6381 Analysis and Appraisal of Curriculum 3 s.h.
Comprehensive investigation of systematic procedures and resources for identifying and evaluating essential features and constituent elements of a given school district's curricular offering; state and federal requirements of the curricular program; for persons in administration, curriculum, and supervision programs or positions.

EPLS:6383 Supervision and Evaluation 3 s.h.
Data collection and management skills; data-driven leadership; coaching and feedback techniques; teacher quality legislation; research and best practice regarding teacher evaluation, supervision; teaching standards.

EPLS:6400 Early Childhood Leadership Clinical 1-3 s.h.
Classroom instruction and supervised experience with problems in early childhood educational administration; organization, planning, evaluation, decision-making.

EPLS:6401 Elementary Leadership Clinical 1-3 s.h.
Supervised experience working with problems in educational administration, including organization, planning, evaluation, decision-making; individual project in a school setting.

EPLS:6402 Secondary Leadership Clinical 2 s.h.
Supervised experience working with problems in educational administration, including organization, planning, evaluation, decision-making; individual project in a school setting.

EPLS:6403 Special Education Leadership Clinical 1-3 s.h.
Supervised experience working with problems in educational administration, including organization, planning, evaluation, decision-making; individual project in a school setting.

EPLS:6404 Central Administration Clinical 1-3 s.h.
Supervised experience working with problems in educational administration, including organization, planning, evaluation, decision-making; individual project in a school setting.

EPLS:6405 Superintendent Entry Plan and Portfolio Development 1 s.h.
Creating an effective entry plan, and where applicable, a professional portfolio as part of the series of clinical expectations for the superintendent preparation program; development of plan helps to create prior mutual expectation among the superintendent, board, staff, and community. Requirements: in final semester of superintendent endorsement program.

EPLS:6406 School Improvement Plan 1 s.h.
Prepares prospective principals to develop a comprehensive school improvement plan that aligns with the specific needs of their current school or district. Using their existing site as the focal point, students evaluate the schools' performance data, identify key challenges, and propose actionable strategies to improve student achievement, enhance equity, and strengthen school climate.

EPLS:6415 Orientation to the Superintendency: Clinical 2 s.h.
Clinical experience aligned with course topics and assignments in a K-12 school or other educational organization; development of a clinical plan with the guidance of a university professor and local school district mentor based on course requirements, career goals, and interests.

EPLS:6417 Operational Leadership Clinical 1 s.h.
Clinical experience aligned with course topics and assignments in the operational leadership course; completion of clinical in a K-12 school or other appropriate educational organization; development of a clinical plan based on course requirements, career goals, and student interests with guidance from a university professor and local school district mentor.

EPLS:6419 Human Resources Leadership Clinical 2 s.h.
Clinical experience aligned with course topics and assignments in the human resources leadership course; completion of clinical in a K-12 school or other appropriate educational organization; development of a clinical plan based on course requirements, career goals, and student interests with guidance from a university professor and local school district mentor.

EPLS:6423 School Finance Clinical 1 s.h.
The clinical experience serves as an internship for the superintendency and/or central administration positions. This is a field-based experience that takes place in a local district or agency setting.

EPLS:6425 Organizational and Educational Leadership Clinical 1 s.h.
Clinical experience aligned with course topics and assignments in the organizational and educational leadership course; completion of clinical in a K-12 school or other appropriate educational organization; development of a clinical plan based on course requirements, career goals, and student interests with guidance from a university professor and local school district mentor.

EPLS:7373 Qualitative Research Design and Methods 3 s.h.
Theory and practice of qualitative research design and methodology; exploratory field experience in collection and analysis of data; individual and focus group interviews, participant observation. Requirements: PhD standing.

EPLS:7380 Practicum in College Teaching arr.
Supervised college teaching experience in courses related to major academic areas; collaboration with faculty course instructors.

EPLS:7385 Teaching and Learning in Higher Education 3 s.h.
Current theoretical and empirical literature on teaching and learning in higher education; focus on development of effective teaching practice. Same as CSED:7385, EDTL:7385, GRAD:7385, PSQF:7385.

EPLS:7392 Mixed Methods Research 3 s.h.
Introduction to mixed methods research in education; knowledge and skills necessary to conduct mixed methods study; history and language of mixed methods research; identifying and processing arguments for and against mixed methods research; critical and justice-oriented perspectives on mixed methods research; strengths and weaknesses of published mixed methods studies; application of one or more mixed methods research designs to a research proposal. Requirements: formal introduction to quantitative and qualitative research methods, and familiarity with basic steps of research process. Recommendations: direct experience conducting research studies not required. Same as EDTL:7410.

EPLS:7395 Educational Specialist Research arr.
Individual instruction in the design, research, and writing of a research project of significant quality for upper-level graduate work.

EPLS:7432 Strategies for Inclusive Leadership 3 s.h.
Applies practices of engaging difference within the contexts of higher education, K-12, student affairs, society, government, and community agency settings. Requirements: PhD, EdD, or advanced-level MA standing. Recommendations: introductory course on issues of race, culture, gender, sociopolitical issues, or structural oppression strongly recommended.

EPLS:7433 Current Issues in Higher Education and Student Affairs 3 s.h.
Current issues related to higher education; opportunity to clarify perspectives; review of literature in a particular area of interest; readings, class discussions, independent research, consultations with professionals in the field, student presentations. Requirements: higher education and student affairs PhD standing.

EPLS:7483 EdD Dissertation in Practice Proposal 1-3 s.h.
Supervision of EdD capstone proposal research, design, and writing. Requirements: completion of all EdD core and research coursework.

EPLS:7485 EdD Dissertation in Practice 1-4 s.h.
Supervision of EdD capstone research, design, and writing. Prerequisites: EPLS:7483. Requirements: educational policy and leadership studies EdD standing and completion of capstone proposal meeting.

EPLS:7493 PhD Thesis arr.
Supervision of research, design, and writing of PhD thesis; individual instruction.

Educational Policy and Leadership Studies, MA

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Specialized Content Knowledge

The MA will support students in acquiring and displaying a mastery of content knowledge suitable to their professional specialization (educational leadership; or higher education and student affairs). This content knowledge aligns with and extends the stated external professional society standards for earning a master's degree in each field.

Critical Thinking and Analytical Writing

Students will acquire capacities for theoretical and evidentiary-based analysis to critique and synthesize disparate and interdisciplinary perspectives within their specialization.

Impact and Practical Application

Students will acquire professional experiences through supervised experiential learning and practice through internships, practica, capstone, or other applied coursework.

Empirical Skills

Students will develop skills for conducting assessment, evaluation, and research appropriate to the master's level.

Leadership and Collaboration

Students will be able to analyze, articulate, and respond to complex problems using theory, evidence, and cooperation with individuals, communities, and organizations affected by the issues. Students will be able to analyze, articulate, and respond to complex problems using theory, evidence, and cooperation with those affected by the issues.

Ethical, Inclusive, and Equitable Practice

Students will gain skills in identifying and responding to educational inequities at the individual, organizational, and institutional levels. Specifically, students will apply their skills to advance student learning and development, inclusion, and facilitate organizational change and reform.

Educational Leadership

The Master of Arts program in educational policy and leadership studies with an educational leadership subprogram requires a minimum of 32 s.h. of graduate credit. Students must earn a Graduate College program grade-point average of at least 3.00 in major coursework.

The program prepares individuals for appointments as school principals and for positions in area education agencies and state departments of education. Upon completion of this degree, students will have completed the requirements to earn a master's degree and to obtain pre-K–12 principal and pre-K–12 supervisor of special education endorsement (State of Iowa Endorsement 189). In order to obtain the State of Iowa endorsement, an individual must have at least three years of teaching at the PK–12 level.

With the aid of an advisor, each MA student prepares a plan of study that includes the following core requirements.

Core Requirements

Course #	Title	Hours
All of these:		
EPLS:6201	Foundations of School Administration	3
EPLS:6236	Special Education Administration	3
EPLS:6242	Research for Effective School Leaders	3
EPLS:6260	Contemporary Management Strategies for the Pre-K-12 Principal	3
EPLS:6285	School and Community Relationships	3
EPLS:6298	Legal Aspects of School Personnel	3
EPLS:6381	Analysis and Appraisal of Curriculum	3
EPLS:6383	Supervision and Evaluation	3

Each core class has ten hours of clinical work linked to the course content (total of 80 hours).

Clinical Courses

For Iowa licensure as a principal, students must hold an Iowa teacher license, have taught for three years, and meet the human relations requirement of the State of Iowa. Students complete the core requirements and the following required clinical courses.

Course #	Title	Hours
EPLS:6400	Early Childhood Leadership Clinical	1
EPLS:6401	Elementary Leadership Clinical	3
EPLS:6402	Secondary Leadership Clinical	2
EPLS:6403	Special Education Leadership Clinical	3
EPLS:6406	School Improvement Plan (School Improvement Plan)	1

Electives

Students earning an MA without principal licensure are not required to complete the clinical courses. Instead, they complete the core requirements and a series of electives (8 s.h.) approved by their advisors. Students are permitted to select coursework numbered 3000 and above from counselor education (prefix CSED), teaching and learning (prefix EDTL), educational policy and leadership studies (prefix EPLS), and psychological and quantitative foundations (prefix PSQF). For more detailed information, see the Educational Leadership website.

Final Examination

Students in the MA program with licensure or the MA program without licensure are required to take final examinations at the end of their program of study. The final examination is

in the format of a mock interview for a building principal or similar leadership position. The faculty provides candidates with a scenario for which they are expected to prepare a presentation to the educational leadership faculty who acts as the hiring team. The presentation is followed by questioning and feedback. Students must be registered in the Graduate College during their final examination semester if they plan to graduate at the end of the semester.

Admission

Applicants to the MA program in educational leadership must meet the admission requirements of the Graduate College. Students must have PK–12 classroom teaching experience. Admission decisions are made through a faculty review process on a rolling basis.

Higher Education and Student Affairs

The Master of Arts program in educational policy and leadership studies with a higher education and student affairs subprogram requires a minimum of 40 s.h. of graduate credit. Students must earn a UI cumulative grade-point average of at least 2.75 to be eligible for degree conferral.

The program prepares individuals for careers in higher education, including academic administration, policy analysis, first-year programs, student activities and leadership, enrollment management, program evaluation, multicultural affairs, academic and career advising, residence life, and international student services.

The higher education and student affairs program curriculum consists of coursework in postsecondary administration, college students and their environments, college student development, and current and emerging issues in higher education, as well as in research and assessment. The curriculum integrates theory and practice and is designed to be completed in two years of full-time study or equivalent part-time study.

The curriculum includes the higher education and student affairs core, supervised practice, and integrative experiences. Elective coursework is subject to advisor approval. An internship at an approved site is required for full admission to the program.

The MA in educational policy and leadership studies with a higher education and student affairs subprogram requires the following work.

Requirements

Common Core

Course #	Title	Hours
All of these:		
EPLS:5100	Issues and Policies in Higher Education	3
EPLS:5247	Multiculturalism in Higher Education	3
EPLS:5250	Introduction to Higher Education and Student Affairs	3
EPLS:5251	College Students and Their Environments	3
EPLS:5252	Administration of Higher Education and Student Affairs	3
EPLS:5253	Research, Assessment, and Evaluation in Higher Education	3
EPLS:6332	Conceptual Foundations of College Student Development	3
EPLS:6334	Theoretical Foundations of College Student Development	3

Integrative Experiences

Course #	Title	Hours
All of these:		
EPLS:6301	Professional Seminar I	1
EPLS:6305	Higher Education and Student Affairs Capstone	3
EPLS:6333	Practicum in Higher Education and Student Affairs (required once; students may enroll a maximum of three times.)	3

Electives

Students choose elective coursework in consultation with their advisor. Courses from other departments may be taken with advisor approval.

Course #	Title	Hours
At least 9 s.h. from these:		
EPLS:5278	Helping Skills in Student Affairs Work	3
EPLS:6206	Research Process and Design	3
EPLS:6216	Finance in Higher Education	3
EPLS:6218	The Law and Higher Education	3
EPLS:6220	History of Higher Education	3
EPLS:6224	Organizational Theory and Administrative Behavior	3
EPLS:6225	Higher Education Policy	3
EPLS:6275	Higher Education and Society	3
EPLS:6293	Individualized Instruction (may be taken once up to 3 s.h.)	3
EPLS:6336	Impact of College on Students	3
EPLS:7380	Practicum in College Teaching (may be taken once up to 3 s.h.)	3
EPLS:7385	Teaching and Learning in Higher Education	3
EPLS:7432	Strategies for Inclusive Leadership	3

Admission

Applicants must meet the admission requirements of the Graduate College.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Educational Policy and Leadership Studies, MA

- Educational Leadership Subprogram [p. 1381]
- Higher Education and Student Affairs Subprogram [p. 1381]

Educational Leadership Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
32 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Any Semester		
Work with academic advisor to determine sequence		
EPLS:6201	Foundations of School Administration	3
EPLS:6236	Special Education Administration	3
EPLS:6242	Research for Effective School Leaders	3
EPLS:6260	Contemporary Management Strategies for the Pre-K-12 Principal	3
EPLS:6285	School and Community Relationships	3
EPLS:6298	Legal Aspects of School Personnel	3
EPLS:6381	Analysis and Appraisal of Curriculum	3
EPLS:6383	Supervision and Evaluation	3
	Hours	**24**
Second Year		
Any Semester		
Elective course [b]		3
Elective course [b]		3
Elective course [b]		2
Exam: Master's Final Exam		
	Hours	**8**
	Total Hours	**32**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Students must complete a series of electives (at least 8 s.h.); work with academic advisor to select appropriate courses.

Higher Education and Student Affairs Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
40 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
EPLS:5250	Introduction to Higher Education and Student Affairs	3
EPLS:5251	College Students and Their Environments	3
EPLS:6301	Professional Seminar I	1
EPLS:6332	Conceptual Foundations of College Student Development	3
	Hours	**10**
Spring		
EPLS:5247	Multiculturalism in Higher Education	3
EPLS:6333	Practicum in Higher Education and Student Affairs [b]	3
EPLS:6334	Theoretical Foundations of College Student Development	3
Elective course [c]		3
	Hours	**12**
Second Year		
Fall		
EPLS:5100	Issues and Policies in Higher Education	1 - 3
EPLS:5253	Research, Assessment, and Evaluation in Higher Education	3
Elective course [c]		3
Elective course (if needed) [c]		2
	Hours	**9-11**
Spring		
EPLS:5252	Administration of Higher Education and Student Affairs	3
EPLS:6305	Higher Education and Student Affairs Capstone	3
Elective course [c]		3
	Hours	**9**
	Total Hours	**40-42**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Required once; students enroll in this course a maximum of 3 times. Students with appropriate experience, with faculty approval, may waive this requirement.

c See catalog for list of approved electives; courses outside the program require faculty advisor approval.

Educational Policy and Leadership Studies, EdS

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Graduates will be able to:

- apply the knowledge, skills, and inquiry strategies to solve significant problems related to educational policies and practices;
- demonstrate through their clinical experiences their participation in, and ability to navigate, the day-to-day responsibilities of a school administrator;
- utilize data effectively to enhance learning opportunities for all students;
- recognize and address inequities imposed on students and educators, and promote necessary change;
- understand and apply evidence of effective organizational and systemic change for equity, inclusion, and justice;
- identify and meet contemporary challenges facing schools and school leaders;
- impact and enact policy defined by school board or legislative action;
- manage and distribute resources to enact the optimum impact upon programs at the building and district level;
- embrace differences of persons and perspectives, and understand the challenges faced at all levels of a school system PK–12; and
- exhibit the ability to successfully develop a district overview or administrative problem in practice.

Educational Leadership

The Specialist in Education program in educational policy and leadership studies with an educational leadership subprogram requires 60 s.h. of graduate credit and is offered for educators who already have their master's degree and Iowa administrator license. Students must earn a UI cumulative grade-point average of at least 3.00 in major coursework.

The program prepares candidates to be superintendents in Iowa or to hold other district-level leadership positions in PK–12 school districts. It also prepares them for appointments as area education agency chief administrators and for jobs in state or federal departments of education.

Students can transfer up to 30 s.h. from a previously earned master's degree. Students must complete a minimum of 30 s.h. of coursework at UI after program admission, generally comprised of 20 s.h. of coursework and 10 s.h. of clinical work. At the conclusion of the program, students are required to present their first-year entry plan. Many educational leadership courses are offered synchronously via distance education; see MyUI for information about courses offered during current semesters. For detailed information, refer to EdS programs on the Educational Leadership website.

Students seeking superintendent endorsement must have an Iowa administrator license. They obtain the superintendent endorsement (State of Iowa Endorsement 171) upon completing the required EdS coursework and at least three years of administrative experience.

The EdS in educational policy and leadership studies with an educational leadership subprogram requires the following coursework.

Required Courses

Course #	Title	Hours
All of these:		
EPLS:6265	Standards-Based Education and Accountability	3
EPLS:6270	Policy and Politics	3
EPLS:6315	Orientation to the Superintendency	2
EPLS:6317	Operational Leadership and Management	2
EPLS:6319	Human Resources Leadership	2
EPLS:6321	Social Advocacy Summit	1
EPLS:6323	School Finance	2
EPLS:6325	Organizational and Educational Leadership	2
EPLS:6329	Legislative Summit	1
Electives		2-3

Clinical Courses

Course #	Title	Hours
All of these:		
EPLS:6404	Central Administration Clinical	3
EPLS:6405	Superintendent Entry Plan and Portfolio Development	1
EPLS:6415	Orientation to the Superintendency: Clinical	2
EPLS:6417	Operational Leadership Clinical	1
EPLS:6419	Human Resources Leadership Clinical (Iowa Evaluator Approval Training opportunity is available through AEA PD Online; contact the closest AEA for information.)	2
EPLS:6423	School Finance Clinical	1
EPLS:6425	Organizational and Educational Leadership Clinical	1

Students are required to spend 40 clock hours of effort for each semester hour of clinical courses. Documentation of these hours must be maintained and submitted at the end of the course. Documentation should include the date, time spent, description of the activity, and reflections. Each activity must be identified with the corresponding National Educational Leadership Preparation (NELP) standard. A syllabus will be provided to guide the clinical activity.

Final Examination

The final exam is satisfied by taking EPLS:6405 Superintendent Entry Plan and Portfolio Development.

Admission

Applicants must meet the admission requirements of the Graduate College and of the educational leadership program. Complete applications are reviewed as they are received.

Higher Education and Student Affairs

The Specialist in Education program in educational policy and leadership studies with a higher education and student affairs subprogram requires 60 s.h. of graduate credit. Students must earn a UI cumulative grade-point average of at least 3.00 in major coursework.

The program provides advanced graduate study in administration, policy studies, and specializations developed in consultation with an advisor. The EdS also may be awarded upon completion of a combined program of graduate work in higher education and another academic field, or upon completion of a higher education sequence following a master's degree program in a different field.

Required Courses

The EdS program of study must include the following.

Course #	Title	Hours
Professional Education and Related Field Courses		18
Electives (approved by advisor)		10
Specialization Area Courses		28
EPLS:7395	Educational Specialist Research	4
Total Hours		**60**

Depending on the student's career goals, the program may include an appropriate structured and supervised internship, determined in consultation with the advisor.

Final Examination

A culminating experience is required of all students, the nature of which is contracted with the advisor. An oral examination of the culminating experience may be required.

Related Field

Students majoring in another field who want to complete a related field in higher education and student affairs should consult with a higher education and student affairs faculty member early in their study. Plans of study are developed individually.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Educational Policy and Leadership Studies, EdS

Educational Leadership Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
60 s.h. of graduate level coursework must be completed; maximum of 30 s.h. of graduate transfer credits can be applied upon approval to fulfill the degree requirements. More information is included in the General Catalog and on department website. [a, b, c]		
Graduate College program GPA of at least 3.00 is required. [d]		
	Hours	**0**
First Year		
Fall		
EPLS:6270	Policy and Politics	3
EPLS:6317	Operational Leadership and Management	2
EPLS:6417	Operational Leadership Clinical [e]	1
	Hours	**6**
Spring		
EPLS:6315	Orientation to the Superintendency	2
EPLS:6415	Orientation to the Superintendency: Clinical [e]	2
	Hours	**4**
Summer		
EPLS:6319	Human Resources Leadership	2
EPLS:6321	Social Advocacy Summit	1
EPLS:6419	Human Resources Leadership Clinical [e]	2
	Hours	**5**
Second Year		
Fall		
EPLS:6323	School Finance	2
EPLS:6405	Superintendent Entry Plan and Portfolio Development [e]	1
EPLS:6423	School Finance Clinical	1
	Hours	**4**
Spring		
EPLS:6329	Legislative Summit	1
Elective		2 - 3
	Hours	**3-4**
Summer		
EPLS:6325	Organizational and Educational Leadership	2
EPLS:6425	Organizational and Educational Leadership Clinical [e]	1
	Hours	**3**
Third Year		
Fall		
EPLS:6265	Standards-Based Education and Accountability	3
	Hours	**3**
Spring		
EPLS:6404	Central Administration Clinical [e]	3

Confirm completion of degree requirements with program.	
Hours	**3**
Total Hours	**31-32**

a Complete most course requirements prior to taking clinical requirements; work with academic advisor to select electives.

b Students seeking superintendent endorsement must have an Iowa administrator license. They obtain the superintendent endorsement (State of Iowa endorsement 171) upon completing the required EdS coursework and at at least three years of principal experience.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

e Students are required to spend 40 clock hours of effort for each semester hour of clinical courses; see department website for specifics.

Educational Policy and Leadership Studies, EdD

The Doctor of Education (EdD) in educational policy and leadership studies is designed for educators who seek a terminal doctoral degree to practice upper-level leadership in pre-kindergarten through higher education (PK–20) settings. Based on the scholar-practitioner model, the EdD differs from the PhD in that it allows for a more practical-based approach to use and perform applied research in educational settings grounded in problem-based learning pedagogy. The EdD employs a blended learning delivery of hybrid (online and in-person), condensed, and weekend courses.

The EdD is a non-deposit degree program. Students complete a dissertation in practice based on a problem of practice in their own work setting. The dissertation proposal course serves as the equivalent of the comprehensive exam, and an applied dissertation is required for graduation.

Learning Outcomes

EdD graduates will be able to:

- apply the knowledge, skills, and inquiry strategies to solve significant problems related to educational policies and practices;
- evaluate and use data to make judgments to improve practice and policy;
- understand and apply evidence of effective organizational and systemic change for equity, inclusion, and justice;
- frame situations from multiple perspectives;
- identify and meet contemporary challenges facing schools and higher education;
- embrace differences of persons and perspectives;
- develop a critical and professional perspective that is ethical and promotes change for equity and inclusion;
- link theory with systematic inquiry and assessment to improve educational policy and practice; and
- complete a dissertation in practice using scholarly methods to address field-based problems and develop meaningful solutions.

Higher Education

The Doctor of Education program in educational policy and leadership studies with a higher education subprogram requires 75 s.h. of graduate credit. This can include up to 36 s.h. of transfer credit from a previous master's degree with advisor approval, which requires 39 s.h. to be completed at the University of Iowa under the auspices of the Graduate College after program admission. For students who have previously earned an EdS degree, the registration requirement is 27 s.h. (transfer credit limit is 48 s.h.). University of Iowa doctoral students must earn a UI cumulative grade-point average (GPA) of at least 3.00 to be eligible for degree conferral.

The EdD in educational policy and leadership studies with a higher education subprogram requires the following coursework.

Core Courses

Course #	Title	Hours
All of these:		
EPLS:6217	Theory and Practice of Leadership	3
EPLS:6307	Professional Seminar for EdD Students: Orientation to the EdD	2
EPLS:6321	Social Advocacy Summit	1
EPLS:7432	Strategies for Inclusive Leadership	3

Applied Research

Course #	Title	Hours
All of these:		
EPLS:6266	Program Evaluation	3
EPLS:6352	Applied Research in Educational Settings	3
EPLS:6353	Advanced Applied Research in Educational Setting	3
EPLS:7483	EdD Dissertation in Practice Proposal	3
EPLS:7485	EdD Dissertation in Practice	4

Higher Education Coursework

Students complete coursework in higher education as follows.

Course #	Title	Hours
All of these:		
EPLS:5252	Administration of Higher Education and Student Affairs	3
EPLS:6216	Finance in Higher Education	3
EPLS:6218	The Law and Higher Education	3
EPLS:6225	Higher Education Policy	3
EPLS:6336	Impact of College on Students	3

Electives

In consultation with their advisor, students complete the remaining semester hours in elective coursework.

Admission

Applicants must meet the admission requirements of the Graduate College. They must have earned a bachelor's degree from a regionally accredited U.S. institution or an equivalent degree from another country as determined by University of Iowa Admissions; a master's degree with a GPA of at least 3.00 in higher education, student affairs, student development, K–12 leadership, or another related field; and have at least three years of full-time experience in education.

PK–12 Administration

The Doctor of Education program in educational policy and leadership studies with a PK–12 administration subprogram requires 75 s.h. of graduate credit. This can include up to 36 s.h. of transfer credit from a previous master's degree with advisor approval, which requires 39 s.h. to be completed at the University of Iowa under the auspices of the Graduate

College after program admission. For students who have previously earned an EdS degree, the registration requirement is 27 s.h. (transfer credit limit is 48 s.h.). For students who have a current endorsement (State of Iowa Endorsement 171), the registration requirement is 33 s.h. (transfer credit limit is 42 s.h.). University of Iowa doctoral students must earn a UI cumulative grade-point average (GPA) of at least 3.00 to be eligible for degree conferral.

The EdD in educational policy and leadership studies with a PK–12 administration subprogram requires the following work.

Core Courses

Course #	Title	Hours
All of these:		
EPLS:6217	Theory and Practice of Leadership	3
EPLS:6307	Professional Seminar for EdD Students: Orientation to the EdD	2
EPLS:6321	Social Advocacy Summit	1
EPLS:7432	Strategies for Inclusive Leadership	3

Applied Research

Course #	Title	Hours
All of these:		
EPLS:6266	Program Evaluation	3
EPLS:6352	Applied Research in Educational Settings	3
EPLS:6353	Advanced Applied Research in Educational Setting	3
EPLS:7483	EdD Dissertation in Practice Proposal	3
EPLS:7485	EdD Dissertation in Practice	4

PK–12 Administration Coursework

Students complete coursework in PK–12 administration as follows.

Course #	Title	Hours
All of these:		
EPLS:6265	Standards-Based Education and Accountability	3
EPLS:6270	Policy and Politics	3
EPLS:6329	Legislative Summit	1
Additional coursework toward the superintendency endorsement or electives		8

To obtain superintendent endorsement, all requirements for the endorsement must be met including an additional 12 s.h. in PK–12 administration.

Electives

In consultation with their advisor, students complete the remaining semester hours in elective coursework.

Admission

Applicants must meet the admission requirements of the Graduate College. They must have earned a bachelor's degree from a regionally accredited U.S. institution or an equivalent degree from another country as determined by University of Iowa Admissions; a master's degree with a GPA of at least 3.00 in higher education, student affairs, student development, K–12 leadership, or another related field; and have at least three years of full-time experience in education.

Career Advancement

The EdD prepares students for careers in PK–12 and higher education administrative leadership in educational institutions and related organizations.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Educational Policy and Leadership Studies, EdD

- Higher Education Subprogram [p. 1386]
- PK-12 Administration Subprogram [p. 1387]

Higher Education Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
75 s.h. must be graduate level coursework; up to 36 s.h. of graduate transfer credits from a previous graduate degree from an accredited university allowed upon approval. More information is included in the General Catalog and on department website.[a, b]		
	Hours	**0**
First Year		
Fall		
EPLS:6266	Program Evaluation	3
EPLS:6307	Professional Seminar for EdD Students: Orientation to the EdD	2
Higher Education course[c]		3
	Hours	**8**
Spring		
EPLS:6217	Theory and Practice of Leadership	3
Higher Education course[c]		3
	Hours	**6**
Summer		
EPLS:6321	Social Advocacy Summit[d]	1
EPLS:6352	Applied Research in Educational Settings	3
EPLS:7432	Strategies for Inclusive Leadership	3
	Hours	**7**
Second Year		
Fall		
EPLS:6353	Advanced Applied Research in Educational Setting	3
Higher Education course[c]		3
	Hours	**6**
Spring		
EPLS:7483	EdD Dissertation in Practice Proposal[e]	3

Higher Education course [c]		3
	Hours	**6**
Summer		
Higher Education course [c]		2
	Hours	**2**
Third Year		
Fall		
EPLS:7485	EdD Dissertation in Practice [f]	2
	Hours	**2**
Spring		
EPLS:7485	EdD Dissertation in Practice [f]	2
	Hours	**2**
	Total Hours	**39**

a Students who enter with fewer than 36 s.h. of graduate transfer credits need to work directly with their faculty advisor to select appropriate graduate level coursework to complete the degree requirements. Students must have a related master's degree to be admitted to the program and are expected to have been practicing in education for a minimum of three years.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Higher Education subprogram coursework must include EPLS:5252, EPLS:6216, EPLS:6218, EPLS:6225, and EPLS:6336.

d Typically offered every summer; may be completed either prior to the first fall semester in the program or after the first year.

e Students must have successfully completed all other core/applied research coursework (except for EPLS:7485) and at least 80% of the subprogram coursework, and be concurrently enrolled in any outstanding subprogram courses, in order to take EPLS:7483.

f Student must successfully complete EPLS:7483, including passing a committee proposal defense meeting, before enrolling in EPLS:7485.

PK–12 Administration Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
75 s.h. must be graduate level coursework; up to 36 s.h. of graduate transfer credits from a previous graduate degree from an accredited university allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
	Hours	**0**
First Year		
Fall		
EPLS:6266	Program Evaluation	3
EPLS:6307	Professional Seminar for EdD Students: Orientation to the EdD	2
PK-12 Administration course [d]		3
	Hours	**8**
Spring		
EPLS:6217	Theory and Practice of Leadership	3
PK-12 Administration course [d]		3
	Hours	**6**
Summer		
EPLS:6321	Social Advocacy Summit [e]	1
EPLS:6352	Applied Research in Educational Settings	3
EPLS:7432	Strategies for Inclusive Leadership [e]	3
	Hours	**7**
Second Year		
Fall		
EPLS:6353	Advanced Applied Research in Educational Setting	3
PK-12 Administration course [d]		3
	Hours	**6**
Spring		
EPLS:7483	EdD Dissertation in Practice Proposal [f]	3
PK-12 Administration course [d]		3
	Hours	**6**
Summer		
PK-12 Administration course [d]		3
	Hours	**3**
Third Year		
Fall		
EPLS:7485	EdD Dissertation in Practice [g]	2
	Hours	**2**
Spring		
EPLS:7485	EdD Dissertation in Practice [g]	2
	Hours	**2**
	Total Hours	**40**

a To obtain superintendent endorsement, all requirements for the endorsement must be met including an additional 12 s.h. in PK-12 Administration.

b Students who enter with fewer than 36 s.h. of graduate transfer credits need to work directly with their faculty advisor to select appropriate graduate level coursework to complete the degree requirements. Students must have a related master's degree to be admitted to the program and are expected to have been practicing in education for a minimum of three years.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d PK-12 Administration subprogram coursework must include EPLS:6265, EPLS:6270, EPLS:6329, and at least 8 s.h. of superintendent endorsement or elective coursework.

e Typically offered every summer; may be completed either prior to the first fall semester in the program or after the first year.

f Students must have successfully completed all other core/applied research coursework (except for EPLS:7485) and at least 80% of the subprogram coursework, and be concurrently enrolled in any outstanding subprogram courses, in order to take EPLS:7483.

g Student must successfully complete EPLS:7483, including passing a committee proposal defense meeting, before enrolling in EPLS:7485.

Educational Policy and Leadership Studies, PhD

Learning Outcomes

Specialized Content Knowledge

The department expects students to acquire and display mastery of a broad and deep knowledge of disciplines associated with one's specialization (educational leadership; or higher education and student affairs) covering content that contributes to the historical, current, philosophical, and applied dimensions of the field.

Critical Thinking and Analytical Writing

Students will acquire capacities for theoretical and evidentiary-based analysis to critique and synthesize disparate and interdisciplinary perspectives within their specialization.

Empirical Skills

Students will develop skills for conducting assessment, evaluation, and research on phenomena associated with individuals and organizations associated with educational organizations, educationally aligned sectors, and individuals affiliated with or impacted by education.

Impact and Practical Application

Students will acquire skills for engaging in the higher education professional communities by participating in research and/or practitioner organizations focused on translation and application.

Leadership and Collaboration

Students will be able to analyze, articulate, and respond to complex problems using theory, evidence, and cooperation with those affected by the issues.

Ethical, Inclusive, and Equitable Practice

Students will gain skills in identifying and responding to educational inequities at the individual, organizational, and institutional levels. Specifically, students will apply their skills to advance educational inclusion and facilitate organizational change and reform.

Educational Leadership

The Doctor of Philosophy program in educational policy and leadership studies with an educational leadership subprogram requires a minimum of 90 s.h. of graduate credit. Students must earn a UI cumulative grade-point average of at least 3.00 in major coursework.

The program prepares scholarly professionals for leadership positions in a wide range of educational and public sector settings. Students acquire strong backgrounds in leadership, policy, and research. They equip themselves to discover, integrate, and apply knowledge as transformational leaders.

The PhD in educational policy and leadership studies with an educational leadership subprogram requires the following coursework.

Requirements	Hours
Common Courses	12
Cognate Courses	9
Electives	29
Concentration Area Courses	12
Research Courses	18
Dissertation	10

Students also complete the comprehensive examination and a dissertation, described in the following sections.

Many educational leadership courses are offered by distance education; see MyUI for information about courses offered during current semesters.

For more detailed coursework information, see Educational Leadership on the Department of Educational Policy and Leadership Studies website.

Research Courses

All educational leadership PhD students must complete EPLS:6206 Research Process and Design during the first year of their PhD program. They must also complete a minimum of 15 s.h. in qualitative and quantitative coursework, with at least 9 s.h. from one area (qualitative or quantitative) and at least 6 s.h. from the other. Students select from courses listed under PhD Research Requirements on the college's Graduate Student Resources website.

Comprehensive Examination

Students must satisfactorily complete a written take-home comprehensive examination consisting of three parts. The first part covers a student's major area of study, and the second covers two additional concentration areas. The third is on the student's outside area of study and is prepared by faculty members outside the Department of Educational Policy and Leadership Studies. The written exams are followed by an oral examination.

Dissertation

Students must write a dissertation based on an original research project in an area of educational leadership. Students must earn 10 s.h. of credit for dissertation research. The doctoral program culminates with a final oral defense of the dissertation. Students must be registered at the University of Iowa during the session in which they graduate.

Admission

Applicants must meet the admission requirements of the Graduate College and of the educational leadership program. Successful applicants must have experience teaching and leading PK–12 schools. Complete applications are reviewed as they are received.

Higher Education and Student Affairs

The Doctor of Philosophy program in educational policy and leadership studies with a higher education and student affairs subprogram requires a minimum of 74 s.h. of graduate credit. At least 39 s.h. must be earned while registered in the Graduate College at the University of Iowa, and after formal program admission. Students must earn a UI cumulative grade-point average of at least 3.00 in major coursework.

The doctoral program prepares individuals to be leaders in student affairs and academic administration, graduate faculty

at research universities, leaders in conducting research about college students and higher education, policy analysts in postsecondary institutions and public or private agencies, and teachers and academic leaders at two-year and four-year colleges. The higher education and student affairs program integrates academic experience with the cocurricular learning experiences of students and studies the outcomes of both.

The PhD in educational policy and leadership studies with a higher education and student affairs subprogram requires the following coursework.

Requirements	Hours
Substantive Core Courses	18
Research Methods Courses	18
Concentration Area Courses	12
Electives	24
Dissertation	2

Substantive Core

The substantive core provides a foundational understanding of higher education and general knowledge that all students must master, regardless of their career goals and interests. All courses in the core (18 s.h.) must be completed at the University of Iowa.

Course #	Title	Hours
All of these:		
EPLS:6216	Finance in Higher Education	3
EPLS:6220	History of Higher Education	3
EPLS:6224	Organizational Theory and Administrative Behavior	3
EPLS:6273	College Students	3
EPLS:6275	Higher Education and Society	3
EPLS:6311	Seminar: Research Topic in Education	3

Research Methods

Research methods courses (at least 18 s.h.) ensure that students achieve scholarly autonomy and initiative.

Basic Research Methods

Course #	Title	Hours
Both of these (6 s.h.):		
EPLS:6206	Research Process and Design	3
EPLS:7373	Qualitative Research Design and Methods (or approved substitute)	3

Statistics/Linear Regression

These courses (6 s.h.) must be taken in this order.

Course #	Title	Hours
This course:		
PSQF:6243	Intermediate Statistical Methods	3
Then this course:		
EPLS:6370	Quantitative Methods for Policy Analysis	3

Advanced/Specialized Research Methods

Students consult with their advisor to choose two courses (at least 6 s.h.) from either list appropriate to their dissertation design and intended learning outcomes.

Qualitative Methods

Course #	Title	Hours
EPLS:5170	Introduction of Institutional Research and Effectiveness	3
EPLS:7392	Mixed Methods Research	3
EDTL:7071	Critical Discourse Analysis in Educational Research	3
EDTL:7072	Advanced Methods of Literacy Research: Qualitative Data Analysis and Reporting	3
EDTL:7073	Ethnographic Methods, Theories, and Texts	3
Another comparable research methods course approved by advisor		

Quantitative Methods

Course #	Title	Hours
EPLS:5170	Introduction of Institutional Research and Effectiveness	3
EPLS:6209	Survey Research and Design	3
POLI:7003	Advanced Methodology	4
PSQF:6246	Design of Experiments	3
Another comparable research methods course approved by advisor		

Concentration Area

The concentration area (12 s.h.) gives students the opportunity to develop expertise in one area. Students consult with their advisor to develop the concentration curriculum.

Electives

A student and their advisor may determine that some of their prior graduate work may be appropriate and applicable to the student's doctoral program. A student may count up to 24 s.h. of prior coursework toward the doctoral degree as electives. If a student does not have prior graduate work, they must enroll in up to 24 s.h. of electives to fulfill this requirement.

Comprehensive Examination

The PhD comprehensive examination consists of a question written by the student in consultation with their advisor, and formally approved by the higher education and student affairs faculty. Students are expected to construct a well-supported argument informed by knowledge of the theory, research, and practice that constitutes the field of higher education based on the substantive core and the student's concentration. The written examination is followed by an oral examination.

Dissertation

The dissertation is a major research study planned in collaboration with the student's advisor. Students must write a formal dissertation proposal and submit it for approval, first to their advisor and then to the members of their doctoral committee. Students and their advisors determine when the proposal is complete. Students must earn 2 s.h. of dissertation

research credit. The doctoral program culminates with a final oral defense of the dissertation.

Students must be registered at the University of Iowa each fall and spring semester from the semester in which they complete their comprehensive examination through the semester in which they defend their dissertation and graduate.

Admission

Applicants must meet the admission requirements of the Graduate College.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Educational Policy and Leadership Studies, PhD

- Educational Leadership Subprogram [p. 1390]
- Higher Education and Student Affairs Subprogram [p. 1391]

Educational Leadership Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
90 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Distribute the following graduate elective hours between years 1-4 with advisor approval: [b]		
Elective course		3
Elective course		3
Elective course		3
Elective course		3
Elective course		3
Elective course		3
Elective course		3
Elective course		3
Elective course		3
Elective course		2
	Hours	**29**
First Year		
Fall		
EPLS:6217	Theory and Practice of Leadership	3
EPLS:6224	Organizational Theory and Administrative Behavior	3
EPLS:6226	Educational Management	3
	Hours	**9**
Spring		
EPLS:6311	Seminar: Research Topic in Education	3
Research course [c]		3
Research course [c]		3
	Hours	**9**
Second Year		
Fall		
Concentration Area course [d]		3
Research course [c]		3
Research course [c]		3
	Hours	**9**
Spring		
Concentration Area course [d]		3
Research course [c]		3
Research course [c]		3
	Hours	**9**
Third Year		
Any Semester		
Comprehensive Exam [e, f]		
	Hours	**0**
Fall		
Concentration Area course [d]		3
Cognate course [g]		3
Cognate course [g]		3
	Hours	**9**
Spring		
Concentration Area course [d]		3
Cognate course [g]		3
	Hours	**6**
Fourth Year		
Fall		
EPLS:7493	PhD Thesis [h]	5
	Hours	**5**
Spring		
EPLS:7493	PhD Thesis [h]	5
Final Exam (Dissertation Defense) [i, j]		
	Hours	**5**
	Total Hours	**90**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Complete a total of 29 s.h. in a related field; work with academic advisor for approval of graduate transfer credit and/or to select electives. Students are encouraged to present their MA degree as the related field, where appropriate.

c Complete at least 18 s.h. of graduate courses in research design, quantitative, and qualitative required methods appropriate for doctoral-level research in Educational Leadership. Work with academic advisor to select appropriate courses approved by the College of Education.

d Complete at least 12 s.h. in a concentration area; work with academic advisor to select appropriate graduate level courses. See the General Catalog and the College of Education website for specifics.

e Required written and oral examination covering three areas: major area of study, other concentration area, and the student's chosen outside area of study.

f Typically taken after most required coursework is completed; work with academic advisor to complete the exam.

g Students must complete a 9 s.h. cognate outside of the Educational Policy and Leadership Studies department. Work with academic advisor to determine appropriate graduate courses and sequence.
h Maximum total of 10 s.h. of thesis credit allowed.
i Must be completed within five years of Comprehensive Exam.
j An original research project is to be developed, presented and defended in an area of Educational Leadership.

Higher Education and Student Affairs Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
74 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Distribute between years 1-4 with advisor approval; work with academic advisor to determine sequence.		
EPLS:6216	Finance in Higher Education [b]	3
EPLS:6220	History of Higher Education [b]	3
EPLS:6224	Organizational Theory and Administrative Behavior [b]	3
EPLS:6273	College Students [b]	3
EPLS:6275	Higher Education and Society [b]	3
EPLS:6311	Seminar: Research Topic in Education [b]	3
EPLS:6206	Research Process and Design [c]	3
EPLS:7373	Qualitative Research Design and Methods [c]	3
PSQF:6243	Intermediate Statistical Methods [d]	3
EPLS:6370	Quantitative Methods for Policy Analysis [d]	3
Advanced/Specialized Research Methods course [e, f]		3 - 4
Advanced/Specialized Research Methods course [e, f]		3 - 4
Concentration Area course [g]		3
Concentration Area course [g]		3
Concentration Area course [g]		3
Concentration Area course [g]		3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
	Hours	**72-74**
Third Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [i]		
	Hours	**0**
Fourth Year		
Any Semester		
Exam: Doctoral Final Exam [j]		
	Hours	**0**
Fall		
EPLS:7493	PhD Thesis [k]	1
	Hours	**1**
Spring		
EPLS:7493	PhD Thesis [k]	1
	Hours	**1**
	Total Hours	**74-76**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Substantive Core course.
c Basic Research Methods course.
d Statistics/Linear Regression course.
e Work with academic advisor to select either Qualitative or Quantitative Advanced/Specialized Research Methods coursework appropriate to dissertation design.
f 6 s.h. from Qualitative courses EPLS:5260, EPLS:7392, EDTL:7071, EDTL:7072, EDTL:7073, or 6-7 s.h. from Quantitative courses EPLS:5170, EPLS:6209, POLI:7003, PSQF:6246.
g Work with academic advisor to select appropriate graduate level coursework in the specialization area. See the General Catalog and the College of Education website for specifics.
h Work with academic advisor for approval to select electives in related field, including graduate transfer credits.
i Typically taken after most required coursework is completed; work with advisor to complete the exam.
j Dissertation defense. Must be completed within five years of Comprehensive Exam.
k Students must earn 2 s.h. of dissertation research credit.

Institutional Research and Effectiveness

Chair, Department of Educational Policy and Leadership Studies

- Kenneth G. Brown

Graduate certificate: institutional research and effectiveness

Faculty: https://education.uiowa.edu/directory

Website: https://education.uiowa.edu/areas-study/continuing-education/certificates-and-endorsements/certificate-institutional-research

The purpose of the graduate Certificate in Institutional Research and Effectiveness (IRE) is to prepare professionals to use data for institutional decision-making, reporting, and accountability in higher education and K–12 contexts. This certificate amends and complements students' competence in other areas (business affairs, information technology, student affairs, development, etc.) to prepare them with the skills and capabilities to use data for educational improvement, accountability, quality, and equity. Students learn about data collection, management, and analysis, as well as the reporting and dissemination of results for communicating with a diverse range of audiences and stakeholders. This training program draws upon the unique strengths of the College of Education, which possesses substantial expertise in methodology for educational research, evaluation, and assessment.

The Certificate in Institutional Research and Effectiveness is administered by the Department of Educational Policy and Leadership Studies [p. 1372] and is granted by the Graduate College.

Programs

Graduate Program of Study

- Certificate in Institutional Research and Effectiveness [p. 1393]

Institutional Research and Effectiveness, Graduate Certificate

Requirements

The graduate Certificate in Institutional Research and Effectiveness requires 15 s.h. of graduate credit and is offered with hybrid and conventional courses. Students must maintain a grade-point average of at least 2.50 in work for the certificate. They must earn at least a grade of C in each course required for the certificate. Courses must be taken on a graded basis.

The certificate program is open to students enrolled in University of Iowa graduate degree programs and to individuals who are enrolled in the Graduate College as nondegree students.

The certificate program develops skills in institutional research appropriate to the education sector, and for fields and professional settings that are associated with educational interventions, programs, and outcomes. The course sequence contributes to the development of the competencies necessary for performing well in the administrative area of institutional research: quantitative statistical skills, knowledge of a range of social science research design and methods, familiarity with complex data environments, and facility with reporting and presenting information to a range of internal and external audiences.

The Certificate in Institutional Research and Effectiveness requires the following coursework.

Course #	Title	Hours
All of these:		
EPLS:5240	Topics in Education (when topic is introduction to institutional research and effectiveness)	3
EPLS:6370	Quantitative Methods for Policy Analysis	3
PSQF:6243	Intermediate Statistical Methods	3
Two of these:		
EPLS:6209	Survey Research and Design	3
EPLS:6266	Program Evaluation	3
EPLS:6352	Applied Research in Educational Settings	3

For more information, contact the Department of Educational Policy and Leadership Studies.

K–12 Equity and Inclusion

Chair, Department of Educational Policy and Leadership Studies

- Kenneth G. Brown

Graduate certificate: K–12 equity and inclusion

Faculty: https://education.uiowa.edu/directory

Website: https://education.uiowa.edu/areas-study/continuing-education/certificates-and-endorsements/k-12-equity-and-inclusion

The purpose of the graduate Certificate in K–12 Equity and Inclusion is to offer educational professionals or nondegree-seeking students currently working in K–12 schools, districts, and area education agencies expertise in equity and inclusion to better support the needs and interests of a diversifying student population. The certificate is also available to currently enrolled graduate students across the College of Education and may be of interest to graduate students outside of the college, especially those enrolled in the departments of Political Science or Sociology and Criminology, the schools of Social Work or Planning and Public Affairs, and in public health programs.

Participating students use the knowledge and skills learned in the certificate program to effectively and immediately implement change in their respective educational contexts to better support students from historically marginalized backgrounds and to address systemic racism and oppression.

The Certificate in K–12 Equity and Inclusion is administered by the Department of Educational Policy and Leadership Studies [p. 1372] and is granted by the Graduate College.

Programs

Graduate Program of Study

- Certificate in K–12 Equity and Inclusion [p. 1395]

K–12 Equity and Inclusion, Graduate Certificate

Requirements

The graduate Certificate in K–12 Equity and Inclusion requires 12 s.h. of credit and is offered with hybrid and conventional courses. Students must maintain a grade-point average of at least 2.50 in work for the certificate. They must earn at least a grade of C in each course required for the certificate. All courses must be taken on a graded basis.

The certificate program is open to students enrolled in University of Iowa graduate degree programs and to individuals who are enrolled in the Graduate College as nondegree students.

This certificate program encourages the development of the knowledge and skills necessary to meet standard 3 (equity and cultural responsiveness) of the Professional Standards for Educational Leaders, adopted by the School Administrators of Iowa. Course offerings contribute to the development of competencies in the areas of research, policy, practice, and student advocacy. These competencies are essential for effectively dismantling educational disparities for pre-kindergarten to grade 12 students from historically marginalized backgrounds (including race, gender identity, sexual orientation, socioeconomic class, immigration status, language spoken at home, and disability status).

The Certificate in K–12 Equity and Inclusion requires 12 s.h. of coursework from two categories: practice and policy. Participating students must choose at least one course from each category. The remainder of the courses may be from either category.

The certificate program recommends that students focus course-specific content on a problem of practice related to equity, inclusion, anti-racism, and/or anti-oppression. Students work with the certificate advisor to devise a specific program of study and develop appropriate course-related projects.

The Certificate in K–12 Equity and Inclusion requires the following coursework.

Practice

Course #	Title	Hours
At least one of these:		
EPLS:5240	Topics in Education (when topic is critical conversations)	3
EPLS:6242	Research for Effective School Leaders	3
EPLS:6266	Program Evaluation	3
EPLS:6321	Social Advocacy Summit	1
EPLS:6329	Legislative Summit	1
EPLS:7432	Strategies for Inclusive Leadership	3

Policy

Course #	Title	Hours
At least one of these:		
EPLS:5123	History of Ethnic/Minority Education	3
EPLS:5126	Twentieth-Century Educational Movements	3
EPLS:6222	Introduction to Educational Policy	3
EPLS:6238	Gender and Education in Historical Perspective	3
EPLS:6239	LGBTQ History in Education	3
EPLS:6270	Policy and Politics	3
EDTL:7040	Advanced Topics in Teaching and Learning (when topic is disability studies perspectives in education)	3

For more information, contact the Department of Educational Policy and Leadership Studies.

Online Teaching

Chair, Department of Psychological and Quantitative Foundations

- Dennis "Martin" Kivlighan

Graduate certificate: online teaching

Faculty: https://education.uiowa.edu/directory

Website: https://education.uiowa.edu/areas-study/continuing-education/certificates-and-endorsements/certificate-online-teaching

The growth of online teaching presents a need to address course quality, instructor training, assessment of teaching effectiveness, student learning, and retention. The Certificate in Online Teaching is an online graduate program designed to prepare students for the realities of online teaching and to help them expand their career options.

The Certificate in Online Teaching is administered by the Department of Psychological and Quantitative Foundations [p. 1398] and is granted by the Graduate College.

Programs

Graduate Program of Study

- Certificate in Online Teaching [p. 1397]

Online Teaching, Graduate Certificate

Requirements

The graduate Certificate in Online Teaching requires 12 s.h. of graduate credit and is offered completely online. Students must maintain a grade-point average of at least 2.50 in work for the certificate. Certificate courses must be taken on an A–F graded basis.

The certificate program is open to students enrolled in University of Iowa graduate degree programs and to individuals who are enrolled in the Graduate College as nondegree students.

The certificate program develops students' skills in using technology to solve instructional problems associated with distance and time. The certificate's online format uses the techniques and approaches that the program teaches.

The Certificate in Online Teaching requires the following coursework.

Course #	Title	Hours
PSQF:6205	Design of Instruction	3
PSQF:6211	Universal Design and Accessibility for Online Instruction	3
PSQF:6215	Online Instruction: Design and Facilitation	3
PSQF:6216	Tools and Utilities for Online Teaching	3

For more information, visit Certificate in Online Teaching on the College of Education website.

Psychological and Quantitative Foundations

Chair

- Dennis "Martin" Kivlighan

Undergraduate major: counseling and behavioral health services (BA)

Undergraduate minor: educational psychology

Graduate degrees: MA in psychological and quantitative foundations; EdS in psychological and quantitative foundations; PhD in psychological and quantitative foundations

Faculty: https://education.uiowa.edu/directory

Website: https://education.uiowa.edu/about/administration/department-psychological-and-quantitative-foundations

The Department of Psychological and Quantitative Foundations offers programs in these areas: counseling psychology, educational measurement and statistics, learning sciences and educational psychology, and school psychology. These programs have two general goals: to help students acquire the knowledge and skills that are necessary to function effectively in settings that require the application of psychological and quantitative principles and to extend knowledge and understanding of the teaching/learning process as it occurs in a variety of settings. The department's graduate degree programs incorporate both goals, but the Master of Arts and Specialist in Education programs emphasize the first goal, and the Doctor of Philosophy programs emphasize the second.

The department offers graduate degree programs in the following major areas within psychological and quantitative foundations:

- counseling psychology (offered in the PhD);
- educational measurement and statistics (offered in the MA and PhD);
- learning sciences and educational psychology (offered in the MA and PhD); and
- school psychology (offered in the EdS and PhD).

In addition to the graduate degrees offered as programs of study, the department offers an undergraduate minor in educational psychology and an undergraduate major, the bachelor of arts in counseling and behavioral health services, which advances training and introduces students to counseling and the helping professions. The curriculum includes an emphasis in counseling skills with courses in applied counseling, psychology, ethics, career development, and introductions to and theoretical foundations of human services fields.

The department offers two courses that are approved for the College of Liberal Arts and Sciences GE CLAS Core [p. 22]: PSQF:1020 Elementary Statistics and Inference, approved for the Quantitative or Formal Reasoning area; and PSQF:2115 Introduction to Counseling Psychology, approved for the Social Sciences area.

Applicants for admission to the graduate degree programs must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Programs

Undergraduate Program of Study

Major

- Major in Counseling and Behavioral Health Services (Bachelor of Arts) [p. 1408]

Minor

- Minor in Educational Psychology [p. 1411]

Graduate Programs of Study

- Master of Arts in Psychological and Quantitative Foundations [p. 1412]
- Specialist in Education in Psychological and Quantitative Foundations [p. 1416]
- Doctor of Philosophy in Psychological and Quantitative Foundations [p. 1418]

Courses

Psychological and Quantitative Foundations Courses

PSQF:1020 Elementary Statistics and Inference 3 s.h.
Graphing techniques for presenting data, descriptive statistics, correlation, regression, prediction, logic of statistical inference, elementary probability models, estimation and tests of significance. Requirements: one year of high school algebra or MATH:0100. GE: Quantitative or Formal Reasoning. Same as STAT:1020.

PSQF:1025 Succeeding in College and Beyond 3 s.h.
Foster belonging, develop connections. Includes campus transition/navigation, key university resources, essential skills for collegiate success, goal setting, self-advocacy, campus opportunities and barriers, community student health and wellbeing, leadership skills. Requirements: admission to Bucksbaum Early Entrance Academy. Same as BBC:1025.

PSQF:1027 Mindfulness Foundations in the Helping Professions 3 s.h.
Training in Mindfulness-Based Practices; application to personal and professional life.

PSQF:1029 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities).

PSQF:1039 Undergraduate Excellence Seminar 1 s.h.
Designed to enhance student's ability to successfully navigate the undergraduate experience by providing an opportunity to develop new skills and behaviors, as well as reflect on attitudes, in order to achieve academic and personal success.

PSQF:1050 Learning Online Successfully 2 s.h.
Experiences in an online environment and opportunities to engage with digital materials for learning to develop skills and strategies for future classes; assess resources for successful online learning, participate in a variety of online learning environments including online discussions and collaborations, develop strategies for reading and marking digital materials, managing time for working and studying online, and plan for future courses that may be online or include digital course materials.

PSQF:1075 Educational Psychology and Measurement 3 s.h.
Principles and classroom applications of cognitive and social development, learning and cognition, motivation, and assessment.

PSQF:1101 Introduction to the Helping Professions 3 s.h.
Provides an overview of the helping professions and career opportunities in the human services field. Students explore fields of practice such as aging, corrections, counseling, psychology, alcohol and other drug abuse, child welfare, mental health, and disabilities. Intended to help students create awareness and actively research career paths, academic preparation, and service delivery within the helping professions. Same as CSED:1101.

PSQF:1102 Introduction to Helping Skills 3 s.h.
Problem solving, interviewing skills, and entry-level techniques of mindfulness, motivational interviewing, active listening, crisis management, and conversation facilitation. Use of positive psychology to understand the nuances of human communication; expore the continuum of human emotionality and the impact of emotion on communication and interaction, particularly within helping relationships. Same as CSED:1102.

PSQF:1103 Introduction to Assessment in Counseling and Behavioral Health 3 s.h.
Within the helping professions, assessment is used to identify individual traits, needs, measure the effectiveness of interventions, and to determine eligibility for programs and services. This course provides an introduction to assessment methods, procedures, and tools used in the helping professions. Students will learn about basic psychometric concepts related to assessment and proper and ethical assessment procedures. Emphasis will be placed on assessments traditionally used in the helping professions within the domains of vocational or career attainment, education, mental health, healthcare satisfaction among others. Same as CSED:1103.

PSQF:1750 Introduction to Positive Psychology 3 s.h.
In-depth overview of the history of positive psychology and classification and measurement of constructs; developmental and cultural aspects of character strengths, theories of well-being, and practical applications.

PSQF:2115 Introduction to Counseling Psychology 3 s.h.
Historical and philosophical foundations of counseling psychology; theories, application, and work of counseling psychologists. GE: Social Sciences.

PSQF:2116 Applied Child and Adolescent Psychology 3 s.h.
Overview of child and adolescent development, psychopathology, and basic-level intervention; foundation for working in applied child and adolescent mental health settings; typical areas of psychological difficulty, including developmental disorders, ADHD, depression, anxiety, substance use; contextual and environmental factors, including abuse, poverty, neglect.

PSQF:2125 Applied Theories of Counseling and Change 3 s.h.
Comprehensive overview of major counseling theories and their applications. Explore theoretical frameworks that inform the practice of counseling; gain understanding of foundational principles, techniques, and ethical considerations. Emphasis on critical thinking and the development of counseling skills through theoretical understanding.

PSQF:2700 Introduction to Understanding Trauma and Resilience 3 s.h.
Introduction to understanding key concepts of trauma-informed systems of care in multiple settings; identification of various types of trauma along with behaviors and responses seen in survivors of trauma; students trace effects of historical trauma of marginalized communities and multiple trauma survivor groups to understand the consequences of trauma and its impact in the culture; resilience and strategies to offset consequences of trauma. Same as SSW:2700.

PSQF:3028 Mindfulness for Educators: Psychological Foundations, Applications, and Practices 1-2 s.h.
Exploration of research-based implications for teaching, learning, and daily living; skillful engagement of demands educators face in personal and professional lives; mindfulness as paying attention in present moment and relating wisely to what is occurring; specific mindfulness practices that integrate awareness into daily living; how research and program evaluations throughout the world document that consistent practice of mindfulness improves attention and concentration; ability to respond skillfully to stress, self-regulation of emotion, physical and mental health, communication, life satisfaction.

PSQF:3075 Brain Behavior 3 s.h.
Course is applied in nature, so that students not only learn brain behavior and anatomy, but also learn how these are directly related to neurological and neurobehavioral disorders; helps to understand the biological aspects of disorders that are needed to treat in practice settings; for students in applied psychology or other applied programs of study. Prerequisites: PSY:2701 and PSQF:2115 with a minimum grade of C-.

PSQF:3103 Early Childhood Guidance 4 s.h.
Effective communication, understanding child development and behavior, appropriate limits and rules, structuring problem solving and consequences, fostering self control, organizing classroom environment and curriculum to support child behavior, methods to address persistent and challenging behaviors; nurturance and child guidance via parenting, child rearing practices, and child-family relations.

PSQF:3104 Multicultural Issues in Counseling and Psychology 3 s.h.
Introduction to multicultural competencies and its importance to counseling, psychology, and helping professions; psychological concepts and research pertaining to privilege; racism, race, culture, sexual orientation, social class and classism, and their application in culturally adapted psychotherapy interventions; how these matters and other cultural identities and constructs are handled and used in applied psychology and counseling; focus on intersection of research and practice. GE: Understanding Cultural Perspectives.

PSQF:3115 Sport and Performance Psychology 3 s.h.
Introduction to theory, research, and practice of sport and performance psychology. Applied techniques to address athlete mental health and to enhance athlete performance. Overview of history, values, and cultural factors that influence the psychosocial well-being of student athletes; identify resources to help athletes manage psychosocial stressors that can contribute to distress and impaired mental health. Gain an understanding of the unique challenges that student athletes face; develop awareness, ethical reasoning, and analysis skills.

PSQF:3191 Asian American Experiences 3 s.h.
Aggregate experiences of Asian Pacific Americans, starting from developments in countries of origin to their contemporary issues; histories of various Asian Pacific American groups (e.g., Chinese, Korean, Filipino, Japanese, Asian Indian, Hawaiians, Vietnamese, etc.), as well as culture, politics, the media, and stereotypes; similarities among the different Asian Pacific American groups, as well as a comparative look at how African, Latino, and Native American experiences help shape and contribute to Asian Pacific America.

PSQF:3215 Applied Health Psychology 3 s.h.
Overview of health psychology; psychological, social, and behavioral aspects of health, illness, and well-being; application of health psychology principles across a broad array of health concerns. Variety of topics related to mind-body interaction; underlying theoretical assumptions of health; the illness experience; macrolevel influences of health theory and research; and how health psychologists contribute to enhancing health outcomes.

PSQF:3333 Special Topics in Psychological and Quantitative Foundations arr.
Topics related to psychological and quantitative foundations.

PSQF:4106 Child Development 3 s.h.
Theories and research findings about typical course of child development, differences in development. Requirements: junior standing.

PSQF:4111 Human Motivation 3 s.h.
Principles of motivation and their application to applied settings, especially to the classroom as teachers try to motivate students. Requirements: junior standing.

PSQF:4118 Meeting the Emotional Needs of Talented Students 1 s.h.
Unique emotional needs of talented students, including twice exceptionality. Theories of and trends in emotional development; identification of needs and myths about skills/challenges; research-based strategies to best meet needs; emotional impact of acceleration; and counseling. Same as BBC:4118.

PSQF:4119 Meeting the Social Needs of Talented Students 1 s.h.
Unique social needs of talented students, including twice exceptionality. Theories of and general trends in social development; identification of needs and myths about skills/challenges; family and peer relationships; research-based strategies to best meet needs; social impact of acceleration; and counseling. Same as BBC:4119.

PSQF:4120 Psychology of Giftedness 3 s.h.
Theories of learning, child development, motivation; issues unique to gifted education. Same as BBC:4120, CSED:4120.

PSQF:4121 Identification of Students for Advanced Programming 3 s.h.
Best practices in assessing and identifying students for advanced programs, including standardized tests and other measurement instruments used to identify academic talent for grades K-12 and current issues in the use of various instruments and tests (e.g., ability, aptitude, achievement, rating scales). Same as BBC:4121, CSED:4121.

PSQF:4122 Math Programming for High Ability Students 1 s.h.
Unique challenges and opportunities confronted by teachers of high-ability students; theory and practice, development of program outlines for implementation. Same as EDTL:4022.

PSQF:4123 Academic Acceleration: Providing Excellence and Equity in Education for High Ability Students arr.
Acceleration as an effective curricular intervention for high-ability students; forms of acceleration, research evidence for acceleration, and process of implementing acceleration; reasons for persistent negative attitudes about acceleration; advocation for acceleration; skills for effective practice and implementation. Requirements: computer with internet access, sound card, Adobe Reader, and Adobe Flash Player. Same as BBC:4123.

PSQF:4125 Counseling and Psychological Needs of the Gifted 1 s.h.
Psychological aspects of giftedness, counseling techniques appropriate for gifted children, adolescents; socio-emotional concerns, career development, underachievement. Same as CSED:4125.

PSQF:4126 Cognitive and Affective Needs of Underachieving Gifted 1 s.h.
Diagnostic strategy for identifying types of underachievement, teaching and counseling interventions appropriate for each. Same as CSED:4126.

PSQF:4128 Neuroscientific Implications for Gifted 1 s.h.
Neurology of behavior and neurodegenerative disease; the psychology of learning and memory, its application to gifted education.

PSQF:4129 Creativity: Issues and Applications in Gifted Education 1 s.h.
Theories that underpin contemporary definitions of creativity; instruments developed to measure creativity; activities in the school environment that enhance or inhibit student creativity. Same as CSED:4129.

PSQF:4130 Early Adolescent Development 3 s.h.
Psychological growth and development of the early adolescent (ages 10-14), including the physical, cognitive, social, emotional, and sexual development of the middle-school aged child.

PSQF:4133 The Adolescent and Young Adult 3 s.h.
Psychological and social aspects of adolescence and young adulthood; emphasis on theory, research, and practical applications.

PSQF:4134 Parent-Teacher Communication 1-3 s.h.
Realities of working with parents; interpersonal skills; options for parent support services. Same as EDTL:4934.

PSQF:4136 Home/School/Community Partnerships 3 s.h.
Issues related to collaboration among families, educators, community members in implementing school programs. Same as EDTL:4936.

PSQF:4143 Introduction to Statistical Methods 3 s.h.
Analysis, interpretation of research data; descriptive statistics; introduction to probability, sampling theory, statistical inference (binomial, normal distribution, t-distribution models); linear correlation, regression. Same as STAT:4143.

PSQF:4145 Marriage and Family Interaction 3 s.h.
Contemporary American couple, marriage, and family relationships; mate selection. Same as CSED:4145.

PSQF:4150 Introduction to Educational Measurement 3-4 s.h.
Test development procedures, reliability, validity, item writing, evaluation of item and test characteristics; classroom assessment methods; interpretation of scores from standardized achievement and aptitude tests; no background in statistics assumed.

PSQF:4162 Introduction to Couple and Family Therapy 3 s.h.
Evolution of the family therapy movement and issues related to functional and dysfunctional family systems; significant models of family therapy and specific techniques. Same as CSED:4162.

PSQF:4204 Introduction to the Learning Sciences 3 s.h.
Exploration of the interdisciplinary science of learning; study of the theory and methods of cognition in sociocultural context; design-based approaches to research on learning; history of key concepts foundational to the study of learning; how understandings of learning are situated in the interdisciplinary field called the learning sciences.

PSQF:4205 Design Principles for How People Learn 3 s.h.
Project-based course that introduces the process to formally design, develop, implement, and evaluate instruction in a context of the student's choosing.

PSQF:4281 Cognitive Principles for How People Learn 3 s.h.
Survey of contemporary cognitive science; history, intellectual tools, and utility in life and applied settings (e.g., teaching, research, industry, government).

PSQF:4520 Bayesian Statistics 3 s.h.
Bayesian statistical analysis, with focus on applications; Bayesian and frequentist methods compared; Bayesian model specification, choice of priors, computational methods; hands-on Bayesian data analysis using appropriate software; interpretation and presentation of analysis results. Prerequisites: STAT:3200 and (STAT:3101 or STAT:4101 or STAT:3120). Same as IGPI:4522, STAT:4520.

PSQF:4740 Issues in K-12 Assessment 3 s.h.
Examination of research, policies, and practices related to classroom and large-scale educational assessment; focus on use and construct of formative and summative assessments for classroom teaching and basics of educational measurement; coverage of educational assessment including development of plans that integrate teaching and assessment; use of formative assessment strategies and providing effective feedback to students; crafting objective, performance, and portfolio assessments; evaluation of students; interpretation of state-mandated tests and standardized achievement tests.

PSQF:4750 Learning Environments: Design, Context, and Activity 3 s.h.
Students explore the design of learning environments and the kinds of activities that take place there; includes a general background on design of learning environments; emphasis on project- and problem-based learning (considered to be keys to 21st-century learning), media inclusion, and how teacher facilitation/questioning and cooperative learning are foundational for success.

PSQF:4760 Participatory Learning and Media: Creating, Remixing, Making, and Education 3 s.h.
Teaching and learning with 21st-century digital media; pedagogical approaches characterized by participatory learning that expands and blurs boundaries of the classroom; remixing educational, social, and entertainment-based media toward pedagogical ends that meet instructional goals; engagement with social media, web-based video, interactive media, podcasts, games, and simulations.

PSQF:4910 Theories of Family Development 3 s.h.
Overview of historical and contemporary theories across disciplines about family development and family relationships; examination of family as a context for relationships between partners and between parents and children across the life course; evaluation of research on family system (e.g., coupling, "doing" gender, parenting, work and family balance, family transitions, economic hardship).

PSQF:5150 Introduction to Counseling and Skills 3 s.h.
Introduction to the field of counseling and psychology; provides students with clinical foundational skills; students explore the counseling process, how to conduct interviews, and how to integrate theory into their assessment and clinical work; introduction to basic concepts of working relationship and alliance, common factors, and interventions; practice provides students with experiences needed to understand concepts.

PSQF:5151 Health and Wellness Counseling Psychology 3 s.h.
Introduction to the concepts of health psychology and wellness in counseling and psychology; focus on psychological, biological, and ecological factors impacting health and wellness in multiple cultural contexts; research on psychological and holistic interventions, prevention strategies for clients across the lifespan.

PSQF:5152 Assessment and Diagnosis 3 s.h.
Group and individual appraisal techniques used to support career, educational, and personal planning and development; exploration of standardized and non-standardized data and information gathering methods, validity, reliability, psychometric statistics, factors influencing appraisals, use and interpretation of appraisal results with varied populations; assessment techniques and interviews connected to psychological diagnosis through standardized diagnostic frameworks, such as the DSM and ICD.

PSQF:5165 Introduction to Program and Project Evaluation 3 s.h.
Skills and knowledge required for conducting evaluations of products, projects, and programs; recent scholarship on evaluation and project management. Same as EPLS:5165.

PSQF:5193 Special Readings and Projects arr.
Supervised individual study. Requirements: senior standing.

PSQF:5194 Continuing Education Individual Study arr.
Supervised individual study. Same as BBC:5194.

PSQF:5199 Topical Workshop in Psychological and Quantitative Foundations arr.
School, educational, and counseling psychology and allied disciplines; for professionals and graduate students in education, mental health, social services, related fields.

PSQF:5219 Foundations of Health Service/School Psychology 3 s.h.
Introduction to health service/school psychology; becoming competent leaders in health service in community settings; roles and functions of psychologists in health service; ethical standards, issues, and professional practices related to health service psychology; legal issues; current topics and trends.

PSQF:5226 Assessment of Students for Advanced Programming 3 s.h.
Best practices in assessing and identifying students for advanced programs, including interpreting standardized tests and other measurement instruments used to identify academic talent for grades K-12 and current issues in the use of various instruments and tests (e.g., ability, aptitude, achievement, rating scales). Same as BBC:5226, CSED:5226.

PSQF:5262 Advanced Couple and Family Therapy 3 s.h.
Review and critique couple and family therapy theory, ethics, and techniques as applied to problems of couple and family over the life span; multicultural considerations. Requirements: advanced graduate standing. Recommendations: PSQF:4162.

PSQF:5265 Research Methods in Couple and Family Therapy 3 s.h.
Review and analysis of pertinent literature in area of research methods in couple and family therapy; exploration of stages of clinical trials and the process of federal funding of intervention research in couple and family therapy and family psychology; commonly used research methods in couple and family therapy reviewed and critically analyzed; students use these methods to survey research literature in top journals of the field.

PSQF:5900 Psychometrics 1-3 s.h.
Psychometric theory and techniques associated with development, interpretation, and evaluation of tests and measures; psychometric principles necessary for test inference, validation, construction, and use.

PSQF:6200 Educational Psychology 3 s.h.
Psychology of the learning/instruction process: theoretical perspectives on learning, instruction, motivation, and assessment; developmental concepts, social processes, individual variation, learning and technology, biological basis of learning.

PSQF:6203 Tools and External Representations in Individual and Social Learning 3 s.h.
Theories and approaches to research and practice regarding the use of technology and scientific representations in teaching and learning; historical, cultural, cross-species, and contemporary informal lenses applied to understanding human knowledge as it interacts with tools and how tools mediate thinking and learning; project to design a technology-supported learning solution for a problem related to teaching and learning.

PSQF:6204 Foundations of the Learning Sciences 3 s.h.
Foundations of interdisciplinary science of learning; theory and method of study of cognition in sociocultural context; design-based approaches to research on learning; history of several key concepts traced to determine origins; how contemporary literature is situated in this intellectual history.

PSQF:6205 Design of Instruction 3 s.h.
Introduction to processes used to design, develop, implement, and evaluate effective instruction; projects.

PSQF:6206 Advanced Child Development 3 s.h.
Theories of social and cognitive development; in-depth study of several current issues in the field.

PSQF:6208 Digital Media and Learning 3 s.h.
Theory, design, and evaluation of instructional media.

PSQF:6209 Survey Research and Design 3 s.h.
Survey design and implementation; writing and evaluation of survey questions; error in survey research; techniques to reduce error; sampling; postcollection processing of survey data. Prerequisites: EPLS:6206 or PSQF:4143. Same as EPLS:6209.

PSQF:6211 Universal Design and Accessibility for Online Instruction 3 s.h.
Universal Design for Learning (UDL) framework; introduction to accessibility for online learning environment; use of UDL with any curriculum to provide more students with access to learning, including online learning environment.

PSQF:6213 Advanced Lifespan Development 3 s.h.
Selected theories and research in development across the lifespan; focus on relevance for instruction and counseling.

PSQF:6214 Design of Learning Environments: Theory, Practice, and Method 3 s.h.
Theory, practice, and research method of the design of learning environments; broadly conceived understanding of technology-based learning environments; includes a semester-long project to design or evaluate the design of a learning environment, technology-based or otherwise.

PSQF:6215 Online Instruction: Design and Facilitation 3 s.h.
Theory and practice of designing and facilitating online learning environments to support or deliver instruction; student project to create an instructional online environment that draws on the theory and principles of online learning and instructional design.

PSQF:6216 Tools and Utilities for Online Teaching 3 s.h.
Guidance for future online teachers in making well-informed decisions on what technologies need to be adopted and applied for high quality, successful online educational programming in a variety of environments (e.g., K-12, higher education, business and industry); choosing, learning, evaluating, and using different types of technologies to produce online instruction; how to learn; initiating and managing learning and professional development for effective online teaching. Corequisites: PSQF:6205, if not taken as a prerequisite.

PSQF:6217 Seminar in College Teaching 1-3 s.h.
Preparation for college teaching; for graduate students planning to teach. Same as GRAD:6217.

PSQF:6220 Quantitative Educational Research Methodologies 3 s.h.
Procedures for planning, conducting, and reporting research; evaluation of current methods in educational research; quantitative designs and methods. Prerequisites: PSQF:4143 or STAT:4143.

PSQF:6223 Introduction to Counseling Psychology Practice/Research I 3 s.h.
Historical, theoretical, professional, scientific traditions associated with counseling psychology; professional ethical principles.

PSQF:6225 Introduction to Counseling Psychology Practice, Research, and Theory 3 s.h.
Learning and performance of basic helping skills; integration of these skills with counseling theories, broader counseling strategies; laboratory-based.

PSQF:6230 Research in Educational Psychology 1-3 s.h.
Design, implementation, and presentation of an educational psychology empirical research project. Requirements: graduate standing in educational psychology.

PSQF:6233 Ethics for Behavioral Psychologists 1 s.h.
Ethics that are unique to applied behavior analysis; ethical considerations.

PSQF:6235 Multicultural Counseling 3 s.h.
Theoretical and practical aspects of the cultural adaptation process; implications for interventions in diverse populations; issues. Requirements: counseling skills introductory course.

PSQF:6238 Assessment of Learning Differences 3-4 s.h.

PSQF:6241 Quantitative Policy Analysis for Practitioners 3 s.h.
Introduction to applied research and statistics with focus on understanding quantitative research, data collection and analysis, and reporting results for decision-making.

PSQF:6242 Selected Applications of Statistics 3 s.h.
Application and interpretation of correlation techniques, chi-square, t- and f-tests, interval estimation, simple cases of analysis of variance. Prerequisites: PSQF:4143.

PSQF:6243 Intermediate Statistical Methods 3 s.h.
Statistical inference and uncertainty estimation using general linear models (i.e., linear regression, analysis of variance); interpreting and conveying statistical results. Requirements: for PSQF:6243—PSQF:4143; for STAT:6513—STAT:4143. Same as STAT:6513.

PSQF:6244 Correlation and Regression 4 s.h.
Correlation techniques; selected bivariate procedures, multiple, partial, curvilinear correlation; multiple linear regression; sampling theory applied to regression analysis and correlation coefficients; simple causal models. Requirements: for PSQF:6244—PSQF:6243; for STAT:6514—STAT:6513. Same as STAT:6514.

PSQF:6246 Design of Experiments 3 s.h.
Theory and methods in the planning and statistical analysis of experimental studies; testing of hypotheses about linear contrasts among means in single-factor and multifactor, completely randomized, and repeated measurement designs. Requirements: for PSQF:6246—PSQF:6243; for STAT:6516—STAT:6513. Same as STAT:6516.

PSQF:6247 Nonparametric Statistical Methods 3 s.h.
Selected nonparametric methods; one- and two-sample location tests and estimation methods, measures of association, analyses of variance; emphasis on relationships to classical parametric procedures. Same as STAT:6547.

PSQF:6248 Research Synthesis and Meta-Analysis 3 s.h.
Rationale and methods for research synthesis and meta-analysis; conceptual issues in quantitative research synthesis in the social sciences and other disciplines, including medicine; thorough understanding of concept of sampling distribution is needed to understand the statistical methods introduced. Prerequisites: PSQF:6246 or PSQF:6244.

PSQF:6249 Factor Analysis and Structural Equation Models 3 s.h.
Fundamentals and applications of latent variable models for measurement including confirmatory factor analysis, item response theory, item factor analysis, and structural equation models using currently available software. Prerequisites: PSQF:6243. Recommendations: PSQF:6270.

PSQF:6250 Computer Packages for Statistical Analysis 1-3 s.h.
Computer programs and systems designed to execute statistical analysis (SAS, SPSS, BMDP, and others); lectures on regression techniques, analysis of variance, multivariate techniques; practice in entering data, calling up desired programs, interpreting computer output. Prerequisites: PSQF:6243. Requirements: elementary knowledge of computer programming.

PSQF:6252 Introduction to Multivariate Statistical Methods 3 s.h.
Selected topics in multivariate analysis, including multivariate significance tests, principal components and factor analysis, discriminant analysis, canonical correlation, multivariate analysis of variance (MANOVA). Prerequisites: PSQF:6244 and PSQF:6246.

PSQF:6254 Causal Inference and Observational Designs 3 s.h.
Conceptual and technical issues in the design of observational and quasi-experimental studies in natural settings and the appropriate analysis of data for making causal inferences. Requirements: PSQF:6220 and PSQF:6244 and PSQF:6246.

PSQF:6255 Construction and Use of Evaluation Instruments 3 s.h.
Design and construction of measures used in educational evaluation: achievement tests, attitude scales, performance measures, questionnaires; emphasis on methods of instrument development and evaluation of instrument characteristics. Prerequisites: PSQF:4143 and PSQF:6257.

PSQF:6257 Educational Measurement and Evaluation 3 s.h.
Evaluation and use of standardized tests and inventories in individual and group assessment; analyzing reliability, validity, normative data; interpreting measures of achievement, intelligence, aptitude, interests, attitudes, personality; current issues; for counselors, administrators, teachers, measurement specialists. Corequisites: PSQF:4143.

PSQF:6258 Theory and Technique in Educational Measurement 3 s.h.
Mathematical foundations, principal results, and applications of classical test theory; perspectives on conditional error variance; binomial error model and applications; introduction to generalizability theory; advanced measurement topics. Prerequisites: PSQF:6243 and PSQF:6257.

PSQF:6259 Scaling Methods 3 s.h.
Unidimensional and multidimensional scaling techniques; item response theory with a focus on polytomous models; introduction to available computer programs for scaling; applications in educational and psychological research. Prerequisites: PSQF:6262. Corequisites: PSQF:6249 and PSQF:6252.

PSQF:6260 Diagnostic Assessment 3 s.h.
Model-based approaches to providing diagnostic information about test takers along with implications for design of diagnostic assessments; primary focus on how psychometric models can be used with diagnostic subscores to provide reliable information that can be used in educational curricula. Prerequisites: PSQF:6243 and (PSQF:6258 or PSQF:6262).

PSQF:6262 Item Response Theory 3 s.h.
Theoretical foundations and practical applications; mathematical models and estimation techniques; emphasis on current applications and issues in testing; computer estimation programs. Prerequisites: PSQF:6243 and PSQF:6257.

PSQF:6263 Consultation Theory and Practice 3 s.h.
Review of concepts and practice of consultation and collaboration in educational and human services settings; focus on mental health, organizational, behavioral, and instructional models. Same as CSED:6263.

PSQF:6265 Program Evaluation 3 s.h.
Theoretical issues and considerations in evaluation of educational and social programs; evaluation design, methodology; metaevaluation; evaluation utilization. Same as EPLS:6266.

PSQF:6270 Generalized Linear Models 3 s.h.
Applied treatment of generalized linear models for predicting non-normal outcomes (e.g., binary, ordinal, nominal, count, zero-inflated, skewed responses); univariate models for single outcomes, multivariate models using path analysis; may include additional topics (e.g., quantile regression). Recommendations: PSQF:6243 and familiarity with general linear models for cross-sectional data (multiple linear regression, analysis of variance).

PSQF:6271 Longitudinal Multilevel Models 3 s.h.
Applied treatment of analysis of longitudinal data using framework of multilevel models (e.g., general linear mixed models, hierarchical linear models); general linear models, repeated measures analysis of variance, alternative covariance structures, fixed and random effects of time within linear and nonlinear models of change, and time-invariant predictors; may include advanced topics (e.g., models for non-normal outcomes, time-varying predictors). Recommendations: PSQF:6243 and familiarity with general linear models for cross-sectional data (multiple linear regression, analysis of variance).

PSQF:6272 Clustered Multilevel Models 3 s.h.
Applied treatment of analysis of clustered data using framework of multilevel models (e.g., generalized linear mixed models, hierarchical linear models); general linear models, fixed and random effects within linear and nonlinear models (for non-normal outcomes), and use of nested or crossed sources of sampling; may include advanced topics (e.g., three-level models). Recommendations: PSQF:6243 and familiarity with general linear models for cross-sectional data (multiple linear regression, analysis of variance).

PSQF:6275 Constructivism and Design of Instruction 3 s.h.
Theoretical foundations of constructivism; application of constructivist principles to the design of instruction.

PSQF:6281 Cognitive Theories of Learning 3 s.h.
Theories of cognition as they relate to learning, education, and changes in individual thinking, behavior, and identity; development of expertise; mental representations and psychological mechanisms; design of cognitive assessments and learning tasks; focus on learning in academic disciplines, clinical contexts, and game-based environments.

PSQF:6292 Supervised Research in Educational Psychology 1-3 s.h.
Identification of research problems, development of research designs and materials, conducting of research studies; faculty-guided activity or seminars.

PSQF:6293 Individual Instruction in Psychological and Quantitative Foundations arr.

PSQF:6299 MA Project: Portfolio/Internship/ Practicum 1-3 s.h.
Individual portfolio/internship/practicum project; reflection, revision, and presentation of educational psychology portfolio.

PSQF:6312 Psychopathology Across the Lifespan 3 s.h.
Diagnostic and Statistical Manual of Mental Disorders (DSM) categories and related diagnostic issues.

PSQF:6417 Introduction to Postsecondary STEM Teaching 1,3 s.h.
Introduction to teaching and learning theory and practice; readings and discussions facilitate research-based teaching practices in science, technology, engineering, and math (STEM) classrooms; connection of theories to principles of course and lesson design to support effective teacher practices and student learning; for students in STEM disciplines.

PSQF:7201 Counseling Psychology Research Writing 3 s.h.
How to write scientifically in counseling psychology; qualitative and quantitative research writing, literature reviews, methodologies, discussions; APA style.

PSQF:7225 Introduction to Health Service/School Psychology Practice 1-3 s.h.
Introduction to practice of health service/school psychology; framework for understanding role and function, legal and ethical boundaries, professional requirements; preparation for practicum.

PSQF:7237 Beginning Practicum in School Psychological Service arr.
Supervised practicum in psychological and educational evaluation in school settings. Prerequisites: PSQF:6238.

PSQF:7255 Autism Spectrum Disorders 2 s.h.
Overview of autism spectrum disorders (ASDs), including autistic disorder, Asperger's disorder, other pervasive developmental disorders; ASD diagnoses and their etiology; tools used in assessing individuals with ASDs; common interventions for ASDs; resources for work with individuals who have ASDs.

PSQF:7270 Scholarly Integrity and Responsible Conduct of Educational Research and Evaluation arr.
Students are introduced to and deepen their knowledge and skill in applying principles for the responsible conduct of educational research and evaluation and related social sciences; two modules addressing core areas identified by federal policy as minimal requirements for knowledge and skill in practice of research with scholarly integrity; format is discovery and discussion—presentation of background information for each topic is followed by discussion of case studies and other examples relevant to each topic; for research assistants.

PSQF:7305 Psychotherapy I: Dynamic and Phenomenological Approaches 3 s.h.
Major psychodynamic and existential-phenomenological theories of personality; emphasis on implications for psychotherapy.

PSQF:7306 Psychotherapy III: Work Psychology and Career Interventions 3 s.h.
Foundations of career interventions; emphasis on major assessment instruments (vocational interests, values, abilities/skills, personality) and career counseling processes, skills, techniques.

PSQF:7309 Personality Assessment 3 s.h.
Standardized and projective techniques for personality assessment; preparation for competent administration and interpretation of varied tests and measures.

PSQF:7310 Intelligence Assessment 3 s.h.
Standardized intelligence testing; preparation to administer and interpret intelligence tests for children and adults.

PSQF:7313 Psychopathology in Childhood 3 s.h.
Current theories regarding the development of psychopathology in children and adolescents; current approaches to treatment for disorders in children and adolescents.

PSQF:7315 Social and Emotional Assessment of Children and Adolescents 3 s.h.
Link between personality theory, child and adolescent assessment; interpretation, integration of assessment information; record reviews, interviews, objective tests, projective techniques. Prerequisites: PSQF:6238.

PSQF:7320 History and Systems of Psychology 3 s.h.
Philosophical underpinnings of psychology, early systems in psychology, developments in the 20th century.

PSQF:7331 Qualitative Educational Research Methods 3 s.h.
Introduction to concepts, methods, and issues in qualitative research in educational settings; exploration of how qualitative methods can inform research in a field of interest and engage in collaboration and peer review.

PSQF:7337 Advanced Practicum in School Psychology arr.
Supervised experience in psychological interventions, consultation, counseling in school and clinic settings. Prerequisites: PSQF:6238 and PSQF:7237.

PSQF:7342 Research Project in School Psychology arr.
Experience in research facilities on campus; writing research questions, planning a research study, writing a research article.

PSQF:7344 Academic Interventions 3 s.h.
Interventions used by school and support system personnel to address academic skill deficits among children and adolescents; instructional design and delivery problems associated with deficits.

PSQF:7346 Behavioral Interventions 3 s.h.
Interventions used by school and support system personnel to address behavioral and social/emotional status of children, adolescents.

PSQF:7347 Home/School/Community: System Interventions 3 s.h.
Interventions used by school and support system personnel; focus on work with parents, siblings. Same as CSED:7347.

PSQF:7350 Seminar in Evaluation 2-3 s.h.
In-depth examination of selected topics. Prerequisites: PSQF:5165 or PSQF:6265 or PSQF:6265 or PSQF:5165. Requirements: two courses in program evaluation.

PSQF:7352 Seminar: Behavioral Assessment and Evaluation 3 s.h.
Broadens skills of graduate students who engage in research with exceptional persons; research designs are usually taught in the Department of Psychological and Quantitative Foundations, but because of the nature of handicapping conditions and the low incidence of some handicaps, the single-subject design yields better research information. Same as EDTL:7952.

PSQF:7354 Seminar: Experimental Approaches in Counseling Research arr.
Application of experimental methodology to study of counseling and vocational phenomena.

PSQF:7355 Seminar: Educational Measurement and Evaluation arr.
Critical examination of current issues and problems of the professional worker in the field of educational measurement and evaluation as reflected in research literature, other professional communication media.

PSQF:7356 Process and Outcomes in Counseling Psychotherapy 3 s.h.
Advanced knowledge of the state of process and outcome research on psychotherapeutic procedures. Requirements: PhD candidacy in appropriate field.

PSQF:7358 Equating and Scaling of Educational Tests 3 s.h.
Designs and methods, including linear, equipercentile, and item response theory methods; emphasis on concepts, applications to testing programs, research. Prerequisites: PSQF:6243 and PSQF:6257.

PSQF:7361 Advanced Practicum in Couple and Family Therapy 1-3 s.h.
Opportunity to accumulate client contact and supervision hours towards graduation and licensure; conceptual and executive skills, observational skills and abilities to work as a member of a therapeutic team, awareness of how personal growth and development as a therapist impacts work with clients, comfort and motivation to learn multiple training levels provided, creation of collaborative and supportive atmosphere on all practicum levels. Requirements: enrollment in couple and family therapy program.

PSQF:7365 Theories of Psychotherapy 3 s.h.
Major psychotherapy theories with emphasis on empirically validated theories used in clinical practice.

PSQF:7367 Social Psychology and Social Systems 3 s.h.
Social aspects of behavior in organizations; behavioral science theory and research on organizations, system change, transformation, leadership.

PSQF:7371 Seminar in Learning Sciences and Educational Psychology arr.
Intensive investigation of a specific research topic.

PSQF:7375 Topics in Educational Measurement and Statistics 1-3 s.h.

PSQF:7380 Practicum in College Teaching arr.
Supervised college teaching experience in courses related to major academic areas, in collaboration with faculty course instructors.

PSQF:7385 Teaching and Learning in Higher Education 3 s.h.
Current theoretical and empirical literature on teaching and learning in higher education; focus on development of effective teaching practice. Same as CSED:7385, EDTL:7385, EPLS:7385, GRAD:7385.

PSQF:7388 Family Development 3 s.h.
Overview of research relating to family development, family structure, and cultural/ethnic diversity; how research can be applied to clinical practice; focus on strengths and challenges of families with varying structures, cultural dimensions in family functioning, developmental perspectives on family functioning, and how these factors can advance family systems based on research and practice.

PSQF:7389 Seminar in Couple Intervention Research 3 s.h.
Overview of couple intervention and outcome research; focus on evidence-based couple therapies (i.e., Emotionally Focused Couple Therapy, Behavioral Couple Therapy, work of John Gottman); research addressing effectiveness and efficiency of couple interventions in treatment of couple distress issues highly comorbid with distress, including review of mental and physical health problems; research addressing factors associated with treatment outcomes.

PSQF:7390 Supervision of School Psychology Practicum/Internship arr.
Experience supervising school psychology practicum or internship students. Requirements: PhD standing.

PSQF:7393 MA Thesis in Psychological and Quantitative Foundations arr.

PSQF:7394 Supervised Research in Counseling Psychology 1-3 s.h.

PSQF:7395 Social Context and Family Research 3 s.h.
Review and analysis of pertinent research surrounding social contexts in which families live; specific focus on reviewing and critically analyzing decade reviews and current advancements in family research; students evaluate how research surrounding social context and family research is relevant to the practice of couple and family therapy.

PSQF:7399 Supervision in Couple and Family Therapy 3 s.h.
Supervision of Master's-level couple and family therapy students; mentoring supervision received from supervision instructor; assignments reflect requirements for AAMFT Approved Supervisor designation; fulfills didactic requirement for AAMFT Approved Supervisor status. Requirements: enrollment in couple and family therapy program.

PSQF:7404 Seminar in Child and Adolescent Intervention Research 3 s.h.
Review and analysis of pertinent literature and evidenced-based interventions for children and adolescents; focus on review and critical analysis of published outcome studies in areas of childhood and adolescent disorders; examination and critique of effective interventions that have undergone stages 1-3 clinical trials; active discussions of research findings for clinical implications. Prerequisites: PSQF:5262.

PSQF:7434 Practicum in Counseling Psychology 3 s.h.
Supervised practice in counseling services. Prerequisites: PSQF:6223 and PSQF:6225.

PSQF:7437 Internship in School Psychology arr.
Supervised internship for PhD students in school psychology. Requirements: completion of required courses.

PSQF:7450 Practicum in Program Evaluation arr.
Supervised experience in designing and implementing components of program evaluations. Prerequisites: PSQF:6265 or PSQF:6265 or PSQF:5165 or PSQF:5165. Requirements: two courses in program evaluation.

PSQF:7452 Leadership, Consultation, and Supervision 3 s.h.
Overview of intervention modalities other than individual and group therapy, especially those that pertain to leadership within organizations, consultation with organizations and communities, and supervision of the work of others; capstone course in counseling psychology sequence. Prerequisites: PSQF:6225.

PSQF:7453 Advanced Practicum in Counseling Psychology 1-3 s.h.
Supervised work in counseling services. Prerequisites: PSQF:7434.

PSQF:7455 Generalizability Theory 3 s.h.
Analysis of variance methods applied to estimation of components of various types of measurement error variance; basic concepts, mathematical foundations, models, assumptions, designs, applications; relationships with other measurement theories. Prerequisites: PSQF:6246 and PSQF:6258.

PSQF:7457 Advanced Group Leadership Experience 3 s.h.
Practice working in a psychotherapy group; students review major theories on group psychotherapy processes and integrate empirical research on effectiveness of group work; multicultural considerations in group psychotherapy; didactic and experiential format.

PSQF:7458 Internship in Counseling Psychology arr.
Supervised work in internship setting. Prerequisites: PSQF:7434 and PSQF:7453. Requirements: PhD standing in counseling psychology and completion of all requirements except dissertation.

PSQF:7459 Seminar: Issues and Trends in Counseling Research 4 s.h.
Recent trends, including debates and findings in literature related to best practices for the profession. Same as CSED:7458.

PSQF:7460 Seminar: Research in Counseling 3 s.h.
Methods, examples, ethics, multicultural issues, problems of counseling research. Requirements: PhD enrollment. Same as CSED:7460.

PSQF:7465 Issues and Ethics in Professional Psychology 3 s.h.
Professional ethics; issues in professional practice of psychology.

PSQF:7470 Internship and Professional Issues 3 s.h.
Professional growth as clinician, internship application and interview processes, next steps in professional career, professional issues, interpersonal and counseling/professional competence, and goals for internship.

PSQF:7476 Research in Educational Measurement and Statistics 3 s.h.
Opportunity to learn and discuss psychometric and statistical theories and methodologies not covered in regular courses; critical concepts and skills necessary to conduct psychometric and statistical research; for motivated students interested in conducting their own research in educational measurement and statistics. Prerequisites: PSQF:6243 and (PSQF:6258 or PSQF:6262).

PSQF:7493 PhD Thesis in Psychological and Quantitative Foundations arr.

PSQF:7500 Advanced Practical Experience in Couple and Family Therapy 1-3 s.h.
Supervised experience in professional couple and family therapy; clinical or academic field placement and seminar; required for couple and family therapy students. Requirements: successful completion of couple and family therapy program comprehensive examination.

PSQF:7604 Scholarly Integrity and Responsible Conduct of Educational Research and Evaluation for Postdocs 0 s.h.

Students are introduced to and deepen their knowledge and skills in applying principles for the responsible conduct of educational research and evaluation and related social sciences; two modules addressing core areas identified by federal policy as minimal requirements for knowledge and skill in practice of research with scholarly integrity; format is discovery and discussion—presentation of background information for each topic is followed by discussion of case studies and other examples relevant to each topic; for postdoc associates.

Counseling and Behavioral Health Services, BA

The counseling and behavioral health services major in the College of Education enhances broad liberal arts and sciences education for students by providing strong academic preparation designed to serve as a foundation in helping processes and human behavior.

Students learn to apply critical thinking and problem-solving skills within various helping professions, preparing them for entry-level positions in nonprofit agencies, government agencies, community centers, clinics, and service navigation programs. The major may also serve as a foundation for future graduate study in counseling for students interested in professional licensure as a counselor.

Learning Outcomes

Students will:

- recognize and define the concepts and functions of the helping professions and their respective professional environments;
- demonstrate basic interpersonal communication, leadership, and ethical problem-solving skills used in the helping professions;
- illustrate how social, economic, cultural, and other contextual factors affect behavioral health care access and disparities;
- demonstrate awareness of the role of advocacy in the behavioral healthcare system and behavioral health policy environment; and
- exhibit critical thinking, problem-solving, and written and oral communication skills to strategically address complex issues and formulate innovative, holistic, and sustainable solutions.

Requirements

The Bachelor of Arts with a major in counseling and behavioral health services requires a minimum of 120 s.h., including at least 39 s.h. of courses for the major. The general education requirements to earn a Bachelor of Arts degree from the College of Education are the GE CLAS Core of the College of Liberal Arts and Sciences (CLAS). Students must maintain a cumulative grade-point average of at least 2.00 in all college coursework and in all UI coursework. All courses must be taken on an A–F graded basis unless a course is only offered as graded S/U, P/N, or by audit.

The major can be paired with other majors, minors, and certificates. At most, only 3 s.h. of counseling and behavioral health services courses may be counted toward another major, minor, or certificate.

The major consists of a 30 s.h. core curriculum plus an additional 9 s.h. chosen from the list of approved elective courses in a student's chosen area of emphasis.

The BA with a major in counseling and behavioral health services requires the following coursework.

Core Courses

Course #	Title	Hours
All of these:		
PSQF:1101/ CSED:1101	Introduction to the Helping Professions	3
PSQF:1102/ CSED:1102	Introduction to Helping Skills	3
PSQF:1103/ CSED:1103	Introduction to Assessment in Counseling and Behavioral Health	3
PSQF:2115	Introduction to Counseling Psychology	3
PSQF:2125	Applied Theories of Counseling and Change	3
PSQF:3104	Multicultural Issues in Counseling and Psychology	3
PSQF:3215	Applied Health Psychology	3
CPH:4210	Making a Difference: Public Health Policy and Advocacy	3
CSED:4953	Experiential Learning in Counseling and Behavioral Health Services	3
EDTL:4950	Behavioral and Social Interventions	3

Electives

Students complete 9 s.h. from the following list of courses to build a multidisciplinary slate of skills that enhances their future careers or graduate work. Additional courses may be selected in consultation with and approved by an academic advisor.

Guidelines for informal emphasis areas may provide a useful resource in choosing electives that are meaningful and useful and create a cohesive program of study. Informal emphasis areas are offered as a course selection aid to be used in consultation with an academic advisor and are not listed on a student's transcript or diploma. These informal emphasis areas are meant to be fluid over time to best reflect trends and issues in the field of helping professions. Further, students may create their own emphasis focus to align with their personal career goals. Information regarding emphasis areas can be found on the counseling and behavioral health services page on the College of Education website.

Course #	Title	Hours
9 s.h. from these:		
PSQF:1020/ STAT:1020	Elementary Statistics and Inference	3
PSQF:1075	Educational Psychology and Measurement	3
PSQF:2116	Applied Child and Adolescent Psychology	3
PSQF:2700/ SSW:2700	Introduction to Understanding Trauma and Resilience	3
PSQF:3115	Sport and Performance Psychology	3
PSQF:4106	Child Development	3
PSQF:4133	The Adolescent and Young Adult	3
PSQF:4145/ CSED:4145	Marriage and Family Interaction	3

PSQF:4162/ CSED:4162	Introduction to Couple and Family Therapy	3
CPH:1400	Fundamentals of Public Health	3
CPH:1600	Public Health Science: Inquiry and Investigation in Public Health	3
CPH:1800	Social and Psychological Determinants of Health: Changing Behavior, Improving Health	3
CPH:2400	The U.S. Health System in a Global Context	3
CPH:3220	Public Health as a Public Good: Economics and Decision Making in Public Health Systems	3
CPH:3500/ GHS:3500	Global Public Health	3
CSED:2081	Making a Vocational-Educational Choice	2-3
CSED:4111	Building Leadership and Success at Work	3
CSED:4114	Psychology of Body Modification and Self-Image	3
CSED:4131	Loss, Death, and Bereavement	3
CSED:4132	Introduction to Addictions and Impulse Control Disorders	3
CSED:4140	Foundations of Leadership for Community Agencies	3
CSED:4173	Trauma Across the Lifespan	3
CSED:4174	Positive Psychology	3
CSED:4175	Motivational Interviewing	3
CSED:4176	Child Abuse: Assessment, Intervention, and Advocacy	3
CSED:4178	Microcounseling	3
CSED:4179	Sexuality Within the Helping Professions	3
CSED:4185	Introduction to Substance Abuse	3
CSED:4187/ EDTL:4987	Introduction to Assistive Technology	3
CSED:4194	Interpersonal Effectiveness	3
CSED:4195	Ethics in Human Relations and Counseling	3
CSED:4197	Citizenship in a Multicultural Society	3
CSED:4199	Counseling for Related Professions	3
EPLS:1240	Student Success in College	3
EPLS:2098	The Student Affairs Profession	3
EPLS:4200	Athletic Administration in Educational Settings	3
HHP:2280	Cultural Competency and Health	3
MGMT:3500/ ENTR:3595/ MUSM:3500/ NURS:3595/ RELS:3700/ SSW:3500	Nonprofit Organizational Effectiveness I	3
MGMT:3600/ NURS:3600/ RELS:3701/ SSW:3600	Nonprofit Organizational Effectiveness II	3
SSW:1200	Mental Health Across the Lifespan	3
SSW:3729	Substance Use and Abuse	2-3

College of Education Academic Standards

The College of Education has established academic standards to ensure students successfully complete their degree program. To be in good academic standing, students in the College of Education must achieve the following minimum grade-point average (GPA) requirements.

- University of Iowa cumulative GPA and overall cumulative GPA, based on total hours earned
  - 0–29 overall earned semester hours: minimum of 1.85
  - 30 or more overall earned semester hours: minimum of 2.00
  - Nondegree students: minimum of 2.00
- Major GPA (overall cumulative): minimum of 2.00
- University of Iowa term GPA: minimum of 1.50 during fall or spring enrollment

For additional information about these standards, contact the Office of Student Services.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Counseling and Behavioral Health Services, BA

Course	Title	Hours
Academic Career		
Any Semester		
For specific information regarding requirements in the College of Education, please see the General Catalog.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
PSQF:1101	Introduction to the Helping Professions	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: International and Global Issues [b]		3

GE CLAS Core: Understanding Cultural Perspectives [b]		3
CSI:1600	Success at Iowa	1
	Hours	**13-14**
Spring		
PSQF:1103	Introduction to Assessment in Counseling and Behavioral Health	3
CSED:1102	Introduction to Helping Skills	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
	Hours	**13-15**
Second Year		
Fall		
PSQF:3104	Multicultural Issues in Counseling and Psychology	3
PSQF:2115	Introduction to Counseling Psychology	3
GE CLAS Core: Historical Perspectives [b]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
	Hours	**16-17**
Spring		
PSQF:2125	Applied Theories of Counseling and Change	3
GE CLAS Core: Natural Sciences without Lab [b]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
Elective course [d]		3
	Hours	**16-17**
Third Year		
Fall		
CPH:4210	Making a Difference: Public Health Policy and Advocacy	3
PSQF:3215	Applied Health Psychology	3
Major: Elective course [e]		3
GE CLAS Core: Social Sciences [b]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
	Hours	**16-17**
Spring		
EDTL:4950	Behavioral and Social Interventions	3
GE CLAS Core: Literary, Visual, and Performing Arts [b]		3
GE CLAS Core: Natural Sciences with Lab [b]		4
GE CLAS Core: Values and Society [b]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**19**
Fourth Year		
Fall		
CSED:4953	Experiential Learning in Counseling and Behavioral Health Services	3
Major: Elective course [e]		3
GE CLAS Core: Quantitative or Formal Reasoning [b]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
Major: Elective course [e]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [f]		
	Hours	**15**
	Total Hours	**123-129**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e In consultation with an Academic Advisor, students may select an informal concentration area from the following: Addictions, School Mental Health, and Corrections. Each requires 9 s.h. of coursework.

f Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Educational Psychology, Minor

Requirements

The undergraduate minor in educational psychology requires 15 s.h., including at least 12 s.h. earned at the University of Iowa and 12 s.h. earned in courses numbered 3000 or above. Students must maintain a grade-point average of at least 2.50 in all courses for the minor. Coursework in the minor may not be taken pass/nonpass. Transfer credit must be approved in order for it to count toward the minor. The minor is open to all students enrolled in an undergraduate degree program.

The minor provides an enriched background in educational psychology, educational testing, and research methods in education. Students earning the minor select a department advisor, who helps them choose appropriate coursework. It does not lead to certification for public school teaching.

Coursework for the minor in educational psychology must include 15 s.h. selected from the following list.

Course #	Title	Hours
PSQF:1075	Educational Psychology and Measurement	3
PSQF:4106	Child Development	3
PSQF:4111	Human Motivation	3
PSQF:4120	Psychology of Giftedness	3
PSQF:4133	The Adolescent and Young Adult	3
PSQF:4134	Parent-Teacher Communication	1-3
PSQF:4143	Introduction to Statistical Methods	3
PSQF:4150	Introduction to Educational Measurement	3-4
PSQF:4204	Introduction to the Learning Sciences	3
PSQF:4205	Design Principles for How People Learn	3
PSQF:4281	Cognitive Principles for How People Learn	3
PSQF:4750	Learning Environments: Design, Context, and Activity	3
PSQF:4760	Participatory Learning and Media: Creating, Remixing, Making, and Education	3
PSQF:5165	Introduction to Program and Project Evaluation	3

Contact the Office of Student Services for more information about the minor.

Psychological and Quantitative Foundations, MA

Learning Outcomes

Graduate students will:

- gain course-specific knowledge and skills as required to perform well in their specialties (as demonstrated by completing their required courses in their specialty/major area with a grade-point average of 3.00 or higher);
- demonstrate integrated substantive knowledge and skills that can be applied to solve novel professional-level problems (as demonstrated by completing their final examinations satisfactorily and by completing their thesis proposals with committee approval);
- demonstrate required clinical practice skills and researcher autonomy (as demonstrated by satisfactory completion of all required practicums and/or internships, and required thesis defenses/article submissions as appropriate for their degrees);
- demonstrate initial engagement with, and commitment to, professional ethics, professional development, lifelong learning, and service to the profession (as demonstrated by participation and engagement in the appropriate state, regional, and national organizations as appropriate for their degrees);
- demonstrate entry-level professional qualifications (as demonstrated by being qualified to take any licensing exams that are required for practice and/or employment); and
- be qualified for suitable employment or postdoctoral appointments upon graduation (as reported on annual Qualtrics surveys).

Educational Measurement and Statistics

The Master of Arts program in psychological and quantitative foundations with an educational measurement and statistics subprogram requires a minimum of 30 s.h. of graduate credit along with passing a final examination, and is offered with or without thesis. Students are expected to maintain a UI cumulative grade-point average of at least 2.75.

The program provides students with basic knowledge of educational measurement and research methodology. Graduates find employment in large school systems, state departments of education, test publishing organizations, and research centers. The program is also appropriate for students who wish to broaden their knowledge of measurement and research methodology for personal development or professional improvement in the context of a concurrent PhD program in other areas.

The MA in psychological and quantitative foundations with an educational measurement and statistics subprogram requires the following work.

Required Courses

Course #	Title	Hours
All of these:		
PSQF:4143	Introduction to Statistical Methods (or equivalent with advisor approval)	3
PSQF:6220	Quantitative Educational Research Methodologies (or equivalent with advisor approval)	3
PSQF:6243	Intermediate Statistical Methods	3
PSQF:6246	Design of Experiments	3
PSQF:6255	Construction and Use of Evaluation Instruments	3
PSQF:6257	Educational Measurement and Evaluation	3

Required Concentration Areas

Measurement

Course #	Title	Hours
At least one of these:		
PSQF:6249	Factor Analysis and Structural Equation Models	3
PSQF:6258	Theory and Technique in Educational Measurement	3
PSQF:6260	Diagnostic Assessment	3
PSQF:6262	Item Response Theory	3
PSQF:7355	Seminar: Educational Measurement and Evaluation	3
PSQF:7358	Equating and Scaling of Educational Tests	3
PSQF:7375	Topics in Educational Measurement and Statistics	3
PSQF:7455	Generalizability Theory	3

Statistics

Course #	Title	Hours
At least one of these:		
PSQF:6248	Research Synthesis and Meta-Analysis	3
PSQF:6250	Computer Packages for Statistical Analysis	3
PSQF:6252	Introduction to Multivariate Statistical Methods	3
PSQF:6254	Causal Inference and Observational Designs	3
PSQF:6270	Generalized Linear Models	3
PSQF:6271	Longitudinal Multilevel Models	3
PSQF:6272	Clustered Multilevel Models	3
PSQF:7355	Seminar: Educational Measurement and Evaluation	3
PSQF:7375	Topics in Educational Measurement and Statistics	3

Related Courses

Course #	Title	Hours
One of these:		
PSQF:5165	Introduction to Program and Project Evaluation	3
PSQF:6200	Educational Psychology	3
PSQF:6204	Foundations of the Learning Sciences	3
PSQF:6214	Design of Learning Environments: Theory, Practice, and Method	3
PSQF:6281	Cognitive Theories of Learning	3

Electives

Nonthesis students choose 3 s.h. from any of the courses in the preceding lists or another course approved by the advisor. For students completing a thesis, PSQF:7393 MA Thesis in Psychological and Quantitative Foundations (3 s.h.) is required.

Final Examination

Nonthesis

Nonthesis students must complete a written and an oral final examination at the end of their program of study. Students will work with their advisors to form a three-person final examination committee that is comprised of at least two faculty from the educational measurement and statistics subprogram. The exam will emphasize the required core courses of the degree program and provide students with the opportunity to demonstrate their depth of learning from the program. The exact details and format of the final exam will be determined by the final examination committee. Upon passing the written examination, students will then have an oral examination in which they will answer additional questions regarding their written responses or other relevant topics. Passing the oral examination completes the requirements for the final examination.

Thesis

Thesis students will complete a written thesis and an oral final examination. The thesis should report the results of original research in a manuscript style that is suitable for potential submission for publication (submission for publication is not a thesis requirement). The topic, scope, and research plan should be approved in advance by a three-person committee that is comprised of at least two faculty from the educational measurement and statistics subprogram. Upon passing the thesis submission, students will then have an oral examination in which they will answer additional questions regarding their thesis or other relevant topics. Passing the oral examination completes the requirements for the final examination.

Admission

Applicants must meet the admission requirements of the Graduate College. Completion of at least one college mathematics course and experience as a teacher or researcher are desirable. Applicants who do not meet these requirements but who show offsetting evidence of superior ability may be granted conditional admission.

Learning Sciences and Educational Psychology

The Master of Arts program in psychological and quantitative foundations with a learning sciences and educational psychology subprogram has a strong emphasis on how theory and research inform the understanding of learners, learning, instruction, and the technology and environments in which learning and instruction occur. The program requires a minimum of 30 s.h. of graduate credit. Students are expected to maintain a UI cumulative grade-point average of at least 2.75. A thesis is not required.

The curriculum includes courses in the theories of the learning sciences, the design of effective learning environments and technologies, and the implementation of instructional design. Elective opportunities allow students to choose an interest area to develop a multidisciplinary specialization. Current areas include technology and media, learning in the disciplines, human development and motivation, and measurement and evaluation. The capstone experience of the program is an internship/practicum/portfolio that allows students to apply knowledge of the learning sciences in a context of interest. Students develop a program of study in consultation with their advisor.

Full-time students typically take at least 9 s.h. each semester, with the option of additional summer session work; they usually complete the program in four semesters. Part-time students take 3–6 s.h. each semester; they usually complete the degree in two or three years.

Students may apply substitute equivalent coursework from another institution or department for required or recommended courses.

The MA in psychological and quantitative foundations with a learning sciences and educational psychology subprogram requires the following coursework.

Required Courses

Course #	Title	Hours
All of these:		
PSQF:6200	Educational Psychology	3
PSQF:6203	Tools and External Representations in Individual and Social Learning	3
PSQF:6204	Foundations of the Learning Sciences	3
PSQF:6205	Design of Instruction	3
PSQF:6214	Design of Learning Environments: Theory, Practice, and Method	3
PSQF:6281	Cognitive Theories of Learning	3
PSQF:6299	MA Project: Portfolio/ Internship/Practicum	3
One of these:		
PSQF:6208	Digital Media and Learning	3
PSQF:6215	Online Instruction: Design and Facilitation	3

Electives

Elective opportunities allow a student to choose an area of interest to develop a multidisciplinary specialization. Students choose 6 s.h. from any of the following courses.

Technology and Media

Course #	Title	Hours
PSQF:4760	Participatory Learning and Media: Creating, Remixing, Making, and Education	3
PSQF:6208	Digital Media and Learning (if not taken as a required course)	3
PSQF:6211	Universal Design and Accessibility for Online Instruction	3
PSQF:6215	Online Instruction: Design and Facilitation (if not taken as a required course)	3
PSQF:6216	Tools and Utilities for Online Teaching	3

Learning in the Disciplines

Course #	Title	Hours
EDTL:4630	Psychology of Music	3
EDTL:5610	Foundations of Music Education Curricula	3
EDTL:6267	Seminar: Current Issues in Art Education	3
EDTL:6315	MA Seminar: English Education	3
EDTL:6483	Multilingual Education and Applied Linguistics	3
EDTL:6570	Foundation of School STEM Curriculum	3
EDTL:6757	Learning in the Science Classroom	3
EDTL:6758	Writing in the Science Classroom	3
EDTL:6833	History and Foundations of Social Studies Education	3

Human Development and Motivation

Course #	Title	Hours
PSQF:4106	Child Development	3
PSQF:4111	Human Motivation	3
PSQF:4133	The Adolescent and Young Adult	3
PSQF:6206	Advanced Child Development	3
PSQF:6213	Advanced Lifespan Development	3

Measurement and Evaluation

Course #	Title	Hours
PSQF:4143	Introduction to Statistical Methods	3
PSQF:4740	Issues in K-12 Assessment	3
PSQF:5165	Introduction to Program and Project Evaluation	3
PSQF:6220	Quantitative Educational Research Methodologies	3
PSQF:6257	Educational Measurement and Evaluation	3
PSQF:6265	Program Evaluation	3

Admission

Applicants must meet the admission requirements of the Graduate College, including the minimum grade-point average; see the Manual of Rules and Regulations on the Graduate College website.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Psychological and Quantitative Foundations, MA

- Educational Measurement and Statistics Subprogram [p. 1414]
- Learning Sciences and Educational Psychology Subprogram [p. 1415]

Educational Measurement and Statistics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
PSQF:4143	Introduction to Statistical Methods [b]	3
PSQF:6257	Educational Measurement and Evaluation	3
Concentration Area course [c]		3
	Hours	**9**
Spring		
PSQF:6220	Quantitative Educational Research Methodologies [b]	3
PSQF:6243	Intermediate Statistical Methods	3
PSQF:6255	Construction and Use of Evaluation Instruments	3
	Hours	**9**
Second Year		
Fall		
PSQF:6246	Design of Experiments	3
Concentration Area course [c]		3
	Hours	**6**
Spring		
Concentration Area course [c]		3

Elective course [d]		3
Final Exam [e]		
	Hours	**6**
	Total Hours	**30**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b May substitute an equivalent course with advisor approval.
c Students must complete at least 9 s.h. of concentration area courses, including one course from each of the following categories: measurement, statistics, and related. See the General Catalog for list of approved courses.
d Work with faculty advisor to determine appropriate graduate elective coursework and sequence.
e Nonthesis students must complete a written and an oral final examination. See the General Catalog and department website for more specifics.

Learning Sciences and Educational Psychology Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
PSQF:6200	Educational Psychology	3
PSQF:6205	Design of Instruction	3
Focus Area elective [b]		3
	Hours	**9**
Spring		
PSQF:6215 or PSQF:6208	Online Instruction: Design and Facilitation or Digital Media and Learning	3
PSQF:6281	Cognitive Theories of Learning	3
Focus Area elective [b]		3
	Hours	**9**
Second Year		
Fall		
PSQF:6204	Foundations of the Learning Sciences	3
PSQF:6214	Design of Learning Environments: Theory, Practice, and Method	3
PSQF:6299	MA Project: Portfolio/Internship/ Practicum	2
	Hours	**8**
Spring		
PSQF:6203	Tools and External Representations in Individual and Social Learning	3
PSQF:6299	MA Project: Portfolio/Internship/ Practicum	1
Final Exam [c]		
	Hours	**4**
	Total Hours	**30**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Choose two courses from one of the following focus areas: Technology and Media, Learning in the Disciplines, Human Development and Motivation, Measurement and Evaluation; see the General Catalog for lists of approved courses.
c Completion of all degree requirements and MA project.

Psychological and Quantitative Foundations, EdS

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Graduate students will:

- gain course-specific knowledge and skills as required to perform well in their specialties (as demonstrated by completing their required courses in their specialty/major area with a grade-point average of 3.00 or higher);
- demonstrate integrated substantive knowledge and skills that can be applied to solve novel professional-level problems (as demonstrated by completing their comprehensive examinations satisfactorily);
- demonstrate required clinical practice skills (as demonstrated by satisfactory completion of all required practicums and/or internships);
- demonstrate initial engagement with, and commitment to, professional ethics, professional development, lifelong learning, and service to the profession (as demonstrated by participation and engagement in the appropriate state, regional, and national organizations as appropriate for their degrees);
- demonstrate entry-level professional qualifications (as demonstrated by being qualified to take any licensing exams that are required for practice and/or employment); and
- be qualified for suitable employment upon graduation (as reported on annual alumni Qualtrics surveys).

Requirements

The educational specialist (EdS) program in psychological and quantitative foundations with a school psychology subprogram requires a minimum of 61 s.h. of graduate credit. Students are expected to maintain a UI cumulative grade-point average of at least 3.00.

The program provides coursework and supervised field experience in education and psychology. The curriculum includes courses in psychological foundations, psychoeducational foundations, school psychology, and research methods. Other requirements include practicum experiences, a written and oral portfolio, and a full-time yearlong EdS-level internship. Successful completion of the PRAXIS II—School Psychology subject test 5403 is required for program completion.

The EdS in psychological and quantitative foundations includes the following coursework.

Course #	Title	Hours
All of these (or equivalents):		
PSQF:5199	Topical Workshop in Psychological and Quantitative Foundations (when topic is introduction to school psychology research writing)	1
PSQF:5219	Foundations of Health Service/School Psychology	3
PSQF:5900	Psychometrics	1
PSQF:6213	Advanced Lifespan Development	3
PSQF:6235	Multicultural Counseling	3
PSQF:6238	Assessment of Learning Differences	3
PSQF:6263	Consultation Theory and Practice	3
PSQF:7237	Beginning Practicum in School Psychological Service	3
PSQF:7310	Intelligence Assessment	3
PSQF:7313	Psychopathology in Childhood	3
PSQF:7315	Social and Emotional Assessment of Children and Adolescents	3
PSQF:7337	Advanced Practicum in School Psychology	6
PSQF:7344	Academic Interventions	3
PSQF:7437	Internship in School Psychology (EdS field experience)	2
PSQF:7465	Issues and Ethics in Professional Psychology	3
or EDTL:5963	Ethics and Professional Conduct for Behavior Analysts and Psychologists	
CSED:5202	Introduction to Group Counseling	3
or CSED:5222	Counseling Children and Adolescents in Schools	
EDTL:4900	Foundations of Special Education	3
EDTL:4950	Behavioral and Social Interventions	3
EDTL:5961	Foundation of Applied Behavior Analysis	3
EDTL:7953	Seminar: Single Subject Design Research	3
EPLS:4180	Human Relations for the Classroom Teacher	3

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Applicants are reviewed holistically.

Preference is given to applicants with:

- an undergraduate major in psychology, education, or a related field;

- an undergraduate grade-point average (GPA) of 3.00 or higher;
- a graduate GPA of 3.00 or higher;
- related research experience; and
- an interest and experience working with children and adolescents in K–12 settings.

Psychological and Quantitative Foundations, PhD

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Graduate students will:

- gain course-specific knowledge and skills as required to perform well in their specialties (as demonstrated by completing their required courses in their specialty/major area with a grade-point average of 3.00 or higher);
- demonstrate integrated substantive knowledge and skills that can be applied to solve novel professional-level problems (as demonstrated by completing their comprehensive examinations satisfactorily and by completing their thesis proposals with committee approval);
- demonstrate required clinical practice skills and researcher autonomy (as demonstrated by satisfactory completion of all required practicums and/or internships, and required thesis defenses/article submissions as appropriate for their degrees);
- demonstrate initial engagement with, and commitment to, professional ethics, professional development, lifelong learning, and service to the profession (as demonstrated by participation and engagement in the appropriate state, regional, and national organizations as appropriate for their degrees);
- demonstrate entry-level professional qualifications (as demonstrated by being qualified to take any licensing exams that are required for practice and/or employment); and
- be qualified for suitable employment or postdoctoral appointments upon graduation (as reported on annual Qualtrics surveys).

Counseling Psychology

The Doctor of Philosophy program in psychological and quantitative foundations with a counseling psychology subprogram requires a minimum of 100 s.h. of graduate credit. The program requires full-time study. Students are expected to maintain a UI cumulative grade-point average (GPA) of at least 3.00.

The goal of the program is to prepare counseling psychologists who will promote psychology as a science and contribute to the advancement of the profession. The faculty endorses a scientist/practitioner model of training and expects students to become competent researchers and proficient practitioners. Graduates find positions in a variety of settings, including higher education, counseling centers, clinics, private practice settings, and hospitals.

The program is fully accredited by the American Psychological Association. Students must show appropriate levels of emotional balance and interpersonal skills and act within the American Psychological Association's *Ethical Principles of Psychologists*. For more information, contact the program director.

The PhD in psychological and quantitative foundations with a counseling psychology subprogram requires the following coursework.

Research Requirements

16 s.h. of research courses are required. Students must take at least one course in psychometrics, two quantitative courses, one qualitative course, and six semesters of the supervised research course as follows.

Course #	Title	Hours
These courses:		
PSQF:5900	Psychometrics	1-3
PSQF:6243	Intermediate Statistical Methods (required if will take PSQF:6244 or PSQF:6246 below)	3
PSQF:7394	Supervised Research in Counseling Psychology (taken six semesters for 1 s.h. each)	6
One of these:		
PSQF:7331	Qualitative Educational Research Methods	3
CSED:7338	Essentials of Qualitative Inquiry	3
EDTL:7070	Qualitative Research Methods in Teaching and Learning	3
EPLS:7373	Qualitative Research Design and Methods	3
One of these:		
PSQF:6244	Correlation and Regression (must take PSQF:6243 before this course)	4
PSQF:6246	Design of Experiments (must take PSQF:6243 before this course)	3
PSQF:6252	Introduction to Multivariate Statistical Methods	3
PSQF:6270	Generalized Linear Models	3
PSQF:7201	Counseling Psychology Research Writing	3

Qualitative and quantitative methodology is discussed in PSQF:7394 Supervised Research in Counseling Psychology, which is directed each semester by faculty advisors. Research from each student is discussed and evaluated, critiqued, and supported.

Discipline-Specific Knowledge

All students are required to have a thorough grounding in the basic discipline of psychology. This may be achieved through a minimum of 3 s.h. of credit in each of the following four areas: biological bases of behavior, cognitive-affective bases of behavior, social bases of behavior, and history and systems.

Counseling Psychology Core

Course #	Title	Hours
PSQF:6223	Introduction to Counseling Psychology Practice/ Research I	3
PSQF:6225	Introduction to Counseling Psychology Practice, Research, and Theory	3
PSQF:6235	Multicultural Counseling	3
PSQF:6312	Psychopathology Across the Lifespan	3
PSQF:7306	Psychotherapy III: Work Psychology and Career Interventions	3
PSQF:7309	Personality Assessment	3
PSQF:7310	Intelligence Assessment	3
PSQF:7356	Process and Outcomes in Counseling Psychotherapy	3
PSQF:7365	Theories of Psychotherapy	3
PSQF:7434	Practicum in Counseling Psychology	3
PSQF:7452	Leadership, Consultation, and Supervision	3
PSQF:7453	Advanced Practicum in Counseling Psychology (repeatable)	3
PSQF:7457	Advanced Group Leadership Experience	3
PSQF:7465	Issues and Ethics in Professional Psychology	3
PSQF:7470	Internship and Professional Issues	3

Students must enroll in practica to reach a specified level of client contact, supervision, and additional experience hours. Practicum placements must have prior approval of the counseling psychology faculty. Students must successfully complete one semester of PSQF:7434 Practicum in Counseling Psychology before enrolling in PSQF:7453 Advanced Practicum in Counseling Psychology.

Electives

Elective courses are determined in collaboration with the major advisor.

Internship

Students spend a calendar year in an internship setting approved by the counseling psychology faculty. The faculty determines student readiness to apply for the internship based on completion of all required coursework, successful defense of comprehensive exams, and successful completion of practicum requirements. Internships usually require geographic relocation.

Comprehensive Exam and Dissertation

The comprehensive examination consists of an oral and a written component. The exam includes research and practice elements. For more information, contact the program coordinator.

The dissertation research study is planned in collaboration with the student's major advisor. Dissertation credit ranges from 12 to 15 s.h.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Preference is given to applicants who have an undergraduate GPA above 3.00 and a graduate GPA above 3.50; an undergraduate major, minor, or substantial coursework in psychology; and previous research and counseling experience.

The faculty encourages applicants from a wide range of backgrounds and identities. Applicants with a BA or a more advanced degree are eligible to apply.

Educational Measurement and Statistics

The Doctor of Philosophy program in psychological and quantitative foundations with an educational measurement and statistics subprogram requires a minimum of 90 s.h. of graduate credit. Students must maintain a UI cumulative grade-point average of at least 3.00 to remain in good standing in the Graduate College.

The subprogram prepares students for senior professional positions in educational measurement and statistics including quantitative methods, psychometrics, and data analytics. Graduates find employment in higher education, state and federal agencies, not-for-profit and commercial testing organizations, large public and private school systems, educational technology, and research institutions. Many students complete research internships with prospective employers during their second or third year of graduate study.

The doctorate is a U.S. Department of Homeland Security STEM-designated degree program in educational statistics and research methodology, recognized as such in the U.S. Department of Education's Classification of Instructional Programs (CIP code 13.0603) due to its focus on research, innovation, and the development of new technologies in testing and psychometric methods.

Students who enter the subprogram without an MA thesis must complete a substitute project before taking the PhD comprehensive examination.

The PhD in Psychological and Quantitative Foundations with an educational measurement and statistics subprogram requires the following coursework.

Required Courses

During the first year of graduate study, a student and their advisor plan a program of study that is appropriate for the student's interests and vocational objectives. The doctorate involves advanced work in educational measurement and psychometrics, quantitative methods, research design, and related areas. Work in other University of Iowa departments that is consistent with the student's interests is encouraged. Many doctoral candidates also complete graduate certificates, minors, and secondary degrees during their graduate studies.

Educational Measurement

Course #	Title	Hours
All of these:		
PSQF:6255	Construction and Use of Evaluation Instruments	3

PSQF:6257	Educational Measurement and Evaluation	3
PSQF:6258	Theory and Technique in Educational Measurement	3
PSQF:6262	Item Response Theory	3
PSQF:7358	Equating and Scaling of Educational Tests	3
At least two of these:		
PSQF:6249	Factor Analysis and Structural Equation Models	3
PSQF:6259	Scaling Methods	3
PSQF:6260	Diagnostic Assessment	3
PSQF:7355	Seminar: Educational Measurement and Evaluation	3
PSQF:7375	Topics in Educational Measurement and Statistics	3
PSQF:7455	Generalizability Theory	3
PSQF:7476	Research in Educational Measurement and Statistics	3

Applied Statistics

Course #	Title	Hours
All of these:		
PSQF:6243	Intermediate Statistical Methods	3
PSQF:6246	Design of Experiments	3
PSQF:6252	Introduction to Multivariate Statistical Methods	3
PSQF:6270	Generalized Linear Models	3
At least three of these:		
PSQF:6244	Correlation and Regression	4
PSQF:6247	Nonparametric Statistical Methods	3
PSQF:6248	Research Synthesis and Meta-Analysis	3
PSQF:6249	Factor Analysis and Structural Equation Models	3
PSQF:6250	Computer Packages for Statistical Analysis	3
PSQF:6254	Causal Inference and Observational Designs	3
PSQF:6271	Longitudinal Multilevel Models	3
PSQF:6272	Clustered Multilevel Models	3
PSQF:7355	Seminar: Educational Measurement and Evaluation	3
PSQF:7375	Topics in Educational Measurement and Statistics	3
PSQF:7476	Research in Educational Measurement and Statistics	3

Additional Research Requirements

The College of Education research requirements may be satisfied by 9 s.h. from the required courses in educational measurement and applied statistics, by completing PSQF:6220 Quantitative Educational Research Methodologies and PSQF:7331 Qualitative Educational Research Methods, or by completing two other courses comparable in content coverage and level of rigor with departmental approval.

Third Area of Concentration

Students are required to complete a minimum of 9 s.h. in a coherent program of coursework outside of educational measurement and statistics that is beyond the courses listed above. The third area of concentration may come from related disciplines such as mathematical statistics, biostatistics, computer science, curriculum, higher education, program evaluation, learning sciences, data science, or informatics. These must be graduate-level courses that are consistent with a plan approved by the student's advisor.

Electives

Students are encouraged to take elective courses that complement their interests. These electives, chosen in collaboration with the academic advisor, may include courses in related areas such as psychology, learning sciences, mathematical statistics, informatics, or data science. All students are expected to develop proficiency in computer programming methods sufficient to support their research and professional objectives.

Comprehensive Examination

After completing most of their coursework, students take the comprehensive examination. The comprehensive examination is not a deferred qualifying examination. Rather, it is intended to evaluate a student's mastery of the concepts from the program of study at or near the end of the student's formal preparation and before completion of the dissertation. The composition of the comprehensive examination committee and the requirements to pass the comprehensive exam must follow the College of Education and Graduate College guidelines.

During the comprehensive exam, the committee seeks further evidence of the student's independent command of concepts across their program of study. The comprehensive examination consists of a written component followed by an oral component.

The details and format of the written and oral components of the exam are determined by the comprehensive examination committee to ensure that the exam represents the student's own work. The written component may include a traditional examination (in-person or take-home) or an extended research activity. The oral component is satisfied by a meeting of the examination committee with the student. At the conclusion of the oral component, the examining committee makes a single decision (satisfactory, with reservations, or unsatisfactory) across all aspects of the examination.

Dissertation

Work for the PhD concludes with the dissertation. The dissertation research study is planned in collaboration with the student's examining committee chair and members and includes a proposal meeting and a final examination. Committee members approve both the examination and the final document submitted by the student. A student must complete a minimum of 9 s.h. of dissertation credit, and no more than 12 s.h. may count towards the 90 s.h. that is required for the doctorate. Students may register for additional dissertation credit hours until completed.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations

on the Graduate College website. Preference is given to applicants who have an undergraduate GPA above 3.00 and a graduate GPA above 3.50.

The faculty encourages applicants from a wide range of backgrounds and identities. Applicants with a BA/BS or a more advanced degree are eligible to apply.

Learning Sciences and Educational Psychology

The Doctor of Philosophy program in psychological and quantitative foundations with a learning sciences and educational psychology subprogram requires a minimum of 72 s.h. of graduate credit. Students are expected to maintain a UI cumulative grade-point average of at least 3.00.

The subprogram synthesizes core content and methods of educational psychology with training in the learning sciences. Educational psychology is characterized by empirical research and theory typical of the social and behavioral sciences. The learning sciences reflect an outgrowth of cognitive science. The field offers a multidisciplinary approach to understanding when, how, and why people learn in social and material contexts that include but are not limited to classrooms. The learning sciences blend theories and methods from several disciplines, such as cognitive psychology, anthropology, instructional design, and more. Students will acquire the depth of knowledge and methodological sophistication necessary for original research that contributes to educational psychology and the learning sciences. They will develop and demonstrate their knowledge of learning theory and design principles in the context of research and design projects.

Students work closely with their advisor to develop a plan of study and define a program that matches their goals and interests. Those who begin the program after earning a master's degree or with coursework from another program may be able to waive some of the PhD program requirements.

The program of study includes substantive areas within the learning sciences and educational psychology, including courses in cognition, development, learning theory, and the design of instruction, learning environments, and learning technologies. Other learning opportunities include a design project in the second year, a precandidacy independent research project in which students design and carry out original research, a slate of research courses that meet the College of Education’s research requirements, a minor area of a student’s choice, and a dissertation in the student’s area of interest.

Research Requirement

The heart of the learning sciences and educational psychology as fields of inquiry is the creation, dissemination, and use of rigorous research to better understand and address educational issues. While many of the required courses address various aspects of the guiding principles set out by the National Research Council, students engage in the following coursework and research-related activities.

Course #	Title	Hours
All of these:		
PSQF:6220	Quantitative Educational Research Methodologies	3
PSQF:6243	Intermediate Statistical Methods	3
PSQF:7331	Qualitative Educational Research Methods	3
One of these:		
PSQF:6244	Correlation and Regression	4
PSQF:6246	Design of Experiments	3
PSQF:6247	Nonparametric Statistical Methods	3
PSQF:6252	Introduction to Multivariate Statistical Methods	3

Research Project

Prior to candidacy and in consultation with a faculty member, students design, implement, and present an original research project. This experience provides the opportunity to conduct a pilot study that will strengthen their thesis in terms of methods, instruments, theoretical grounding, or focus of a research question. Student presentations of their research are open to the public. Students are encouraged to submit their study results for broader dissemination at a local, regional, or national conference.

For students who have received approval to omit this requirement because of an empirical thesis that is acceptable to the learning sciences and educational psychology faculty, an additional research course may be required.

Course #	Title	Hours
PSQF:6230	Research in Educational Psychology	3

Required Courses

Course #	Title	Hours
All of these:		
PSQF:6200	Educational Psychology	3
PSQF:6203	Tools and External Representations in Individual and Social Learning	3
PSQF:6204	Foundations of the Learning Sciences	3
PSQF:6205	Design of Instruction	3
PSQF:6214	Design of Learning Environments: Theory, Practice, and Method	3
PSQF:6281	Cognitive Theories of Learning	3
PSQF:6299	MA Project: Portfolio/ Internship/Practicum	2
PSQF:7493	PhD Thesis in Psychological and Quantitative Foundations (minimum requirement)	10

Core Courses

The selection of core courses depends on a student's area of specialization. Students choose at least 9 s.h.; they should contact their advisor for additional approved courses.

Cognition, Learning, and Development

Course #	Title	Hours
PSQF:6213	Advanced Lifespan Development	3

PSQF:6275	Constructivism and Design of Instruction	3
PSY:6440	Developmental Cognitive Neuroscience	3

Learning in the Disciplines

Course #	Title	Hours
EDTL:6267	Seminar: Current Issues in Art Education	3
EDTL:6315	MA Seminar: English Education	3
EDTL:6483	Multilingual Education and Applied Linguistics	3
EDTL:6570	Foundation of School STEM Curriculum	3
EDTL:6757	Learning in the Science Classroom	3
EDTL:6758	Writing in the Science Classroom	3
EDTL:6833	History and Foundations of Social Studies Education	3

Technology and Media

Course #	Title	Hours
PSQF:6208	Digital Media and Learning	3
PSQF:6211	Universal Design and Accessibility for Online Instruction	3
PSQF:6215	Online Instruction: Design and Facilitation	3
PSQF:6216	Tools and Utilities for Online Teaching	3

Seminar

Course #	Title	Hours
PSQF:7371	Seminar in Learning Sciences and Educational Psychology (topics vary; may be repeated if content is related to the learning sciences or educational psychology)	3

Electives

Students may take up to 6 s.h. of elective coursework. Students can take PSQF:6217 Seminar in College Teaching and/or additional research courses. Other courses may be included in consultation with their advisor.

Minor Area

Students must complete a minimum of 12 s.h. that constitute a coherent program of coursework outside educational psychology and beyond the courses previously listed. The minor area may be from a foundation discipline such as mathematics education, educational philosophy, or program evaluation. Courses must be numbered 5000 or above, can span across departments and colleges, and must be consistent with a plan approved by a student's advisor.

Comprehensive Examination

The PhD comprehensive examination emphasizes competence and depth in one or more narrowly defined areas of research and theory. Students choose from three options in consultation with their advisor and with the approval of their examining committee, which is composed of four faculty members. It does not necessarily include the same faculty members as the dissertation committee.

The options are a traditional comprehensive examination that includes foundational content in educational psychology and learning sciences, the student's minor area, and a specialty area of the student's choice; a review article; or an extended research activity. For details of each option's requirements, contact the Department of Psychological and Quantitative Foundations.

Admission

Applicants must meet the admission requirements of the Graduate College, including the minimum grade-point average; see the Manual of Rules and Regulations on the Graduate College website.

Applicants who do not meet all admission requirements may be granted conditional admission on the basis of other evidence, such as high grade-point average, strong academic preparation, and highly supportive recommendations. Conditional admission is rare.

Following an initial review of the application, applicants may be asked to participate in a virtual interview with one or more faculty members. No preparation is required for this interview, it provides faculty members an opportunity to better understand the applicant's graduate school goals and provides applicants with an opportunity to ask questions about the program.

Applicants who accept admission or financial aid and do not relinquish either one on or before April 15 may not solicit or accept another offer. Offers made by the program after April 15 include the provision that the offer is void if the applicant has accepted and continues to hold a previous offer from another program listed in the American Psychological Association publication *Graduate Study in Psychology and Associated Fields*. This policy is consistent with standards set by the association's Board of Educational Affairs.

School Psychology

The Doctor of Philosophy program in psychological and quantitative foundations with a school psychology subprogram requires a minimum of 108 s.h. of graduate credit. Students are expected to maintain a UI cumulative grade-point average (GPA) of at least 3.00.

The primary mission of the school psychology program is to train health service psychologists to be outstanding ethical and multiculturally competent scientist-practitioners who promote psychology as a profession and science for the betterment of the human condition. As such, the program places significant emphasis on instilling attitudes and skills that are necessary for becoming critical consumers of research, active disseminators of research, and valuable contributors to the scientific foundations of the field. Students must show appropriate levels of emotional balance and interpersonal skills, and act within the American Psychological Association’s Ethical Principles of Psychologists and Code of Conduct.

Graduates from the school psychology program obtain positions as school service providers, private practitioners, faculty members, and psychologists in community mental

health agencies, residential settings, and pediatric and psychiatric settings.

The APA Commission on Accreditation (APA-CoA) approved the school psychology program's intent to apply application and voted to provide public notice of the program's intent to seek accreditation effective April 2, 2022. Although currently not APA accredited, the doctoral program has developed its course offerings, sequence, research, and practical experiences to be in line with standards that are set forth by the Standards of Accreditation for Health Service Psychology. The doctoral-level school psychology program applied for accreditation on contingency in September 2023.

Students develop a plan of study in consultation with their academic advisors. Successful completion of the PRAXIS II—School Psychology subject test 5403 is required for program completion.

The PhD in psychological and quantitative foundations with a school psychology subprogram requires the following coursework.

Research Requirement

To receive credit for additional courses, students must obtain prior approval from their advisor and the school psychology program.

Course #	Title	Hours
All of these:		
PSQF:5199	Topical Workshop in Psychological and Quantitative Foundations (when topic is introduction to school psychology research writing)	1
PSQF:5900	Psychometrics	1
PSQF:6243	Intermediate Statistical Methods	3
PSQF:7331	Qualitative Educational Research Methods	3
or EPLS:7373	Qualitative Research Design and Methods	
PSQF:7342	Research Project in School Psychology	2-4
EDTL:7953	Seminar: Single Subject Design Research	3
One of these (or equivalent):		
PSQF:6244	Correlation and Regression (must take PSQF:6243 before this course)	4
PSQF:6246	Design of Experiments (must take PSQF:6243 before this course)	3

Basic Psychology

Students are required to have a thorough grounding in the basic discipline of psychology, which may be achieved through earning a minimum of 3 s.h. in each of the following six areas: history and systems; and affective, biological, cognitive, developmental, and social bases of behavior. Students complete additional courses in individual differences and other course areas consistent with accreditation.

Core Courses

Course #	Title	Hours
All of these (or equivalents):		
PSQF:5219	Foundations of Health Service/School Psychology	3
PSQF:6213	Advanced Lifespan Development	3
PSQF:6235	Multicultural Counseling	3
PSQF:6238	Assessment of Learning Differences	3
PSQF:6263	Consultation Theory and Practice	3
PSQF:6281	Cognitive Theories of Learning	3
PSQF:6312	Psychopathology Across the Lifespan	3
PSQF:7320	History and Systems of Psychology	3
PSQF:7237	Beginning Practicum in School Psychological Service (minimum of 150 hours required)	3
PSQF:7310	Intelligence Assessment	3
PSQF:7315	Social and Emotional Assessment of Children and Adolescents	3
PSQF:7337	Advanced Practicum in School Psychology (minimum of 750 hours required)	15
PSQF:7344	Academic Interventions	3
PSQF:7367	Social Psychology and Social Systems	3
PSQF:7390	Supervision of School Psychology Practicum/ Internship	3
PSQF:7465	Issues and Ethics in Professional Psychology	3
or EDTL:5963	Ethics and Professional Conduct for Behavior Analysts and Psychologists	
CSED:5202	Introduction to Group Counseling	3
or CSED:5222	Counseling Children and Adolescents in Schools	
EDTL:4900	Foundations of Special Education	3
EDTL:4950	Behavioral and Social Interventions	3
EDTL:5961	Foundation of Applied Behavior Analysis	3
EPLS:4180	Human Relations for the Classroom Teacher	3
PSY:5203	Fundamental Neurobiology I	3
or PSY:6370	Principles of Neuropsychology	

Students must enroll in practicums to reach a specified level of client contact, supervision, and additional experience hours. Placements must have prior approval of the school psychology faculty. Students must successfully complete one semester of PSQF:7237 Beginning Practicum in School Psychological Service before enrolling in PSQF:7337 Advanced Practicum in School Psychology. Students must adhere to the

most recent ethical principles and standards of the American Psychological Association.

Elective Courses

Students earn a minimum of 6 s.h. in elective courses. These courses are determined in collaboration with the major advisor and can include the following.

Course #	Title	Hours
PSQF:6217	Seminar in College Teaching	1-3
EDTL:4975	Explicit Instruction	3
EDTL:5966	Advanced Topics in Applied Behavior Analysis	3
PEDS:7264	Clinical Applications of Applied Behavior Analysis	3

Yearly and Comprehensive Portfolios

Students are required to complete yearly portfolio reviews, which include oral examinations. The comprehensive portfolio consists of an oral and a written component that includes research and practice elements. For more information, contact the program coordinator.

Internship

Students spend a calendar year in an internship setting approved by the school psychology faculty. The faculty determines students' readiness to apply for internships based on their completion of all required coursework and successful completion of practicum and program requirements. Internships may require geographic relocation.

Course #	Title	Hours
This course:		
PSQF:7437	Internship in School Psychology	2

Dissertation

Students complete a doctoral dissertation. The program has adopted a two-article format. Article 1 (PSQF:7342) is completed by the end of the third year of the program. Following the successful defense of Article 1, students register for a total of 6 s.h. of dissertation credit (Article 2, PSQF:7493). All dissertation research studies are planned in collaboration with a student's major research advisor. Students may register for additional dissertation credits until completion.

Course #	Title	Hours
This course:		
PSQF:7493	PhD Thesis in Psychological and Quantitative Foundations	6

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Preference is given to applicants with an undergraduate major in psychology, education, or a related field; have an undergraduate GPA of 3.00 or higher; a graduate GPA of 3.00 or higher; related research experience; and an interest and experience working with children and adolescents in K–12 settings. Applicants are reviewed holistically.

The faculty encourages applicants from minoritized and other underrepresented groups to include persons from a wide range of backgrounds and academic preparation.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Psychological and Quantitative Foundations, PhD

- Counseling Psychology Subprogram [p. 1424]
- Educational Measurement and Statistics Subprogram [p. 1425]
- Learning Sciences and Educational Psychology Subprogram [p. 1426]
- School Psychology Subprogram [p. 1427]

Counseling Psychology Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
100 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
PSY:5410 or PSQF:6312	Proseminar in Developmental Science [c] or Psychopathology Across the Lifespan	3
PSQF:6225	Introduction to Counseling Psychology Practice, Research, and Theory	3
PSQF:6243	Intermediate Statistical Methods	3
PSQF:7394	Supervised Research in Counseling Psychology	1
PSQF:7457	Advanced Group Leadership Experience	3
	Hours	**13**
Spring		
PSQF:6223	Introduction to Counseling Psychology Practice/Research I	3
PSQF:7310	Intelligence Assessment	3
PSQF:7365	Theories of Psychotherapy	3
SOC:6210 or PSQF:7367	Contemporary Approaches to Social Psychology [c] or Social Psychology and Social Systems	3
PSQF:7394	Supervised Research in Counseling Psychology	1
Quantitative statistics/research methodology course [d]		3
	Hours	**16**

Summer		
PSQF:5900	Psychometrics [e]	1
	Hours	**1**
Second Year		
Fall		
PSQF:7306	Psychotherapy III: Work Psychology and Career Interventions	3
PSQF:7394	Supervised Research in Counseling Psychology	1
PSQF:7434	Practicum in Counseling Psychology	3
PSQF:7465	Issues and Ethics in Professional Psychology	3
PSY:6370 or PSY:6440	Principles of Neuropsychology [c] or Developmental Cognitive Neuroscience	3
	Hours	**13**
Spring		
PSQF:6235	Multicultural Counseling	3
PSQF:7356	Process and Outcomes in Counseling Psychotherapy	3
PSQF:7394	Supervised Research in Counseling Psychology	1
PSQF:7453	Advanced Practicum in Counseling Psychology	3
Qualitative research course [f]		3
	Hours	**13**
Third Year		
Fall		
PSQF:7320	History and Systems of Psychology [c]	3
PSQF:7394	Supervised Research in Counseling Psychology	1
PSQF:7453	Advanced Practicum in Counseling Psychology	3
PSY:5610 or PSY:6230 or PSQF:6200	Proseminar in Cognition and Perception [c] or Foundations of Learning, Memory, and Cognition or Educational Psychology	3
Elective course		3
	Hours	**13**
Spring		
Exam: Doctoral Comprehensive Exam [g]		
PSQF:7309	Personality Assessment	3
PSQF:7394	Supervised Research in Counseling Psychology	1
PSQF:7452	Leadership, Consultation, and Supervision	3
PSQF:7453	Advanced Practicum in Counseling Psychology	3
Elective course		3
	Hours	**13**
Fourth Year		
Fall		
Apply for Internship		
PSQF:7453	Advanced Practicum in Counseling Psychology	3
PSQF:7493	PhD Thesis in Psychological and Quantitative Foundations	6
	Hours	**9**
Spring		
PSQF:7453	Advanced Practicum in Counseling Psychology	3
PSQF:7493	PhD Thesis in Psychological and Quantitative Foundations	6
Exam: Doctoral Final Exam [h]		
	Hours	**9**
Fifth Year		
Any Semester		
Internship Year [i, j]		
PSQF:7470	Internship and Professional Issues	3
	Hours	**3**
	Total Hours	**103**

a Students entering with a bachelor's degree must work with their faculty advisor to complete 30 s.h. of appropriate graduate coursework to fulfill the MA requirements. Students entering with a master's degree from Iowa or an accredited institution with fewer than 30 s.h. of coursework must work with their faculty advisor to complete the needed appropriate graduate coursework to fulfill the MA requirements.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Satisfies a Discipline-Specific Knowledge area requirement. Must be completed before taking the comprehensive exam.

d Choose one course from PSQF:6244, PSQF:6246, PSQF:6252, PSQF:6270, PSQF:7201.

e Course may be taken during any summer session.

f Choose one course from PSQF:7331, CSED:7338, EDTL:7070, EPLS:7373.

g Consists of oral and written components; includes research and practice elements. For more information contact the program coordinator.

h Dissertation defense.

i For students who have already successfully defended their dissertation.

j Students spend a calendar year in an internship setting approved by the counseling psychology faculty. The faculty determines student readiness to apply for the internship based on completion of all required coursework, successful defense of comprehensive exams, and successful completion of practicum requirements. Internships usually require geographic relocation.

Educational Measurement and Statistics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
90 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**

First Year		
Fall		
PSQF:6243	Intermediate Statistical Methods	3
PSQF:6225	Introduction to Counseling Psychology Practice, Research, and Theory	3
PSQF:6257	Educational Measurement and Evaluation	3
PSQF:6270	Generalized Linear Models	3
	Hours	**12**
Spring		
PSQF:6258	Theory and Technique in Educational Measurement	3
PSQF:6262	Item Response Theory	3
Applied statistics elective course [b]		3
Educational measurement elective course [b]		3
	Hours	**12**
Second Year		
Fall		
PSQF:6246	Design of Experiments	3
PSQF:7358	Equating and Scaling of Educational Tests	3
Applied statistics elective course [b]		3
Third area of concentration elective course [c]		3
	Hours	**12**
Spring		
PSQF:6252	Introduction to Multivariate Statistical Methods	3
PSQF:6255	Construction and Use of Evaluation Instruments	3
Applied statistics elective course [b]		3
Third area of concentration elective course [c]		3
	Hours	**12**
Third Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [d]		
	Hours	**0**
Fall		
Educational measurement elective course [b]		3
Third area of concentration elective course [c]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**12**
Spring		
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**12**
Fourth Year		
Fall		
PSQF:7493	PhD Thesis in Psychological and Quantitative Foundations	6
Elective course [e]		3
	Hours	**9**
Spring		
PSQF:7493	PhD Thesis in Psychological and Quantitative Foundations	6
Elective course [e]		3
Exam: Doctoral Final Exam [f]		
	Hours	**9**
	Total Hours	**90**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b See the General Catalog for list of approved courses.
c Students are required to complete a minimum of 9 s.h. in a coherent program of coursework outside of educational measurement and statistics that is beyond the courses listed above. The third area of concentration may come from related disciplines such as mathematical statistics, biostatistics, computer science, curriculum, higher education, program evaluation, learning sciences, data science, or informatics. These must be graduate level courses that are consistent with a plan approved by the student's advisor.
d After completing most of their coursework, students take the comprehensive examination, which consists of a written component followed by an oral component. The comprehensive examination is not a deferred qualifying examination. Rather, it is intended to evaluate a student's mastery of the concepts from the program of study at or near the end of the student's formal preparation and before completion of the dissertation.
e Work with faculty advisor to determine appropriate graduate level coursework and sequence.
f Dissertation defense.

Learning Sciences and Educational Psychology Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
PSQF:6200	Educational Psychology	3
PSQF:6205	Design of Instruction	3
PSQF:6243	Intermediate Statistical Methods	3
	Hours	**9**
Spring		
PSQF:6281	Cognitive Theories of Learning	3
PSQF:7331	Qualitative Educational Research Methods	3
Core course [b]		3
	Hours	**9**
Second Year		
Fall		
PSQF:6204	Foundations of the Learning Sciences	3
PSQF:6214	Design of Learning Environments: Theory, Practice, and Method	3

PSQF:6299	MA Project: Portfolio/Internship/ Practicum	1
Research course [c]		3
	Hours	**10**
Spring		
PSQF:6203	Tools and External Representations in Individual and Social Learning	3
PSQF:6220	Quantitative Educational Research Methodologies	3
PSQF:6299	MA Project: Portfolio/Internship/ Practicum	1
Core course [b]		3
	Hours	**10**
Third Year		
Fall		
PSQF:6230	Research in Educational Psychology	2
Minor area course [d]		3
Minor area course [d]		3
Core course [b]		3
	Hours	**11**
Spring		
Exam: Doctoral Comprehensive Exam [e]		
PSQF:6230	Research in Educational Psychology	1
Minor area course [d]		3
Minor area course [d]		3
Elective course [b]		3
	Hours	**10**
Fourth Year		
Fall		
PSQF:7493	PhD Thesis in Psychological and Quantitative Foundations	5
Elective course [b]		3
	Hours	**8**
Spring		
PSQF:7493	PhD Thesis in Psychological and Quantitative Foundations	5
Exam: Doctoral Final Exam [f]		
	Hours	**5**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Work with faculty advisor to determine appropriate graduate level coursework and sequence.

c Choose from PSQF:6244, PSQF:6246, PSQF:6247, PSQF:6252.

d Students must complete a minimum of 12 s.h. that constitute a coherent program of coursework outside educational psychology. The minor area courses may be from a foundation discipline such as mathematics education, educational philosophy, or program evaluation. Courses must be numbered 5000 or above, can span across departments and colleges, and must be consistent with a plan approved by a student's advisor.

e Students choose from three options in consultation with their advisor and with the approval of their examining committee. The options are a traditional comprehensive examination, a review article, or an extended research activity. See the General Catalog and the department website for specifics.

f Dissertation defense.

School Psychology Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
108 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
PSQF:5219	Foundations of Health Service/ School Psychology	3
PSQF:6238	Assessment of Learning Differences	3
PSQF:7310	Intelligence Assessment	3
PSQF:7315	Social and Emotional Assessment of Children and Adolescents	3
	Hours	**12**
Spring		
EDTL:4950	Behavioral and Social Interventions	3
PSQF:5199	Topical Workshop in Psychological and Quantitative Foundations	1
PSQF:6213	Advanced Lifespan Development	3
PSQF:7237	Beginning Practicum in School Psychological Service	3
PSQF:7344	Academic Interventions	3
	Hours	**13**
Summer		
EDTL:4900	Foundations of Special Education [c]	3
PSQF:5900	Psychometrics	1
	Hours	**4**
Second Year		
Fall		
EDTL:5963 or PSQF:7465	Ethics and Professional Conduct for Behavior Analysts and Psychologists [d] or Issues and Ethics in Professional Psychology	3
EDTL:7953	Seminar: Single Subject Design Research	3
PSQF:6312	Psychopathology Across the Lifespan	3
PSQF:7337	Advanced Practicum in School Psychology	3
PSQF:7342	Research Project in School Psychology	1
	Hours	**13**
Spring		
PSQF:6235	Multicultural Counseling	3
PSQF:6263	Consultation Theory and Practice	3

PSQF:6281	Cognitive Theories of Learning	3
PSQF:7337	Advanced Practicum in School Psychology	3
PSQF:7342	Research Project in School Psychology	1
	Hours	**13**
Summer		
EPLS:4180	Human Relations for the Classroom Teacher [c]	3
	Hours	**3**
Third Year		
Fall		
EDTL:5961	Foundation of Applied Behavior Analysis [e]	3
PSQF:6243	Intermediate Statistical Methods	3
PSQF:7320	History and Systems of Psychology	3
PSQF:7337	Advanced Practicum in School Psychology	3
	Hours	**12**
Spring		
CSED:5202 or CSED:5222	Introduction to Group Counseling or Counseling Children and Adolescents in Schools	3
PSQF:7337	Advanced Practicum in School Psychology	3
PSQF:7367	Social Psychology and Social Systems	3
Elective course [f]		3
	Hours	**12**
Summer		
PRAXIS Exam [g]		
	Hours	**0**
Fourth Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [h]		
	Hours	**0**
Fall		
PSQF:6246 or PSQF:6244	Design of Experiments or Correlation and Regression	3 - 4
EPLS:7373 or PSQF:7331	Qualitative Research Design and Methods or Qualitative Educational Research Methods	3
PSY:6370 or PSY:5203	Principles of Neuropsychology or Fundamental Neurobiology I	3
	Hours	**9-10**
Spring		
PSQF:7337	Advanced Practicum in School Psychology	3
PSQF:7390	Supervision of School Psychology Practicum/Internship	3
Elective course [f]		3
	Hours	**9**
Fifth Year		
Fall		
PSQF:7493	PhD Thesis in Psychological and Quantitative Foundations	3
	Hours	**3**
Spring		
PSQF:7493	PhD Thesis in Psychological and Quantitative Foundations	3
	Hours	**3**
Sixth Year		
Fall		
PSQF:7437	Internship in School Psychology	1
	Hours	**1**
Spring		
PSQF:7437	Internship in School Psychology	1
Exam: Doctoral Final Exam [i]		
	Hours	**1**
	Total Hours	**108-109**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Required for Social Psychology Certification in Iowa.

d Students completing the BCBA Certificate must take EDTL:5963 to meet APA and BCBA ethics requirements.

e Also meets requirements for BCBA Certificate.

f Work with faculty advisor to select appropriate elective coursework.

g Successful completion of the PRAXIS II-School Psychology subject test 5403 is required for program completion.

h Typically completed by the end of the fourth year; see the College of Education website for specifics.

i Dissertation defense.

Talent Development

Chair, Department of Teaching and Learning

- Lia M. Plakans

Coordinator, Talent Development

- Randolph W. Lange

Graduate certificate: talent development

Faculty: https://education.uiowa.edu/directory

Website: https://education.uiowa.edu/areas-study/continuing-education/certificates-and-endorsements/certificate-talent-development

The purpose of the graduate Certificate in Talent Development is to increase understanding of talented individuals, the process of talent development and the creative process, and prepare advocates for talented individuals.

The Certificate in Talent Development is administered by the Department of Teaching and Learning [p. 1431] and is granted by the Graduate College.

Programs

Graduate Program of Study

- Certificate in Talent Development [p. 1430]

Talent Development, Graduate Certificate

Requirements

The graduate Certificate in Talent Development requires 14 s.h. of credit and is offered fully online, or with hybrid and conventional courses. Students must take required and elective courses on an A—F graded basis and must earn a B-minus or higher in each course. The capstone exploration is graded as satisfactory/unsatisfactory.

The certificate program is open to students enrolled in University of Iowa graduate degree programs and to individuals who are enrolled in the Graduate College as nondegree students.

Inquiries regarding approval for transfer credit of previously taken University of Iowa courses should be directed to the certificate supervisors at the Belin-Blank Center.

The Certificate in Talent Development requires the following coursework.

Requirements	Hours
Required Coursework	6
Elective Coursework	6
Capstone Exploration	2

Required Coursework

Course #	Title	Hours
Both of these:		
EDTL:4067	Conceptions of Talent Development	3
PSQF:4120	Psychology of Giftedness	3

Elective Coursework

Course #	Title	Hours
At least two of these:		
CW:3870	Advanced Fiction Writing	3
CW:3875	Advanced Poetry Writing	3
EDTL:4066	Curriculum and Programming for Advanced Learners	3
ENTR:9650	STEM Innovator V: STEM Innovator Tools to Create an Innovation Model for the Classroom	3
ENTR:9660	STEM Innovator VI: Creating a STEM Innovation Pathway Across K-14 Learning Experiences	3
EPLS:6217	Theory and Practice of Leadership	3
INTD:3005	Professional and Creative Business Communication	3
LS:3012	Leadership Theory to Practice	3
MGMT:3300	Strategic Human Resource Management	3
MUS:4630	Psychology of Music	3
PSQF:4121	Identification of Students for Advanced Programming	3
PSQF:4123	Academic Acceleration: Providing Excellence and Equity in Education for High Ability Students	3
PSQF:6281	Cognitive Theories of Learning	3
Students may take other courses numbered 3000-3999 that focus on talent development concepts, in consultation with their certificate advisor		

Capstone Exploration

The Certificate in Talent Development culminates with the opportunity for students to develop and complete a capstone exploration project relevant to a school or other context that focuses on an important topic or issue in talent development. Students must earn a B-minus or higher in the required and elective courses to enroll in the capstone exploration, EDTL:5065 Talent Development Capstone Exploration.

The capstone exploration entails critical readings and a guided research project and presentation related to the concept of talent development. Projects require approval (and are supervised) by a Belin-Blank Center professional development team member. Readings should be discussed and determined in collaboration with the mentor. The capstone exploration project is shared in a public presentation immediately following a student's completion of the research/independent study related to the capstone exploration. Students present their capstone exploration to a public forum (e.g., staff meeting, school board meeting, special evening event, public library); if the presentation cannot be at a public forum, an alternate forum will be agreed upon between the student and the Belin-Blank Center mentor. Students submit the final written report (with references and appendices) no later than 20 days after the public presentation.

For more information, visit Certificate in Talent Development on the College of Education website.

Teaching and Learning

Chair

- Lia M. Plakans

Undergraduate majors: art education (BA); elementary education (BA); English education (BA); mathematics education (BA); music education (BA); science education (BA); social studies education (BA); world language education (BA); science studies (BS, granted by the College of Liberal Arts and Sciences)

Graduate degrees: MA in teaching and learning; MAT in teaching and learning; MS in teaching and learning; PhD in teaching and learning

Faculty: https://education.uiowa.edu/directory

Website: https://education.uiowa.edu/about/administration/department-teaching-and-learning

Department of Teaching and Learning programs prepare graduates for positions in public schools, local and state education agencies, clinical settings, and institutions of higher education. All licensure programs are approved by the Iowa Department of Education.

Undergraduate students pursuing a BA with a major in art education, elementary education, English education, mathematics education, music education, science education, social studies education, or world language education, must satisfy the GE CLAS Core [p. 22] requirements.

Undergraduate students pursuing a BS with a major in science studies must meet the College of Liberal Arts and Sciences requirements for the Bachelor of Science degree, including the GE CLAS Core; see the College of Liberal Arts and Sciences Academic Policies Handbook.

The Department of Teaching and Learning offers, or jointly administers with departments in the College of Liberal Arts and Sciences, advanced degree programs in the following fields of professional interest: art education; English education; world language, multilingual, and English as a Second Language education; literacy, culture, and language education; mathematics education; music education; science education; social studies education; special education; and teaching, leadership, and cultural competency.

Graduate Degree Programs

The department offers graduate degree programs in three major areas: elementary education, secondary education, and special education.

Elementary Education Programs

- Art education (offered in the MA and MAT in teaching and learning)
- Teaching, leadership, and cultural competency (offered in the MA in teaching and learning)

Secondary Education Programs

- Art education (offered in the MA and MAT in teaching and learning)
- English education (offered in the MA and MAT in teaching and learning)
- World language and English as a Second Language (ESL) education (offered in the MAT in teaching and learning)
- Language, literacy, and social studies education (offered in the PhD in teaching and learning)
- Mathematics education (offered in the MA, MAT, and PhD in teaching and learning)
- Multilingual education (offered in the MA in teaching and learning)
- Science education (offered in the MS, MAT, and PhD in teaching and learning)
- Social studies education (offered in the MA and MAT in teaching and learning)
- Special education (offered in the MA and PhD in teaching and learning)
- Teaching, leadership, and cultural competency (offered in the MA in teaching and learning)

The secondary education area also collaborates with the College of Liberal Arts and Sciences to offer an education option for graduate students earning an MS in mathematics; an MA and PhD in music with a concentration in music education; a combined U2G program in teaching and learning with a science education subprogram for undergraduates majoring in biology, chemistry, earth, environment, and sustainability sciences, or physics; and a combined U2G program in teaching and learning with a mathematics education subprogram for undergraduates majoring in mathematics. In addition, the area offers an ESL endorsement for individuals who are enrolled in a Department of Teaching and Learning graduate degree program or who are licensed in-service teachers.

In addition, the MA in music [p. 852] is administered by the School of Music (College of Liberal Arts and Sciences) in cooperation with the College of Education. The concentration in music education provides students with deeper insights into music, the theory and practice of music education, and the role of music in the school curriculum.

The PhD in music [p. 862] with a concentration in music education prepares students for teaching, research, and administrative posts. Graduates find employment as college teachers of music education classes and activities; as band, chorus, and orchestra directors; and as administrators of music departments and schools of music. Some apply their skills in public schools as music supervisors, research and curriculum consultants, and directors of city or district school music programs. Doctor of Philosophy students whose concentration is music therapy enroll in the PhD program with a concentration in music education. Modifications in the curricular requirements are made to reflect the professional knowledge and skills required for positions such as college teaching or advanced clinical or research positions in music therapy. Both programs are administered by the School of Music [p. 813] (College of Liberal Arts and Sciences) in cooperation with the College of Education.

Special Education Program

- Special education (offered in the MA and PhD in teaching and learning)

Applicants for admission to University of Iowa graduate degree programs must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Graduate Certificates

The graduate Certificate in Applied Behavior Analysis is offered by the Department of Teaching and Learning. To

learn more, see the Certificate in Applied Behavior Analysis [p. 1352] in the catalog.

The graduate Certificate in Talent Development is offered by the Department of Teaching and Learning. To learn more, see the Certificate in Talent Development [p. 1429] in the catalog.

Programs

Undergraduate Programs of Study

Majors

- Major in Art Education (Bachelor of Arts) [p. 1447]
- Major in Elementary Education (Bachelor of Arts) [p. 1449]
- Major in English Education (Bachelor of Arts) [p. 1454]
- Major in Mathematics Education (Bachelor of Arts) [p. 1458]
- Major in Music Education (Bachelor of Arts) [p. 1462]
- Major in Science Education (Bachelor of Arts) [p. 1466]
- Major in Social Studies Education (Bachelor of Arts) [p. 1470]
- Major in World Language Education (Bachelor of Arts) [p. 1474]
- Major in Science Studies (Bachelor of Science) [p. 1477]

Graduate Programs of Study

- Master of Arts in Teaching and Learning [p. 1486]
- Master of Arts in Teaching in Teaching and Learning [p. 1493]
- Master of Science in Teaching and Learning [p. 1503]
- Doctor of Philosophy in Teaching and Learning [p. 1505]

Financial Support

A limited number of teaching assistantships are available for graduate students. Assignments vary. Some involve supervising undergraduate majors enrolled in practicums; some involve teaching sections of undergraduate methods courses and supervising student teachers; others consist primarily of research activities. Graduate assistants may register for a maximum of 12 s.h. of credit per semester, but they must register for at least 6 s.h. per semester.

All assistantships are awarded on a competitive basis. Applicants must have been admitted to regular status in the Graduate College and to an advanced program in the College of Education. For information about assistantships, consult the College of Education advisor in the appropriate field.

Courses

- Teaching and Learning Courses [p. 1432]
- Science Education Courses [p. 1445]

Teaching and Learning Courses

EDTL:1129 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

EDTL:2000 Big Ideas: Creativity for a Lifetime 3 s.h.
Exploration of what senior artists can teach about creativity and aging; interdisciplinary project-based collaborative learning opportunities that consider role of arts and creativity across a lifespan; essential skills necessary to be professionals in numerous careers including health, social work, education, humanities, and the arts; identification of ways for students to be more creative in their own lives and work. GE: Values and Society. Same as ARTS:2000, ASP:2000, RHET:2000.

EDTL:2015 Teaching as a Human Endeavor 3 s.h.
Introduction to teaching with focus on role as a human endeavor including purposes, goals, and values; special attention to contemporary issues in teaching and learning with an overview of planning processes, role of settings, contexts, and differentiation; exploration of appropriate ways to study teaching across disciplines and under various professional standards.

EDTL:2073 Finding Your Comfort Zone: Secrets to Success 1,3 s.h.
Understanding the strengths and challenges of people with special needs; insights into unwritten "rules" of college life; optional practicum involves working hands-on with people who have multiple learning and cognitive disabilities; students with disabilities or those interested in learning more about disabilities are encouraged to enroll.

EDTL:2111 Teaching Elementary Learners I: Pursuits and Reflection 2 s.h.
Foundational support for future elementary teachers; development of an understanding of teaching with a humanizing orientation; use of inquiry, reflection, and collaboration to introduce UI teacher education core pursuits that center equity; focus on elementary education and learners through valuing identities and multiple perspectives, developing skills and supporting intellect, and critically reflecting on social and political implications of a teacher's role in education.

EDTL:2112 Teaching Elementary Learners II: Communities and Classrooms 2 s.h.
Foundational support for future elementary teachers; development of an understanding of teaching with a humanizing orientation; use of inquiry, reflection, and collaboration to delve into UI teacher education core principles through integration across disciplines; engagement in elevating and advocating for future elementary students' communities through respect and care; incorporates Teacher Education Program pre-admission requirements and individual interviews with elementary education faculty.

EDTL:2122 Creativity, Imagination, Play, and Human Development through the Arts 3 s.h.
Theories related to human development and visual arts; use of visual arts to make meaning from experience; ways to integrate visual arts into everyday life; cognitive and physical processes involved in making, understanding, and looking at visual art through studio experiences; theories of cognitive development; role of visual art in education; introduction to art production, history, criticism, and aesthetics. GE: Literary, Visual, and Performing Arts.

EDTL:2155 Pursuing Core Principles in Elementary Education 2 s.h.
Supports future elementary teachers in developing a humanizing orientation toward elementary teaching across all content areas. Uses inquiry, reflection, and collaboration to introduce students to the University of Iowa teacher education core principles. Learn about the importance of valuing identities and multiple perspectives; developing skills and supporting intellect; and critically reflecting on the social and political implications of elementary education. Learn about the elementary education program and meet program faculty throughout the course.

EDTL:2630 Introduction to the Psychology of Music 3 s.h.
Processes by which people perceive, respond to, create, and use music in their daily lives; basic physics of musical stimuli, psychoacoustics of musical perception, principles of musical cognition, neurological and physiological responses to music, theories of musical learning and development, and social psychology of musical activity; previous musical performing experience helpful but not required. GE: Social Sciences. Same as MUS:2630.

EDTL:2670 Peacebuilding, Singing, and Writing in a Prison Choir 3 s.h.
Students sing with the Oakdale Community Choir inside the Iowa Medical and Classification Center as a service-learning component; students explore meanings of peacebuilding for themselves and community, and use their imaginations to consider new directions of peacebuilding through reading, reflecting, writing, inner peacebuilding, and communal peacebuilding projects; use of choral singing inside prisons to build peace, create positive social connections, transform attitudes toward healing approaches to justice, and inspire a sense of deep care within oneself and among others. GE: Understanding Cultural Perspectives.

EDTL:2821 Oral Interpretation 3 s.h.
Weekly performances to develop and define communication skills for professional careers in teaching and business; poetry, prose, monologue, storytelling, duo interpretation, reader's theatre, and demonstration speeches. Same as COMM:2821.

EDTL:2963 Monsters, Victims, and Villains: Changing Perceptions 3 s.h.
Introduction to implementation of performance opportunities for special populations (defined as those with cognitive or physical disability) and underrepresented populations; students gain skills necessary to create radical opportunities for and implementation of performances including individuals with disabilities in theatre, dance, and music; students from different backgrounds experience collaborative artistic excellence while redefining audience expectations; historic background for perceptions of disability. GE: Understanding Cultural Perspectives. Same as THTR:2605.

EDTL:3001 Introduction to Museum Studies 3 s.h.
Overview of museum history, function, philosophy, collection, and curatorial practices; governance and funding issues; exhibition evaluation and audience studies; examples from Stanley Museum of Art, Museum of Natural History, Old Capitol Museum, and Medical Museum. GE: Social Sciences. Same as ANTH:3001, MUSM:3001, SIED:3001.

EDTL:3002 Teaching and Learning Technologies 2-3 s.h.

EDTL:3059 Introduction to Education and the Regents Alternative Pathway to Iowa Licensure Program 4 s.h.
Foundational knowledge and understanding of educational practices for teacher intern candidates in the Regents Alternative Pathway to Iowa Licensure (RAPIL) program; topics include students as learners, the instructional process, and assessment. Requirements: admission to the RAPIL program.

EDTL:3060 Learning and Instruction for Today's Classrooms 3 s.h.
First course in the Regents Alternative Pathway to Iowa Licensure program. Requirements: admission to the RAPIL program.

EDTL:3061 Assessment for Learning 3 s.h.
Fourth course in the Regents Alternative Pathway to Iowa Licensure program. Requirements: admission to the RAPIL program.

EDTL:3062 Learning Communities 3 s.h.
Fifth course in the Regents Alternative Pathway to Iowa Licensure program. Requirements: admission to the RAPIL program.

EDTL:3063 Creating Classrooms Conducive to Teaching and Learning 3 s.h.
Third course in the Regents Alternative Pathway to Iowa Licensure program. Requirements: admission to the RAPIL program.

EDTL:3064 Intern Seminar on Critical Issues in Education 3 s.h.
Sixth course in the Regents Alternative Pathway to Iowa Licensure program. Requirements: admission to the RAPIL program.

EDTL:3065 Methods in Teaching in the Secondary Classroom 3 s.h.
Learn, identify, and implement effective content-specific secondary teaching methods with focus on active student engagement; students develop and enhance instructional planning/pedagogy with special emphasis on content-specific secondary teaching methods, including reading in content area; describe and implement process of pre-, formative, and summative assessment strategies, appropriately aligning them in the instructional design of secondary content lessons; taking specific steps toward improving professional dispositions.

EDTL:3067 Regents Alternative Pathway to Iowa Licensure Clinical Field Experience I 3 s.h.
Students co-teach under guidance of a cooperating teacher in a secondary classroom; active engagement in the classroom through whole and small group interactions; planning and teaching a series of lessons; reflection with a Regents Alternative Pathway to Iowa Licensure (RAPIL) evaluator. Corequisites: EDTL:3060.

EDTL:3068 Regents Alternative Pathway to Iowa Licensure Clinical Field Experience II 3 s.h.
Students co-teach under guidance of a cooperating teacher in a secondary classroom; active engagement in the classroom through whole and small group interactions; planning and teaching a series of lessons; reflection with a Regents Alternative Pathway to Iowa Licensure (RAPIL) evaluator. Corequisites: EDTL:3061.

EDTL:3070 Regents Alternative Pathway to Iowa Licensure Elementary Practicum 2 s.h.
Students co-teach under guidance of a cooperating teacher in an elementary classroom; active engagement in classroom through whole and small group interactions with students; planning and teaching at least two lessons; reflection with Regents Alternative Pathway to Iowa Licensure (RAPIL) evaluator; for RAPIL program candidates to complete a 40-hour practicum to add K-8 licensure in art, physical education, music, or health to an already completed 5-12 endorsement in same content area.

EDTL:3091 Secondary Education Program Orientation and Classroom Management 1,3 s.h.
Overview including opportunities, policies and procedures, requirements and expectations, and services associated with the Teacher Education Program; characteristics of the classroom environment and their implications for organization and management; concepts and principles teachers can use when thinking about managerial tasks in the classroom; for prospective middle and secondary school teachers.

EDTL:3095 Teaching Reading in Secondary Content Areas 1,3 s.h.
Integration of reading strategies into secondary content areas for teacher candidates in secondary education.

EDTL:3103 Assessment for Instructional Planning and Practice 3 s.h.
Fundamentals of using assessment data to make instructional planning decisions that preservice educators need in their advanced coursework and classrooms; practical application with curriculum-based procedures; emphasis on classroom-based procedures used to make educational decisions to plan instruction for students, particularly those who are experiencing academic difficulty. Requirements: admission to TEP.

EDTL:3115 Museum Education and Interpretation 3 s.h.
Examination of the educational role of museums; educational theory, audience development, teaching strategies, accessibility, and evaluation within museum context; community-engaged project and collaboration with museum to develop curriculum and educational resources. Same as MUSM:3115.

EDTL:3120 Methods and Materials: Music for the Classroom Teacher 2 s.h.
Development of music skills, techniques, knowledge of methods and materials for teaching music to young children; for elementary education majors. Requirements: admission to TEP.

EDTL:3123 Reading and Responding to Children's Literature 3 s.h.
Reading and teaching of children's literature; becoming more knowledgeable readers of children's literature; using children's literature in elementary classroom for aesthetic, personal, social, and critical purposes; wide range of literary texts in different genres and multiple ways readers might experience these texts given particular teaching approaches; ways in which readers interact with texts and with each other to make meaning as they read and discuss literature. Requirements: College of Education major.

EDTL:3127 Methods and Materials: Physical Education, Health, and Wellness 2-3 s.h.
Methods, curriculum. Requirements: College of Education major.

EDTL:3128 Practicum in Physical Education 1 s.h.
Observation of elementary physical education teachers and classes; discussions and papers concerning these experiences; for students pursuing the K-8 Physical Education endorsement. Corequisites: EDTL:3127.

EDTL:3130 Adaptive Physical Education for the Elementary Classroom Teacher 2 s.h.
Create and deliver quality, inclusive physical education for students with mental, physical, or emotional disabilities; identify and evaluate the needs of disabled students, plan units and lessons with appropriate modifications for all learners, write an IEP, comply with IDEA in a physical education setting. Prerequisites: EDTL:3127.

EDTL:3131 Movement Education 2 s.h.
Movement education as a basis for psychomotor and cognitive development in children; summary of basic growth and motor development; in-depth instruction on theory and application of movement education curriculum, and practice on design and execution of movement education lessons.

EDTL:3141 Elementary School Mathematics: Number and Operations 3 s.h.
Problem-solving approach to current trends in math education and process of teaching math; current math content knowledge assessed at start and end of course; opportunities to strengthen number and operations content knowledge; how children in grades K-5 think about and learn math; core ideas of learning, teaching, planning, and assessing number and operations concepts and skills; research-based pedagogical strategies that help children develop math concepts and procedures. Requirements: admission to TEP.

EDTL:3142 Elementary School Mathematics: Geometry and Measurement 3 s.h.
Problem-solving approach to current trends in math education; current math content knowledge assessed at start and end of course; opportunities to strengthen geometry and measurement content knowledge; how children in grades K-5 think about and learn math; core ideas of learning, teaching, planning, and assessing geometry and measurement concepts and skills; research-based pedagogical strategies that help children in elementary school develop math concepts and procedures. Requirements: admission to TEP.

EDTL:3143 Methods of Elementary Art and Field Experiences 3 s.h.
Application of studio methods to teaching children in Saturday Children's Art Class Program. Same as ARTE:3143.

EDTL:3146 Elementary School Mathematics: Data/ Probability and Algebra 3 s.h.
Problem-solving approach to current trends in math education and process of teaching math; current math content knowledge assessed at start and end of course; opportunities to strengthen data analysis/probability and algebra content knowledge; how grade K-5 children think about and learn math; core ideas of learning, teaching, planning, and assessing data/probability and algebra concepts and skills; research-based pedagogical strategies that help children develop math concepts and procedures. Requirements: admission to TEP.

EDTL:3160 Reading and Language Arts Methods for Primary Students in Grades K-3 3 s.h.
Theoretical foundations and practical skills to become reflective professionals who can design and implement effective reading and language arts instruction; authentic formative assessment for economically, academically, culturally, racially, and linguistically diverse children in grades K-3; for preservice elementary teachers. Prerequisites: EDTL:3190 with a minimum grade of C- and EDTL:3002 with a minimum grade of C-. Requirements: admission to elementary TEP.

EDTL:3161 Social Studies for the Elementary Classroom Teacher 3 s.h.
Individual growth and change due to environment, economy, and technology; focus on developing teacher's understanding of social and behavioral sciences and how they relate to geography, history, and government in student's growth toward democratic citizenship; emphasis on need to develop intellectually stimulating curricula based on Iowa Core in behavioral science; lesson and curriculum development from research-based best practices in teaching social studies and driven by Iowa Core goals and objectives; technology as a teaching tool and focus of investigation in today's society. Prerequisites: EDTL:3002 with a minimum grade of C- and EDTL:3190 with a minimum grade of C-. Requirements: admission to elementary TEP.

EDTL:3163 Methods: Elementary School Mathematics 2-3 s.h.
Content; techniques of teaching and means of assessment for K-6 mathematics. Prerequisites: EDTL:3190 with a minimum grade of C- and EDTL:3002 with a minimum grade of C- and (EDTL:3141 or MATH:1120). Corequisites: EDTL:3170 and EDTL:3174. Requirements: admission to TEP.

EDTL:3164 Reading and Language Arts Methods for Intermediate Students in Grades 3-6 3 s.h.
Theoretical foundations and practical skills to become reflective professionals who can design and implement effective reading and language arts instruction; authentic formative assessment for economically, academically, culturally, racially, and linguistically diverse children in grades 3-6; for preservice elementary teachers. Prerequisites: EDTL:3190 with a minimum grade of C- and EDTL:3002 with a minimum grade of C-. Requirements: admission to elementary TEP.

EDTL:3165 Elementary Science Methods I 3 s.h.
Meaningful and practical learning experiences to foster elementary science learning environments that engage learners in scientific practices and understanding of biological and chemical sciences; essential concepts; instruction to promote elementary student learning; learning, teaching, subject matter, curriculum, and assessment. Prerequisites: EDTL:3002 with a minimum grade of C- and EDTL:3190 with a minimum grade of C-.

EDTL:3166 Elementary Science Methods II 3 s.h.
Meaningful and practical learning experiences to foster elementary science learning environments that engage learners in scientific practices and understanding of physical and earth/space sciences; essential concepts; instruction to promote elementary student learning; learning, teaching, subject matter, curriculum, and assessment. Prerequisites: EDTL:3002 with a minimum grade of C- and EDTL:3190 with a minimum grade of C- and EDTL:3165.

EDTL:3170 Elementary Classroom Management 1-3 s.h.
Activities, techniques, strategies, theories related to effective classroom management. Prerequisites: EDTL:3190 with a minimum grade of C- and EDTL:3002 with a minimum grade of C-. Corequisites: EDTL:3163 and EDTL:3174.

EDTL:3172 Elementary Reading Practicum 3-4 s.h.
Experience in teaching literacy to elementary students; opportunity to learn from an experienced teacher within a functioning classroom; supervisor with classroom experience mentors and supports students at practicum site; on-site practicum experiences preceded by on-campus seminar experience with practicum coordinator and supervisors; for preservice teachers. Prerequisites: EDTL:3002 with a minimum grade of C- and EDTL:3190 with a minimum grade of C- and EDTL:3160 and EDTL:3164. Corequisites: EDTL:4171.

EDTL:3174 Elementary Math Practicum arr.
Experience in teaching mathematics to elementary students; opportunity to learn from an experienced teacher within a functioning classroom; supervisor with classroom experience mentors and supports students at practicum site; on-site practicum experiences preceded by on-campus seminar experience with practicum coordinator and supervisors; for preservice teachers. Prerequisites: EDTL:3002 with a minimum grade of C- and EDTL:3190 with a minimum grade of C-. Corequisites: EDTL:3163 and EDTL:3170.

EDTL:3180 Drama in the Classroom 3 s.h.
Theories of community, culture, identity in relation to language arts teaching and learning; emphasis on incorporating multiple literacies, both oral and print, into language arts curricula; action research involving oral literacy. Same as THTR:3610.

EDTL:3190 Orientation to Elementary Education 1-2 s.h.
Overview of elementary education expectations, including options for student teaching; classroom observation, lesson planning, performance indicators, InTASC standards, classroom management, information about mandatory child abuse reporting, blood-borne pathogens, professional ethics.

EDTL:3204 Art Education Studio and Field Components 3 s.h.
Art training related to processes of elementary and secondary school art teaching; studio methods applied to teaching children and adolescents.

EDTL:3205 Methods of Secondary Art and Field Experience 3 s.h.
Art education theory and methods at secondary levels; art curriculum, unit, and lesson planning; evaluation, motivation, instructional materials; observational techniques.

EDTL:3290 Introduction and Practicum: Art 2-3 s.h.
Practice of learning from an experienced art teacher in an art classroom and setting; observations in an art classroom side-by-side with experience and insight gained through participating and teaching in the Saturday Art Workshop Program. Requirements: admission to TEP.

EDTL:3382 Language and Learning 2-3 s.h.
How language reflects and constructs learners' identities and cultures; readings related to oral and written language, native and second language development, linguistic diversity; discussion of the relationship of language theory to schools of language instruction. Same as ENGL:3190.

EDTL:3393 Reading and Teaching Adolescent Literature 3 s.h.
Reading and evaluation of literature suitable for junior and senior high school students. Same as ENGL:3191.

EDTL:3492 Teaching Spanish Heritage Speakers 3 s.h.
Focus on cutting-edge research and methods to develop suitable language curriculum for Spanish heritage speakers (SHS); topics include bilingual development, sociolinguistics, language teaching, and heritage speakers' affective needs; use of these theories to help understand and apply best practices in teaching SHS; topics also help create best practices in teaching mixed language courses for second language and heritage students. Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above. Same as SPAN:3093.

EDTL:3532 Introduction and Practicum: Mathematics 3 s.h.
Experience designing and teaching lessons with varied instructional intent and use of multiple instructional strategies; study and practice methods of managing classroom learning environment; significant time spent in cooperating schools, on-campus meetings. Requirements: admission to TEP.

EDTL:3534 Methods: Middle School Mathematics 3 s.h.
Subject matter content, teaching and assessment techniques for grades 5-9 math; how students learn mathematics; mathematics curricular planning for all students.

EDTL:3605 Instrumental Techniques 2 s.h.
Same as MUS:3605.

EDTL:3610 Introduction and Practicum: Music 2 s.h.
Experience observing and assisting music teachers and students in elementary or secondary schools; at least one hour per week in the school plus on-campus class meetings. Requirements: admission to TEP.

EDTL:3620 Methods and Materials: General Music 3 s.h.
Methods for teaching general music in elementary and secondary schools. Prerequisites: EDTL:3610.

EDTL:3635 Instrumental Conducting 3 s.h.
Advanced skills for instrumental conducting, score analysis, rehearsal techniques, literature selection. Prerequisites: MUS:3625. Same as MUS:3635.

EDTL:3640 Choral Methods 3 s.h.
Organization, implementation of effective choral music programs for all ages. Prerequisites: EDTL:3610. Same as MUS:3640.

EDTL:3645 Choral Conducting and Literature 3 s.h.
Advanced skills appropriate to choral conducting, analysis, literature selection studied and implemented to develop a secure approach to choral art; students preparing to teach in the elementary or secondary schools must register under EDTL:3645. Prerequisites: MUS:3625. Same as MUS:3645.

EDTL:3650 Instrumental Methods and Materials 3 s.h.
Elementary and secondary instrumental music methods course required for K-12 music teacher certification. Prerequisites: EDTL:3610. Same as MUS:3650.

EDTL:3715 Experiential Teaching and Learning 3 s.h.
Introduction to practice of experiential learning and teaching; students create and lead experiential activities in formal and informal learning environments; exploration of factors that impact the value of an experience and assess impact; integration of multiple disciplines and perspectives in a collaborative manner; skills for processing and guiding reflection to determine outcomes of experiences; work collaboratively to design, plan, execute, and determine outcomes of an experience for a target population.

EDTL:3905 Teaching Deaf and Hard of Hearing Students 3-4 s.h.
Issues in d/Deaf education; management techniques, communication strategies, teaching strategies, instructional materials, hands-on activities, assessments, parent involvement; use of technology, ethnic and cultural diversity, classroom management, pre-reading techniques, literacy development, educational program options. Taught in English and/or American Sign Language. Requirements: for 4 s.h. option—concurrent enrollment in ASL:2002, if not taken as a prerequisite. Same as ASLE:3905.

EDTL:3915 Introduction: Strategist I (Elementary) 1-2 s.h.
Teaching students with mild disabilities in elementary resource placements; current trends and issues, basic and theoretical approaches, implications of federal and state statutes, multidisciplinary team approaches to providing appropriate educational programming; students complete a practicum with an elementary special education teacher. Requirements: admission to TEP.

EDTL:4021 Science for High Ability Students 1 s.h.
Unique challenges and opportunities confronted by teachers of students with above average ability and interest in science; theory and practice; development of program outlines for science programs.

EDTL:4022 Math Programming for High Ability Students 1 s.h.
Unique challenges and opportunities confronted by teachers of high-ability students; theory and practice, development of program outlines for implementation. Same as PSQF:4122.

EDTL:4023 Twice-Exceptionality Support Seminar 1 s.h.
Areas and issues that typically impact students diagnosed as twice-exceptional in college (specifically autism spectrum disorder); focus on navigating campus and services, communication skills (social and academic based), stress management, executive functioning skills, career and job seeking skills. Same as BBC:4023.

EDTL:4025 Differentiated Instruction for Advanced Learners 1 s.h.
Introduces the concept of a differentiated classroom for K-8 advanced learners for preservice and practicing educators. Specific content relates to understanding the foundation of differentiation, preparing for facilitating a differentiated classroom, establishing routines and classroom management, and sharing instructional strategies to engage advanced learners. Same as BBC:4025.

EDTL:4026 Language Arts for Advanced Learners 1 s.h.
Explores the purposes and methods of language arts instruction with focus on the developmental, social, and emotional needs of high-ability readers featuring the key components and elements necessary for an advanced language arts program in grades K-8; includes criteria for developmentally appropriate literature and grammar with an overview of the role of writing and composition. Prerequisites: EDTL:3095 or EDTL:3160 and EDTL:3164. Same as BBC:4026.

EDTL:4029 Developing Leadership Skills for Gifted and Talented Students, K-12 1 s.h.

EDTL:4031 Belin-Blank Talent Development Fellowship 1-2 s.h.
Content is approached as a survey of concepts, ideas, and issues pertinent to the development of talent (and its potential) in K-12 students. Key course content includes acceleration, appropriate curriculum and instruction, assessment and identification, collaborating with staff and families, differentiation, diverse student populations, social and emotional needs, and research. Same as BBC:4031.

EDTL:4032 Middle School Curriculum, Methods, and Practicum 3 s.h.
Junior high and middle school development compared; characteristics of exemplary programs, disciplinary and interdisciplinary trends; variety of teaching methods (group and individual); hands-on activities. Requirements: admission to TEP.

EDTL:4033 Talent Development in the Arts and Athletics: Models and Methods 1 s.h.
Examines multiple general and domain-specific talent development models relevant to arts and athletics. Students will consider the roles of nature and nurture, the role of the teacher/coach, and the use of creativity while weighing the impact these have on the development of talent. Students will analyze how these talent development processes have played out in the lives of individuals eminent in the arts and athletics. Same as BBC:4033.

EDTL:4035 Talent Development in the Arts and Athletics: Psychosocial Trials and Benefits 1 s.h.
Students will understand and integrate the multiple psychosocial issues (both trials and benefits) experienced during varying stages of the talent development process, including practice, perfectionism, anxiety, failure, shame, motivation, leadership, asynchrony, competition, multipotentiality, performance, grit, and intensities. Students will analyze how these psychosocial issues impacted the talent development process in the lives of individuals eminent in the arts and athletics. Same as BBC:4035.

EDTL:4065 Social Studies for High-Ability Learners 1-2 s.h.
Intersection of unique challenges presented by talented students and challenges of designing, implementing, and assessing quality inquiry-based social studies instruction; background in social studies or social studies education not required.

EDTL:4066 Curriculum and Programming for Advanced Learners 3 s.h.
Designed to assist preservice educators, inservice educators, and anyone interested in curriculum and program development, design, and delivery of qualitatively differentiated experiences in the context of responding to the needs of advanced learners. Primary focus is on research-based curriculum models and programming for advanced learners from experts in the field. Same as BBC:4066.

EDTL:4067 Conceptions of Talent Development 3 s.h.
Students review conceptions of talent development and explore possibilities for appropriate programming in specific fields across various stages in life; traditional opportunities in gifted education programs; stages of development in early childhood; development of knowledge and skills in addition to and beyond organized educational programs. Same as BBC:4067.

EDTL:4072 Thinking Skills 1 s.h.
Factors involved in teaching thinking skills as a total concept; the relationship of critical and creative thinking; review of published programs.

EDTL:4073 Programming/Curriculum for High Ability Students 1 s.h.
Programming and curriculum for K-12 students identified as gifted or highly able; in-class differentiations, special projects for pull-out programs, facilitating research projects, mentoring in advanced programming.

EDTL:4074 Differentiation at the Secondary Level 1 s.h.
Importance of differentiation for gifted learners in middle school and high school; differentiation through advanced placement programs as well as broader perspectives on differentiation; essentials for differentiation understood and applied to a lesson that will be implemented with students. Same as BBC:4074.

EDTL:4075 Topics in Talented and Gifted Programming arr.
Examination of various topics that allow educators to implement strategies for helping high-potential students succeed in gifted/talented programs.

EDTL:4083 Talented and Gifted Enhanced Field Experience 1-3 s.h.
Experience working with and/or observing gifted students; development of curricular materials; course is not the required practicum experience for talented and gifted (TAG) endorsement, but counts toward required total hours and provides a valuable learning opportunity to consider best practices for the age level students will be teaching.

EDTL:4085 Current Readings and Research in Gifted Education 1 s.h.
Research in the field of gifted education and talent development; applications of research to ensure best practices in providing services and programs for high-ability learners.

EDTL:4087 Seminar: Curriculum and Student Teaching 1-3 s.h.
Discussions, role-playing, group and individual reports, analysis of critical incidents, classroom management, videotapes of student classroom performance pertinent to participants' student teaching experiences. Requirements: student teaching.

EDTL:4089 Special Subject Area Student Teaching arr.
Supervised teaching experience in a single subject in grades 1-6.

EDTL:4091 Observation and Laboratory Practice in the Secondary School arr.
Student teaching experience in performing the duties of regular classroom teachers under supervision of experienced personnel in secondary schools.

EDTL:4092 Observation and Laboratory Practice in the Secondary School arr.
Continuation of EDTL:4091.

EDTL:4093 Teaching and Learning for a Global Perspective 3 s.h.
Examination of conceptualizations and themes, along with theories, strategies, and resources that can inform teaching and learning for global competence education in all disciplines; teaching for prejudice reduction and education for informed and responsible global citizenship; creation of a standards-based curriculum project; designed for practicing teachers.

EDTL:4096 Topics in Teaching and Learning arr.

EDTL:4098 Costa Rica YOULEAD: Youth Outdoor University for Leadership, Environment, Self-Awareness Development 3 s.h.
Project YOULEAD is a two-week intensive language and culture studies program in Costa Rica. Students are assigned to one of three sites in Costa Rica: Uvita, Cortes, or Puerto Jimenez. Students teach English to 20 students, ages 14-18, at the assigned site for the duration of the program, ending in a whole group day where all sites come together for a day of learning. Students are supported by two faculty/staff at each site. Opportunities exist both inside and outside the classroom to engage in learning about Costa Rica's culture, history, and natural ecosystems. Group meetings occur daily after site visits to discuss, debrief, reflect, and plan for the next day.

EDTL:4137 Introduction to Educating Advanced Learners 3 s.h.
Survey of critical topics and issues related to advanced learners and meeting their needs through a research-based, best practice lens. Topics include key terms and definitions, standards, characteristics of advanced learners, social and emotional needs, assessment, acceleration, enrichment, diversity of learners, and accessible programming. Highlights the expertise of leaders in the field to provide current thinking and evidence-based practices on important topics related to advanced learners and meeting their needs. Same as BBC:4137, CSED:4137.

EDTL:4153 Collaboration Between Advanced Academics and General Education 1 s.h.
Examining the need for differentiated learning experiences throughout the school day for advanced learning and the combined effort among varied staff to accomplish this. Specific content related to how classroom teachers and gifted/talented resource teachers can collaborate to provide appropriate instructional services, collaborative models, the planning process, and recommendations for both direct and indirect services. Requirements: internet access. Same as BBC:4153.

EDTL:4171 Diversity and Exceptionalities in Literacy Instruction 3 s.h.
Elaborates on content from EDTL:3160 and EDTL:3164; issues in theoretically sound reading and writing assessment, instruction in K-8 classrooms where local, state, and national goals play increasing roles; reading and writing processes; teaching and learning of reading and writing; focus on role of language and conversation in learning, content area reading instructional strategies, classroom-based reading and writing assessment, special issues in teaching, and learning with textbooks. Prerequisites: EDTL:3190 with a minimum grade of C- and EDTL:3002 with a minimum grade of C- and EDTL:3160 and EDTL:3164.

EDTL:4187 Effective Teaching Strategies for the Elementary Teacher: Student Teaching Seminar 3 s.h.
Provides student teachers with a structured, consistent forum to critically examine and engage in professional dialogue related to the process of becoming a teacher; draws on personal classroom experiences as well as theories and ideas about education studied throughout the teacher education program; guided by the InTASC Model Core Teaching Standards and the Iowa Teaching Standards, students study and discuss principles of effective teaching practice that lead to improved student achievement; as students work through components of planning, instruction, assessment, and lesson reflection, they complete a Teacher Performance Assessment (edTPA). Requirements: elementary education major in student teaching semester.

EDTL:4188 Practicum in Teaching and Curriculum for Advanced Academics 1-6 s.h.
Completion of product for TAG endorsement. Same as BBC:4188, CSED:4188.

EDTL:4189 Practicum in Talent Development and Advanced Academics 1 s.h.
Combines readings, discussions, field experiences, and reflections. Finish developing a guided, interest-based culminating product for the TAG Endorsement. Same as BBC:4189.

EDTL:4190 Supervised Teaching in the Elementary School: Interactive Phase arr.
Student teaching at the elementary level (K-9). Corequisites: EDTL:4091. Requirements: application to the Office of Teacher Education and Student Services.

EDTL:4191 Supervised Teaching in the Elementary School: Pre- and Post-Active Phase arr.
Corequisites: EDTL:4190. Requirements: application to the Office of Teacher Education and Student Services.

EDTL:4192 Special Area Student Teaching arr.
Supervised teaching and observation in specific areas of elementary curriculum.

EDTL:4193 Independent Study arr.
Requirements: senior standing.

EDTL:4199 Program Models in Gifted Education 3 s.h.
Development and refinement of preservice and inservice educators' understanding of academic programs; needs of gifted and talented students, including diverse and often underrepresented groups of students; rationale for and implementation of a comprehensive program model for gifted students. Requirements: internet access.

EDTL:4314 Introduction and Practicum: Secondary English 3 s.h.
Experience observing and assisting English or speech teachers and students in secondary schools; 12 hours per week in the school plus on-campus class meetings.

EDTL:4315 Learning to Teach Secondary English/ Language Arts and Field Experience 3 s.h.
Organizational techniques, methods, materials for teaching high school English; experience in simulated teaching situations during laboratory sessions, integrated with lectures and discussions. Prerequisites: EDTL:4314. Same as ENGL:4810.

EDTL:4355 Approaches to Teaching Writing 3 s.h.
Theories, practices, strategies, and history of writing and teaching writing. GE: Engineering Be Creative. Same as CNW:4355.

EDTL:4392 Voice, Drama, and Debate in the Secondary Schools 3 s.h.
Introduction to elements of classical and contemporary rhetoric, the art of debate, oral interpretation and public speaking, dramatic methods in the classroom, and theater management; important issues and vocabulary of drama and debate including literary, theatrical, pedagogical, and sociohistorical concepts and terms; importance of classical rhetorical strategies and their relevance in the political realm; students work through drama, the creative process of playwriting, acting, designing, and staging a play.

EDTL:4393 Critical Media Studies and Production in Secondary Schools 3 s.h.
Introduction to teaching media in secondary schools; preparation to teach critical media literacy, media law and ethics, forms of journalism writing, and production process; emphasis on essential role of media in a democratic society; exploration of instructional strategies and organization practices to guide secondary students to think critically as media consumers and producers; students write and produce their own texts and experience processes to strengthen understanding of learning standards for secondary media students—communication, collaboration, creativity, and critical thinking.

EDTL:4394 Secondary Reading Instruction 2-3 s.h.
Methods and materials used in teaching developmental reading in all junior and senior high school content areas. Prerequisites: EDTL:4314.

EDTL:4406 World Language Practicum I 3 s.h.
Skill development for teaching languages in the early grades; curriculum design, test creation, microteaching with inservice teachers. Prerequisites: EDTL:4410. Corequisites: EDTL:4416.

EDTL:4407 World Language Practicum II 3 s.h.
Practice in lesson design, classroom management techniques, evaluation skills during work with inservice world language teachers. Prerequisites: EDTL:4410. Corequisites: EDTL:4417.

EDTL:4410 Language, Power, and Multilingual Education 3 s.h.
Language learning and teaching in multicultural classroom with focus on pedagogy, policy, and equality for multilingual learners. GE: World Language and Cultural Exploration.

EDTL:4416 Learning to Teach Second Languages I 3 s.h.
Approaches, methods, and techniques of teaching the modalities of listening, speaking, reading, and writing in a second language. Corequisites: EDTL:4406.

EDTL:4417 Learning to Teach Second Languages II 3 s.h.
Curriculum design, classroom management, student evaluation, technology, using context to teach culture in second languages. Prerequisites: EDTL:4410 or EDTL:6483. Corequisites: EDTL:4407.

EDTL:4418 ESL Practicum I 4 s.h.
Skill development for teaching English as a second language; curriculum design, test creation, microteaching with inservice teachers.

EDTL:4467 Methods: ESL and Bilingual Education 4 s.h.
Exploration of approaches, methods, and practices in teaching English to speakers of other languages in K-12 school settings; communicative and content-based approaches to language learning with practical application of theory and research; issues concerning linguistically diverse learners covered with pedagogical implications; skills in teaching approaches for English language learners; lesson and unit planning, materials evaluation and adaptation, and assessment for placement, diagnosis, exit, and evaluation of English language learners.

EDTL:4498 Applied Linguistics and the Multilingual Classroom 4 s.h.
Theoretical and practical perspectives on the nature of language in education, its use and usage. Explores principles of discourse, phonology, morphology, syntax, and semantics as they relate to second language learning. Covers language varieties, social conventions, and linguistic structures. Focus on preparing pre-service teachers to best meet the linguistic and academic needs of bilingual English learner students in the K-12 classroom. Requirements: admission to TEP.

EDTL:4535 Methods: High School Mathematics 3 s.h.
Subject matter content, teaching and assessment techniques for grades 9-12 math; how students learn mathematics; mathematics curricular planning for all students. Prerequisites: EDTL:3534.

EDTL:4565 Mathematics in Management and Social Sciences 3 s.h.
Various real life applications of modern mathematics including management, decision-making, issue of optimization, methods for optimal scheduling, voting methods, game theory, error checking, and other related strategies.

EDTL:4630 Psychology of Music 2-3 s.h.
Cognition of music, affective response, aesthetic response, musical ability. Same as MUS:4630.

EDTL:4640 Introduction to Music Research 2-3 s.h.
Preparation for conducting research on music behavior.

EDTL:4750 Assessment in Science, Technology, Engineering, and Mathematics (STEM) 2 s.h.
Assessment used to evaluate teaching and learning in K-12 mathematics and science; formative and summative assessments; constructing assessment; methods to assess student knowledge in a classroom setting; culturally responsive assessment.

EDTL:4751 Learning in the Science, Technology, Engineering, and Mathematics (STEM) Classroom 2 s.h.
Meaningful learning experiences in preparation to create effective science learning environments for secondary school age students and construct a vision as teachers of secondary science; opportunities to delve into contemporary learning theories and examine ways that learning theories explain the learning process as negotiated within a classroom.

EDTL:4752 Secondary Science Methods II With Field Experience 3 s.h.
Developing, writing, and orally defending a robust research-based framework for teaching science that includes student goals, student actions, content, materials, activities, teaching behaviors and strategies, contemporary learning theories, self-evaluation. Prerequisites: EDTL:4751.

EDTL:4753 Secondary Science Methods III With Field Experience 3 s.h.
Articulating, experiencing, practicing a research-based framework for teaching science in the real world of students, schools, teaching. Prerequisites: EDTL:4752. Corequisites: EDTL:4779.

EDTL:4779 Secondary School Science Practicum arr.
Supervised teaching experience in a single subject; secondary school setting.

EDTL:4811 Introduction and Practicum: Secondary Social Studies 3 s.h.
Experience observing and assisting social studies teachers and students in secondary schools; nine hours per week in the school plus on-campus class meetings. Requirements: admission to TEP.

EDTL:4828 Curriculum and Teaching: Social Studies Education 3 s.h.
Prepares teacher candidates to take a critically relevant approach to planning and teaching social studies content. Students engage in an examination of theoretical and practical frameworks for teaching with multiple and global perspectives in social studies content areas. Special attention is paid to making interdisciplinary curricular connections among local, national, and global issues. There is a sustained focus on teaching writing in social studies classrooms. Prerequisites: EDTL:4811.

EDTL:4870 Methods: Secondary Social Studies 3 s.h.
Analysis of the teaching-learning process; organization of social studies content for teaching purposes; evaluation of learning procedures and new strategies; practicum work includes microteaching, computer-assisted modules, lesson plan development, writing test items.

EDTL:4900 Foundations of Special Education 3 s.h.
Students with disabilities, gifted and talented; strategies for effective treatment, collaboration between regular and special education teachers; remediation of academic, behavioral, social problems. GE: Understanding Cultural Perspectives.

EDTL:4922 Supervised Teaching: Elementary Strategist I 6 s.h.
Student teaching at the elementary level in a program for students with mild to moderate disabilities. Requirements: elementary education major.

EDTL:4934 Parent-Teacher Communication 1-3 s.h.
Realities of working with parents; interpersonal skills; options for parent support services. Same as PSQF:4134.

EDTL:4936 Home/School/Community Partnerships 3 s.h.
Issues related to collaboration among families, educators, community members in implementing school programs. Same as PSQF:4136.

EDTL:4940 Characteristics of Disabilities 3 s.h.
Etiologies of mild/moderate disabilities; current educational trends; educational alternatives; importance of multidisciplinary team; psychological and social-emotional characteristics of individuals.

EDTL:4950 Behavioral and Social Interventions 3 s.h.
Individual behavioral management, behavioral change strategies, and social interaction strategies, methods, and techniques for individuals with exceptional learning needs.

EDTL:4967 Integrated Disability Studies Practicum 2 s.h.
Hands-on, interactive experience to learn what is involved in working with young adult students with multiple learning and cognitive disabilities; four whole-group classroom sessions and required attendance at one UI REACH course.

EDTL:4975 Explicit Instruction 3 s.h.
Empirically supported methods for teaching reading and mathematics K-12 to students with mild-moderate disabilities; assessment and curricular adaptations to individual needs.

EDTL:4980 Dyslexia and Other Reading Difficulties: Instruction and Assessment 3 s.h.
Evidence-based practices to assess and teach reading to students with dyslexia and other reading difficulties. Methods for screening students for risk of reading disabilities and identifying reading skills for intervention and progress monitoring. Research-based strategies for explicit reading instruction in phonological awareness, phonics, reading fluency, vocabulary, and comprehension. Skills associated with assessment, instruction, intervention, and assistive technology for students with dyslexia, language comprehension difficulties, and mixed reading difficulties in grades K-8; designing lesson plans that incorporate reading strategies, practices, and assistive technology.

EDTL:4984 Academic Skills for Students With Special Needs 3 s.h.
Introduction to appropriate methodology for teaching academic skills to students with significant learning difficulties; how to teach students effectively regardless of the label that might be applied to them or the setting to which they might be assigned; effective application of classroom-based measurement, curriculum development, and instructional strategies for teaching academic skills to education students with special needs.

EDTL:4987 Introduction to Assistive Technology 3 s.h.
How assistive technology can be used for attainment of goals in education or work. Same as CSED:4187.

EDTL:4990 Interdisciplinary Issues in Disabilities 1-3 s.h.
Critical issues related to interdisciplinary delivery of services to persons with developmental disabilities; observation and participation in staffing and consultation; opportunity for related community experiences.

EDTL:5055 Academic Writing Workshop 3 s.h.
Drafting and workshopping academic papers including dissertations, proposals, manuscripts, conferences, and courses; discussions center on cross-disciplinary perspectives about academic writing processes and discourses; rhetorical considerations in academic writing; audience and readership within and across disciplines; clear and effective communication of data; writing choices, styles, and tones; students set writing goals and projects.

EDTL:5065 Talent Development Capstone Exploration 2 s.h.
Develop and complete a capstone exploration project relevant to a school or other context that focuses on an important topic or issue in talent development. Requirements: completion of all coursework for the graduate Certificate in Talent Development. Same as BBC:5065.

EDTL:5080 Workshop: Teacher Training for Advanced Placement Courses 1-2 s.h.
Focus on a particular academic content area. Same as BBC:5080.

EDTL:5081 Facilitating Student-Centered Discussions 3 s.h.
Support for educators who want to create classroom environments that prioritize student voice and democratic exchange of ideas; theoretical approaches to classroom discourse and dialogic teaching; how linguistic and racial power inform and constrain discussion; students analyze their current classroom discourse practices through theoretical lenses, including how teachers and students are informed by historically dominant discourse norms and ways that discussion topics and issues are labeled as controversial.

EDTL:5083 Diagnostic Reading Instruction 3 s.h.
Examination of research, policies, and practices related to reading assessments and intervention for school-aged children and adolescents; key focus on translating theoretical foundations of reading into practice of designing targeted interventions for students with varying strengths and weaknesses in core reading components; activities provide an understanding of underlying principles of diagnostic reading instruction and field-based practice in administering, scoring, and interpreting reading assessments; making data-based decisions about instruction for individual and small groups of students. Requirements: admission to MA in teaching, leadership, and cultural competency program.

EDTL:5085 Generation Innovation: Technology Integration in 21st-Century K-12 Schools 3 s.h.
Exploration of the technology that shapes 21st-century U.S. schools, curriculum, and teacher professional development; examination of ways in which technology integration and use shapes student learning and identity development. Requirements: admission to MA program in teaching, leadership, and cultural competency.

EDTL:5087 Anti-Oppressive Literature Instruction 3 s.h.
Support for K-12 teachers in selecting, analyzing, and planning discussions about literary texts in support of anti-racist and anti-oppressive teaching and learning; educators and scholars committed to critical pedagogy and anti-racist and anti-oppressive education argue that reading and analyzing texts by and about people of color and historically marginalized groups is an essential part of equitable, democratic education; how education is never neutral; choosing an explicit anti-oppressive stance; recognizing literature's role in promoting equity and analyzing oppressive forces in education.

EDTL:5090 Diversity and Identity in K-12 Schools 3 s.h.
Advanced seminar on diversity- and identity-related issues in K-12 education for practicing teachers and K-12 professionals; students engage in regular self-evaluation of practices and develop deeper understanding of racism, sexism, classism, and other forms of oppression as they relate to the practices of K-12 teachers and schools; curricular and pedagogical decision-making, relative to impact on student identity. Requirements: admission to master's in teaching, leadership, and cultural competency program.

EDTL:5091 LGBTQ Topics in Education 3 s.h.
In spite of many challenges that lesbian, gay, bisexual, transgender, and queer-identified youth experience in U.S. K-12 schools, queer youth demonstrate agency and action as they create positive spaces and community for their identities; examination of the intersection of policy and practice with respect to queer identities at all levels of K-12 education; history of queerness in the U.S. with focus on the creation of the concept of compulsory heterosexuality and the manner in which this concept is reinforced in K-12 schools.

EDTL:5095 Issues in U.S. Schools 3 s.h.
Addresses critical questions facing American public schools, including governance, policy structures, and practices that have influenced teachers' professional instruction and students' school learning experiences. Requirements: admission to the MA in teaching, leadership, and cultural competency program.

EDTL:5099 Conducting School-Based Action Research 3 s.h.
Focus on teachers or administrators as change agents and researchers in schools/districts; scholarly approach to improving teaching and learning by way of an action research project. Requirements: completion of all MA in teaching, leadership, and cultural competency coursework.

EDTL:5104 Language Disorders in School-Aged Children 3 s.h.
Emphasis on elementary grades; usually taken in conjunction with EDTL:4192, which provides approximately 70 hours of supervised clinical practice in elementary schools. Recommendations: primarily for communication sciences and disorders majors. Same as CSD:5104.

EDTL:5222 Creativity, Imagination, Play, and Human Development Through the Arts 3 s.h.
Theories related to human development and visual arts; use of visual arts to make meaning from experience; ways to integrate visual arts into everyday life; cognitive and physical processes involved in making, understanding, and looking at visual art through studio experiences; theories of cognitive development; role of visual art in education; introduction to art production, history, criticism, and aesthetics.

EDTL:5600 Graduate Music Education Workshop 1 s.h.
For inservice music teachers; topics vary. Same as MUS:5600.

EDTL:5601 Graduate Music Education Workshop II 1 s.h.
Varied topics; for inservice music teachers. Same as MUS:5601.

EDTL:5610 Foundations of Music Education Curricula 3 s.h.
Curriculum development, instructional materials, analysis of current teaching methods and techniques in school music programs; historical foundations of music education.

EDTL:5961 Foundation of Applied Behavior Analysis 3 s.h.
Foundational knowledge in basic principles and philosophical assumptions of behavior analysis, behavioral terminologies, verbal operants, and measurement concepts; explicitly links theory of behavior to practical application (e.g., special education); one of seven courses needed to qualify for the Board Certified Behavior Analyst (BCBA) exam. Corequisites: EDTL:7953.

EDTL:5963 Ethics and Professional Conduct for Behavior Analysts and Psychologists 3 s.h.
Issues related to ethical and professional conduct of behavior analysts and school psychologists. Content aligned with BACB Professional Disciplinary and Ethical Standards and Guidelines for Responsible Conduct for Behavior Analysts, principles of professional ethics of the NASP, and ethical principles of the APA. Explores ethical conduct considerations for professionals conducting research or providing services to vulnerable populations. Ethical practices relate to working with individuals with autism spectrum disorders, developmental disabilities, and behavioral/emotional disorders. One of seven courses meeting requirements for board certification as a behavior analyst.

EDTL:5964 Behavior Analyst Practicum 1-4 s.h.
Development, implementation, and evaluation of techniques that produce behavior changes in clients; discussion of key issues related to techniques of applied behavior analysis; review of various theoretical, conceptual, historical, legal, and practical aspects of behavior analysis; provides a portion of the supervisory component as required by the Behavior Analyst Certification Board (BACB).

EDTL:5966 Advanced Topics in Applied Behavior Analysis 3 s.h.
Provides descriptions of important topics in applied behavior analysis (ABA); focuses on conceptual issues in ABA with a specific emphasis on radical behaviorism, the behavioral conception of language, and culture.

EDTL:5967 Supervision Strategies in Special Education 3 s.h.
Addresses the essential skills and knowledge needed for effective supervision in special education settings. Topics include working with paraprofessionals, maintaining constructive supervisory relationships, advanced techniques in parent training, behavioral consultation with teachers, cultural competency, telehealth applications, and school-based challenges. Prepares students for the diverse and evolving landscape of educational supervision.

EDTL:5970 Experimental Analysis of Behavior 3 s.h.
How the experimental analysis of behavior plays a pivotal role in applied behavior analysis. Overview foundational technologies, methods, and research findings to gain a comprehensive understanding of behavior analysis principles and their practical application.

EDTL:6015 PhD Seminar: Literacy, Culture, and Language Education 3 s.h.
Exploration of theoretical and epistemological foundations in literacy, culture, and language education; exposure to diverse disciplinary and interdisciplinary foundations that inform literacy education, cultural studies, multilingual education, and social studies education; goal is for students to identify a disciplinary and interdisciplinary focus that will inform their research.

EDTL:6164 Early Literacy Development and Instruction 2-3 s.h.
Understanding of early reading and writing experiences; relationship of reading to other communication areas; knowledge of instructional approaches, techniques, materials, assessment procedures; interrelationship of home and school experiences; identification of current and crucial issues and relevant research.

EDTL:6165 Reading and Writing Across Intermediate Grades 3 s.h.
Issues in teaching, learning, and assessment of students grades 4-9; fostering positive literate identities, literacy engagement, strategies for reading, writing, and critically responding to texts in a range of genres and formats and across content areas.

EDTL:6171 Advanced Reading Clinic Techniques 2-3 s.h.
Instructional procedures for children and early adolescents with severe learning problems in reading; causes of reading disorders; educational prognosis for severely disabled readers. Corequisites: EDTL:6172.

EDTL:6172 Advanced Reading Clinic Practicum 2-3 s.h.
Practice in selecting and using instructional procedures that address the needs and interests of struggling literacy learners, with emphasis on teaching to students' strengths; how to fit clinical teaching techniques into an overall literacy instructional program. Corequisites: EDTL:6171.

EDTL:6267 Seminar: Current Issues in Art Education 3-4 s.h.
Analysis of literature in art education and related disciplines. Same as ARTE:6267.

EDTL:6293 Individual Instruction arr.

EDTL:6315 MA Seminar: English Education arr.
Significant developments in English education; primary and collateral readings. Same as ENGL:6315.

EDTL:6393 Master's Thesis arr.

EDTL:6400 Fundamentals of Second Language Assessment 3 s.h.
How to write language tests; discussion of fundamental issues in development of new tests or selection of existing tests.

EDTL:6403 Language Policy and Planning 3 s.h.
Theoretical foundations, research methods, and findings in language policy and planning research; consideration of local, national, and international language policies; multiple disciplinary perspectives on language policy including linguistics, political science, law, and sociology.

EDTL:6409 Cultural Curriculum 3 s.h.
Culture's role in foreign/second language teaching; definition, pedagogy, assessment, and materials that allow culture to be taught and learned.

EDTL:6480 Graduate Seminar in Multilingual Education 3 s.h.
Theoretical perspectives of pivotal research issues at the forefront of world language education; systems available to world language professionals for disseminating research.

EDTL:6483 Multilingual Education and Applied Linguistics 3 s.h.
Introduction to research in language teaching and learning, drawing on theories and research in applied linguistics, sociolinguistics, anthropology, and psychology; students gain understanding of fundamentals in second language acquisition, educational linguistics, applied linguistics, and methods used in teaching and learning second/foreign languages; applications and implications of research considered when reviewing multilingual education policy and practice. Same as ASIA:6483, SLA:6506.

EDTL:6484 Bi/Multilingual Literacies 3 s.h.
Critical sociocultural perspectives on literacy, including dynamic literacies people practice to read the word and the world; examination of theoretical, practical, and empirical research that discusses the political, ideological, cultural, and historical nature of bi/multilingual literacy learning.

EDTL:6486 Sociolinguistics in Education 3 s.h.
Investigate how social, cultural, and political forces influence language use in communities and classrooms. Topics include language contact, language ideology, dialectology and African American language, discourse analysis, communicative competence, language socialization, and language policy and planning. Specific cases from around the world are considered including interrogation of how minoritized languages and their speakers are marginalized in schools and communities. Same as LING:6486.

EDTL:6497 Principles of Course Design for Second Language Instruction 3 s.h.
Contemporary views of second language curriculum design; guidelines necessary for the creation of prototypical curriculum units to be transposed into classroom-ready forms; for individuals interested in world language materials development.

EDTL:6536 Teaching of Geometry 2-3 s.h.
Current developments in teaching middle school/junior high and high school geometry; selection, organization of content; research on teaching and learning.

EDTL:6563 STEM Through Mathematical Modeling 3 s.h.
Prepares potential STEM teachers or in-service teachers who want to develop integrated STEM learning environments to learn mathematical modeling as an interdisciplinary instructional approach; mathematical modeling practice to learn and teach mathematics, science, engineering, and technology focused on students' understanding of new concepts from an individual knowledge basis; engagement in problem-based learning where individuals develop conjectures, critique arguments, and revise ideas to reach conclusions; students will understand how people learn new concepts and how teachers should provide adequate learning environments for students to learn and understand the core concepts of STEM.

EDTL:6570 Foundation of School STEM Curriculum 3 s.h.
Elementary and secondary background developments in school and science, technology, engineering, and mathematics (STEM) curriculum; definitions, historical perspectives, reform, theories of knowledge, implementation, evaluation, international perspectives, issues in STEM curriculum.

EDTL:6600 Individual Projects in Music Education 1-2 s.h.
Projects of special concern to individual music teachers in public schools.

EDTL:6757 Learning in the Science Classroom 2-3 s.h.
Assumptions about learning and about learning theories and their impact on pedagogical actions; how some concepts are planned and implemented.

EDTL:6758 Writing in the Science Classroom 3 s.h.
Literacy in the science classroom; theoretical and pedagogical perspectives; practical classroom activities that lead to effective writing and increased learning.

EDTL:6759 Advanced Pedagogy 3 s.h.
Theoretical and practical perspectives on pedagogy; how to assess practice, provide feedback, and build learning pathways for teachers.

EDTL:6761 STEM Research and Leadership Seminar 3 s.h.
Broad overview of research supporting new and innovative teaching practices in STEM disciplines and integrated STEM learning; focus on relevant journals related to STEM learning and teaching; students will summarize, critique, and discuss a variety of research perspectives and articles and describe how the information relates to their current teaching; students explore ways to improve their STEM pedagogical and instructional practices and methods for assessing critical student outcomes; students develop awareness of research that provides a foundation for effective STEM teaching and learning and strategies for implementing research supported practices in STEM learning contexts of all types.

EDTL:6762 STEM Experiential Learning 3 s.h.
Overview of research supporting new and innovative teaching practices in STEM disciplines and integrated STEM learning; focus on problem-based and experiential learning curriculum, instruction, and assessment by engaging in authentic experiences and reflecting on how these influence practice and student learning; facilitates ability to solve real world STEM problems of interest to students and community through engagement with community partners; assists students to acquire and demonstrate 21st-century competencies the STEM workplace identifies as critical; provides authentic, meaningful, and cross-curricular experience in facilitating student engagement in real-world situations.

EDTL:6764 STEM Extracurricular Experience and Capstone 6 s.h.
Engages teachers in STEM experience outside the traditional classroom; provides 90-hour STEM inclusive experience coupled with a capstone project; engagement with STEM community leaders, business partners, or outreach leaders to develop a plan for participation in and investigation of a STEM related experience; may work with a STEM extracurricular activity in a school or university, a STEM related business or industry partner, or a STEM related grant funded project through a university; course completion is accomplished through a capstone sharing of their experience, how the experience has solidified their understanding of STEM, and how the experience will impact their classroom activities.

EDTL:6765 STEM Independent Research 3 s.h.
Opportunity to develop an independent research project and explore a STEM education question of personal interest; students design and carry out research in an authentic STEM learning environment, collect and analyze data, develop claims and conclusions based on their research, present findings, and develop a plan for utilizing findings to improve STEM education learning environments. Prerequisites: EDTL:6761.

EDTL:6766 Physical Science Topics in STEM Education 3 s.h.
Increase knowledge of physical science content in a form that is relevant to education standards, such as Next Generation Science Standards (NGSS), and connected to engaging and contemporary issues in physical science; weekly expectations differentiated to provide opportunities for deepening knowledge of science; students gain insight into teaching science and work together to think critically on the conceptual basis of subject matter appropriate for learners in their context; for educators at all levels (e.g., elementary, secondary, informal settings).

EDTL:6767 Systems Thinking in Biology and Integrated STEM Education 3 s.h.
Preparation for potential STEM or in-service teachers who want to design integrated STEM learning environments and cultivate students' systems thinking skills; emphasis on computational modeling environments in biology education; how to craft problems based on principles derived from primary literature on systems thinking and STEM educational research; no programming experience required or expected. Recommendations: general background in biology, chemistry, and physics.

EDTL:6833 History and Foundations of Social Studies Education 3 s.h.
Historical, philosophical, social foundations of social studies education; recent debates over content and instructional processes; student research proposals.

EDTL:6840 Theories and Perspectives in Global Education 3 s.h.
Examination of theories and perspectives within global education that help to understand historical and contemporary social, political, economic, and cultural issues; relationship to international studies, international education, global cultures, human rights, social justice, and other areas; interaction with global educators who conduct research and/or teach in institutes of higher education around the world.

EDTL:6841 Attaining a Global Perspective 2-3 s.h.
Rationales, conceptualizations, and themes in global perspectives in education, implications for curriculum change; elements of perspective consciousness, cultural universals, cultural diversity, cross-cultural awareness, global systems, global history, global issues; application and evaluation of ideas within fields of study and varied teaching situations.

EDTL:6906 Practicum With Exceptional Persons arr.
Practicum experience with students with disabilities; experiences differ depending upon student's program of study. Prerequisites: EDTL:4975 or EDTL:7953.

EDTL:6907 Elementary Practicum With Exceptional Persons 1-5 s.h.
Provides trainees with experience administering behaviorally-based supports for children with developmental disabilities in relation to challenging behavior, academic skills, and adaptive behavior in elementary school settings. Offers supervised experience related to licensure requirements in special education and certification requirements in applied behavior analysis.

EDTL:6908 Secondary Practicum With Exceptional Persons 1-5 s.h.
Provides trainees with experience administering behaviorally-based supports for children with developmental disabilities in relation to challenging behavior, academic skills, and adaptive behavior in secondary school settings. Offers supervised experience related to licensure requirements in special education and certification requirements in applied behavior analysis.

EDTL:6909 Seminar: Graduate Supervised Teaching 1 s.h.
For students enrolled in graduate student teaching practicum. Requirements: special education major.

EDTL:6936 Special Education Administration 3 s.h.
Builds a foundation of dispositions, knowledge, and skills for tasks performed by directors of special education, building leaders, and administrators, when supervising needs of special education students and economically and socially deprived students; knowledge and application of legal aspects, individual educational programs, and continuum of academic and social/emotional behavior supports; for prospective school administrative personnel. Same as EPLS:6236.

EDTL:6950 Strategist I Student Teaching: Elementary arr.
Student teaching in an elementary mild and moderate special education program.

EDTL:6951 Strategist I Student Teaching: Secondary arr.
Student teaching in a secondary mild and moderate special education program.

EDTL:6953 Strategist II Student Teaching: Elementary arr.
Student teaching in K-8 learning disabilities or behavior disorders.

EDTL:6954 Strategist II Student Teaching: Secondary arr.
Student teaching in secondary learning disabilities or behavior disorders.

EDTL:7004 Schooling in the United States 3 s.h.
Governance, finance, and policy structures that have influenced teaching and learning in public schools.

EDTL:7008 Seminar: Research and Current Issues arr.
Review of literature, critical analysis of reported research, and study of current issues and problems for a specific curricular area; topics vary.

EDTL:7015 PhD Seminar in Language, Literacy, and Culture arr.
Historical, recent research and theory in literacy education; topics vary.

EDTL:7033 Seminar on Teacher Education 3 s.h.
History, structure, and politics of teacher education; current practice and agendas for reform; new developments in teacher assessment.

EDTL:7040 Advanced Topics in Teaching and Learning arr.
Topics vary.

EDTL:7070 Qualitative Research Methods in Teaching and Learning 3 s.h.
Conceptual and practical exploration of qualitative research design methods, including data collection, analysis, and reporting; understanding proposal writing.

EDTL:7071 Critical Discourse Analysis in Educational Research 3 s.h.
Critical discourse analysis (CDA) as theory and method; social and power relations, identities, and knowledge through written, visual, and spoken texts in social settings, such as schools, families, communities; theoretical and methodological traditions of CDA in educational research; critical approaches to analyzing spoken, written, and visual texts. Prerequisites: EDTL:7070 or PSQF:7331 or EPLS:7373 or CSED:7338.

EDTL:7072 Advanced Methods of Literacy Research: Qualitative Data Analysis and Reporting 3 s.h.
Advanced course in traditional and contemporary qualitative data analysis methods and varied forms of reporting to understand, critique, and conduct research about literacy learning and teaching. Prerequisites: CSED:7338 or EDTL:7070 or EPLS:7373 or PSQF:7331.

EDTL:7073 Ethnographic Methods, Theories, and Texts 3 s.h.
Practical and theoretical background for conducting ethnographic field studies in literacy, schooling, language, or a field of student's choice; methods, methodologies, and perspectives from anthropology, sociology, folklore, journalism, literary criticism, cultural, critical, and composition theory; read historical and contemporary ethnography, consider ethnographic forms of expression (films, graphics, fiction, poems); roles, responsibilities, and ethics of writer, reader, viewer, and informant; tools, methods, and writer's techniques to develop an ethnographic portfolio. Prerequisites: PSQF:7331 or EDTL:7070 or CSED:7338 or EPLS:7373. Same as CNW:7073.

EDTL:7092 Field Service Project arr.
Individual field service project in a specific curricular area; for advanced students.

EDTL:7093 Research Project arr.
Individual research projects in a specific curricular area; for advanced students.

EDTL:7165 Reading Clinic: Supervision arr.
Supervised experience in guiding and improving teacher performance in clinical practicums.

EDTL:7380 Practicum in College Teaching arr.
Supervised college teaching experience in courses related to major academic areas; collaboration with faculty course instructors.

EDTL:7385 Teaching and Learning in Higher Education 3 s.h.
Current theoretical and empirical literature on teaching and learning in higher education; focus on development of effective teaching practice. Same as CSED:7385, EPLS:7385, GRAD:7385, PSQF:7385.

EDTL:7405 Research Methods in Literacy, Culture, and Language Education 3 s.h.
Overview of common research methods and paradigms used to study literacy, culture, and language teaching and learning and related fields; discussing readings and other texts by contemporary researchers; processing and applying concepts from qualitative, quantitative, and mixed methods research approaches; considering critical perspectives on educational research methods; designing a rigorous research study on a topic of student's choice; speaking and writing with confidence about research methods used in other studies.

EDTL:7406 Proposal Writing for Second Language Research 3 s.h.
Procedures and techniques for writing research proposals at the doctoral level; written research proposal dealing with a question in second language teaching and learning.

EDTL:7410 Mixed Methods Research 3 s.h.
Introduction to mixed methods research in education; knowledge and skills necessary to conduct mixed methods study; history and language of mixed methods research; identifying and processing arguments for and against mixed methods research; critical and justice-oriented perspectives on mixed methods research; strengths and weaknesses of published mixed methods studies; application of one or more mixed methods research designs to a research proposal. Requirements: formal introduction to quantitative and qualitative research methods, and familiarity with basic steps of research process. Recommendations: direct experience conducting research studies not required. Same as EPLS:7392.

EDTL:7493 PhD Thesis arr.

EDTL:7535 Seminar: Research in Mathematics Education arr.
Analysis of current research, research methodology, curriculum developments in mathematics education; topics vary.

EDTL:7600 Seminar: Current Topics in Music Education 1-3 s.h.
Major areas of professional and research interest.

EDTL:7640 Advanced Research in Music Education 3 s.h.
Design, performance, analysis, and reporting of music research.

EDTL:7707 Research: Science Education arr.
Planning of individual research projects by MS and PhD students.

EDTL:7750 Seminar: Science Education 0-2 s.h.
Discussion of completed faculty and doctoral candidates' research, national issues, program features.

EDTL:7751 Advanced Qualitative Data Analysis 3 s.h.
Varied approaches to qualitative data analysis and philosophical foundations; analysis and interpretation of qualitative data; writing qualitative research findings. Prerequisites: EPLS:7373 or EDTL:7070 or PSQF:7331 or CSED:7338.

EDTL:7755 Independent Study in Science Education Research 2-3 s.h.

EDTL:7756 Research Apprenticeship in Science Education 3 s.h.
Practical experiences in science education research in a collaborative, team-oriented environment; apprenticeship model of instruction in which students' participation in authentic tasks and their learning are mutually constitutive; engagement in actual research practices to produce an empirically based product; development of expertise with some aspect of research methodology determined by instructor; for graduate students with interests in research or development based in K-16 contexts.

EDTL:7932 Field Service Project in Special Education Internship arr.
Part- or full-time experience as an intern in school districts or area education agencies; develops skills in supervision and administration of special education.

EDTL:7943 Proseminar: Issues, Trends, and Research in Special Education 2-3 s.h.
Conceptual and practical development of research across special education and related disciplines; empirical review of the literature; focus on professional writing skills.

EDTL:7944 Proseminar: Issues, Trends, and Research in Special Education II 2-3 s.h.
Recent research from a variety of special education areas reviewed by students; simulated comprehensive examinations. Prerequisites: EDTL:7943.

EDTL:7945 Current Issues and Trends in Learning Disabilities 3 s.h.
Readings and discussions of current issues and trends in learning disabilities (e.g., definition, prevalence, interventions, subtyping, assessment).

EDTL:7948 Contemporary Research in Behavioral Disorders 3 s.h.
In-depth analysis of current research in behavioral disorders; emphasis on evaluating its methodology and contribution to the field.

EDTL:7952 Seminar: Behavioral Assessment and Evaluation 3 s.h.
Broadens skills of graduate students who engage in research with exceptional persons; research designs are usually taught in the Department of Psychological and Quantitative Foundations, but because of the nature of handicapping conditions and the low incidence of some handicaps, the single-subject design yields better research information. Same as PSQF:7352.

EDTL:7953 Seminar: Single Subject Design Research 3 s.h.
Reviews of single subject research, development of student proposals; focus on special education, applied research.

Science Education Courses

SIED:3001 Introduction to Museum Studies 3 s.h.
Overview of museum history, function, philosophy, collection, and curatorial practices; governance and funding issues; exhibition evaluation and audience studies; examples from Stanley Museum of Art, Museum of Natural History, Old Capitol Museum, and Medical Museum. GE: Social Sciences. Same as ANTH:3001, EDTL:3001, MUSM:3001.

SIED:3164 Introduction to Global Socioscientific Challenges 3 s.h.
Engagement in scientific inquiry methods and exploration of the core principles and evidence underlying current knowledge regarding global socioscientific challenges like climate change and freshwater access. Opportunity to gain scientific literacy and interdisciplinary understanding of life, physical, and earth sciences, alongside skills in investigation, data analysis, and decision-making processes. GE: Natural Sciences without Lab; Sustainability.

SIED:4102 Societal and Educational Applications of Earth Science and Environmental arr.
Major ideas and principles of earth and environmental sciences; emphasis on common applications in today's world.

SIED:4103 Societal and Educational Applications of Biological Sciences arr.
Basic conceptual themes of biology, how they have been derived; emphasis on a current social issue related to biology.

SIED:4105 Societal and Educational Applications of Physical Sciences arr.
Major ideas of physics and how they have been derived; emphasis on how such ideas affect modern society.

SIED:4106 Societal and Educational Applications of Chemical Concepts arr.
Principles of chemistry as applied in industry, communication, daily living.

SIED:4110 Exploring the Geology, Mining History, and Environmental Issues of the Colorado Rockies 4 s.h.
Basic concepts of physical geology, historical, and environmental geology of the Rocky Mountains in context of mineral exploration, mining, and environment; collection of a teaching suite of basic igneous, sedimentary, and metamorphic rocks and rock forming minerals; scientific/educational photography, field inquiry, and curriculum development projects; students spend 10 days probing the mountains of Colorado for clues to its geologic past including mountains, seas, and volcanic activity; knowledge is tested in the field along with connecting the geology of Colorado with future teaching employment locations. GE: Natural Sciences with Lab; Sustainability.

SIED:4115 Directed Study arr.

SIED:4135 The Nature of Science 3-4 s.h.
Ideas on understanding and ways of thinking that are essential in a world shaped by science, technology, engineering, and mathematics; focus on increasing science literacy by examining the nature of science; comparison of characteristics specific to individual science disciplines; identification of great episodes and debates in history of science and habits that are essential for science literacy; scope and sequence of content and process skills for K-12 curriculum, instruction, and assessment.

Art Education, BA

Requirements

The Bachelor of Arts with a major in art education requires a minimum of 120 s.h., including the general education requirements for the degree, a minimum of 48 s.h. in art professional education courses, and a minimum of 33 s.h. in art education content courses. The general education requirements to earn a Bachelor of Arts degree from the College of Education are the GE CLAS Core of the College of Liberal Arts and Sciences (CLAS). The major requires admission to the Teacher Education Program (TEP) and students must maintain TEP academic and professional standards.

Students must earn a BA in art [p. 99] or a BFA in art [p. 99] in the School of Art, Art History, and Design at the University of Iowa in order to earn the BA in art education; both degrees may be earned at the same time. Graduates who have earned one of these degrees at another institution and wish to earn the BA in art education should consult the Department of Teaching and Learning; additional coursework may be required.

The art major provides a foundation in art history as well as an understanding of the formal traditions and contemporary practices in studio art. Students take courses in the school's studio art programs, including ceramics, graphic design, 3D design, drawing, intermedia, jewelry and metal arts, painting, photography, printmaking, and sculpture. Students also complete coursework in teacher licensure including student teaching.

For initial licensure, student teaching must be an all-day, full-semester experience. Most students are placed in a district within a 60-mile radius of Iowa City. Placements outside this area require special approval and are considered on an individual basis. Special site programs provide experience in districts with diverse populations and students also may apply to student teach at international sites for the second half of the semester.

Additional information about options for student teaching and application procedures is available from the Office of Student Services. Applications for student teaching must be submitted during the calendar year before the student teaching semester. The deadline for students planning to student teach the following fall semester is Nov. 15 and April 15 for the following spring semester.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

The BA with a major in art education requires the following coursework.

Professional Education Course Requirements

Students complete 48 s.h. from the following.

Foundation Courses

Foundation courses may be completed before or after admission to the major.

Course #	Title	Hours
All of these:		
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
PSQF:1075	Educational Psychology and Measurement	3

Additional Licensure Courses

Course #	Title	Hours
All of these:		
EDTL:2122	Creativity, Imagination, Play, and Human Development through the Arts	3
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
EDTL:3143	Methods of Elementary Art and Field Experiences	3
EDTL:3204	Art Education Studio and Field Components	3
EDTL:3205	Methods of Secondary Art and Field Experience	3
EDTL:3290	Introduction and Practicum: Art	3
EPLS:4180	Human Relations for the Classroom Teacher	3

Student Teaching

Transfer students should consult their advisor since they must complete certain courses before they student teach.

Course #	Title	Hours
All of these:		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4192	Special Area Student Teaching	6

Mathematics Course

State standards for teacher preparation require a college-level math course as part of the liberal arts core. Students can meet this requirement by selecting a course in mathematics, statistics, or computer science for the Quantitative or Formal Reasoning requirement of the GE CLAS Core. Contact College of Education Academic Advising for additional information.

Course #	Title	Hours
One of these:		
CS:1110	Introduction to Computer Science	3
CS:1210	Computer Science I: Fundamentals	4
STAT:1010	Statistics and Society	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3

STAT:1030	Statistics for Business	4
Any mathematics course (prefix MATH), except MATH:0100, MATH:1005, or MATH:1210		

Art Education Content Courses

Students complete at least 33 s.h. from the following.

Art History

Course #	Title	Hours
Two of these:		
ARTH:1040	Arts of Africa	3
ARTH:1050	From Cave Paintings to Cathedrals: Survey of Western Art I	3
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II	3
ARTH:1070	Asian Art and Culture	3
ARTH:1095	Native American Art	3
And:		
Two additional art history courses, excluding ARTH:1080, ARTH:4999, and the art history courses in this list		6

Studio Art

Course #	Title	Hours
Both of these:		
ARTS:1510	Basic Drawing	3
ARTS:1520	Design Fundamentals	3

Two-Dimensional Art

Course #	Title	Hours
Two of these:		
DRAW:2310	Life Drawing I	3
DSGN:2500	Graphic Design I	3
PHTO:2600	Photography I	3
PNTG:2410	Painting I	3
PRNT:2610	Introduction to Printmaking	3

Three-Dimensional Art

Course #	Title	Hours
Both of these:		
CERM:2010	Ceramics I: Handbuilding	3
CERM:2020	Ceramics II: Wheel Throwing	3
One of these:		
INTM:2710	Introduction to Intermedia	3
MTLS:2910	Introduction to Jewelry and Metal Arts	3
SCLP:2810	Undergraduate Sculpture I	3
TDSN:2210	Introduction to 3D Design	3

Electives

Students complete their major requirements with additional art, art history, or design courses.

Endorsements

The art education TEP is approved by the state of Iowa as preparation for teaching licensure with endorsements for K–8 art and 5–12 art. Endorsement programs for additional teaching areas are available.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. For this reason, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For undergraduate teacher candidates and bachelor's degree candidates in art education, these standards include the following.

- University of Iowa cumulative GPA and overall cumulative GPA, based on total hours earned
  - 0–29 overall earned semester hours: minimum of 1.85 (2.70 for good standing)
  - 30 or more overall earned semester hours: minimum of 2.00 (2.70 for good standing)
  - Non-degree students: minimum of 2.00 (2.70 for good standing)
- TEP major GPA (overall cumulative): minimum of 2.00 (2.70 for good standing)
- University of Iowa term GPA: minimum of 1.50 during fall or spring enrollment
- A grade of C-minus or higher in TEP major courses
- No notices of concern in professional dispositional qualities
- Academic good standing in the College of Liberal Arts and Sciences
- Major GPA in the TEP CLAS content major: minimum of 2.00
- UI major GPA in the TEP CLAS content major: minimum of 2.00

For additional information about these standards, contact the Office of Student Services.

Elementary Education, BA

Requirements

The Bachelor of Arts with a major in elementary education requires a minimum of 120 s.h., including the general education requirements for the degree and at least 83 s.h. for the major. Students must complete College of Education requirements for the Bachelor of Arts degree, the elementary education major, and the Teacher Education Program (TEP), including student teaching, and maintain TEP academic and professional standards. The general education requirements to earn a Bachelor of Arts degree from the College of Education are the GE CLAS Core of the College of Liberal Arts and Sciences (CLAS). Undergraduate students who meet the admission requirements of the College of Education may declare the elementary education major. Continuation in the major requires admission to the TEP.

Students who are pursuing the combined BA special education subprogram/MA in teaching and learning with special education subprogram must complete the requirements of the elementary education major and the coursework required to complete the MA degree.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Elementary Education Requirements

The BA with a major in elementary education requires the following work.

Foundation Courses

Students may complete the foundation courses before being admitted to the major in elementary education, but the courses are not prerequisite to admission to the major.

Course #	Title	Hours
All of these:		
EDTL:2122	Creativity, Imagination, Play, and Human Development through the Arts	3
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
PSQF:1075	Educational Psychology and Measurement	3

First-Year Courses

All new first-year students must take EDTL:2111 Teaching Elementary Learners I: Pursuits and Reflection and EDTL:2112 Teaching Elementary Learners II: Communities and Classrooms in their first two semesters at the university and before full admission to the TEP. Transfer students and students changing colleges take EDTL:2155 Pursuing Core Principles in Elementary Education in their first semester in the major. They may take this course before or after admission to the Teacher Education Program.

Course #	Title	Hours
Both of these:		
EDTL:2111	Teaching Elementary Learners I: Pursuits and Reflection	2
EDTL:2112	Teaching Elementary Learners II: Communities and Classrooms	2

Courses for the Major

Admission to the Teacher Education Program is required to register for courses for the major that are offered by the College of Education.

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3103	Assessment for Instructional Planning and Practice	3
EDTL:3120	Methods and Materials: Music for the Classroom Teacher	2
EDTL:3123	Reading and Responding to Children's Literature	3
EDTL:3127	Methods and Materials: Physical Education, Health, and Wellness	2
EDTL:3141	Elementary School Mathematics: Number and Operations	3
EDTL:3142	Elementary School Mathematics: Geometry and Measurement	3
EDTL:3160	Reading and Language Arts Methods for Primary Students in Grades K-3	3
EDTL:3161	Social Studies for the Elementary Classroom Teacher	3
EDTL:3163	Methods: Elementary School Mathematics	3
EDTL:3164	Reading and Language Arts Methods for Intermediate Students in Grades 3-6	3
EDTL:3165	Elementary Science Methods I	3
EDTL:3166	Elementary Science Methods II	3
EDTL:3170	Elementary Classroom Management	2
EDTL:3172	Elementary Reading Practicum	4
EDTL:3174	Elementary Math Practicum	1
EDTL:3190	Orientation to Elementary Education	2
EDTL:4171	Diversity and Exceptionalities in Literacy Instruction	3
EPLS:4180	Human Relations for the Classroom Teacher	3
One of these:		
STAT:1010	Statistics and Society	3

STAT:1020	Elementary Statistics and Inference	3

Student Teaching

Students seeking initial licensure must complete the following.

Course #	Title	Hours
EDTL:4187	Effective Teaching Strategies for the Elementary Teacher: Student Teaching Seminar	3
EDTL:4190	Supervised Teaching in the Elementary School: Interactive Phase	6
EDTL:4191	Supervised Teaching in the Elementary School: Pre- and Post-Active Phase	6

Transfer Students and Students Changing Colleges

Before they student teach, transfer students must complete the following courses at the University of Iowa.

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3190	Orientation to Elementary Education	1-2
A practicum		
Two of these:		
EDTL:3123	Reading and Responding to Children's Literature	3
EDTL:3160	Reading and Language Arts Methods for Primary Students in Grades K-3	3
EDTL:3161	Social Studies for the Elementary Classroom Teacher	3
EDTL:3163	Methods: Elementary School Mathematics	3
EDTL:3164	Reading and Language Arts Methods for Intermediate Students in Grades 3-6	3

Endorsements

The elementary education teacher education program is approved by the state of Iowa as preparation for teaching licensure with the K–6 teacher elementary classroom endorsement. Students have the option of completing one or more endorsements in the following areas: K–8 art, K–8 English/language arts, K–8 history, K–8 mathematics, middle school, K–8 reading, K–8 science, K–8 social studies, K–8 instructional strategist I: mild/moderate, and K–8 speech, communication/theatre. Courses in the endorsement area may be taken pass/nonpass if they are offered with the pass/nonpass option. Students may apply for added endorsement programs in K–12 English as a Second Language (ESL), PK–12 talented and gifted, and other areas. Requirement lists for each endorsement area are available from the College of Education.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. For this reason, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For undergraduate teacher candidates and bachelor's degree candidates in elementary education, these standards include the following.

- University of Iowa cumulative GPA and overall cumulative GPA, based on total hours earned
  - 0–29 overall earned semester hours: minimum of 1.85 (2.70 for good standing)
  - 30 or more overall earned semester hours: minimum of 2.00 (2.70 for good standing)
  - Non-degree students: minimum of 2.00 (2.70 for good standing)
- TEP major GPA (overall cumulative): minimum of 2.00 (2.70 for good standing)
- University of Iowa term GPA: minimum of 1.50 during fall or spring enrollment
- A grade of C-minus or higher in TEP major courses
- No notices of concern in professional dispositional qualities

For additional information about these standards, contact the Office of Student Services.

State of Iowa teacher preparation standards require a core of liberal arts knowledge including, but not limited to English composition, mathematics, natural sciences, social sciences, and humanities. The courses of the elementary education Teacher Education Program satisfy these requirements.

Elementary Education With Special Education Subprogram Requirements

Elementary education students may pursue the BA in elementary education with a special education subprogram if they have been admitted to the MA in teaching and learning with a special education subprogram (K–8 instructional strategist I: mild/moderate with no thesis) and complete the MA degree.

It is appropriate for students who are currently enrolled in the Teacher Education Program as undergraduates working toward a major in elementary education. Students who desire to pursue an MA degree, are motivated to broaden their experience, and are inspired to serve students with disabilities are well suited for pursuing this combined program.

Students may complete both degrees in five years. In their last semester of undergraduate coursework, students enroll in two MA-level courses in special education (EDTL:4950 Behavioral and Social Interventions and EDTL:4984 Academic Skills for Students With Special Needs) that count toward both degrees. Once they complete all BA requirements, students complete the remaining MA special education courses. They are then eligible for their student teaching field experience. Students complete two placements—one in general education elementary education and one in K–8 special education—

thus making them eligible for teaching licensure in both elementary education and special education.

The BA in elementary education with a special education subprogram and the MA in teaching and learning with a special education subprogram (K–8 instructional strategist I: mild/moderate with no thesis) require the following work in addition to the "Elementary Education Requirements."

Language Development

Course #	Title	Hours
One of these:		
EDTL:3382	Language and Learning	3
EDTL:4410	Language, Power, and Multilingual Education	3
LING:1010	Language and Society	3

Oral Communication

Course #	Title	Hours
One of these:		
EDTL:2821	Oral Interpretation	3
EDTL:3180	Drama in the Classroom	3
CLSA:3742	Word Power: Building English Vocabulary	3
LING:3001	Introduction to Linguistics	3

Parent-Teacher Communication

Course #	Title	Hours
This course:		
EDTL:4934	Parent-Teacher Communication	3

Courses Taken in the Last Semester of BA Completion

Course #	Title	Hours
Both of these:		
EDTL:4950	Behavioral and Social Interventions	3
EDTL:4984	Academic Skills for Students With Special Needs	3

Additional Courses to Complete the MA

Course #	Title	Hours
All of these:		
EDTL:4975	Explicit Instruction	3
EDTL:4980	Dyslexia and Other Reading Difficulties: Instruction and Assessment	3
EDTL:5967	Supervision Strategies in Special Education	3
EDTL:6906	Practicum With Exceptional Persons	3

Combined Programs

BA (Special Education Subprogram)/MA in Teaching and Learning (Special Education Subprogram)

The combined BA in elementary education with a special education subprogram and the MA in teaching and learning with a special education subprogram (K–8 instructional strategist I: mild/moderate; nonthesis) program is available for students. Students are able to earn both degrees in less time than it would take to complete both degrees separately.

Students pay undergraduate tuition and fees during the combined undergraduate/graduate semester, which is generally in the spring semester of their fourth year. In the following semester when they begin coursework for the MA, they pay graduate tuition and fees. For more information on the combined program, see "Elementary Education with Special Education Subprogram Requirements" under Requirements [p. 1449] in this section of the catalog.

Admission

Applicants must:

- be a University of Iowa undergraduate student enrolled in the BA in elementary education TEP program;
- have completed at least 74 s.h.;
- have a grade-point average (GPA) of at least 3.25 (the admissions committee considers other aspects of an application when the undergraduate GPA is below 3.25); and
- submit a writing sample.

Career Advancement

The BA program prepares students to teach kindergarten through grade 6. In Iowa, the elementary specialization areas prepare students to teach additional individual subject areas in kindergarten through grade 8.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Elementary Education, BA

Course	Title	Hours
Academic Career		
Any Semester		
The Academic Advising Center advises elementary education students during the first two semesters. Students are advised for success, based on academic strengths, and not necessarily for a four-year plan. Students are guided through the Teacher Education Program (TEP) application in EDTL:2112 Teaching Elementary Learners II.		
GE CLAS Core: Students who need to complete the World Language requirement should consult with their academic advisor about when to add courses to plan of study. [a]		
For specific information regarding requirements in the College of Education, please see the General Catalog.		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
EDTL:2111	Teaching Elementary Learners I: Pursuits and Reflection	2
PSQF:1075	Educational Psychology and Measurement [c]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE: Historical Perspectives [d]		3
GE: Natural Sciences without Lab [d]		3
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
EDTL:2112	Teaching Elementary Learners II: Communities and Classrooms	2
EDTL:2122	Creativity, Imagination, Play, and Human Development through the Arts [c]	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE: Natural Sciences with Lab [d]		4
GE: Social Sciences [d]		3
10-hour pre-admission school field experience [e]		
Apply to progress for full admission to TEP [f]		
	Hours	**15-16**
Second Year		
Fall		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3190	Orientation to Elementary Education	2
EDTL:4900	Foundations of Special Education [c]	3
EPLS:3000	Foundations of Education [c]	3
STAT:1010	Statistics and Society	3
GE: International and Global Issues [d]		3
	Hours	**16**
Spring		
EDTL:3120	Methods and Materials: Music for the Classroom Teacher	2
EDTL:3123	Reading and Responding to Children's Literature	3
EDTL:3141	Elementary School Mathematics: Number and Operations	3
Course for added endorsement or elective course [g, h]		3
Course for added endorsement or elective course [g, h]		3
	Hours	**14**
Third Year		
Fall		
EDTL:3127	Methods and Materials: Physical Education, Health, and Wellness	2
EDTL:3160	Reading and Language Arts Methods for Primary Students in Grades K-3	3
EDTL:3161	Social Studies for the Elementary Classroom Teacher	3
EDTL:3165	Elementary Science Methods I	3
EPLS:4180	Human Relations for the Classroom Teacher	3
	Hours	**14**
Spring		
EDTL:3163	Methods: Elementary School Mathematics	3
EDTL:3164	Reading and Language Arts Methods for Intermediate Students in Grades 3-6	3
EDTL:3166	Elementary Science Methods II	3
EDTL:3170	Elementary Classroom Management	2
EDTL:3174	Elementary Math Practicum	1
Course for added endorsement or elective course [g, h]		3
Apply for student teaching (see the College of Education website for application instructions and deadlines)		
	Hours	**15**
Fourth Year		
Fall		
EDTL:3103	Assessment for Instructional Planning and Practice	3
EDTL:3142	Elementary School Mathematics: Geometry and Measurement	3
EDTL:3172	Elementary Reading Practicum	4
EDTL:4171	Diversity and Exceptionalities in Literacy Instruction	3
Course for added endorsement or elective course [g, h]		3
	Hours	**16**
Spring		
EDTL:4187	Effective Teaching Strategies for the Elementary Teacher: Student Teaching Seminar [i]	3
EDTL:4190	Supervised Teaching in the Elementary School: Interactive Phase [i]	6

EDTL:4191	Supervised Teaching in the Elementary School: Pre- and Post-Active Phase [i]	6
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**120-122**

a To fulfill the GE CLAS Core requirement in World Languages, students must complete four years of a single world language in high school or achieve fourth level of proficiency in a world language through coursework or an appropriate exam. See General Catalog for more information.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c The following foundation courses may be completed prior to admission to TEP, but are not prerequisites for admission: PSQF:1075, EDTL:2122, EDTL:4900, EPLS:3000.

d GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Complete the College of Education 10-hour pre-admission school field experience verification form available on the Teacher Education Program web page.

f Please see your advisor and the College of Education website for detailed application instructions and deadlines.

g Students have the option of completing added endorsements that certify them to teach areas of specialization in grades K-8. Consult an advisor, the General Catalog, or the College of Education website for more information.

h Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

i All coursework must be completed prior to student teaching.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

English Education, BA

Requirements

The Bachelor of Arts with a major in English education requires a minimum of 120 s.h., including the general education requirements for the degree, a minimum of 41 s.h. in English professional education courses, and a minimum of 30 s.h. in English education content courses. The general education requirements to earn a bachelor of arts degree from the College of Education are the GE CLAS Core of the College of Liberal Arts and Sciences. The major requires admission to the Teacher Education Program (TEP) and students must maintain TEP academic and professional standards. Application information can be obtained through the Office of Student Services.

Students must earn a BA in English [p. 427] or a BA in English and creative writing [p. 434] at the University of Iowa in order to earn the BA in English education; both degrees may be earned at the same time. Graduates who have earned one of these degrees at another institution and wish to earn the BA in English education should consult the Department of Teaching and Learning; additional coursework may be required.

The Department of English offers courses in literature, cultural studies, language, and critical and creative writing. In these courses, students read poetry, fiction, essays, criticism, and theory to acquire methods for understanding literature and culture and respond creatively to the texts. In addition to providing these essential elements of a liberal arts and sciences education, the department's courses can augment students' specialized interests in other fields. Students also complete coursework in teacher licensure including student teaching.

For initial licensure, student teaching must be an all-day, full-semester experience. Most students are placed in a district within a 60-mile radius of Iowa City. Placements outside this area require special approval and are considered on an individual basis.

Additional information about options for student teaching and application procedures is available from the Office of Student Services. Applications for student teaching must be submitted during the calendar year before the student teaching semester. The deadline for students planning to student teach the following fall semester is Nov. 15 and April 15 for the following spring semester.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

The BA with a major in English education requires the following work.

Professional Education Course Requirements

Students must complete 41 s.h. from the following.

Foundation Courses

Foundation courses may be completed before or after admission to the major.

Course #	Title	Hours
All of these:		
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
PSQF:1075	Educational Psychology and Measurement	3

Additional Licensure Courses

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:4314	Introduction and Practicum: Secondary English	3
EDTL:4315	Learning to Teach Secondary English/Language Arts and Field Experience	3
EDTL:4394	Secondary Reading Instruction	3
EPLS:4180	Human Relations for the Classroom Teacher	3

Student Teaching

Transfer students should consult their advisor since they must complete certain courses before they student teach.

Course #	Title	Hours
All of these:		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6

Mathematics Course

State standards for teacher preparation require a college-level math course as part of the liberal arts core. Students can meet this requirement by selecting a course in mathematics, statistics, or computer science for the Quantitative or Formal Reasoning requirement of the GE CLAS Core. Contact College of Education Academic Advising with questions.

Course #	Title	Hours
One of these:		
CS:1110	Introduction to Computer Science	3
CS:1210	Computer Science I: Fundamentals	4
STAT:1010	Statistics and Society	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
Any mathematics course (prefix MATH), except MATH:0100, MATH:1005, or MATH:1210		

English Education Content Courses

Students complete at least 30 s.h. from the following.

Oral Communication and Language Development

Course #	Title	Hours
This course:		
EDTL:3382	Language and Learning	3

Written Communication

Course #	Title	Hours
This course:		
EDTL:4355	Approaches to Teaching Writing	3
One of these:		
ENGL:2020	Foundations of Creative Writing: Craft, Practice, Pleasure	3
A creative writing or creative nonfiction writing course (prefix CW or CNW) numbered 2000 or above		

Adolescent Literature

Course #	Title	Hours
This course:		
EDTL:3393	Reading and Teaching Adolescent Literature	3

American Literature

Course #	Title	Hours
Three of these:		
English courses (prefix ENGL) numbered 2400-2499 or 3400-3499 or ENGL:4001 or ENGL:4005		9

British (English) Literature

Course #	Title	Hours
This course:		
ENGL:3287	Shakespeare	3
One of these:		
English course (prefix ENGL) numbered 2300-2399 or 3300-3399 or ENGL:2601 or ENGL:4002 or ENGL:4006		3

Elective

Students choose an additional course (3 s.h.) in English not including those used to fulfill their elective requirement. Students may select from English courses (prefix ENGL) numbered 2000–4999, creative writing courses (prefix CW) numbered 2000–4999, and creative nonfiction writing courses (prefix CNW) numbered 2000–4999.

Endorsements

The English education TEP is approved by the state of Iowa as preparation for teaching licensure with endorsement for grades 5–12 English/language arts. With this program, students have the option to complete additional coursework for added endorsements in grades 5–12 all language arts and grades 5–12 reading.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. For this reason, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For undergraduate teacher candidates and bachelor's degree candidates in English education, these standards include the following.

- University of Iowa cumulative GPA and overall cumulative GPA, based on total hours earned
  - 0–29 overall earned semester hours: minimum of 1.85 (2.70 for good standing)
  - 30 or more overall earned semester hours: minimum of 2.00 (2.70 for good standing)
  - Non-degree students: minimum of 2.00 (2.70 for good standing)
- TEP major GPA (overall cumulative): minimum of 2.00 (2.70 for good standing)
- University of Iowa term GPA: minimum of 1.50 during fall or spring enrollment
- A grade of C-minus or higher in TEP major courses
- No notices of concern in professional dispositional qualities
- Academic good standing in the College of Liberal Arts and Sciences
- Major GPA in the TEP CLAS content major: minimum of 2.00
- UI major GPA in the TEP CLAS content major: minimum of 2.00

For additional information about these standards, contact the Office of Student Services.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

English Education, BA

Course	Title	Hours
Academic Career		
Any Semester		
Admission to the Teacher Education Program, College of Education, is by competitive application. For information about application requirements, process, and deadlines, please see the College of Education's website.		
For specific information regarding requirements in the College of Education, please see the General Catalog.		
Students must earn another major at the University of Iowa in order to earn the BA in English education. Both degrees may be earned at the same time. [a]		

Graduates who have earned one of these degrees at another institution and wish to earn the BA in English education should consult the Department of Teaching and Learning; additional coursework may be required.

GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
RHET:1030	Rhetoric: Writing and Communication	4
GE CLAS Core: Quantitative or Formal Reasoning [c, d]		3
GE CLAS Core: World Languages First Level Proficiency [e]		4 - 5
CSI:1600	Success at Iowa	1
Course(s) required for second degree - consult sample plan for BA in English or BA in English and creative writing		3
	Hours	**15-16**
Spring		
EDTL:4900	Foundations of Special Education	3
PSQF:1075	Educational Psychology and Measurement	3
ENGL:2010	Foundation of the English Major: Histories, Literatures, Pleasures [d]	3
GE CLAS Core: World Languages Second Level Proficiency [e]		4 - 5
Course(s) required for second degree - consult sample plan for BA in English or BA in English and creative writing		3
	Hours	**16-17**
Second Year		
Fall		
EPLS:3000	Foundations of Education	3
GE CLAS Core: Historical Perspectives [d]		3
GE CLAS Core: Natural Sciences without Lab [d]		3
GE CLAS Core: World Languages Third Level Proficiency [e]		4 - 5
Course(s) required for second degree - consult sample plan for BA in English or BA in English and creative writing		3
10-hour pre-admission school field experience (Teacher Education Program application requirement) (second year fall or spring) [f]		
	Hours	**16-17**
Spring		
Major: American literature course [g]		3
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
GE CLAS Core: World Languages Fourth Level Proficiency [e]		4 - 5
Prepare materials for Teacher Education Program application (e.g. essays, letters of recommendation) [h]		
	Hours	**17-18**
Third Year		
Fall		
EDTL:3382	Language and Learning	2 - 3
EDTL:3393	Reading and Teaching Adolescent Literature	3
ENGL:3287	Shakespeare	3
Major: ENGL:2020 Foundations of Creative Writing or a course with prefix CW or CNW numbered 2000 or above		3
GE CLAS Core: Social Sciences [d]		3
Admission Application: apply to the Teacher Education Program [h]		
	Hours	**14-15**
Spring		
EDTL:3002	Teaching and Learning Technologies	2 - 3
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:4314	Introduction and Practicum: Secondary English	3
EDTL:4355	Approaches to Teaching Writing	3
Major: American literature course [g]		3
Major: British literature course [g]		3
Apply for student teaching (see the College of Education website for application instructions and deadlines)		
	Hours	**17-18**
Fourth Year		
Fall		
EDTL:4315	Learning to Teach Secondary English/Language Arts and Field Experience	3
EDTL:4394	Secondary Reading Instruction	2 - 3
EPLS:4180	Human Relations for the Classroom Teacher	3
Major: American literature course [g]		3
Course(s) required for second degree - consult sample plan for BA in English or BA in English and creative writing		3
	Hours	**14-15**
Spring		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**15**
	Total Hours	**124-131**

a These majors include a BA in English or a BA in English and creative writing.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Choose a math course that will satisfy the Teacher Education Program math requirement.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students

should consult with an advisor about the best sequencing of courses.

e Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

f Complete the College of Education 10-hour pre-admission school field experience verification form available on the Teacher Education Program web page.

g See General Catalog and degree audit for BA in English education. Students also should consider requirements for the second degree when selecting these courses.

h Please see the College of Education website for detailed application instructions and deadlines. Admission is selective and a priority deadline exists.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Mathematics Education, BA

Requirements

The Bachelor of Arts with a major in mathematics education requires a minimum of 120 s.h., including the general education requirements for the degree, 46 s.h. in mathematics professional education courses, and a minimum of 41–42 s.h. in mathematics education content courses for students earning the BA in mathematics or a minimum of 47–50 s.h. in mathematics education content courses for students earning the BS in mathematics. General education requirements to earn a bachelor of arts degree from the College of Education are the GE CLAS Core of the College of Liberal Arts and Sciences (CLAS). The major requires admission to the Teacher Education Program (TEP), and students must maintain TEP academic and professional standards. Application information can be obtained through the Office of Student Services.

Students must earn a BA in mathematics [p. 781] (Program B) or a BS in mathematics [p. 791] (Program B) at the University of Iowa in order to earn the BA in mathematics education; both degrees may be earned at the same time. Graduates who have earned one of these degrees at another institution and wish to earn the BA in mathematics education should consult the Department of Teaching and Learning; additional coursework may be required. Students also complete coursework in teacher licensure including student teaching.

For initial licensure, student teaching must be an all-day, full-semester experience. Most students are placed in a district within a 60-mile radius of Iowa City. Placements outside this area require special approval and are considered on an individual basis. Special site programs provide experience in districts with diverse populations and students may also apply to student teach at international sites for the second half of the semester.

Additional information about options for student teaching and application procedures is available from the Office of Student Services. Applications for student teaching must be submitted during the calendar year before the student teaching semester. The deadline for students planning to student teach the following fall semester is Nov. 15 and April 15 for the following spring semester.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

The BA with a major in mathematics education requires the following work.

Professional Education Course Requirements

Students complete 46 s.h. from the following.

Foundation Courses

Foundation courses may be completed before or after admission to the major.

Course #	Title	Hours
All of these:		
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
PSQF:1075	Educational Psychology and Measurement	3

Additional Licensure Courses

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
EDTL:3532	Introduction and Practicum: Mathematics	3
EDTL:3534	Methods: Middle School Mathematics	3
EDTL:4535	Methods: High School Mathematics	3
EDTL:4750	Assessment in Science, Technology, Engineering, and Mathematics (STEM)	2
EDTL:4751	Learning in the Science, Technology, Engineering, and Mathematics (STEM) Classroom	2
EPLS:4180	Human Relations for the Classroom Teacher	3

Student Teaching

Transfer students should consult their advisor since they must complete certain courses before they student teach.

Course #	Title	Hours
All of these:		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6

Mathematics Education Content Courses

Students earning a BA in mathematics complete at least 41–42 s.h. from the following; students earning a BS in mathematics complete at least 47–50 s.h. from the following.

Course #	Title	Hours
All of these:		
CS:1210	Computer Science I: Fundamentals	4
MATH:1850	Calculus I	4
MATH:1860	Calculus II	4
MATH:2150	Foundations of Geometry	3

MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
MATH:3720	Introduction to Abstract Algebra	4
MATH:3770	Foundations of Analysis	4
STAT:3120	Probability and Statistics	4
One of these:		
MATH:4050	Introduction to Discrete Mathematics	3
MATH:4060	Discrete Mathematical Models	3
And:		
For students earning a BA in mathematics, one additional course beyond calculus		3-4
For students earning a BS in mathematics, three additional courses beyond calculus, including at least two courses numbered MATH:4120 or above		9-12

Endorsements

The mathematics education TEP is approved by the state of Iowa as preparation for teaching licensure with endorsement for grades 5–12 mathematics. Added endorsement programs for additional teaching areas are available.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Because of this, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For undergraduate teacher candidates and Bachelor of Arts candidates in mathematics education, these standards include the following.

- University of Iowa cumulative GPA and overall cumulative GPA, based on total hours earned
  - 0–29 overall earned semester hours: minimum of 1.85 (2.70 for good standing)
  - 30 or more overall earned semester hours: minimum of 2.00 (2.70 for good standing)
  - Non-degree students: minimum of 2.00 (2.70 for good standing)
- TEP major GPA (overall cumulative): minimum of 2.00 (2.70 for good standing)
- University of Iowa term GPA: minimum of 1.50 during fall or spring enrollment
- A grade of C-minus or higher in TEP major courses
- No notices of concern in professional dispositional qualities
- Academic good standing in the College of Liberal Arts and Sciences
- Major GPA in the TEP CLAS content major: minimum of 2.00
- UI major GPA in the TEP CLAS content major: minimum of 2.00

For additional information about these standards, contact the Office of Student Services.

Liberal Arts Core

State of Iowa teacher preparation standards require a core of liberal arts knowledge including but not limited to English composition, mathematics, natural sciences, social sciences, and humanities. The GE CLAS Core together with the mathematics education content courses satisfy these requirements. For additional information about these standards, contact the Office of Student Services.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Mathematics Education, BA

Course	Title	Hours
Academic Career		
Any Semester		
Admission to the Teacher Education Program, College of Education, is by competitive application. For information about application requirements, process, and deadlines, please consult an advisor for the College of Education.		
For specific information regarding requirements in the College of Education, please see the General Catalog.		
Students must earn another major at the University of Iowa in order to earn the BA in mathematics education. Both degrees may be earned at the same time. [a]		
Graduates who have earned one of these degrees at another institution and wish to earn the BA in mathematics education should consult the Department of Teaching and Learning; additional coursework may be required.		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
MATH:1850	Calculus I [c]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**12-14**
Spring		
PSQF:1075	Educational Psychology and Measurement	3
MATH:1860	Calculus II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5

10-hour pre-admission school field experience [e]		
	Hours	**14-16**
Summer		
Prepare materials for Teacher Education Program application (e.g. essays, letters of recommendation) [f]		
	Hours	**0**
Second Year		
Fall		
EPLS:3000	Foundations of Education	3
GE CLAS Core: International and Global Issues [g]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
Course(s) required for second degree - consult sample plan for BA or BS in mathematics (Program B)		8
Admission Application: apply to the Teacher Education Program [f]		
	Hours	**18-19**
Spring		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
GE CLAS Core: Social Sciences [g]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Course(s) required for second degree - consult sample plan for BA or BS in mathematics (Program B)		3
	Hours	**16-17**
Third Year		
Fall		
EDTL:4750	Assessment in Science, Technology, Engineering, and Mathematics (STEM)	2
EDTL:4751	Learning in the Science, Technology, Engineering, and Mathematics (STEM) Classroom	2
EDTL:4900	Foundations of Special Education	3
GE CLAS Core: Historical Perspectives [g]		3
Course(s) required for second degree - consult sample plan for BA or BS in mathematics (Program B)		7
	Hours	**17**
Spring		
EDTL:3534	Methods: Middle School Mathematics	3
EPLS:4180	Human Relations for the Classroom Teacher	3
GE CLAS Core: Natural Sciences without Lab [g]		3
Course(s) required for second degree - consult sample plan for BA or BS in mathematics (Program B)		8
Apply for student teaching (see the College of Education website for application instructions and deadlines)		
	Hours	**17**
Fourth Year		
Fall		
EDTL:3532	Introduction and Practicum: Mathematics	3
EDTL:4535	Methods: High School Mathematics	3
GE CLAS Core: Literary, Visual, and Performing Arts [g]		3
GE CLAS Core: Natural Sciences with Lab [g]		4
Course(s) required for second degree - consult sample plan for BA or BS in mathematics (Program B)		7 - 8
	Hours	**20-21**
Spring		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**129-136**

a These majors include a BA in mathematics (program B) or a BS in mathematics (program B) at the University of Iowa.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Enrollment in math courses requires completion of a placement exam.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Complete the College of Education 10-hour pre-admission school field experience verification form available on the Teacher Education Program web page.

f Please see the College of Education website for detailed application instructions and deadlines. Admission is selective and a priority deadline exists.

g GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all

requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Music Education, BA

Requirements

The Bachelor of Arts with major in music education requires a minimum of 120 s.h., including the general education requirements for the degree, a minimum of 44 s.h. in music professional education courses and 75–86 s.h. in the BM in music degree from the College of Liberal Arts and Sciences. Students must maintain a grade-point average of at least 2.70 in professional education course requirements. They must also complete the GE CLAS Core [p. 22]. General education requirements to earn a bachelor of arts degree from the College of Education are the GE CLAS Core of the College of Liberal Arts and Sciences (CLAS). The major requires admission to the Teacher Education Program (TEP), and students must maintain TEP academic and professional standards. Application information can be obtained through the Office of Student Services.

Students must earn a BM in music [p. 837] with a performance subprogram of brass/woodwind, jazz, organ, percussion, piano, piano with teacher education, string, or voice at the University of Iowa in order to earn the BA in music education; both degrees may be earned at the same time. Graduates who have earned a bachelor's degree in music performance at another institution and wish to earn the BA in music education should consult the Department of Teaching and Learning; additional coursework may be required.

The BM with a major in music is intended for undergraduates who wish to major in music as part of a broad liberal arts education irrespective of specific career aspirations. The curriculum includes musicianship, performance, and electives. Students must audition and be accepted into a performance area. They develop musicianship and performance skills and select from a wide variety of music electives.

For initial licensure, student teaching must be an all-day, full-semester experience. Most students are placed in a district within a 60-mile radius of Iowa City. Placements outside this area require special approval and are considered on an individual basis. Special site programs provide experience in districts with diverse populations and students may also apply to student teach at international sites for the second half of the semester.

Additional information about options for student teaching and application procedures is available from the Office of Student Services. Applications for student teaching must be submitted during the calendar year before the student teaching semester. The deadline to complete the application in order to student teach occurs one year prior to the requested student teaching semester: Nov. 15 for the following fall semester and April 15 for the following spring semester.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

The BA with a major in music education requires the following work.

Professional Education Course Requirements

Students complete 44 s.h. from the following.

Foundation Courses

Foundation courses may be completed before or after admission to the major.

Course #	Title	Hours
All of these:		
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
PSQF:1075	Educational Psychology and Measurement	3

Additional Licensure Courses

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
EDTL:3610	Introduction and Practicum: Music	2
EDTL:3620	Methods and Materials: General Music	3
EDTL:3640	Choral Methods	3
EDTL:3650	Instrumental Methods and Materials	3
EPLS:4180	Human Relations for the Classroom Teacher	3

Student Teaching

Transfer students should consult their advisor since they must complete certain courses before they student teach.

Course #	Title	Hours
All of these:		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4192	Special Area Student Teaching	6

Mathematics Course

State standards for teacher preparation require a college-level math course as part of the liberal arts core. Students can meet this requirement by selecting a course in mathematics, statistics, or computer science for the Quantitative or Formal Reasoning requirement of the GE CLAS Core. Contact College of Education Academic Advising with questions.

Course #	Title	Hours
One of these:		
CS:1110	Introduction to Computer Science	3
CS:1210	Computer Science I: Fundamentals	4
STAT:1010	Statistics and Society	3
STAT:1020	Elementary Statistics and Inference	3

STAT:1030	Statistics for Business	4
Any mathematics course (prefix MATH), except MATH:0100, MATH:1005, or MATH:1210		

Music Education Content Courses

The Bachelor of Music degree provides the content courses in music theory, music history, and applied music that are required for music teaching. In addition, as a requirement of the Bachelor of Arts with major in music education and the music education teacher education program, students must complete the following music education content courses that correspond to their Bachelor of Music emphasis.

Jazz (Piano) With Choral Emphasis Majors

Course #	Title	Hours
All of these:		
EDTL:3645	Choral Conducting and Literature	3
MUS:1120	Secondary Performance - Voice (taken twice for 1 s.h. each)	2
MUS:1510	Diction for Singers I	2
MUS:2510	Diction for Singers II	2
MUS:3625	Techniques of Conducting	2
MUS:3659	Class Strings (section 1)	1
MUS:3664	Introduction to Wind and Percussion Instruments	2
4 s.h. from these (courses may be repeated):		
MUS:1176	Voxman Chorale	1
MUS:3170	Kantorei	1
MUS:3172	Camerata Singers	1

Jazz (String Bass) Majors

Course #	Title	Hours
All of these:		
EDTL:3635	Instrumental Conducting	3
MUS:3180	Orchestra (taken four times for 1 s.h. each)	4
MUS:3625	Techniques of Conducting	2
MUS:3659	Class Strings (taken three times for 1 s.h. each)	3
MUS:3664	Introduction to Wind and Percussion Instruments	2

Jazz (Wind Instruments, Percussion, Piano, or Organ) With Band Emphasis Majors

Course #	Title	Hours
All of these:		
EDTL:3605	Instrumental Techniques (taken three times for 2 s.h. each; students select appropriate topic of flute/percussion, brass, or woodwinds)	6
EDTL:3635	Instrumental Conducting	3
MUS:1165	Hawkeye Marching Band	1
MUS:3160	Symphony Band/Concert Band (taken four times for 1 s.h. each)	4
MUS:3625	Techniques of Conducting	2
MUS:3659	Class Strings (section 1)	1
MUS:3666	Marching Band Techniques	1

Piano or Organ With Choral Emphasis Majors

Course #	Title	Hours
All of these:		
EDTL:3645	Choral Conducting and Literature	3
MUS:1120	Secondary Performance - Voice (taken twice for 1 s.h. each)	2
MUS:1510	Diction for Singers I	2
MUS:2510	Diction for Singers II	2
MUS:3659	Class Strings (section 1)	1
MUS:3664	Introduction to Wind and Percussion Instruments	2

Piano or Organ With String Emphasis Majors

Course #	Title	Hours
All of these:		
EDTL:3635	Instrumental Conducting	3
MUS:3664	Introduction to Wind and Percussion Instruments	2
MUS:3659	Class Strings	1

String Instrument Majors

Course #	Title	Hours
All of these:		
EDTL:3635	Instrumental Conducting	3
MUS:3664	Introduction to Wind and Percussion Instruments	2
MUS:3659	Class Strings (taken three times for 1 s.h. each)	3

Voice Majors

Course #	Title	Hours
All of these:		
EDTL:3645	Choral Conducting and Literature	3
MUS:1121	Secondary Performance - Piano	1
MUS:2213	Group Instruction in Piano III	1
MUS:3659	Class Strings (section 1)	1
MUS:3664	Introduction to Wind and Percussion Instruments	2

Wind Instruments, Percussion, Piano, or Organ With Band Emphasis Majors

Course #	Title	Hours
All of these:		
EDTL:3605	Instrumental Techniques (taken three times for 2 s.h. each; students select appropriate topic of flute/ percussion, brass, or woodwinds)	6
EDTL:3635	Instrumental Conducting	3
MUS:1165	Hawkeye Marching Band	1
MUS:1711	Jazz Rhythms and Interpretation I	1
MUS:3659	Class Strings (section 1)	1
MUS:3666	Marching Band Techniques	1
MUS:3760	Jazz Band Techniques	1

Electives

The music education TEP is approved by the state of Iowa as preparation for teaching licensure with endorsements to teach music in kindergarten through grade 12 (two endorsements: 5–12 music and K–8 music). Added endorsement programs for additional teaching areas are available.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Because of this, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For undergraduate teacher candidates and Bachelor of Arts candidates in music education, these standards include the following.

- University of Iowa cumulative GPA and overall cumulative GPA, based on total hours earned
  - 0–29 overall earned semester hours: minimum of 1.85 (2.70 for good standing)
  - 30 or more overall earned semester hours: minimum of 2.00 (2.70 for good standing)
  - Non-degree students: minimum of 2.00 (2.70 for good standing)
- TEP major GPA (overall cumulative): minimum of 2.00 (2.70 for good standing)
- University of Iowa term GPA: minimum of 1.50 during fall or spring enrollment
- A grade of C-minus or higher in TEP major courses
- No notices of concern in professional dispositional qualities
- Academic good standing in College of Liberal Arts and Sciences
- Major GPA in the TEP CLAS content major: minimum of 2.00
- UI major GPA in the TEP CLAS content major: minimum of 2.00

For additional information about these standards, contact the Office of Student Services.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Music Education, BA

Course	Title	Hours
Academic Career		
Any Semester		
Admission to the Teacher Education Program, College of Education, is by competitive application. For information about application requirements, process, and deadlines, please see the College of Education's website.		
For specific information regarding requirements in the College of Education, please see the General Catalog.		
Students must earn a BM in music with a performance subprogram at the University of Iowa in order to earn the BA in music education. Both degrees may be earned at the same time.		
Graduates who have earned a bachelor's degree in music performance at another institution and wish to earn the BA in music education should consult the Department of Teaching and Learning; additional coursework may be required.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages First Level Proficiency [b]		4 - 5
CSI:1600	Success at Iowa	1
Course(s) required for second degree - consult sample plan for BM in music		9 - 10
10-hour pre-admission school field experience [c]		
Prepare materials for Teacher Education Program application (e.g. essays, letters of recommendation) [d]		
	Hours	**17-20**
Spring		
PSQF:1075	Educational Psychology and Measurement	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages Second Level Proficiency [b]		4 - 5
Course(s) required for second degree - consult sample plan for BM in music		9 - 10
Admission Application: apply to the Teacher Education Program [d]		
	Hours	**19-22**

Second Year

Fall

EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3605	Instrumental Techniques	2
EDTL:3610	Introduction and Practicum: Music	2
MUS:3666	Marching Band Techniques	1
GE CLAS Core: World Languages Third Level Proficiency [b]		4 - 5
Course(s) required for second degree - consult sample plan for BM in music		10 - 11
	Hours	**22-24**

Spring

EDTL:3002	Teaching and Learning Technologies	2
EDTL:3605	Instrumental Techniques	2
MUS:3659	Class Strings	1
GE CLAS Core: World Languages Fourth Level Proficiency [b]		4 - 5
Course(s) required for second degree - consult sample plan for BM in music		11 - 12
	Hours	**20-22**

Third Year

Fall

EDTL:3605	Instrumental Techniques	2
EDTL:3650	Instrumental Methods and Materials	3
EPLS:3000	Foundations of Education	3
MUS:1711	Jazz Rhythms and Interpretation I	1
Course(s) required for second degree - consult sample plan for BM in music		10 - 11
	Hours	**19-20**

Spring

EDTL:3620	Methods and Materials: General Music	3
EDTL:3635	Instrumental Conducting	3
EDTL:4900	Foundations of Special Education	3
MUS:3760	Jazz Band Techniques	1
GE CLAS Core: Literary, Visual, and Performing Arts [e, f]		3
Course(s) required for second degree - consult sample plan for BM in music		7 - 8
	Hours	**20-21**

Fourth Year

Fall

EDTL:3095	Teaching Reading in Secondary Content Areas	1
EDTL:3640	Choral Methods	3
EPLS:4180	Human Relations for the Classroom Teacher	3
MUS:1165	Hawkeye Marching Band	1
GE CLAS Core: International and Global Issues [f]		3
GE CLAS Core: Natural Sciences with Lab [f]		4
Course(s) required for second degree - consult sample plan for BM in music		3 - 4
Apply for student teaching (see the College of Education website for application instructions and deadlines)		
	Hours	**18-19**

Spring

GE CLAS Core: Historical Perspectives [e, f]		3
GE CLAS Core: Natural Sciences without Lab [f]		3
GE CLAS Core: Quantitative or Formal Reasoning [f, g]		3
GE CLAS Core: Social Sciences [f]		3
Course(s) required for second degree - consult sample plan for BM in music		4 - 5
	Hours	**16-17**

Fifth Year

Fall

EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4192	Special Area Student Teaching	6
Degree Application: Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15**
	Total Hours	**166-180**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

c Complete the College of Education 10-hour pre-admission school field experience verification form available on the Teacher Education Program web page.

d Please see the College of Education website for detailed application instructions and deadlines. Admission is selective and a priority deadline exists.

e This requirement may be met by a course required for the BM in music.

f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

g Choose a course that will satisfy the Teacher Education Program math requirement.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Science Education, BA

Requirements

The Bachelor of Arts with major in science education requires a minimum of 120 s.h., including the general education requirements for the degree, a minimum of 45 s.h. in science education professional education courses, completion of an approved College of Liberal Arts and Sciences science degree, and science education content courses. They must also complete the GE CLAS Core [p. 22]. General education requirements to earn a bachelor of arts degree from the College of Education are the GE CLAS Core of the College of Liberal Arts and Sciences (CLAS). The major requires admission to the Teacher Education Program (TEP), and students must maintain TEP academic and professional standards. Application information can be obtained through the Office of Student Services.

Students must earn one of these majors at the University of Iowa, with a minimum of 36 s.h., in order to earn the BA in science education: a BA in biology [p. 147], a BS in biology [p. 152], a BA in chemistry [p. 184], a BS in chemistry [p. 189], a BA in earth and environmental sciences [p. 374], a BS in earth and environmental sciences [p. 385], a BA in geographical and sustainability sciences [p. 382], a BS in geographical and sustainability sciences [p. 392], a BA in physics [p. 899], a BS in physics [p. 906], or a BS in science studies [p. 1477]; both degrees may be earned at the same time. Graduates who have earned a comparable degree at another institution and wish to earn the BA in science education should consult the Department of Teaching and Learning; additional coursework may be required.

For initial licensure, student teaching must be an all-day, full-semester experience. Most students are placed in a district within a 60-mile radius of Iowa City. Placements outside this area require special approval and are considered on an individual basis. Special site programs provide experience in districts with diverse populations and students also may apply to student teach at international sites for the second half of the semester.

Additional information about options for student teaching and application procedures is available from the Office of Student Services. Applications for student teaching must be submitted during the calendar year before the student teaching semester. The deadline for students planning to student teach the following fall semester is Nov. 15 and April 15 for the following spring semester.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

The BA with a major in science education requires the following coursework.

Professional Education Course Requirements

Students complete 45 s.h. from the following.

Foundation Courses

Foundation courses may be completed before or after admission to the major.

Course #	Title	Hours
All of these:		
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
PSQF:1075	Educational Psychology and Measurement	3

Additional Licensure Courses

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
EPLS:4180	Human Relations for the Classroom Teacher	3
And all of these taken in this order:		
EDTL:4750	Assessment in Science, Technology, Engineering, and Mathematics (STEM)	2
EDTL:4751	Learning in the Science, Technology, Engineering, and Mathematics (STEM) Classroom	2
EDTL:4752	Secondary Science Methods II With Field Experience	3
EDTL:4753	Secondary Science Methods III With Field Experience	3
EDTL:4779	Secondary School Science Practicum	2

Student Teaching

Transfer students should consult their advisor since they must complete certain courses before they student teach.

Course #	Title	Hours
All of these:		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6

Mathematics Course

State standards for teacher preparation require a college-level math course as part of the liberal arts core. Students can meet this requirement by selecting a course in mathematics, statistics, or computer science for the Quantitative or Formal Reasoning requirement of the GE CLAS Core [p. 22]. Contact College of Education Academic Advising with questions.

Course #	Title	Hours
One of these:		
CS:1110	Introduction to Computer Science	3

CS:1210	Computer Science I: Fundamentals	4
STAT:1010	Statistics and Society	3
STAT:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
Any mathematics course (prefix MATH), except MATH:0100, MATH:1005, or MATH:1210		

Science Education Content Courses

Students complete the science courses of their major field of study, the broad field science block, and additional science courses as needed to meet the requirements of the subject areas the students are preparing to teach.

Broad Field Science Block

Students complete 12 s.h. from the following.

Course #	Title	Hours
This course:		
SIED:4135	The Nature of Science	4
At least two of these:		
SIED:4102	Societal and Educational Applications of Earth Science and Environmental	4
SIED:4103	Societal and Educational Applications of Biological Sciences	4
SIED:4105	Societal and Educational Applications of Physical Sciences	4
SIED:4106	Societal and Educational Applications of Chemical Concepts	4
SIED:4110	Exploring the Geology, Mining History, and Environmental Issues of the Colorado Rockies	4

Endorsements

The science education TEP is approved by the state of Iowa as preparation for teaching licensure with one or more of the following endorsements: grades 5–12 biological sciences; grades 5–12 chemistry; grades 5–12 earth science; grades 5–12 physics; and grades 5–12 all science.

Added endorsement programs for additional teaching areas are available, including grades 5–12 basic science and subject areas other than science.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Because of this, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For undergraduate teacher candidates and Bachelor of Arts candidates in science education, these standards include:

- University of Iowa cumulative GPA and overall cumulative GPA, based on total hours earned
  - 0–29 overall earned semester hours: minimum of 1.85 (2.70 for good standing)
  - 30 or more overall earned semester hours: minimum of 2.00 (2.70 for good standing)
  - Non-degree students: minimum of 2.00 (2.70 for good standing)
- TEP major GPA (overall cumulative): minimum of 2.00 (2.70 for good standing)
- University of Iowa term GPA: minimum of 1.50 during fall or spring enrollment
- A grade of C-minus or higher in TEP major courses
- No notices of concern in professional dispositional qualities
- Academic good standing in College of Liberal Arts and Sciences
- Major GPA in the TEP CLAS content major: minimum of 2.00
- UI major GPA in the TEP CLAS content major: minimum of 2.00

For additional information about these standards, contact the Office of Student Services.

Liberal Arts Core

State of Iowa teacher preparation standards require a core of liberal arts knowledge including but not limited to English composition, mathematics, natural sciences, social sciences, and humanities. Students who have not completed these requirements with their previous coursework will need additional coursework. Bachelor's degree graduates of the College of Education or the College of Liberal Arts and Sciences have met these requirements with the GE CLAS Core [p. 22] if a course in mathematics, statistics, or computer science was selected for the Quantitative and Formal Reasoning requirement. For additional information about these standards, contact the Office of Student Services.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Science Education, BA

Course	Title	Hours
Academic Career		
Any Semester		
Admission to the Teacher Education Program, College of Education, is by competitive application. For information about application requirements, process, and deadlines, please see the College of Education's website.		
For specific information regarding requirements in the College of Education, please see the General Catalog.		
Students must earn another major at the University of Iowa in order to earn the BA in science education. Both degrees may be earned at the same time. [a]		

Graduates who have earned one of these degrees at another institution and wish to earn the BA in science education should consult the Department of Teaching and Learning; additional coursework may be required. [a]

GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency [c]		4 - 5
CSI:1600	Success at Iowa	1
Course(s) required for second degree, including a course that applies to the GE CLAS Core Natural Sciences area - consult sample plan for chosen program [a]		4
	Hours	**12-14**
Spring		
PSQF:1075	Educational Psychology and Measurement	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages Second Level Proficiency [c]		4 - 5
Course(s) required for second degree, including a course that applies to the GE CLAS Core Natural Sciences area - consult sample plan for chosen program [a]		3 - 8
	Hours	**13-20**
Second Year		
Any Semester		
10-hour pre-admission school field experience [d]		
	Hours	**0**
Fall		
EPLS:3000	Foundations of Education	3
Major: societal and educational applications course [e]		4
GE CLAS Core: World Languages Third Level Proficiency [c]		4 - 5
Course(s) required for second degree - consult sample plan for chosen program [a]		7 - 9
Prepare materials for Teacher Education Program application (e.g. essays, letters of recommendation) [f]		
	Hours	**18-21**
Spring		
EDTL:4900	Foundations of Special Education	3
GE CLAS Core: Quantitative or Formal Reasoning [g, h]		3
GE CLAS Core: World Languages Fourth Level Proficiency [c]		4 - 5
Course(s) required for second degree - consult sample plan for chosen program [a]		7 - 9
Admission Application: apply to the Teacher Education Program [f]		
	Hours	**17-20**
Third Year		
Fall		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
EDTL:4750	Assessment in Science, Technology, Engineering, and Mathematics (STEM) [i]	2
EDTL:4751	Learning in the Science, Technology, Engineering, and Mathematics (STEM) Classroom [i]	2
Major: societal and educational applications course [e]		4
GE CLAS Core: Social Sciences [h]		3
Course(s) required for second degree - consult sample plan for chosen program [a]		6 - 7
	Hours	**23-24**
Spring		
EDTL:4752	Secondary Science Methods II With Field Experience [j]	3
EPLS:4180	Human Relations for the Classroom Teacher	3
GE CLAS Core: Historical Perspectives [h]		3
GE CLAS Core: Literary, Visual, and Performing Arts [h]		3
Course(s) required for second degree - consult sample plan for chosen program [a]		6 - 10
Apply for student teaching (see the College of Education website for application instructions and deadlines)		
	Hours	**18-22**
Fourth Year		
Fall		
EDTL:4753	Secondary Science Methods III With Field Experience [i]	3
EDTL:4779	Secondary School Science Practicum [i]	2
SIED:4135	The Nature of Science	4
GE CLAS Core: International and Global Issues [h]		3
Course(s) required for second degree - consult sample plan for chosen program [a]		6 - 7
	Hours	**18-19**
Spring		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6
Degree Application: Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**134-155**

a Approved majors for the second degree include a BA in biology, a BS in biology, a BA in chemistry, a BS in chemistry, a BA in earth and environmental sciences, a BS

in earth and environmental sciences, a BA in geographical and sustainability sciences, a BS in geographical and sustainability sciences, a BA in physics, a BS in physics, or a BS in science studies.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Complete the College of Education 10-hour pre-admission school field experience verification form available on the Teacher Education Program web page.

e Students must complete two of SIED:4102, SIED:4103, SIED:4105, SIED:4106, or SIED:4110.

f Please see the College of Education website for detailed application instructions and deadlines. Admission is selective and a priority deadline exists.

g Choose a course that will satisfy the Teacher Education Program math requirement.

h GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

i Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

j Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Social Studies Education, BA

Requirements

The Bachelor of Arts with major in social studies education requires a minimum of 120 s.h., including the general education requirements for the degree, a minimum of 42 s.h. in social studies professional education courses, 30–36 s.h. in social studies education content courses, and 15–27 s.h. in history or social science coursework for one or more teaching endorsements outside of their major subject area. General education requirements to earn a bachelor of arts degree from the College of Education are the GE CLAS Core of the College of Liberal Arts and Sciences (CLAS). The major requires admission to the Teacher Education Program (TEP), and students must maintain TEP academic and professional standards. Application information can be obtained through the Office of Student Services.

Students must earn one of these majors at the University of Iowa in order to earn the BA in social studies education: a BA in anthropology [p. 69], a BS in anthropology [p. 74], a BA in economics [p. 1189], a BS in economics [p. 1193], a BA in geographical and sustainability sciences [p. 382], a BS in geographical and sustainability sciences [p. 392], a BA in history [p. 574], a BA in political science [p. 934], a BS in political science [p. 938], a BA in psychology [p. 954], a BS in psychology [p. 958], or a BA in sociology [p. 1026]; both degrees may be earned at the same time. Graduates who have earned one of these degrees at another institution and wish to earn the BA in social studies education should consult the Department of Teaching and Learning; additional coursework may be required.

For initial licensure, student teaching must be an all-day, full-semester experience. Most students are placed in a district within a 60-mile radius of Iowa City. Placements outside this area require special approval and are considered on an individual basis. Special site programs provide experience in districts with diverse populations and students may also apply to student teach at international sites for the second half of the semester.

Additional information about options for student teaching and application procedures is available from the Office of Student Services. Applications for student teaching must be submitted during the calendar year before the student teaching semester. The deadline for students planning to student teach the following fall semester is Nov. 15 and April 15 for the following spring semester.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

The BA with a major in social studies education requires the following work.

Professional Education Course Requirements

Students complete 42 s.h. from the following.

Foundation Courses

Foundation courses may be completed before or after admission to the major.

Course #	Title	Hours
All of these:		
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
PSQF:1075	Educational Psychology and Measurement	3

Additional Licensure Courses

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
EDTL:4811	Introduction and Practicum: Secondary Social Studies	3
EDTL:4828	Curriculum and Teaching: Social Studies Education	3
EDTL:4870	Methods: Secondary Social Studies	3
EPLS:4180	Human Relations for the Classroom Teacher	3

Student Teaching

Transfer students should consult their advisor since they must complete certain courses before they student teach.

Course #	Title	Hours
All of these:		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6

Mathematics Course

State standards for teacher preparation require a college-level math course as part of the liberal arts core. Students can meet this requirement by selecting a course in mathematics, statistics, or computer science for the Quantitative or Formal Reasoning requirement of the GE CLAS Core. Contact College of Education Academic Advising with questions.

Course #	Title	Hours
One of these:		
CS:1110	Introduction to Computer Science	3
CS:1210	Computer Science I: Fundamentals	4
STAT:1010	Statistics and Society	3
STAT:1020	Elementary Statistics and Inference	3

STAT:1030	Statistics for Business	4
Any mathematics course (prefix MATH), except MATH:0100, MATH:1005, or MATH:1210		

Social Studies Education Content Courses

Students complete 30–36 s.h. in social studies education content courses in the student's College of Liberal Arts and Sciences major subject area, and an additional 15–27 s.h. in history or social science coursework for one or more teaching endorsements outside of their major subject area.

Endorsements

The social studies education TEP is approved by the state of Iowa as preparation for teaching licensure with endorsement for two or more subjects in secondary school history or social sciences. Endorsements available for the major subject area are: grades 5–12 American government; grades 5–12 American history; grades 5–12 American history and grades 5–12 world history (minimum 15 s.h. in each subject area); grades 5–12 anthropology; grades 5–12 economics; grades 5–12 geography; grades 5–12 psychology; grades 5–12 sociology; and grades 5–12 world history.

Endorsements available outside the major subject area can be another of the subject areas previously listed, one of the following added endorsements, or both: grades 5–12 social sciences, basic (recommended for all students; authorizes teaching of American government, American history, and world history); and grades 5–12 all social sciences (authorizes teaching economics, geography, psychology, and sociology, in addition to American government, American history, and world history. Consult with advisor on course selection).

Added endorsement programs for additional teaching areas other than social studies are available.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Because of this, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For undergraduate teacher candidates and Bachelor of Arts candidates in social studies education, these standards include the following.

- University of Iowa cumulative GPA and overall cumulative GPA, based on total hours earned
  - 0–29 overall earned semester hours: minimum of 1.85 (2.70 for good standing)
  - 30 or more overall earned semester hours: minimum of 2.00 (2.70 for good standing)
  - Non-degree students: minimum of 2.00 (2.70 for good standing)
- TEP major GPA (overall cumulative): minimum of 2.00 (2.70 for good standing)
- University of Iowa term GPA: minimum of 1.50 during fall or spring enrollment
- A grade of C-minus or higher in TEP major courses
- No notices of concern in professional dispositional qualities
- Academic good standing in the College of Liberal Arts and Sciences
- Major GPA in the TEP CLAS content major: minimum of 2.00
- UI major GPA in the TEP CLAS content major: minimum of 2.00

For additional information about these standards, contact the Office of Student Services.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Social Studies Education, BA

Course	Title	Hours
Academic Career		
Any Semester		
Admission to the Teacher Education Program, College of Education, is by competitive application. For information about application requirements, process, and deadlines, please see the College of Education's website.		
Prerequisites for admission into the Teacher Education Program for social studies education include 9 s.h. in content-area courses, as follows: 3 s.h. from HIST:XXXX; 6 s.h. of additional coursework with prefixes ANTH, ECON, GEOG, HIST, POLI, PSY, or SOC.		
For specific information regarding requirements in the College of Education, please see the General Catalog.		
Students must earn another major at the University of Iowa in order to earn the BA in social studies education. Both degrees may be earned at the same time. Students complete a minimum 15 s.h. in history or social studies coursework for one or more teaching endorsements outside of their designated major area of study. [a, b]		
Graduates who have earned one of these degrees at another institution and wish to earn the BA in social studies education should consult the Department of Teaching and Learning; additional coursework may be required. [b]		
GE CLAS Core: Sustainability [c]		
	Hours	**0**
First Year		
Fall		
Coursework in social studies area outside of designated major area of study		3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: International and Global Issues [d]		3
GE CLAS Core: Social Sciences [d, e]		3
CSI:1600	Success at Iowa	1
Course(s) required for second degree - consult sample plan for chosen program [b]		3 - 4
	Hours	**16-18**

Spring		
PSQF:1075	Educational Psychology and Measurement	3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Historical Perspectives [d, e]		3
GE CLAS Core: Natural Sciences with Lab [d]		4
Course(s) required for second degree - consult sample plan for chosen program [b]		3 - 4
	Hours	**16-18**
Second Year		
Any Semester		
10-hour pre-admission school field experience [f]		
	Hours	**0**
Fall		
EPLS:3000	Foundations of Education	3
Coursework in social studies area outside of designated major area of study		3
GE CLAS Core: Quantitative or Formal Reasoning [d, g]		3
GE CLAS Core: World Languages First Level Proficiency [h]		4 - 5
Course(s) required for second degree - consult sample plan for chosen program [b]		6
Prepare materials for Teacher Education Program application (e.g. essays, letters of recommendation) [i]		
	Hours	**19-20**
Spring		
EDTL:4900	Foundations of Special Education	3
Coursework in social studies area outside of designated major area of study		3
GE CLAS Core: World Languages Second Level Proficiency [h]		4 - 5
Course(s) required for second degree - consult sample plan for chosen program [b]		6
Admission Application: apply to the Teacher Education Program [i]		
	Hours	**16-17**
Third Year		
Fall		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
EDTL:4811	Introduction and Practicum: Secondary Social Studies	3
GE CLAS Core: Natural Sciences without Lab [d]		3
GE CLAS Core: World Languages Third Level Proficiency [h]		4 - 5
Course(s) required for second degree - consult sample plan for chosen program [b]		6
	Hours	**22-23**
Spring		
EDTL:4870	Methods: Secondary Social Studies	3
EPLS:4180	Human Relations for the Classroom Teacher	3
GE CLAS Core: World Languages Fourth Level Proficiency [h]		4 - 5
Course(s) required for second degree - consult sample plan for chosen program [b]		6
Apply for student teaching (see the College of Education website for application instructions and deadlines)		
	Hours	**16-17**
Fourth Year		
Fall		
Coursework in social studies area outside of designated major area of study		6
EDTL:4828	Curriculum and Teaching: Social Studies Education	3
GE CLAS Core: Literary, Visual, and Performing Arts [d]		3
Course(s) required for second degree - consult sample plan for chosen program [b]		6 - 8
	Hours	**18-20**
Spring		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6
Degree Application: Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**138-148**

a See the General Catalog for a list of available endorsement subject areas.

b Approved majors for the second degree include a BA in anthropology, a BS in anthropology, a BA in economics, a BS in economics, a BA in geographical and sustainability sciences, a BS in geographical and sustainability sciences, a BA in history, a BA in political science, a BS in political science, a BA in psychology, a BS in psychology, or a BA in sociology.

c Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

d GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e This requirement may be met by a course required for the second degree.

f Complete the College of Education 10-hour pre-admission school field experience verification form available on the Teacher Education Program web page.

g Choose a course that will satisfy the Teacher Education Program math requirement.

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed

three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i Please see the College of Education website for detailed application instructions and deadlines. Admission is selective and a priority deadline exists.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

World Language Education, BA

Requirements

The Bachelor of Arts with a major in world language education requires a minimum of 120 s.h., including the general education requirements for the degree, a minimum of 48 s.h. in world language professional education courses and 30–36 s.h. in world language education content courses. General education requirements to earn a bachelor of arts degree from the College of Education are the GE CLAS Core of the College of Liberal Arts and Sciences (CLAS). The major requires admission to the Teacher Education Program (TEP) and students must maintain TEP academic and professional standards. Application information can be obtained through the Office of Student Services.

In order to earn the BA in world language education from the College of Education, students must earn one of these majors of the College of Liberal Arts and Sciences: a BA in Asian languages and literature [p. 688] with a Chinese or Japanese subprogram, a BA in French [p. 693], a BA in German [p. 698], a BA in Italian [p. 715], a BA in Russian [p. 722], a BA in Spanish [p. 1053], or a BA in classical languages [p. 229] with a Latin language emphasis; both degrees may be earned at the same time. Graduates who have earned one of these degrees at another institution and wish to earn the BA in world language education should consult the Department of Teaching and Learning; additional coursework may be required.

For initial licensure, student teaching must be an all-day, full-semester experience. Most students are placed in a district within a 60-mile radius of Iowa City. Placements outside this area require special approval and are considered on an individual basis. Special site programs provide experience in districts with diverse populations and students may also apply to student teach at international sites for the second half of the semester.

Additional information about options for student teaching and application procedures is available from the Office of Student Services. Applications for student teaching must be submitted during the calendar year before the student teaching semester. The deadline for students planning to student teach the following fall semester is Nov. 15 and April 15 for the following spring semester.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

The BA with a major in world language education requires the following work.

Professional Education Course Requirements

Students complete at least 48 s.h. from the following.

Foundation Courses

Foundation courses may be completed before or after admission to the major.

Course #	Title	Hours
All of these:		
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
PSQF:1075	Educational Psychology and Measurement	3

Additional Licensure Courses

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
EDTL:4406	World Language Practicum I	3
EDTL:4407	World Language Practicum II	3
EDTL:4410	Language, Power, and Multilingual Education	3
EDTL:4416	Learning to Teach Second Languages I	3
EDTL:4417	Learning to Teach Second Languages II	3
EPLS:4180	Human Relations for the Classroom Teacher	3

Student Teaching

Transfer students should consult their advisor since they must complete certain courses before they student teach.

Course #	Title	Hours
All of these:		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6
Optional course:		
EDTL:4089	Special Subject Area Student Teaching	arr.

Mathematics Course

State standards for teacher preparation require a college-level math course as part of the liberal arts core. Students can meet this requirement by selecting a course in mathematics, statistics, or computer science for the Quantitative or Formal Reasoning requirement of the GE CLAS Core. Contact College of Education Academic Advising with questions.

Course #	Title	Hours
One of these:		
CS:1110	Introduction to Computer Science	3
CS:1210	Computer Science I: Fundamentals	4
STAT:1010	Statistics and Society	3

STAT:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business	4
Any mathematics course (prefix MATH), except MATH:0100, MATH:1005, or MATH:1210		

World Language Education Content Courses

Students complete 30–36 s.h. in an approved College of Liberal Arts and Sciences world language major.

Endorsements

The world language education TEP is approved by the state of Iowa as preparation for teaching licensure with endorsement to teach a world language (Chinese, French, German, Italian, Japanese, Latin, Russian, or Spanish) in grades 5–12. The world language education TEP requires 30–36 s.h. in world language education content courses (courses in the language the student is preparing to teach), which generally are provided by the College of Liberal Arts and Sciences major in the language. Endorsement in the language for kindergarten through grade 8 may be available for students with elementary-level student teaching. Endorsement programs for additional teaching areas other than world languages are available, including English as a Second Language.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Because of this, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For undergraduate teacher candidates and Bachelor of Arts candidates in world language education, these standards include the following.

- University of Iowa cumulative GPA and overall cumulative GPA, based on total hours earned
  - 0–29 overall earned semester hours: minimum of 1.85 (2.70 for good standing)
  - 30 or more overall earned semester hours: minimum of 2.00 (2.70 for good standing)
  - Non-degree students: minimum of 2.00 (2.70 for good standing)
- TEP major GPA (overall cumulative): minimum of 2.00 (2.70 for good standing)
- University of Iowa term GPA: minimum of 1.50 during fall or spring enrollment
- A grade of C-minus or higher in TEP major courses
- No notices of concern in professional dispositional qualities
- Academic good standing in the College of Liberal Arts and Sciences
- Major GPA in the TEP CLAS content major: minimum of 2.00
- UI major GPA in the TEP CLAS content major: minimum of 2.00

For additional information about these standards, contact the Office of Student Services.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

World Language Education, BA

Course	Title	Hours
Academic Career		
Any Semester		
Admission to the Teacher Education Program, College of Education, is by competitive application. For information about application requirements, process, and deadlines, please see the College of Education's website.		
For specific information regarding requirements in the College of Education, please see the General Catalog.		
Students must earn another major at the University of Iowa in order to earn the BA in world language education. Both degrees may be earned at the same time. [a]		
Prerequisites for admission into the Teacher Education Program for world language education include 12 s.h. of coursework in the language of the second degree. [a]		
Graduates who have earned one of these degrees at another institution and wish to earn the BA in world language education should consult the Department of Teaching and Learning; additional coursework may be required.		
GE CLAS Core: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [c]		3
GE CLAS Core: Social Sciences [c]		3
GE CLAS Core: World Languages First Level Proficiency [d]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**14-16**
Spring		
PSQF:1075	Educational Psychology and Measurement	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Historical Perspectives [c]		3
GE CLAS Core: World Languages Second Level Proficiency [d]		4 - 5
	Hours	**13-15**
Second Year		
Any Semester		
10-hour pre-admission school field experience [e]		
	Hours	**0**

Fall		
EPLS:3000	Foundations of Education	3
GE CLAS Core: Quantitative or Formal Reasoning [c, f]		3
GE CLAS Core: World Languages Third Level Proficiency [d]		4 - 5
Course(s) required for second degree - consult sample plan for chosen program [a]		6
Prepare materials for Teacher Education Program application (e.g. essays, letters of recommendation) [g]		
	Hours	**16-17**
Spring		
EDTL:4900	Foundations of Special Education	3
GE CLAS Core: International and Global Issues [c]		3
GE CLAS Core: Natural Sciences with Lab [c]		4
GE CLAS Core: World Languages Fourth Level Proficiency [d]		4 - 5
Course(s) required for second degree - consult sample plan for chosen program [a]		3
Admission Application: apply to the Teacher Education Program [g]		
	Hours	**17-18**
Third Year		
Fall		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
EDTL:4410	Language, Power, and Multilingual Education	3
GE CLAS Core: Natural Sciences without Lab [c]		3
Course(s) required for second degree - consult sample plan for chosen program [a]		6
	Hours	**18**
Spring		
EDTL:4407	World Language Practicum II [h]	3
EDTL:4417	Learning to Teach Second Languages II [h]	3
EPLS:4180	Human Relations for the Classroom Teacher	3
Course(s) required for second degree - consult sample plan for chosen program [a]		9
Apply for student teaching (see the College of Education website for application instructions and deadlines)		
	Hours	**18**
Fourth Year		
Fall		
EDTL:4406	World Language Practicum I [i]	3
EDTL:4416	Learning to Teach Second Languages I [i]	3
Course(s) required for second degree - consult sample plan for chosen program [a]		12
	Hours	**18**
Spring		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6
Degree Application: Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**129-135**

a Approved majors for the second degree include a BA in Asian languages and literature with a Chinese or Japanese subprogram, a BA in French, a BA in German, a BA in Italian, a BA in Russian, a BA in Spanish, or a BA in classical languages with a Latin language emphasis.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e Complete the College of Education 10-hour pre-admission school field experience verification form available on the Teacher Education Program web page.

f Choose a course that will satisfy the Teacher Education Program math requirement.

g Please see the College of Education website for detailed application instructions and deadlines. Admission is selective and a priority deadline exists.

h Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

i Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Science Studies, BS

Science studies provides preparation in more than one discipline of science; a consideration of science from a philosophical, historical, and sociological perspective; an introduction to applied science (technology); and an education sequence.

Program planning in science studies requires the cooperation and involvement of a variety of university departments and colleges. Most of the program's requirements are drawn from courses offered by these varied academic units.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Students who major in science studies gain:

- knowledge in two or more areas of science;
- a specified proficiency in mathematics as a tool of science (with more mathematics study required for the physical science emphases than for the biological ones);
- a view of science from a historical, philosophical, and cultural perspective; and
- experience with the application of scientific knowledge.

Research

Each faculty member in science studies is responsible for one or more areas of research. Major interests include studies of effective teaching and learning, science through writing, philosophy and sociology of science, individualized learning, social issues in science and technology, curriculum planning and development, professional development, intellectual development related to teaching and learning science, studies of effective use of hands-on activities, and evaluation and assessment of science instruction and programs.

Programs and Projects

A wide range of funded programs provides ample opportunity for students to be involved in innovative development and research in science studies.

Science studies faculty members collaborate on a number of international research projects in many countries. Activities include faculty exchanges and cross-national studies.

International students enrich the opportunities for graduate studies in science studies. New international collaborative efforts are underway each year.

Requirements

The Bachelor of Science with a major in science studies (awarded by the College of Liberal Arts and Sciences) requires a minimum of 120 s.h., including at least 48 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The major in science studies is interdisciplinary. It is intended for students interested in education; it is not intended to prepare students for advanced study in one area of science. When graduates of the science studies program elect to pursue graduate study in a specific area of science, they often must complete additional coursework in that discipline after they are admitted to the Graduate College.

The science studies curriculum includes courses offered by science departments in the College of Liberal Arts and Sciences, science applications courses, and courses in the history, philosophy, and sociology of science.

The major offers five emphasis areas: all-science, biology, chemistry, earth science, and physics. The all-science emphasis area is open only to students who will earn teacher licensure and would like equal preparation in biology, chemistry, earth science, and physics. Students who choose the all-science emphasis area do not choose a secondary emphasis area. They must complete all requirements for teacher licensure in order to graduate in the all-science emphasis area.

Students who do not choose the all-science emphasis area may elect whether or not to earn teacher licensure. They choose a primary and a secondary emphasis area from biology, chemistry, earth science, and physics, acquiring depth in the primary emphasis area equivalent to six semesters of sequential study and preparation in the secondary area equivalent to four semesters of sequential study.

All science studies students must complete the requirements for their emphasis area(s) plus the broad field science block. Those who wish to earn teacher licensure must also complete the College of Education's Teacher Education Program (TEP), including the 47 s.h. professional education sequence; see the section titled "Teacher Licensure."

Special Rules

The Science Studies Program may involve many faculty advisors and more than one college or department. Consequently, the following special rules apply to science studies students.

- At least 10 s.h. of graded credit in science must be earned at the University of Iowa.
- No credit from the CLEP Natural Science General Examination may be applied toward the major in science studies.
- Courses for the major may not be taken pass/nonpass. Grades from all courses applied toward the science studies major are used in computing a student's grade-point average in the major, both at the University of Iowa and overall.

Since mathematics forms an integral part of so many aspects of modern science, all-science emphasis area education students are urged to complete appropriate advanced courses in both pure and applied mathematics (including statistics and computer science) so that they may be qualified to do graduate work and quantitative research later.

The BS with a major in science studies requires the following coursework.

All-Science Emphasis Area

Students who choose the all-science emphasis area do not choose a secondary emphasis area. They complete a minimum of 48 s.h. for the major, including at least 36 s.h. in the following coursework (at least 9 s.h. in each of the four science disciplines—biology, chemistry, earth science, and physics), and 12 s.h. in the broad field science block. They

must also complete all requirements for teacher licensure (see the section titled "Teacher Licensure").

Biology

Course #	Title	Hours
At least 9 s.h. from these:		
BIOL:1411	Foundations of Biology	4
BIOL:1412	Diversity of Form and Function	4
BIOL:2211	Genes, Genomes, and the Human Condition	3
BIOL:2673	Ecology	3
BIOL:3172	Evolution	4
HHP:3500	Human Physiology	3

Chemistry

Course #	Title	Hours
At least 9 s.h. from these:		
CHEM:1110	Principles of Chemistry I	4
CHEM:1120	Principles of Chemistry II	4
CHEM:2021	Fundamentals of Chemical Measurements	3
CHEM:2210	Organic Chemistry I	3
CHEM:2220	Organic Chemistry II	3

Earth Science

Course #	Title	Hours
At least 9 s.h. from these:		
SEES:1030	Introduction to Earth Science	3-4
SEES:1040	Evolution and the History of Life	3-4
SEES:1050	Introduction to Geology	4
SEES:1080	Introduction to Environmental Science	3-4
SEES:3070	Marine Ecosystems and Conservation	3

Physics

At least 9 s.h. chosen as follows.

Course #	Title	Hours
At least one of these:		
ASTR:1070	Stars, Galaxies, and the Universe	3-4
PHYS:1200	Physics of Everyday Experience	3
No more than one of these:		
PHYS:1511	College Physics I	4
PHYS:1611	Introductory Physics I	4
PHYS:1701	Physics I	4
No more than one of these:		
PHYS:1512	College Physics II	4
PHYS:1612	Introductory Physics II	4
PHYS:1702	Physics II	4

Broad Field Science Block

Students complete 12 s.h. from the following.

Course #	Title	Hours
This course:		
SIED:4135	The Nature of Science	4
At least two of these:		
SIED:4102	Societal and Educational Applications of Earth Science and Environmental	4
SIED:4103	Societal and Educational Applications of Biological Sciences	4
SIED:4105	Societal and Educational Applications of Physical Sciences	4
SIED:4106	Societal and Educational Applications of Chemical Concepts	4
SIED:4110	Exploring the Geology, Mining History, and Environmental Issues of the Colorado Rockies	4

Biology Emphasis Area

Students who choose biology as their primary emphasis area complete a minimum of 50 s.h. for the major, including 25 s.h. in the following biology coursework plus at least 15 s.h. in a secondary emphasis area (chemistry, earth science, or physics) and 12 s.h. in the broad field science block. With their advisor's permission, students may include a science applications course in their secondary emphasis area.

Course #	Title	Hours
All of these:		
BIOL:1411 & BIOL:1412	Foundations of Biology and Diversity of Form and Function	8
BIOL:2512	Fundamental Genetics	4
BIOL:3172	Evolution	4
One of these:		
BIOL:2374	Biogeography	3
BIOL:2673	Ecology	3
One of these:		
BIOL:3343	Animal Physiology	3
HHP:3500	Human Physiology	3
One of these:		
BIOL:2723	Cell Biology	3
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3363	Plant Developmental Biology	3
BMB:3110	Biochemistry	3
And all of these:		
Coursework in a secondary emphasis area (chemistry, earth science, or physics)		15
Coursework listed under "Broad Field Science Block-Biology Emphasis Area"		12

Broad Field Science Block—Biology Emphasis Area

Students complete 12 s.h. from the following.

Course #	Title	Hours
This course:		
SIED:4135	The Nature of Science	4

At least two of these:		
SIED:4102	Societal and Educational Applications of Earth Science and Environmental	4
SIED:4103	Societal and Educational Applications of Biological Sciences	4
SIED:4105	Societal and Educational Applications of Physical Sciences	4
SIED:4106	Societal and Educational Applications of Chemical Concepts	4
SIED:4110	Exploring the Geology, Mining History, and Environmental Issues of the Colorado Rockies	4

Chemistry Emphasis Area

Students who choose chemistry as their primary emphasis area complete a minimum of 50 s.h. for the major, including 23 s.h. in the following chemistry coursework plus at least 15 s.h. in a secondary emphasis area (biology, earth science, or physics) and 12 s.h. in the broad field science block. With their advisor's permission, students may include a science applications course in their secondary emphasis area.

Course #	Title	Hours
All of these:		
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
CHEM:2210	Organic Chemistry I	3
CHEM:2220	Organic Chemistry II	3
CHEM:2410	Organic Chemistry Laboratory	3
CHEM:3250	Inorganic Chemistry (spring)	3
One of these:		
BMB:3110	Biochemistry	3
CHEM:3110	Equilibria and Electrochemistry	3
CHEM:4431	Chemical Thermodynamics	3
And all of these:		
Coursework in a secondary emphasis area (biology, earth science, or physics)		15
Coursework listed under "Broad Field Science Block- Chemistry Emphasis Area"		12

Broad Field Science Block—Chemistry Emphasis Area

Students complete 12 s.h. from the following.

Course #	Title	Hours
This course:		
SIED:4135	The Nature of Science	4
At least two of these:		
SIED:4102	Societal and Educational Applications of Earth Science and Environmental	4
SIED:4103	Societal and Educational Applications of Biological Sciences	4
SIED:4105	Societal and Educational Applications of Physical Sciences	4
SIED:4106	Societal and Educational Applications of Chemical Concepts	4
SIED:4110	Exploring the Geology, Mining History, and Environmental Issues of the Colorado Rockies	4

Earth Science Emphasis Area

Students who choose earth science as their primary emphasis area complete a minimum of 48 s.h. for the major, including at least 21 s.h. in the following earth science coursework plus at least 15 s.h. in a secondary emphasis area (biology, chemistry, or physics) and 12 s.h. in the broad field science block. With their advisor's permission, students may include a science applications course in their secondary emphasis area.

Course #	Title	Hours
Both of these:		
SEES:1040	Evolution and the History of Life	3-4
SEES:1080	Introduction to Environmental Science	3-4
One of these:		
SEES:1030	Introduction to Earth Science	3-4
SEES:1050	Introduction to Geology	4
One of these:		
SEES:2831	Geologic Field Methods	3
SEES:3330	Sedimentary Geology	4
SEES:3840	Structural Geology	4
One of these:		
SEES:3020	Earth Surface Processes	3
SEES:3210	Principles of Paleontology	3
SEES:3360	Soil Genesis and Geomorphology	3
One of these:		
SEES:1290	Energy and the Environment	3
SEES:4010	Field Methods in Physical Geography	3
One of these:		
SEES:3070	Marine Ecosystems and Conservation	3
SEES:3080	Introduction to Oceanography	2
And all of these:		
Coursework in a secondary emphasis area (biology, chemistry, or physics)		15
Coursework listed under "Broad Field Science Block-Earth Science Emphasis Area"		12

Broad Field Science Block—Earth Science Emphasis Area

Students complete 12 s.h. from the following.

Course #	Title	Hours
This course:		
SIED:4135	The Nature of Science	4
At least two of these:		

SIED:4102	Societal and Educational Applications of Earth Science and Environmental	4
SIED:4103	Societal and Educational Applications of Biological Sciences	4
SIED:4105	Societal and Educational Applications of Physical Sciences	4
SIED:4106	Societal and Educational Applications of Chemical Concepts	4
SIED:4110	Exploring the Geology, Mining History, and Environmental Issues of the Colorado Rockies	4

Physics Emphasis Area

Students who choose physics as their primary emphasis area complete a minimum of 47 s.h. for the major, including at least 20 s.h. in the following physics coursework plus at least 15 s.h. in a secondary emphasis area (biology, chemistry, or earth science) and 12 s.h. in the broad field science block. With their advisor's permission, students may include a science applications course in their secondary emphasis area.

Course #	Title	Hours
One of these sequences:		
PHYS:1511 & PHYS:1512	College Physics I and College Physics II (if physics is a secondary emphasis area)	8
PHYS:1611 & PHYS:1612	Introductory Physics I and Introductory Physics II	8
PHYS:1701 & PHYS:1702	Physics I and Physics II	8
One of these:		
PHYS:2703	Physics III	4
PHYS:3710	Intermediate Mechanics	3
One of these:		
ASTR:1070	Stars, Galaxies, and the Universe (if physics is a secondary emphasis area)	3-4
ASTR:1080	Exploration of the Solar System (if physics is a secondary emphasis area)	4
ASTR:1771	Fundamental Astronomy I: The Solar System and Exoplanets	4
One of these:		
PHYS:3811	Electricity and Magnetism I	3
PHYS:3850	Electronics	4
This course:		
PHYS:1200	Physics of Everyday Experience	3
And all of these:		
Coursework in a secondary emphasis area (biology, chemistry, or earth science)		15
Coursework listed under "Broad Field Science Block-Physics Emphasis Area"		12

Broad Field Science Block—Physics Emphasis Area

Students complete 12 s.h. from the following.

Course #	Title	Hours
This course:		
SIED:4135	The Nature of Science	4
At least two of these:		
SIED:4102	Societal and Educational Applications of Earth Science and Environmental	4
SIED:4103	Societal and Educational Applications of Biological Sciences	4
SIED:4105	Societal and Educational Applications of Physical Sciences	4
SIED:4106	Societal and Educational Applications of Chemical Concepts	4
SIED:4110	Exploring the Geology, Mining History, and Environmental Issues of the Colorado Rockies	4

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

The science studies program offers outstanding students the opportunity to graduate with honors in the major. Honors students must maintain a cumulative University of Iowa grade-point average of at least 3.33 and fulfill other requirements; contact the Science Education program for more information about graduating with honors in the science studies major.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the science studies major.

Career Advancement

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The Four-Year Graduation Plan is not available to students majoring in science studies.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Science Studies, BS

- Biology Emphasis [p. 1481]
- Chemistry Emphasis [p. 1482]
- Earth Science Emphasis [p. 1483]
- Physics Emphasis [p. 1484]

Biology Emphasis

Course	Title	Hours
Academic Career		
Any Semester		
Students will choose a secondary emphasis area from chemistry, earth science, or physics.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110 or CHEM:1070	Principles of Chemistry I [b] or General Chemistry I	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
CSI:1600	Success at Iowa	1
	Hours	**15-17**
Spring		
BIOL:1411	Foundations of Biology	4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
	Hours	**14-15**
Second Year		
Fall		
BIOL:1412	Diversity of Form and Function	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
	Hours	**14-16**
Spring		
BIOL:2512	Fundamental Genetics	4
SIED:4103	Societal and Educational Applications of Biological Sciences [f]	4
Major: secondary emphasis area course [g]		3 - 4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
	Hours	**15-17**
Third Year		
Fall		
BIOL:3172	Evolution	4
SIED:4102	Societal and Educational Applications of Earth Science and Environmental [f]	4
BIOL:3343 or HHP:3500	Animal Physiology or Human Physiology	3
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
GE CLAS Core: Social Sciences [e]		3
	Hours	**17**
Spring		
BIOL:2374 or BIOL:2673	Biogeography or Ecology	3
Major: secondary emphasis area course [g]		3 - 4
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: Values and Society [e]		3
Elective course [d]		3
	Hours	**15-16**
Fourth Year		
Fall		
SIED:4135	The Nature of Science	4
Major: approved biology or biochemistry course [h]		3
Major: secondary emphasis area course [g]		3 - 4
Elective course [d]		3
Elective course [d]		3
	Hours	**16-17**
Spring		
Major: secondary emphasis area course [g]		3 - 4
Major: secondary emphasis area course (if needed) [g]		3 - 4
GE CLAS Core: International and Global Issues [e]		3
Elective course [d]		3
Elective course (if needed) [d]		2 - 3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]		
	Hours	**14-17**
	Total Hours	**120-132**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an

approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students must take two of the applications courses SIED:4102, SIED:4103, SIED:4105, or SIED:4106, or SIED:4110.

g Students must complete 15 semester hours in their secondary emphasis area.

h Choose from BMB:3110, BIOL:2723, BIOL:3233, or BIOL:3363. Some courses are offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Chemistry Emphasis

Course	Title	Hours
Academic Career		
Any Semester		
Students will choose a secondary emphasis area from biology, earth science, or physics.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
CSI:1600	Success at Iowa	1
	Hours	**15-17**
Spring		
CHEM:1120	Principles of Chemistry II	4
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
	Hours	**14-15**
Second Year		
Fall		
CHEM:2210	Organic Chemistry I	3
Major: secondary emphasis area course [f]		3 - 4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
	Hours	**16-19**
Spring		
CHEM:2220	Organic Chemistry II	3
Major: secondary emphasis area course [f]		3 - 4
GE CLAS Core: Quantitative or Formal Reasoning [e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
	Hours	**16-18**
Third Year		
Fall		
CHEM:2410	Organic Chemistry Laboratory	3
Major: applications course [g]		4
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
GE CLAS Core: Social Sciences [e]		3
Elective course [d]		3
	Hours	**16**
Spring		
CHEM:3250	Inorganic Chemistry	3
Major: applications course [g]		4
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: Values and Society [e]		3
Elective course [d]		3
	Hours	**16**
Fourth Year		
Fall		
BMB:3110 or CHEM:3110 or CHEM:4431	Biochemistry or Equilibria and Electrochemistry or Chemical Thermodynamics	3
SIED:4135	The Nature of Science	4
Major: secondary emphasis area course [f]		3 - 4
Elective course [d]		3
Elective course [d]		3
	Hours	**16-17**
Spring		
Major: secondary emphasis area course [f]		3 - 4
Major: secondary emphasis area course (if needed) [f]		3 - 4
GE CLAS Core: International and Global Issues [e]		3
Elective course [d]		3
Elective course (if needed) [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
	Hours	**15-17**
	Total Hours	**124-135**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives;

International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students must complete 15 semester hours in their secondary emphasis area.

g Students must take two of the applications courses SIED:4102, SIED:4103, SIED:4105, SIED:4106, or SIED:4110.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Earth Science Emphasis

Course	Title	Hours
Academic Career		
Any Semester		
Students will choose a secondary emphasis area from biology, chemistry, or physics.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
SEES:1040	Evolution and the History of Life	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Social Sciences [b]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [c]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**15-17**
Spring		
SEES:1030 or SEES:1050	Introduction to Earth Science or Introduction to Geology	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [b]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [c]		4 - 5
Elective course [d]		3
Elective course [d]		3
	Hours	**16-18**
Second Year		
Fall		
SIED:4102	Societal and Educational Applications of Earth Science and Environmental [e]	4
SEES:1080	Introduction to Environmental Science	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages Third Level Proficiency or elective course [c]		4 - 5
	Hours	**15-17**
Spring		
SEES:3330 or SEES:2831 or SEES:3840	Sedimentary Geology or Geologic Field Methods or Structural Geology	4
GE CLAS Core: Historical Perspectives [b]		3
GE CLAS Core: Quantitative or Formal Reasoning [b]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [c]		4 - 5
	Hours	**14-15**
Third Year		
Fall		
SIED:4103	Societal and Educational Applications of Biological Sciences [e]	4
SEES:3080 or SEES:3070	Introduction to Oceanography or Marine Ecosystems and Conservation	3
Major: secondary emphasis area course [f]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [b]		3
Elective course [d]		3
	Hours	**16-17**
Spring		
SEES:1290 or SEES:4010	Energy and the Environment or Field Methods in Physical Geography	3
Major: secondary emphasis area course [f]		3 - 4
GE CLAS Core: Values and Society [b]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15-16**
Fourth Year		
Fall		
SIED:4135	The Nature of Science	4
SEES:3210 or SEES:3020 or SEES:3360	Principles of Paleontology or Earth Surface Processes or Soil Genesis and Geomorphology	3
Major: secondary emphasis area course [f]		3 - 4
Elective course [d]		3
Elective course [d]		3
	Hours	**16-17**
Spring		
Major: secondary emphasis area course [f]		3 - 4
Major: secondary emphasis area course (if needed) [f]		3 - 4
GE CLAS Core: International and Global Issues [b]		3

Elective course [d]	3
Elective course (if needed) [d]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [g]	
Hours	**15-17**
Total Hours	**122-134**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

c Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Students must take two of the applications courses SIED:4102, SIED:4103, SIED:4105, SIED:4106, or SIED:4110.

f Students must complete 15 semester hours in their secondary emphasis area.

g Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Physics Emphasis

Course	Title	Hours
Academic Career		
Any Semester		
Students will choose a secondary emphasis area from biology, chemistry, or earth science.		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
MATH:1850	Calculus I [b, c]	4
PHYS:1701 or PHYS:1611	Physics I or Introductory Physics I	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course [d]		4 - 5
CSI:1600	Success at Iowa	1
	Hours	**16-18**
Spring		
MATH:1860	Calculus II [b]	4
PHYS:1612 or PHYS:1702	Introductory Physics II or Physics II	4
GE CLAS Core: Social Sciences [e]		3
GE CLAS Core: Understanding Cultural Perspectives [e]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [d]		4 - 5
	Hours	**18-19**
Second Year		
Fall		
PHYS:3710 or PHYS:2703	Intermediate Mechanics or Physics III	3 - 4
Major: applications course [f]		4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages Third Level Proficiency or elective course [d]		4 - 5
	Hours	**14-17**
Spring		
GE CLAS Core: Historical Perspectives [e]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [d]		4 - 5
Elective course [g]		3
Elective course [g]		3
	Hours	**13-14**
Third Year		
Fall		
ASTR:1771	Fundamental Astronomy I: The Solar System and Exoplanets	4
PHYS:1200	Physics of Everyday Experience	3
Major: secondary emphasis area course [h]		3 - 4
GE CLAS Core: Literary, Visual, and Performing Arts [e]		3
Elective course [g]		3
	Hours	**16-17**
Spring		
Major: applications course [f]		4
Major: secondary emphasis area course [h]		3 - 4
GE CLAS Core: Values and Society [e]		3
Elective course [g]		3
Elective course [g]		3
	Hours	**16-17**
Fourth Year		
Fall		
SIED:4135	The Nature of Science	4
PHYS:3811 or PHYS:3850	Electricity and Magnetism I or Electronics	3 - 4
Major: secondary emphasis area course [h]		3 - 4
Elective course [g]		3
Elective course [g]		3
	Hours	**16-18**
Spring		
Major: secondary emphasis area course [h]		3 - 4
Major: secondary emphasis area course (if needed) [h]		3 - 4

GE CLAS Core: International and Global Issues [e]	3
Elective course [g]	3
Elective course (if needed) [g]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [i]	
Hours	**15-17**
Total Hours	**124-137**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b MATH:1850 and MATH:1860 are corequisites for required courses.

c Enrollment in math courses requires completion of a placement exam.

d Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

e GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students must take two of the applications courses SIED:4102, SIED:4103, SIED:4105, SIED:4106, or SIED:4110.

g Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

h Students must complete 15 semester hours in their secondary emphasis area.

i Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Teaching and Learning, MA

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Students will:

- demonstrate understanding of and ability to analyze theoretical concepts and research in their field of study;
- express ideas effectively in written and spoken communication;
- connect research to practice and practical questions in their professional context;
- effectively apply their knowledge and skills to their professional context; and
- demonstrate curiosity, inquiry, and critical and data-based decision making.

Art Education

The Master of Arts in teaching and learning with an art education subprogram requires a minimum of 38 s.h. of graduate credit with a Graduate College program grade-point average (GPA) of at least 3.00 for graduation.

The program prepares highly qualified teachers of art for elementary and secondary schools and community colleges. Its strong academic emphasis helps teachers who are creative artists to become highly literate in the history and language of art.

The MA in teaching and learning with an art education subprogram requires the following coursework.

Requirements

Course #	Title	Hours
One of these options:		
Studio art courses (12 s.h.) and art history courses (6 s.h.)		18
Art history courses (12 s.h.) and studio art courses (6 s.h.)		18
And these:		
EDTL:6267	Seminar: Current Issues in Art Education	3-4
Additional coursework (consult advisor)		12
Studio or written thesis course (for both thesis and nonthesis students; consult advisor)		5

Admission

Applicants must meet the admission requirements of the Graduate College. They must have completed the equivalent of the minimum coursework in art required for a University of Iowa BA or BFA in art and must have a license/certificate to teach art.

English Education

The Master of Arts in teaching and learning with an English education subprogram requires a minimum of 30 s.h. of graduate credit with a Graduate College program grade-point average (GPA) of at least 3.00 for graduation.

The program is intended for experienced teachers of English. It provides opportunities for professional development and preparation for department chairs, supervisors of English, and curriculum specialists for secondary schools.

MA students specialize in English education and in one or two other areas. The other area(s) may include reading, writing, curriculum, adolescent literature, or a literary area. Students and their advisors plan the program of study together. The only required course is EDTL:6315 MA Seminar: English Education.

Final Examinations

Final examinations are developed in consultation with a student's advisor. Students ask three faculty members to serve on their committee. Faculty members may include professors outside of the College of Education. One of these faculty members, usually a student's advisor, serves as chair of the committee.

Admission

Applicants must meet the admission requirements of the Graduate College. They should have taken extensive coursework in English and should have taught English for at least two years. Application should be made to the College of Education.

Mathematics Education

The Master of Arts in teaching and learning with a mathematics education subprogram requires a minimum of 32 s.h. of graduate credit with a Graduate College program grade-point average (GPA) of at least 3.00 for graduation.

The program provides students with advanced specialization in mathematics and education as a better foundation for K–12 teaching.

Required Courses

MA students take a minimum of 9 s.h. of coursework in mathematics approved by their advisor. They also take a minimum of four courses in mathematics education and three courses chosen in consultation with their advisor.

Students choose a cognate area, usually enrolling in three or more courses in the area. Suggested areas include educational psychology, educational statistics and measurement, history or philosophy of education, pure or applied mathematics, instructional design and technology, counselor education, curriculum, administration, and special education. Courses are chosen in consultation with a faculty member from their cognate area.

Students also complete a sufficient number of electives in mathematics and education, chosen with the approval of their advisor, to complete 32 s.h. of credit.

Final Examination

Students take three two-hour final exams: one in mathematics education, the second in mathematics, and the third in their cognate area.

Admission

Applicants must meet the admission requirements of the Graduate College. Except in unusual cases, they should hold a professional license/certificate to teach school mathematics.

Multilingual Education

The Master of Arts in teaching and learning with a multilingual education subprogram requires a minimum of 33 s.h. of graduate credit. Students take at least 15 s.h. in multilingual education coursework, 9 s.h. in graduate language or linguistics courses, and 9 s.h. in elective coursework. They must earn 9 s.h. in courses numbered 5000 or above. Students must maintain a Graduate College program grade-point average of at least 3.00 while enrolled in the program. Candidacy for the master's degree is reevaluated annually.

The program is designed for students who would like to pursue a multilingual education specialization in teaching, including English as a Second Language (ESL) or English as a Foreign Language (EFL), bilingual and dual language education, or world language education, or in a related field (e.g., language laboratory directors, instructional materials designers, evaluation specialists, or assessment developers). It also offers enrichment in multilingual language pedagogical knowledge for practicing teachers. Students may design programs with a special focus.

The MA in teaching and learning with a multilingual education subprogram requires the following courses.

Course #	Title	Hours
This course:		
EDTL:6483	Multilingual Education and Applied Linguistics	3
At least 12 s.h. from these:		
EDTL:6015	PhD Seminar: Literacy, Culture, and Language Education	3
EDTL:6400	Fundamentals of Second Language Assessment	3
EDTL:6403	Language Policy and Planning	3
EDTL:6409	Cultural Curriculum	3
EDTL:6480	Graduate Seminar in Multilingual Education	3
EDTL:6484	Bi/Multilingual Literacies	3
EDTL:6497	Principles of Course Design for Second Language Instruction	3
EDTL:7405	Research Methods in Literacy, Culture, and Language Education	3
Students may take other courses to meet this requirement, in consultation with their advisor		

Target Language

In consultation with their advisor, students select at least 9 s.h. in courses numbered 3000 and above from the following subjects: Arabic, American Sign Language, Chinese, French, German, Italian, Japanese, Korean, Latin, linguistics, Portuguese, Russian, Spanish, and Swahili. Students are strongly encouraged to focus on coursework related to language and linguistic study.

Elective Courses

Students complete at least 9 s.h. in elective coursework chosen in consultation with their advisor. Students are permitted to select coursework numbered 3000 and above from the College of Education (CSED, EDTL, EPLS, and PSQF) and coursework listed in "Target Language."

Master's Examination

Students take a written exam during the semester in which they plan to graduate. The exam covers multilingual education and two areas of specialization selected by a student. It is written by the graduate committee, which consists of at least three faculty members, two of whom must be from the multilingual education program area.

Admission

Applicants must meet the admission requirements of the Graduate College and have prior teaching experience. Applicants should submit a statement of purpose explaining their graduate study goals and their commitment to multicultural education. International applicants should satisfy the English proficiency requirements as specified by the Graduate College.

Social Studies Education

The Master of Arts in teaching and learning with a social studies education subprogram requires 38 s.h. of graduate credit with a program grade-point average (GPA) of at least 3.00 for graduation.

The program provides an opportunity for interdisciplinary work in education, history, social science, or related areas for classroom teachers, high school department chairs, supervisors, and others interested in advancing their competence in history and the social sciences and greater proficiency in teaching and supervision.

Requirements

Students create a course of study in consultation with their advisor that aligns with their interests related to social studies education and/or their profession. Students distribute the program's required 38 s.h. among three concentration fields in history or a social science (or related area), social studies and global education, and general education. At least 9 s.h. must be earned in history or a social science and in general education courses numbered 3000 or above. Students must also earn at least 9 s.h. in courses numbered 6000 or above offered through the social studies education program or a related area of education.

Thesis Option

Students who choose the thesis option complete a research or investigative problem. If the thesis is research or investigation in history, social science, or a related area, the thesis director is a member of the appropriate department. If the thesis is an investigative problem in social studies education, the thesis director is a College of Education faculty member.

Final Examination

Candidates select one faculty member from each concentration area to serve as a committee member responsible for creating and reviewing a question for the written exam. Committee members are selected in consultation with a candidate's advisor. The required final

examination consists of three two-hour written exams, one on each of the three concentration fields.

Admission

Applicants must meet the admission requirements of the Graduate College. They should have a bachelor's degree in education, history, or one of the social sciences from an accredited institution. Typically, applicants are expected to hold a secondary teaching license/certificate.

Special Education

The Master of Arts in teaching and learning with a special education subprogram requires a minimum of 30 s.h. of graduate credit and the Master of Arts in teaching and learning with a subprogram in special education–ABA requires a minimum of 39 s.h. of graduate credit. A Graduate College program grade-point average (GPA) of at least 3.00 for graduation is required for students in both subprograms. A thesis is not required; a final exam is required.

The MA in teaching and learning with a special education subprogram prepares scholars to deliver services to individuals with disabilities. The MA is available with licensure and non-licensure. Contact theDepartment of Teaching and Learning for specific program requirements.

The MA in teaching and learning with a subprogram in special education [p. 1488] (30 s.h.) is available to individuals interested in becoming a special education teacher or enhancing their current teaching license, including U2G students. Students can prepare to work in elementary and secondary schools with individuals who have behavior disorders and learning disabilities, intellectual disabilities, and/or mild/moderate disabilities. This pathway prepares graduates for positions in public schools, local and state education agencies, clinical settings, and institutions of higher education. Students typically pair the MA with a special education licensure and endorsement program. Course selections align with requirements for a specific licensure and/or endorsement; see the section "Teacher Licensure and Endorsements" for more information.

The MA in teaching and learning with a subprogram in special education–ABA [p. 1488] (39 s.h.) is a non-licensure program available to individuals interested in pursuing certification in applied behavior analysis. This pathway prepares graduates to become board-certified behavior analysts (BCBAs) and to provide services in education, community, or clinical settings. This pathway does not, however, lead to a teaching license to serve as a special education teacher.

Special Education Subprogram

The MA in teaching and learning with a subprogram in special education requires the following 30 s.h. of graduate coursework. Please note that while the MA requires 30 s.h., the student's chosen licensure preparation program and/or added endorsement program may require additional coursework. Students work closely with their advisor to determine which courses they should take based on the student's chosen licensure or endorsement. All courses for the subprogram must be taken on an A–F graded basis except for those completed for student teaching.

Requirements	Hours
Core Courses	12
Required Courses	12
Student Teaching	6

Core Courses, Special Education

Course #	Title	Hours
All of these:		
EDTL:3103	Assessment for Instructional Planning and Practice	3
EDTL:4900	Foundations of Special Education	3
EDTL:4950	Behavioral and Social Interventions	3
EDTL:5967	Supervision Strategies in Special Education	3

Required Courses, Special Education

Course #	Title	Hours
Both of these:		
EDTL:4980	Dyslexia and Other Reading Difficulties: Instruction and Assessment	3
EDTL:6906	Practicum With Exceptional Persons	3
One of these:		
EDTL:4984	Academic Skills for Students With Special Needs	3
EDTL:5961	Foundation of Applied Behavior Analysis	3
One of these:		
EDTL:4975	Explicit Instruction	3
EDTL:7953	Seminar: Single Subject Design Research	3

Student Teaching, Special Education

Course #	Title	Hours
This course:		
EDTL:6909	Seminar: Graduate Supervised Teaching	1
One of these:		
EDTL:6907	Elementary Practicum With Exceptional Persons	5
EDTL:6908	Secondary Practicum With Exceptional Persons	5
EDTL:6950	Strategist I Student Teaching: Elementary	5
EDTL:6951	Strategist I Student Teaching: Secondary	5
EDTL:6953	Strategist II Student Teaching: Elementary	5
EDTL:6954	Strategist II Student Teaching: Secondary	5

Special Education–ABA Subprogram

The MA in teaching and learning with a subprogram in special education–ABA requires the following 39 s.h. of graduate coursework. Certification and licensure as a behavior analyst require additional fieldwork and assessment outside of the MA

program. All courses for the subprogram must be taken on an A–F graded basis except for those completed for student teaching.

Requirements	Hours
Core Courses	12
Required Courses	21
Student Teaching	6

Core Courses, Special Education–ABA

Course #	Title	Hours
Both of these:		
EDTL:4900	Foundations of Special Education	3
EDTL:5967	Supervision Strategies in Special Education	3
One of these:		
EDTL:3103	Assessment for Instructional Planning and Practice	3
PSQF:6238	Assessment of Learning Differences	3
One of these:		
EDTL:4984	Academic Skills for Students With Special Needs	3
PSQF:7344	Academic Interventions	3

Required Courses, Special Education–ABA

Course #	Title	Hours
All of these:		
EDTL:4950	Behavioral and Social Interventions	3
EDTL:4975	Explicit Instruction	3
EDTL:5961	Foundation of Applied Behavior Analysis	3
EDTL:5963	Ethics and Professional Conduct for Behavior Analysts and Psychologists	3
EDTL:5966	Advanced Topics in Applied Behavior Analysis	3
EDTL:5970	Experimental Analysis of Behavior	3
EDTL:7953	Seminar: Single Subject Design Research	3

Student Teaching, Special Education–ABA

Students work closely with their advisor to determine which course they should take.

Course #	Title	Hours
This course:		
EDTL:5964	Behavior Analyst Practicum	1
One of these:		
EDTL:6907	Elementary Practicum With Exceptional Persons	5
EDTL:6908	Secondary Practicum With Exceptional Persons	5

Teacher Licensure and Endorsements

Special education licensure and endorsement programs of the University of Iowa are approved by the state of Iowa. With this MA program, licensure preparation (preparation for initial licensure as a teacher) and added endorsement (an additional teaching area for licensed teachers) are offered in the following areas of specialization.

- Instructional strategist I (mild/moderate): added endorsements for K–8 or 5–12
- Instructional strategist II (behavioral disorders/learning disabilities): licensure preparation or added endorsement for K–12
- Instructional strategist II (intellectual disabilities): licensure preparation or added endorsement for K–12
- Instructional strategist I and II (all): licensure preparation or added endorsement for K–12

Added endorsement programs for regular education endorsements may also be available.

Contact the Teacher Education Program (TEP) for more information, including TEP admissions, requirements, and program policies.

TEP Academic and Professional Standards

For students who are enrolled for licensure preparation (preparation for initial licensure as a teacher), the state of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Because of this, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For graduate-level teacher candidates in special education, these standards include:

- a UI minimum cumulative GPA of 2.75 in graded graduate courses (consistent with the academic standing policy of the Graduate College);
- a minimum TEP major GPA of 2.00 (2.70 for good standing);
- a minimum UI term GPA of 1.50 during fall or spring enrollment;
- a grade of C-minus or higher in TEP major courses; and
- no notices of concern in professional dispositional qualities.

Liberal Arts Core

For students pursuing initial licensure as a teacher, the state of Iowa teacher preparation standards require a core of liberal arts knowledge including but not limited to English composition, mathematics, natural sciences, social sciences, and humanities. Students who have not completed these requirements with their previous coursework will need additional coursework. Bachelor's degree graduates of the College of Education or the College of Liberal Arts and Sciences have met these requirements with the GE CLAS Core [p. 22] if a course in mathematics, statistics, or computer science was selected for the Quantitative and Formal Reasoning requirement. For additional information about these standards, contact the Office of Student Services.

Admission

Applicants must meet the admission requirements of the Graduate College. They must have an undergraduate GPA of at least 3.00 and/or at least 3.00 on a minimum of 12 s.h. of graduate coursework. Applicants seeking initial teacher licensure must have at least 10 hours of documented experience in K–12 schools.

Teaching, Leadership, and Cultural Competency

The Master of Arts in teaching and learning with a teaching, leadership, and cultural competency subprogram requires a minimum of 33 s.h. of graduate credit. Students must maintain a UI cumulative grade-point average (GPA) of at least 2.75.

The program is offered completely online and prepares practicing teachers, school-based personnel, and those working with K–12 populations in community settings for the challenges facing U.S. schools and communities in particular. Special emphasis is placed on understanding how identities, including race, sexuality, linguistic background, socioeconomic status, gender identity, ethnicity, and residency status impact learning in the environment, and in particular, how schools and classroom teachers can shift practices to create more just and inclusive learning environments. Students engage in these topics using up-to-date research and collaborative technologies under the guidance of a faculty member who has considerable experience supporting effective change in schools. Students who are changemakers and those motivated to serve and celebrate all students are encouraged to apply to this program.

Students take a 24 s.h. core, including courses in instructional leadership, cultural competency and diversity, assessment, technology, and curriculum; and 9 s.h. of elective coursework. Iowa teachers can apply their course credits toward their ongoing learning requirements for maintaining licensure. The program requirements are aligned with the National Board for Professional Teaching Standards (NBPTS) certification process. Additionally, elective tracks can be aligned with added state of Iowa endorsements in selected areas.

The MA in teaching and learning with a teaching, leadership, and cultural competency subprogram requires the following coursework.

Course #	Title	Hours
All of these:		
EDTL:5090	Diversity and Identity in K-12 Schools	3
EDTL:5095	Issues in U.S. Schools	3
EDTL:5099	Conducting School-Based Action Research	3
EDTL:6483	Multilingual Education and Applied Linguistics	3
EPLS:5090	Instructional Coaching for Teaching Excellence	3
PSQF:4740	Issues in K-12 Assessment	3
PSQF:4750	Learning Environments: Design, Context, and Activity	3
One of these:		
EDTL:5085	Generation Innovation: Technology Integration in 21st-Century K-12 Schools	3
PSQF:4760	Participatory Learning and Media: Creating, Remixing, Making, and Education	3
At least 9 s.h. of elective coursework chosen from the following:		
EDTL:4066	Curriculum and Programming for Advanced Learners	3
EDTL:4093	Teaching and Learning for a Global Perspective	3
EDTL:4392	Voice, Drama, and Debate in the Secondary Schools	3
EDTL:4393	Critical Media Studies and Production in Secondary Schools	3
EDTL:4467	Methods: ESL and Bilingual Education	4
EDTL:4498	Applied Linguistics and the Multilingual Classroom	4
EDTL:4565	Mathematics in Management and Social Sciences	3
EDTL:5081	Facilitating Student-Centered Discussions	3
EDTL:5087	Anti-Oppressive Literature Instruction	3
EDTL:5091	LGBTQ Topics in Education	3
EDTL:6164	Early Literacy Development and Instruction	2-3
EDTL:6171	Advanced Reading Clinic Techniques	2-3
EDTL:6172	Advanced Reading Clinic Practicum	2-3
EDTL:6563	STEM Through Mathematical Modeling	3
EDTL:6761	STEM Research and Leadership Seminar	3
EDTL:6762	STEM Experiential Learning	3
EDTL:6766	Physical Science Topics in STEM Education	3
EDTL:6767	Systems Thinking in Biology and Integrated STEM Education	3
CSED:4137	Introduction to Educating Advanced Learners	3
CSED:5300	Culturally Relevant Social and Emotional Learning	3
EPLS:6381	Analysis and Appraisal of Curriculum	3
PSQF:4121	Identification of Students for Advanced Programming	3
Other courses in consultation with an advisor		

Admission

Applicants must meet the admission requirements of the Graduate College. They must have a bachelor's degree, a GPA of at least 3.00 in undergraduate coursework, a teaching license, or relevant significant teaching experience in K–12 education.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Teaching and Learning, MA

- Art Education Subprogram [p. 1491]
- Multilingual Education Subprogram [p. 1491]
- Teaching, Leadership, and Cultural Competency Subprogram [p. 1492]

Art Education Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
38 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
Studio art or art history course [c]		3
Studio art or art history course [c]		3
Studio art or art history course [c]		3
Elective course [c]		3
	Hours	**12**
Spring		
EDTL:6267	Seminar: Current Issues in Art Education [d]	3
Studio art or art history course [c]		3
Studio art or art history course [c]		3
Elective course [c]		3
	Hours	**12**
Second Year		
Fall		
Studio art or art history course [c]		3
Elective course [c, e]		3
Elective course [c, f]		3
	Hours	**9**
Spring		
EDTL:6393	Master's Thesis [g]	5
Exam: Master's Final Exam [h]		
	Hours	**5**
	Total Hours	**38**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Work with faculty advisor to determine appropriate coursework and sequence each semester.

d Students are strongly encouraged to take this course twice as topics change annually.

e Students are encouraged to enroll in a research methods course in the fall semester of their final year of study.

f Students are encouraged to enroll in an independent study with their thesis supervisor.

g In consultation with faculty advisor, determine whether to complete a studio thesis or a written thesis.

h Thesis defense.

Multilingual Education Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
33 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
	Hours	**0**
First Year		
Fall		
EDTL:6483	Multilingual Education and Applied Linguistics	3
Required course [d]		3
Required course [d]		3
	Hours	**9**
Spring		
Graduate language or linguistics course [e]		3
Required course [d]		3
Required course [d]		3
	Hours	**9**
Second Year		
Fall		
Graduate language or linguistics course [e]		3
Graduate language or linguistics course [e]		3
Elective course [e]		3
	Hours	**9**
Spring		
Elective course [e]		3
Elective course [e]		3
Exam: Master's Final Exam [f]		
	Hours	**6**
	Total Hours	**33**

a Students must earn 9 s.h. in courses numbered 5000 or above.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to

count toward the degree, those courses will be included in the Graduate College program GPA.

d See the General Catalog for a list of approved courses to complete this requirement. Work with faculty advisor to determine appropriate coursework and sequence.

e Work with faculty advisor to determine appropriate coursework and sequence.

f Covers multilingual education and two areas of specialization selected by a student.

Teaching, Leadership, and Cultural Competency Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
33 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Minimum cumulative GPA of at least 2.75 is required.		
	Hours	**0**
First Year		
Fall		
EDTL:5095	Issues in U.S. Schools	3
PSQF:4750	Learning Environments: Design, Context, and Activity	3
	Hours	**6**
Spring		
EDTL:6483	Multilingual Education and Applied Linguistics	3
PSQF:4740	Issues in K-12 Assessment	3
	Hours	**6**
Summer		
EDTL:5090	Diversity and Identity in K-12 Schools	3
EPLS:5090	Instructional Coaching for Teaching Excellence	3
	Hours	**6**
Second Year		
Fall		
PSQF:4760 or EDTL:5085	Participatory Learning and Media: Creating, Remixing, Making, and Education [b] or Generation Innovation: Technology Integration in 21st-Century K-12 Schools	3
Elective course [c]		3
	Hours	**6**
Spring		
Elective course [c]		3
Elective course [c]		3
	Hours	**6**
Summer		
EDTL:5099	Conducting School-Based Action Research	3
Verify completion of all degree requirements with program		
	Hours	**3**
	Total Hours	**33**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b If students choose to take both of these classes due to interest, one may be counted as an elective.

c Students must complete at least 9 s.h. of elective coursework. See the General Catalog for list of approved courses.

Teaching and Learning, MAT

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Students will:

- demonstrate understanding of the central concepts, tools of inquiry, and structures of the discipline to be taught;
- plan discipline-specific and ethical instruction and assessment that reflect research and theory in education and their discipline;
- implement discipline-specific and ethical instruction and assessment using a variety of methods of teaching, instructional strategies, and pedagogical tools;
- demonstrate understanding of learner development and learning differences that vary across the cognitive, linguistic, social, emotional, and physical areas, as well as diverse cultures and communities; and
- express ideas effectively in written and spoken communication in collaboration with university and school professionals.

Art Education

The Master of Arts in Teaching in teaching and learning with an art education subprogram requires a minimum of 58 s.h. of graduate credit with a Graduate College program grade-point average (GPA) of at least 3.00 for graduation. Admission to the MAT requires admission to the Teacher Education Program (TEP), and students must maintain TEP academic and professional standards.

The program is designed primarily for graduates of baccalaureate degree programs in art who would like to become teachers but have no previous coursework in education. It features advanced work in art along with the courses required for certification. Additional art coursework may be advised to render a student's degree equivalent to one from the University of Iowa and to fulfill licensure requirements. Students may need to complete additional courses or other requirements to meet state standards for teacher preparation, licensure, or endorsements.

The MAT in teaching and learning with an art education subprogram requires the following work.

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
EDTL:3143	Methods of Elementary Art and Field Experiences	3
EDTL:3204	Art Education Studio and Field Components	3
EDTL:3205	Methods of Secondary Art and Field Experience	3
EDTL:3290	Introduction and Practicum: Art	3
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4192	Special Area Student Teaching	6
EDTL:4900	Foundations of Special Education	3
EDTL:5222	Creativity, Imagination, Play, and Human Development Through the Arts	3
EDTL:6267	Seminar: Current Issues in Art Education	4
EPLS:3000	Foundations of Education	3
EPLS:4180	Human Relations for the Classroom Teacher	3
PSQF:6200	Educational Psychology	3
Graduate-level coursework in art studio or art history or a related area (consult advisor)		6

The coursework in art studio or art history or a related field may contribute to licensure requirements. Other art licensure requirements may be taken prior to or in addition to the courses previously listed. To be considered for a teaching assistant (TA) position, students must take EDTL:7380 Practicum in College Teaching for 1 s.h. after their first semester in the program and after completion of EPLS:3000 Foundations of Education, EPLS:4180 Human Relations for the Classroom Teacher, and PSQF:6200 Educational Psychology, and a course in creativity, imagination, and play: human development through art.

Endorsements

The art education TEP is approved by the state of Iowa as preparation for teaching licensure with endorsements for 5–12 art and K–8 art. Added endorsement programs for additional teaching areas are available.

Final Examination

Students complete final examinations before their student teaching semester. The final examination involves a reflective project supervised by art education faculty. The project encompasses issues explored throughout the course of study and can involve inquiry through studio work or practice. For deadlines, a checklist, and instructions, see Graduate Exams on the Office of Student Services website.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. For this reason, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For graduate-level teacher

candidates and MAT candidates in art education, these standards include:

- a UI minimum cumulative GPA of 2.75 on graded graduate courses (consistent with the academic standing policy of the Graduate College);
- a minimum TEP major GPA of 2.00 (2.70 for good standing);
- a minimum UI term GPA of 1.50 during fall or spring enrollment;
- a grade of C-minus or higher in TEP major courses; and
- no notices of concern in professional dispositional qualities.

For additional information about these standards, contact the Office of Student Services.

Liberal Arts Core

State of Iowa teacher preparation standards require a core of liberal arts knowledge including but not limited to English composition, mathematics, natural sciences, social sciences, and humanities. Students who have not completed these requirements with their previous coursework will need additional coursework. Bachelor's degree graduates of the College of Education or the College of Liberal Arts and Sciences have met these requirements with the GE CLAS Core [p. 22] if a course in mathematics, statistics, or computer science was selected for the Quantitative and Formal Reasoning requirement. For additional information about these standards, contact the Office of Student Services.

Admission

Applicants must meet the admission requirements of the Graduate College. They should have completed a baccalaureate degree program in art, equivalent to those offered through the College of Liberal Arts and Sciences at the University of Iowa, with an undergraduate GPA of at least 3.00. Candidates must also meet all Teacher Education Program (TEP) application requirements. Since the MAT consists primarily of the preparation courses required for licensure as an art teacher, the MAT is not available to licensed teachers.

English Education

The Master of Arts in Teaching in teaching and learning with an English education subprogram requires a minimum of 45 s.h. of graduate credit with a Graduate College program grade-point average (GPA) of at least 3.00 for graduation. Admission to the MAT requires admission to the Teacher Education Program (TEP) and students must maintain TEP academic and professional standards.

The program is designed for students who have an undergraduate degree in English and few or no professional education courses. Successful completion of the program enables students to receive a credential to teach English in secondary schools. Students may need to complete additional courses or other requirements to meet state standards for teacher preparation, licensure, or endorsements.

The MAT in teaching and learning with an English education subprogram requires the following coursework.

English

Course #	Title	Hours
All of these:		
EDTL:3382	Language and Learning	3
EDTL:3393	Reading and Teaching Adolescent Literature	3
EDTL:4355	Approaches to Teaching Writing	3
EDTL:6315	MA Seminar: English Education	arr.
Students may take the following English courses as part of the MAT program or as part of their undergraduate program:		
ENGL:2020	Foundations of Creative Writing: Craft, Practice, Pleasure	3
A creative writing course (prefix CW) or creative nonfiction writing (prefix CNW) numbered 2000 or above		
A course in Shakespeare		
Three courses in American literature		
A course in British literature		

Education

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies (must be taken during student's first semester in the college)	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	arr.
EDTL:4092	Observation and Laboratory Practice in the Secondary School	arr.
EDTL:4314	Introduction and Practicum: Secondary English (must be completed before enrollment in EDTL:4315 and EDTL:4394)	3
EDTL:4315	Learning to Teach Secondary English/Language Arts and Field Experience	3
EDTL:4394	Secondary Reading Instruction	3
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
EPLS:4180	Human Relations for the Classroom Teacher	3
PSQF:6200	Educational Psychology	3

Endorsements

The English education TEP is approved by the state of Iowa as preparation for teaching licensure with the grades 5–

12 English/language arts endorsement. With this program, students have the option to complete additional coursework for added endorsements in grades 5–12 all language arts and grades 5–12 reading.

Final Examination

The final examination involves a series of reflective projects supervised by English education faculty. The projects encompass issues explored throughout the course of study and involve the integration of theory and practice.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Because of this, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For graduate-level teacher candidates and MAT candidates in English education, these standards include:

- a UI minimum cumulative GPA of 2.75 on graded graduate courses (consistent with academic standing policy of the Graduate College);
- a minimum TEP major GPA of 2.00 (2.70 for good standing);
- a minimum UI term GPA of 1.50 during fall or spring enrollment;
- a grade of C-minus or higher in TEP major courses; and
- no notices of concern in professional dispositional qualities.

Liberal Arts Core

State of Iowa teacher preparation standards require a core of liberal arts knowledge including but not limited to English composition, mathematics, natural sciences, social sciences, and humanities. Students who have not completed these requirements with their previous coursework will need additional coursework. Bachelor's degree graduates of the College of Education or the College of Liberal Arts and Sciences have met these requirements with the GE CLAS Core [p. 22] if a course in mathematics, statistics, or computer science was selected for the Quantitative and Formal Reasoning requirement. For additional information about these standards, contact the Office of Student Services.

Admission

Applicants must meet the admission requirements of the Graduate College. They must have been granted a BA in English or the equivalent, with an undergraduate GPA of at least 3.00. They must also meet all Teacher Education Program (TEP) application requirements. Since the MAT is a credentialing program, candidates must not have qualified previously for a credential. Applicants are expected to have no more than 6 s.h. of coursework in professional education courses before admission.

Mathematics Education

The Master of Arts in Teaching in teaching and learning with a mathematics education subprogram requires a minimum of 52 s.h. of graduate credit with a Graduate College program grade-point average (GPA) of at least 3.00 for graduation. Admission to the MAT requires admission to the Teacher Education Program (TEP), and students must maintain TEP academic and professional standards.

The program is designed primarily for students who decide they would like to become teachers and have already completed a BS or BA in mathematics. It features advanced work in mathematics along with the courses required for licensure as a teacher of mathematics in secondary schools. It is assumed that students have completed a baccalaureate degree in mathematics equivalent to one that would be completed at the University of Iowa but have no previous coursework in education. More coursework may be required if there are mathematics courses a student has not taken as part of the undergraduate mathematics baccalaureate degree program to render the student's degree equivalent to one from the University of Iowa.

Students may need to complete additional courses or other requirements to meet state standards for teacher preparation, licensure, or endorsements.

The MAT in teaching and learning with a mathematics education subprogram requires the following work.

Education

Course #	Title	Hours
The first three courses should be taken during the first semester of registration:		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
All of these:		
EDTL:3532	Introduction and Practicum: Mathematics	3
EDTL:3534	Methods: Middle School Mathematics	3
EDTL:4535	Methods: High School Mathematics	3
EDTL:4750	Assessment in Science, Technology, Engineering, and Mathematics (STEM)	2
EDTL:4751	Learning in the Science, Technology, Engineering, and Mathematics (STEM) Classroom	2
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
EPLS:4180	Human Relations for the Classroom Teacher	3
PSQF:6200	Educational Psychology	3
One additional graduate-level mathematics education course in consultation with an advisor		
The following courses are taken concurrently and constitute the student teaching semester:		
EDTL:4087	Seminar: Curriculum and Student Teaching	3

EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6

Graduate Mathematics Requirements

Course #	Title	Hours
At least one of these:		
MATH:4050	Introduction to Discrete Mathematics	3
MATH:4060	Discrete Mathematical Models	3
MATH:4120	History of Mathematics	3

Endorsements

The mathematics education TEP is approved by the state of Iowa as preparation for teaching licensure with an endorsement for grades 5–12 mathematics. Added endorsement programs for additional teaching areas are available.

Final Examination

The final exam includes a required two-part exam in mathematics and mathematics education. At the discretion of the examining committee, this exam may consist of two parts and is both written and oral. The mathematics and mathematics education final examinations will not duplicate course examinations but will assess both mathematics education and the mathematics specialization area chosen by a student.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Because of this, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For graduate-level teacher candidates and MAT candidates in mathematics education, these standards include:

- a UI minimum cumulative GPA of 2.75 on A–F graded graduate courses (consistent with the academic standing policy of the Graduate College);
- a minimum TEP major GPA of 2.00 (2.70 for good standing);
- a minimum UI term GPA of 1.50 during fall or spring enrollment;
- a grade of C-minus or higher in TEP major courses; and
- no notices of concern in professional dispositional qualities.

Liberal Arts Core

State of Iowa teacher preparation standards require a core of liberal arts knowledge including but not limited to English composition, mathematics, natural sciences, social sciences, and humanities. Students who have not completed these requirements with their previous coursework will need additional coursework. Bachelor's degree graduates of the College of Education or the College of Liberal Arts and Sciences have met these requirements with the GE CLAS Core [p. 22] if a course in mathematics, statistics, or computer science was selected for the Quantitative and Formal Reasoning requirement. For additional information about these standards, contact the Office of Student Services.

Admission

Applicants must meet the admission requirements of the Graduate College. They must also meet all Teacher Education Program (TEP) application requirements. Candidates should have completed a baccalaureate degree program in mathematics equivalent to that which is offered through the College of Liberal Arts and Sciences at the University of Iowa. An undergraduate GPA of at least 3.00 is required for admission and must be maintained throughout the enrollment period.

Combined Program

BA in Mathematics/MAT (Undergraduate to Graduate–U2G)

The College of Liberal Arts and Sciences and the College of Education offer students the opportunity to earn their Bachelor of Arts in Mathematics/Master of Arts in Teaching degree in education with a mathematics education subprogram in as little as five years.

The combined BA/MAT U2G program is a seamless process whereby students can progress from undergraduate to graduate status. The usual period of study for both the Bachelor of Arts and the Master of Arts in Teaching degree is six years. Through careful planning, many of the courses required for the MAT program can be taken during the undergraduate years, creating an opportunity to focus the fifth year of study on the comprehensive and student teaching requirements.

Admission to Combined Program

Students are eligible to apply to the U2G program during their sophomore or junior year if they have a cumulative GPA of at least 3.25 or if they meet special considerations. Application materials must include a completed application to the Teacher Education Program (TEP), two recommendations from University of Iowa faculty, a career plan describing how this program will enhance the student's scholarly and or career goals, and an unofficial transcript of the student's prior work.

Students who submit completed applications will be notified within 30 days if they have been accepted into the program. The program accepts a limited number of students each year on a competitive basis. Once accepted into the program, a student meets with an advisor to select an advisory committee to plan a course of study.

During the sixth semester, a student in the program who has completed 80 s.h. of undergraduate work and maintained a 3.00 minimum GPA must apply to the Graduate College. Application to the Graduate College must include a completed Graduate College application form, a letter of application/statement of purpose, one additional letter of recommendation from a faculty member in the mathematics major, and Test of English as a Foreign Language (TOEFL) test scores for international students.

Students are granted undergraduate/graduate credit for coursework during the fourth year; they begin paying graduate tuition during the fifth year until completion of the program. The baccalaureate degree must be conferred at the end of the eighth semester or in the program's fourth year.

Science Education

The Master of Arts in Teaching in teaching and learning with a science education subprogram requires a minimum of 48 s.h. of graduate credit with a Graduate College program grade-point average (GPA) of at least 3.00 for graduation. Admission to the MAT requires admission to the Teacher Education Program (TEP), and students must maintain TEP academic and professional standards.

The program is designed primarily for graduates of bachelor's degree programs in science who decide that they would like to become teachers. It features advanced work in science along with the courses required for certification, enabling students to earn a master's degree and teaching certification at the same time. It is assumed that students have completed considerable coursework in science as undergraduates, but no previous coursework in education. Students' science coursework should be equivalent to that required by the University of Iowa Science Studies program.

The MAT in teaching and learning with a science education subprogram requires the following work.

Professional Education Foundation Sequence

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies (must be taken during student's first semester in the college)	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas (must be taken during student's first semester in the college)	1
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
EPLS:4180	Human Relations for the Classroom Teacher	3
One of these:		
PSQF:1075	Educational Psychology and Measurement	3
PSQF:6200	Educational Psychology	3
Science education courses taken in the following sequence:		
EDTL:4750	Assessment in Science, Technology, Engineering, and Mathematics (STEM)	2
EDTL:4751	Learning in the Science, Technology, Engineering, and Mathematics (STEM) Classroom	2
EDTL:4752	Secondary Science Methods II With Field Experience	3
These two taken concurrently:		
EDTL:4753	Secondary Science Methods III With Field Experience	3
EDTL:4779	Secondary School Science Practicum	2
These three taken concurrently:		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6

Broad Field Science Block

Students must take the following courses (12 s.h.) unless they completed equivalent courses as undergraduates.

Course #	Title	Hours
This course:		
SIED:4135	The Nature of Science	4
Two of these:		
SIED:4102	Societal and Educational Applications of Earth Science and Environmental	4
SIED:4103	Societal and Educational Applications of Biological Sciences	4
SIED:4105	Societal and Educational Applications of Physical Sciences	4
SIED:4106	Societal and Educational Applications of Chemical Concepts	4
SIED:4110	Exploring the Geology, Mining History, and Environmental Issues of the Colorado Rockies	4

Electives

Students may need to complete additional coursework to meet the minimum requirement of 48 s.h. of graduate credit. This coursework may also apply to earning an endorsement; see the following "Endorsements" section.

Endorsements

The science education TEP is approved by the state of Iowa as preparation for teaching licensure with one or more of the following endorsements: grades 5–12 biological sciences, grades 5–12 chemistry, grades 5–12 earth science, grades 5–12 physics, and grades 5–12 all science.

Added endorsement programs for additional teaching areas are available, including grades 5–12 basic science and subject areas other than science.

Science Education Content Courses

In addition to the science content courses that students completed in their undergraduate studies, students must complete the broad field science block and must complete additional science courses as needed to meet the

requirements of the subject areas the students are preparing to teach. Science content course requirements, including the broad field science block, may be satisfied with any combination of graduate or undergraduate credit.

Final Examination

Students complete final examinations before their student teaching semester. Two written final exams, one in science education and one in a science specialization area, are required. Students may not duplicate course examinations in these areas.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Because of this, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For graduate-level teacher candidates and MAT candidates in science education, these standards include:

- a UI minimum cumulative GPA of 2.75 on A–F graded graduate courses(consistent with the academic standing policy of the Graduate College);
- a minimum TEP major GPA of 2.00 (2.70 for good standing);
- a minimum UI term GPA of 1.50 during fall or spring enrollment;
- a grade of C-minus or higher in TEP major courses; and
- no notices of concern in professional dispositional qualities.

Liberal Arts Core

State of Iowa teacher preparation standards require a core of liberal arts knowledge including but not limited to English composition, mathematics, natural sciences, social sciences, and humanities. Students who have not completed these requirements with their previous coursework will need additional coursework. Bachelor's degree graduates of the College of Education or the College of Liberal Arts and Sciences have met these requirements with the GE CLAS Core [p. 22] if a course in mathematics, statistics, or computer science was selected for the Quantitative and Formal Reasoning requirement. For additional information about these standards, contact the Office of Student Services.

Admission

Applicants must meet the admission requirements of the Graduate College. They must have a bachelor's degree with a major or the equivalent in one of the sciences. A GPA of at least 3.00 is required for admission and must be maintained throughout the program. Applicants must meet all Teacher Education Program (TEP) application requirements.

Combined Program

BA/MAT

College of Liberal Arts and Sciences students who want to teach science and are working toward a Bachelor of Arts degree typically have a major in biology, chemistry, earth and environmental sciences, geographical and sustainability sciences, or physics, but the BA/MAT in science education is open to all majors wanting to obtain the combined Bachelor of Arts/Master of Arts in Teaching with a science education subprogram offered by the College of Liberal Arts and Sciences and the College of Education. The combined program enables students to earn a BA and an MAT in five years by beginning to earn graduate credit during their fourth year of undergraduate study and by counting up to 19 s.h. of qualifying credit toward both degrees.

BA students are admitted to the combined program before their fourth year. They may begin taking education courses during their third year, but they may not earn graduate credit for them until their fourth and fifth years, after they have been admitted to the combined program. Students take 30 s.h. of coursework during the fifth year and must complete all remaining requirements for both degrees that year.

Education courses required for the combined program are listed under "Combined Program." Requirements for the BA degree are listed under the BA in biology [p. 147], BA in chemistry [p. 184], BA in earth and environmental sciences [p. 374], BA in geographical and sustainability science [p. 382], and BA in physics [p. 899] (College of Liberal Arts and Sciences) in the catalog.

Social Studies Education

The Master of Arts in Teaching in teaching and learning with a social studies subprogram requires at least 48 s.h. of graduate credit with a Graduate College program grade-point average (GPA) of at least 3.00 for graduation. Admission to the MAT requires admission to the Teacher Education Program (TEP), and students must maintain TEP academic and professional standards.

The program provides an opportunity for interdisciplinary work in education, history, social science, or related areas. It is for students who have a bachelor's degree in history or a social science (or considerable coursework in one of the areas) and who wish to obtain a teaching license/certificate while earning the MAT degree. Students must apply to both the Graduate College and the Teacher Education Program.

Requirements

Students should have completed considerable work in the social sciences and/or history as undergraduates. Students in the College of Education's Teacher Education Program for secondary education in social studies may not apply credit they have earned as undergraduates in required licensure courses to the 38 s.h. required for the MAT, even though the credit counts toward state teaching licensure.

Students who completed EDTL:4811 Introduction and Practicum: Secondary Social Studies and/or EDTL:4870 Methods: Secondary Social Studies as undergraduate or postbaccalaureate students at the University of Iowa are required to retake these courses during the MAT program and before student teaching. Required teaching licensure coursework completed at other colleges or universities is reviewed on a case-by-case basis.

Students must satisfy the social studies education content course requirements of the program and 30 s.h. in a history or social science major subject area. The social studies education content courses may include previous undergraduate and/or graduate-level coursework.

Of the total semester hours required for the MAT, students must earn at least 6 s.h. in courses numbered 6000 or above in social studies education and a minimum of 9 s.h. of graduate coursework in history or a social science area. Students should take at least one course taught by the instructor who will serve on the examining committee in the history or social science area.

Students must complete all of the following professional education courses unless they completed some of them as part of their bachelor's degree. In such cases, the semester-hour requirement is reduced accordingly, but it never is below 48 s.h. Students may need to complete additional courses or other requirements to meet state standards for teacher preparation, licensure, or endorsements.

Professional Education Courses

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies (must be taken during student's first semester in the college)	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas (must be taken during student's first semester in the college)	1
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6
EDTL:4811	Introduction and Practicum: Secondary Social Studies	3
EDTL:4828	Curriculum and Teaching: Social Studies Education	3
EDTL:4870	Methods: Secondary Social Studies	3
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
EPLS:4180	Human Relations for the Classroom Teacher	3
PSQF:6200	Educational Psychology	3

Endorsements

The social studies education TEP is approved by the state of Iowa as preparation for teaching licensure with endorsement for two or more subjects in secondary school history or social sciences. Endorsements available for the major subject area are: grades 5–12 American government, grades 5–12 American history, grades 5–12 American history with grades 5–12 world history (minimum 15 s.h. each), grades 5–12 anthropology, grades 5–12 economics, grades 5–12 geography, grades 5–12 psychology, grades 5–12 sociology, and grades 5–12 world history.

Endorsements available outside of the major subject area can be another of the subject areas previously listed, one of the following added endorsements, or both: grades 5–12 social sciences–basic (recommended for all students: authorizes teaching of American government, American history, and world history) and grades 5–12 all social sciences (authorizes teaching economics, geography, psychology, and sociology, in addition to American government, American history, and world history).

Added endorsement programs for additional teaching areas other than social studies are available.

Final Examination

Candidates select one faculty member from each concentration area to serve as a committee member responsible for creating and reviewing a question for the written exam. Committee members are selected in consultation with a candidate's advisor. The required final examination consists of three two-hour written exams, one on each of the three concentration fields.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Because of this, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For graduate-level teacher candidates and MAT candidates in social studies education, these standards include:

- a UI minimum cumulative GPA of 2.75 on graded graduate courses(consistent with academic standing policy of the Graduate College);
- a minimum TEP major GPA of 2.00 (2.70 for good standing);
- a UI minimum term GPA of 1.50 during fall or spring enrollment;
- a grade of C-minus or higher in TEP major courses; and
- no notices of concern in professional dispositional qualities.

Liberal Arts Core

State of Iowa teacher preparation standards require a core of liberal arts knowledge including but not limited to English composition, mathematics, natural sciences, social sciences, and humanities. Students who have not completed these requirements with their previous coursework will need additional coursework. Bachelor's degree graduates of the College of Education or the College of Liberal Arts and Sciences have met these requirements with the GE CLAS Core [p. 22] if a course in mathematics, statistics, or computer science was selected for the Quantitative and Formal Reasoning requirement. For additional information about these standards, contact the Office of Student Services.

Admission

Applicants must meet the admission requirements of the Graduate College. They should have a bachelor's degree

in education, history, or one of the social sciences from an accredited institution.

World Language Education

The Master of Arts in Teaching in teaching and learning with a world language education subprogram requires a minimum of 57 s.h. of graduate credit with a program grade-point average (GPA) of at least 3.00 for graduation. Admission to the MAT requires admission to the Teacher Education Program (TEP), and students must maintain TEP academic and professional standards.

The program is designed for superior liberal arts and sciences graduates who have had few or no professional education courses. Successful completion of the program leads to elementary and/or secondary teacher licensure. The MAT is available in Chinese, French, German, Italian, Japanese, Latin, Russian, and Spanish languages.

Students must satisfy the world language education content course requirements of the program by completing 30 s.h. of post-secondary coursework in the language they are preparing to teach. This coursework can be taken prior to entry into this program as part of an undergraduate degree program. Students may need to complete additional courses or other requirements to meet state standards for teacher preparation, licensure, or endorsements.

The MAT in teaching and learning with a world language education subprogram requires the following work. Students must also complete at least 9 s.h. in graduate coursework either in the language department corresponding to their language of licensure or in world language teaching.

Professional Education

Course #	Title	Hours
All of these:		
EDTL:3002	Teaching and Learning Technologies (must be taken during student's first semester in the college)	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas (must be taken during student's first semester in the college)	1,3
EDTL:4900	Foundations of Special Education	3
EPLS:3000	Foundations of Education	3
EPLS:4180	Human Relations for the Classroom Teacher	3
PSQF:6200	Educational Psychology	3

World Language Teaching

Students complete these courses (at least 28 s.h.).

Course #	Title	Hours
All of these:		
EDTL:4406	World Language Practicum I	3
EDTL:4407	World Language Practicum II	3
EDTL:4416	Learning to Teach Second Languages I	3
EDTL:4417	Learning to Teach Second Languages II	3
EDTL:6483	Multilingual Education and Applied Linguistics	3
The following courses are taken concurrently and constitute the student teaching semester:		
EDTL:4087	Seminar: Curriculum and Student Teaching	1, 3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6

K–12 Licensure

The K–12 licensure option requires the following course.

Course #	Title	Hours
EDTL:4089	Special Subject Area Student Teaching	arr.

Endorsements

The world language education TEP is approved by the state of Iowa as preparation for teaching licensure with endorsement to teach a world language (Chinese, French, German, Italian, Japanese, Latin, Russian, or Spanish) in grades 5–12. The world language education TEP requires 30 s.h. in world language education content courses (courses in the language the student is preparing to teach), which generally are provided by the College of Liberal Arts and Sciences major in the language, or the equivalent. Endorsement in the language for kindergarten through grade 8 may be available for students with elementary-level student teaching. Added endorsement programs for additional teaching areas other than world languages are available, including English as a Second Language.

Final Examination

A final examination is required. The examination reflects a candidate's depth and breadth of knowledge in world language education, including but not limited to theory and practice as well as knowledge of and proficiency in the target language and/or literature of the candidate's choice. The candidate and the advisor discuss the exam's content and format eight months before the exam.

Teacher Education Program Academic and Professional Standards

State of Iowa teacher preparation standards require that teacher candidates demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Because of this, the College of Education and the Teacher Education Program have established academic and professional standards that students must maintain. For graduate-level teacher candidates and MAT candidates in world language education, these standards include:

- a UI minimum cumulative GPA of 2.75 on graded graduate courses (consistent with the academic standing policy of the Graduate College);

- a minimum TEP major GPA of 2.00 (2.70 for good standing);
- a minimum UI term GPA of 1.50 during fall or spring enrollment;

- a grade of C-minus or higher in TEP major courses; and
- no notices of concern in professional dispositional qualities.

Liberal Arts Core

State of Iowa teacher preparation standards require a core of liberal arts knowledge including but not limited to English composition, mathematics, natural sciences, social sciences, and humanities. Students who have not completed these requirements with their previous coursework will need additional coursework. Bachelor's degree graduates of the College of Education or the College of Liberal Arts and Sciences have met these requirements with the GE CLAS Core [p. 22] if a course in mathematics, statistics, or computer science was selected for the Quantitative and Formal Reasoning requirement. For additional information about these standards, contact the Office of Student Services.

Admission

Applicants must meet the admission requirements of the Graduate College. They must have been granted a bachelor's degree with a major or a strong concentration in a second language and must have an undergraduate GPA of at least 3.00. They must also meet all Teacher Education Program (TEP) application requirements.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Teaching and Learning, MAT

- Art Education Subprogram [p. 1501]
- World Language Education Subprogram [p. 1502]

Art Education Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
58 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
Graduate College program GPA of at least 2.75 is required. [d]		
	Hours	**0**
First Year		
Fall		
EDTL:3002	Teaching and Learning Technologies	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas	1
EDTL:3290	Introduction and Practicum: Art [e]	3
EDTL:5222	Creativity, Imagination, Play, and Human Development Through the Arts [e]	3
PSQF:6200	Educational Psychology	3
	Hours	**15**
Spring		
EDTL:3205	Methods of Secondary Art and Field Experience	3
EDTL:6267	Seminar: Current Issues in Art Education	4
EPLS:3000	Foundations of Education	3
Art studio or art history course [f]		3
	Hours	**13**
Second Year		
Fall		
EDTL:3143	Methods of Elementary Art and Field Experiences	3
EDTL:3204	Art Education Studio and Field Components	3
EDTL:4900	Foundations of Special Education	3
EPLS:4180	Human Relations for the Classroom Teacher	3
Art studio or art history course [f]		3
	Hours	**15**
Spring		
EDTL:4087	Seminar: Curriculum and Student Teaching	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6
EDTL:4192	Special Area Student Teaching	6
Exam: Master's Final Exam [g]		
	Hours	**15**
	Total Hours	**58**

a Students wishing to be considered for a teaching assistant position must fulfill certain requirements and should work directly with their faculty advisor and the program administrator to determine those.

b Successful completion of the program enables students to receive a credential to teach art in grades K-12; see General Catalog and College of Education website for specifics about K-12 licensure requirements. Students may need to complete additional courses or other requirements to meet state standards for teacher preparation, licensure, or endorsements. Students should work directly with their faculty advisor and the program administrator regarding fulfilling any of these requirements.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

e Must be taken during the first year fall semester.

f May complete course in related area; work with faculty advisor to determine appropriate coursework.
g Completion of capstone project prior to beginning student teaching.

World Language Education Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
57 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
	Hours	**0**
First Year		
Fall		
EDTL:3002	Teaching and Learning Technologies [d]	2
EDTL:3091	Secondary Education Program Orientation and Classroom Management	3
EDTL:3095	Teaching Reading in Secondary Content Areas [d]	1
EDTL:6483	Multilingual Education and Applied Linguistics [e]	3
EPLS:3000	Foundations of Education	3
Elective course [f]		3
	Hours	**15**
Spring		
EDTL:4406	World Language Practicum I [e]	3
EDTL:4416	Learning to Teach Second Languages I [e]	3
EDTL:4900	Foundations of Special Education	3
EPLS:4180	Human Relations for the Classroom Teacher	3
Elective course [f]		3
	Hours	**15**
Second Year		
Fall		
EDTL:4407	World Language Practicum II [e]	3
EDTL:4417	Learning to Teach Second Languages II [e]	3
PSQF:6200	Educational Psychology	3
Elective course [f]		3
	Hours	**12**
Spring		
EDTL:4087	Seminar: Curriculum and Student Teaching [e]	3
EDTL:4091	Observation and Laboratory Practice in the Secondary School [e]	6
EDTL:4092	Observation and Laboratory Practice in the Secondary School [e]	6
Exam: Master's Final Exam [g]		
	Hours	**15**
	Total Hours	**57**

a The MAT is available in Chinese, French, German, Japanese, Latin, Russian, and Spanish languages; see General Catalog and College of Education website for specifics about K-12 licensure requirements.
b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.
d Must be taken during first year fall semester.
e World Language Teaching course. Work with academic advisor to determine appropriate graduate coursework; see the General Catalog and the College of Education website for specifics.
f Students must complete at least 9 s.h. in graduate coursework either in the language department corresponding to their language of licensure or in world language teaching; work with academic advisor to determine appropriate graduate elective courses and sequence.
g Consists of a summative master's final exam and completion of degree requirements.

Teaching and Learning, MS

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Students will:

- demonstrate understanding of and ability to analyze theoretical concepts and research in their field of study;
- express ideas effectively in written and spoken communication;
- connect research to practice and practical questions in their professional context;
- effectively apply their knowledge and skills to their professional context; and
- demonstrate curiosity, inquiry, and critical and data-based decision making.

Science Education

The Master of Science in teaching and learning with a science education subprogram requires a minimum of 38 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average of at least 3.00.

The program is designed for teachers and supervisors (K–college) and professionals in related fields, such as medical education, college teaching, museum program management, and outreach programs. It is intended to provide experience in understanding teaching and learning and the research processes required to advance the field. Students complete coursework in four areas: science education, education, research, and science. Their individual programs of study are approved by the science education faculty.

The MS in teaching and learning with a science education subprogram requires the following coursework.

Required Courses

Course #	Title	Hours
All of these:		
EDTL:6757	Learning in the Science Classroom (no substitute for this course)	3
EDTL:6759	Advanced Pedagogy (no substitute for this course)	3
EDTL:7755	Independent Study in Science Education Research (taken two times for 3 s.h. each)	6
Two science content courses chosen in consultation with advisor. Courses numbered 3000 and above in biology (BIOL), chemistry (CHEM), computer science (CS), earth, environment, and sustainability sciences (SEES), health, sport, and human physiology (HHP), and physics and astronomy (PHYS) may count.		6
A minimum of 12 s.h. chosen from these:		
EDTL:6758	Writing in the Science Classroom	3
CSED:7338	Essentials of Qualitative Inquiry	3
PSQF:4143	Introduction to Statistical Methods	3
PSQF:6200	Educational Psychology	3
PSQF:6220	Quantitative Educational Research Methodologies	3
PSQF:6275	Constructivism and Design of Instruction	3
One additional qualitative or quantitative research methods course chosen in consultation with advisor:		
EDTL:6761	STEM Research and Leadership Seminar	3
EDTL:6765	STEM Independent Research	3
EDTL:7040	Advanced Topics in Teaching and Learning	arr.
EDTL:7070	Qualitative Research Methods in Teaching and Learning	3
EDTL:7071	Critical Discourse Analysis in Educational Research	3
EDTL:7072	Advanced Methods of Literacy Research: Qualitative Data Analysis and Reporting	3
EDTL:7093	Research Project	arr.
EDTL:7756	Research Apprenticeship in Science Education	3
EDTL:7953	Seminar: Single Subject Design Research	3
EPLS:7373	Qualitative Research Design and Methods	3
PSQF:4143	Introduction to Statistical Methods (if not used to satisfy the 12 s.h. requirement)	3
PSQF:6243	Intermediate Statistical Methods	3
One of these:		
EDTL:7004	Schooling in the United States	3
EDTL:7033	Seminar on Teacher Education	3

Thesis

Students must complete a thesis, for which they earn 2–4 s.h. of credit.

Course #	Title	Hours
EDTL:6393	Master's Thesis	2-4

Final Examination

A final oral examination is administered on campus in which candidates defend their thesis. This examination includes a critical inquiry into the purposes, methods, and results of the thesis research investigation.

The final examination is conducted by a committee of no fewer than three members of the graduate faculty. In some cases, the committee must include a member from outside science education; consult the department.

Admission

Applicants must meet the admission requirements of the Graduate College. They should hold an undergraduate major in a science area (or combination of science areas), in science education, or in elementary education with a science emphasis. The department recommends that applicants have teaching licensure/certification unless they are preparing for careers in allied health, museums, or community colleges.

Teaching and Learning, PhD

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Students will:

- demonstrate understanding and application of research methods and methodological knowledge;
- demonstrate understanding of and ability to analyze theoretical concepts and research in their field of study;
- express ideas effectively in written and spoken communication;
- connect research to practice and practical questions in education; and
- plan, conduct, report on, and disseminate original research.

PhD Required Research Courses

Students admitted to doctoral programs must complete the program's research requirements.

Required Core Courses

All PhD students in the Department of Teaching and Learning must complete one or both of the following core courses, depending upon program requirements.

Course #	Title	Hours
EDTL:7004	Schooling in the United States	3
EDTL:7033	Seminar on Teacher Education	3

Cognate Areas

The following list of cognates offered by program areas in the department is not exhaustive; students may select cognates from this list or they may customize their own cognate areas in consultation with their advisors.

Multilingual Education

Course #	Title	Hours
This course:		
EDTL:6483	Multilingual Education and Applied Linguistics	3
Two of these, chosen in consultation with faculty:		
EDTL:6400	Fundamentals of Second Language Assessment	3
EDTL:6403	Language Policy and Planning	3
EDTL:6409	Cultural Curriculum	3
EDTL:6480	Graduate Seminar in Multilingual Education	3
EDTL:6484	Bi/Multilingual Literacies	3
EDTL:6497	Principles of Course Design for Second Language Instruction	3

Gifted Education

Administrative Strand

Course #	Title	Hours
Two of these, chosen in consultation with faculty:		
EPLS:4110	Administration and Policy in Gifted Education	2
EPLS:4111	Evaluation of Gifted Programs	1
EPLS:4113	Staff Development for Gifted Programs	1

Programming Strand

Course #	Title	Hours
Both of these:		
EDTL:4066	Curriculum and Programming for Advanced Learners	3
EDTL:4199	Program Models in Gifted Education	3

Psychology Strand

Course #	Title	Hours
Two of these, chosen in consultation with faculty:		
CSED:4120	Psychology of Giftedness	3
CSED:4121	Identification of Students for Advanced Programming	3
CSED:4137	Introduction to Educating Advanced Learners	3
CSED:5226	Assessment of Students for Advanced Programming	3
CSED:5237	Seminar in Gifted Education	3

Language, Literacy, and Social Studies Education

Course #	Title	Hours
Both of these:		
EDTL:7008	Seminar: Research and Current Issues (topic chosen in consultation with advisor)	arr.
EDTL:7015	PhD Seminar in Language, Literacy, and Culture (topic chosen in consultation with advisor)	arr.

Mathematics Education

Course #	Title	Hours
Both of these:		
EDTL:6536	Teaching of Geometry	2-3
EDTL:7535	Seminar: Research in Mathematics Education	arr.

Science Education

Course #	Title	Hours
Both of these:		
EDTL:6757	Learning in the Science Classroom	2-3
EDTL:6759	Advanced Pedagogy	3

Special Education

Course #	Title	Hours
All of these:		
EDTL:7945	Current Issues and Trends in Learning Disabilities	3
EDTL:7948	Contemporary Research in Behavioral Disorders	3
EDTL:7953	Seminar: Single Subject Design Research	3

Language, Literacy, and Social Studies Education

The Doctor of Philosophy in teaching and learning with a language, literacy, and social studies education subprogram requires a minimum of 73 s.h. of graduate credit. All students must maintain a Graduate College program grade-point average (GPA) of at least 3.00. Students may be able to use some coursework completed for their master's degree toward the PhD; most courses for the PhD should be numbered 5000 or above.

This interdisciplinary program brings together scholarly traditions and contemporary theory in multilingual education and applied linguistics, literacy and cultural studies, and social studies education. The program provides students with the necessary content area knowledge and research skills for independent research, program administration, and varied leadership positions in language, literacy, and social studies education. In consultation with their advisor, students create a program of study that fits their interests and professional aspirations.

The PhD in teaching and learning with a language, literacy, and social studies education subprogram requires the following coursework.

Required Courses

Course #	Title	Hours
This course:		
EDTL:6015	PhD Seminar: Literacy, Culture, and Language Education	3
One of these:		
EDTL:7004	Schooling in the United States	3
EDTL:7033	Seminar on Teacher Education	3

Disciplinary and Interdisciplinary Foundations

Students choose a disciplinary area in literacy education, multilingual education, or social studies education for their three foundational courses. They then select one or both of the other areas for their interdisciplinary foundation coursework.

Course #	Title	Hours
All of these:		
At least three courses in a chosen area of concentration		9
At least two courses in other areas of concentration		6

Research Methods

Course #	Title	Hours
Both of these:		
EDTL:7070	Qualitative Research Methods in Teaching and Learning	3
EDTL:7405	Research Methods in Literacy, Culture, and Language Education	3
One of these:		
PSQF:6241	Quantitative Policy Analysis for Practitioners	3
PSQF:6243	Intermediate Statistical Methods (for students who utilize quantitative methods in their dissertation)	3
And:		
Two additional advanced research methods courses in quantitative, qualitative, or mixed methods in consultation with their advisor		6

Electives

Students choose 27 s.h. of elective coursework in consultation with their advisor. Courses may be taken in any department and can be partially or completely unified as a cognate area of study.

Comprehensive Examination

Upon completion of their coursework, students take their comprehensive exam. This is an opportunity for students to show a comprehensive understanding of the scholarship in the field. Successful completion of the exam identifies candidates who are ready for dissertation work.

Dissertation

After students pass their comprehensive exam, they consult with their advisor to choose a dissertation committee with at least four faculty members who approve the dissertation proposal. After a successful defense of their dissertation, students conduct dissertation research in the following course.

Course #	Title	Hours
EDTL:7493	PhD Thesis	10

Admission

Applicants must meet the admission requirements of the Graduate College. They must have earned a bachelor's degree with an undergraduate GPA of at least 3.00 on a 4.00 scale and earned a master's degree or completed significant graduate coursework. It is recommended that applicants have at least two years of teaching experience in a related field within or outside of the United States.

Mathematics Education

The Doctor of Philosophy in teaching and learning with a mathematics education subprogram requires a minimum of 80–90 s.h. of graduate credit. Students must have a Graduate College program grade-point average of at least 3.00 or higher in all graduate work in mathematics, all University of Iowa graduate work in mathematics, all graduate work, and all University of Iowa graduate work.

The program prepares supervisors, teacher education personnel, community college personnel, and researchers in mathematics education. It is administered by the College of Education. Students must update graduate coursework completed more than 10 years before admission to the program.

The PhD program in teaching and learning with a mathematics education subprogram requires the following coursework.

Required Courses

Students must complete a minimum of 15 s.h. in qualitative and quantitative coursework, with at least 9 s.h. from one area (qualitative or quantitative) and at least 6 s.h. from the other. Students select from courses listed under PhD Research Requirements on the college's Graduate Student Resources website.

Core Course

Course #	Title	Hours
One of these:		
EDTL:7004	Schooling in the United States	3
EDTL:7033	Seminar on Teacher Education	3

In addition, students must complete an approved cognate area; see the "Additional Requirements" section.

Students must complete a minimum of 24 s.h. of graduate work in the departments of Computer Science, Mathematics, and Statistics and Actuarial Science, as approved by their advisor. Electives are encouraged in the pure mathematics and applied mathematics sequences.

Students who completed their mathematics requirement at another institution must complete at least 6 s.h. of additional coursework in mathematics at the University of Iowa, chosen with advisor approval. They must also complete at least six courses in mathematics education.

Additional Requirements

Students concentrate in two additional comprehensive examination areas in either the mathematical sciences or education. A minimum of three courses usually are required for a comprehensive examination area, but candidates should consult with faculty members in the areas selected to determine which courses they should take in order to adequately prepare for the examinations.

Students must complete a total of at least 36 s.h. in College of Education courses; this includes the coursework listed above. They must complete an approved cognate area; a partial list of potential cognate areas is available from the mathematics education program.

Comprehensive Examination

Students take three written comprehensive examinations, one in mathematics education and two in other fields of education or mathematics; an oral examination follows the written examinations.

Dissertation

Candidates complete a dissertation on a research problem in mathematics education. A prospectus of the proposed research must be presented to the dissertation committee before candidates undertake the study. Upon completion of the dissertation, candidates defend the dissertation in an oral examination. Students must earn dissertation credit in the following course.

Course #	Title	Hours
EDTL:7493	PhD Thesis	10

Admission

Applicants must meet the admission requirements of the Graduate College. They must have an undergraduate major in mathematics or the equivalent, a current teaching license/certificate, and at least two years of teaching experience are strongly preferred. A faculty review committee makes admission decisions.

Science Education

The Doctor of Philosophy in teaching and learning with a science education subprogram requires a minimum of 85 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average (GPA) of at least 3.00.

The program is designed for individuals who aspire to positions as college and university science educators; major supervisors in national, state, and local systems; teachers in small liberal arts colleges; instructors of general education science courses at major universities; research directors in science education; and professionals in medical and/or allied health education.

The PhD in teaching and learning with a science education subprogram requires the following coursework.

Required Courses

Students in science education complete a minimum of 15 s.h. in qualitative and quantitative coursework, with at least 9 s.h. from one area (qualitative or quantitative) and at least 6 s.h. from the other. Students select from courses listed under PhD Research Requirements on the college's Graduate Student Resources website. Course selections must be consistent with other requirements for the degree.

Core Courses

All doctoral students in science education complete one or both of the following core courses. Students may not substitute other courses for these.

Course #	Title	Hours
EDTL:7004	Schooling in the United States	3
EDTL:7033	Seminar on Teacher Education	3

In addition, all doctoral students in the Department of Teaching and Learning complete an approved cognate area; see "Cognate Areas" under PhD Required Research Courses [p. 1505] in this section of the catalog.

Science Education

Course #	Title	Hours
All of these (15 s.h.):		
EDTL:6757	Learning in the Science Classroom	3
EDTL:6758	Writing in the Science Classroom	3
EDTL:6759	Advanced Pedagogy	3

Graduate-level science education courses chosen in consultation with advisor	6

Education

Course #	Title	Hours
Three courses chosen in consultation with advisor		9

Research in Science Education

Course #	Title	Hours
Both of these (21 s.h.):		
EDTL:7750	Seminar: Science Education (taken three times for 1 s.h. each)	3
EDTL:7755	Independent Study in Science Education Research (taken six times for 3 s.h. each)	18

Science Area

Students complete a family of courses (total of 12 s.h.) in a major science area.

Comprehensive Examination

Students take three written comprehensive examinations, one in science education and two in other fields of education or science; an oral examination follows the written examinations.

Dissertation

Course #	Title	Hours
This course:		
EDTL:7493	PhD Thesis	10

Admission

Applicants must meet the admission requirements of the Graduate College. They should have completed a bachelor's degree in a science area (or combination of science areas), in science education, or in elementary education with a science emphasis; and have a cumulative GPA of at least 3.00 on undergraduate and graduate work.

Special Education

The Doctor of Philosophy in teaching and learning with a special education subprogram requires a minimum of 90 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average (GPA) of at least 3.00.

The program prepares students for teaching and research positions in higher education, and for curriculum, supervisory, and research positions in state and local education agencies. The program permits students to study and practice extensively in their special education interest area and in an interest area outside of special education.

The PhD curriculum includes an emphasis on research skills, all facets of special education, an approved cognate area, and at least one specialization area.

Quantitative Research Requirements

Course #	Title	Hours
Both of these:		
PSQF:4143	Introduction to Statistical Methods	3
PSQF:6243	Intermediate Statistical Methods	3
Two of these:		
EPLS:6206	Research Process and Design	3
PSQF:6220	Quantitative Educational Research Methodologies	3
PSQF:6244	Correlation and Regression	4
PSQF:6246	Design of Experiments	3
PSQF:6247	Nonparametric Statistical Methods	3
PSQF:6249	Factor Analysis and Structural Equation Models	3
PSQF:6252	Introduction to Multivariate Statistical Methods	3

Qualitative Research Requirements

Course #	Title	Hours
This course:		
EDTL:7953	Seminar: Single Subject Design Research	3
One of these:		
EDTL:7410	Mixed Methods Research	3
CSED:7338	Essentials of Qualitative Inquiry	3
EPLS:7373	Qualitative Research Design and Methods	3
PSQF:7331	Qualitative Educational Research Methods	arr.

Core Course

Course #	Title	Hours
One of these:		
EDTL:7004	Schooling in the United States	3
EDTL:7033	Seminar on Teacher Education	3

Proseminar Courses

Course #	Title	Hours
Both of these:		
EDTL:7943	Proseminar: Issues, Trends, and Research in Special Education	3
EDTL:7944	Proseminar: Issues, Trends, and Research in Special Education II	3

Seminar Requirements

Course #	Title	Hours
Both of these:		
EDTL:7945	Current Issues and Trends in Learning Disabilities	3
EDTL:7948	Contemporary Research in Behavioral Disorders	3

Practicum Requirement

Course #	Title	Hours
This course:		
EDTL:7380	Practicum in College Teaching (taken twice for 3 s.h. each)	6

Cognate

Students complete a cognate or specialty area for at least 9 s.h. in consultation with their advisor.

Competencies

Students work with their advisor to ensure they meet the core competencies of the degree by: completing the University of Iowa Institutional Review Board training; submitting a paper for publication; completing two conference presentations; and completing two service activities.

Comprehensive Examination

The comprehensive exam comprises the submission of a major area paper during the student's third year of enrollment in the program.

Dissertation

Students complete a doctoral dissertation for at least 10 s.h.

Course #	Title	Hours
This course:		
EDTL:7493	PhD Thesis	10

Admission

Applicants must meet the admission requirements of the Graduate College. They must have a master's degree or equivalent in special education; those without an MA thesis must have completed an equivalent project. Applicants should have a graduate GPA of at least 3.50. Applicants should have at least one year of full-time teaching experience with exceptional children; several years are preferred.

Final admission decisions are made by the special education graduate admissions committee.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Teaching and Learning, PhD

Special Education Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
90 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Any Semester		
Exam: Qualifying Exam I		
	Hours	**0**
Fall		
EDTL:7004 or EDTL:7033	Schooling in the United States or Seminar on Teacher Education	3
EDTL:7953	Seminar: Single Subject Design Research	3
PSQF:4143	Introduction to Statistical Methods	3
Cognate/Specialty course [c]		3
Quantitative Research course [d]		3
	Hours	**15**
Spring		
EDTL:7943	Proseminar: Issues, Trends, and Research in Special Education [e]	3
PSQF:6243	Intermediate Statistical Methods	3
Cognate/Specialty course [c]		3
Qualitative Research course [f]		3
Quantitative Research course [d]		3
	Hours	**15**
Second Year		
Any Semester		
Exam: Qualifying Exam II		
	Hours	**0**
Fall		
EDTL:7944	Proseminar: Issues, Trends, and Research in Special Education II [e]	3
EDTL:7945	Current Issues and Trends in Learning Disabilities [g]	3
Cognate/Specialty course [c]		3
Elective course [h]		3
Elective course [h]		3
	Hours	**15**
Spring		
EDTL:7948	Contemporary Research in Behavioral Disorders [g]	3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
	Hours	**15**

Third Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [i]		
Dissertation Proposal [j]		
	Hours	**0**
Fall		
EDTL:7380	Practicum in College Teaching [k]	3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		2
	Hours	**11**
Spring		
EDTL:7380	Practicum in College Teaching [k]	3
Elective course [h]		3
Elective course [h]		3
	Hours	**9**
Fourth Year		
Fall		
EDTL:7493	PhD Thesis	5
	Hours	**5**
Spring		
EDTL:7493	PhD Thesis	5
Exam: Doctoral Final Exam [l]		
	Hours	**5**
	Total Hours	**90**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c In consultation with faculty advisor, complete 9 s.h. in a cognate or specialty area.

d Choose from EPLS:6206, PSQF:6220, PSQF:6244, PSQF:6246, PSQF:6247, PSQF:6249, PSQF:6252.

e When offered, enroll in EDTL:7943 and EDTL:7944; otherwise take PSQF:7201 and EALL:4130 or advisor approved coursework.

f Choose from CSED:7338, EDTL:7410, EPLS:7373, PSQF:7331.

g When offered, enroll in EDTL:7945 and EDTL:7948; otherwise work with faculty advisor to determine appropriate coursework.

h In consultation with faculty advisor, select appropriate graduate electives for remaining degree requirements.

i Major area paper.

j Typically completed by the end of third year.

k Take EDTL:7380 twice for 3 s.h. each, once for teaching course and once for supervising field placement students.

l Dissertation defense.

UI REACH

Director

- William "Bill" Loyd Jr.

Faculty: https://education.uiowa.edu/directory

Website: https://education.uiowa.edu/reach

UI REACH (Realizing Educational and Career Hopes) is a comprehensive transition certificate program for college students with intellectual, cognitive, and learning disabilities. UI REACH offers an integrated college experience in a caring and structured environment. UI REACH is a four-year program with early graduation options.

The UI REACH experience integrates academic skill building, career development, campus involvement, social development, and transition planning to create a dynamic and inclusive collegiate experience. A few of the program offerings include:

- an integrated, Big Ten University experience with on-campus residence hall living;
- person-centered goal planning to customize each student's college experience according to their interests and abilities;
- specialized and individualized support in the core areas of academics, career and transition, social growth, and student life;
- specialized core curriculum and electives delivered by College of Education instructors;
- inclusive academic learning opportunities including classes for credit or audit;
- employment preparation and career development;
- integrated community-based internships and employment opportunities with local businesses;
- access to over 600 student organizations and numerous inclusive campus activities;
- on-call emergency 24-hour support;
- scholarships and other financial aid options;
- a four-year certificate with second- and third-year certificate options;
- opportunities to earn career-specific enhanced credentials and certifications; and
- events around the country for current students, alumni, and families.

For more information, visit UI REACH on the College of Education website.

Courses

UI REACH Courses

REA:0010 Social Skills I 1-2 s.h.
Basic interpersonal skills needed to succeed in academic, social, and employment environments; structured learning process for gaining discrete social skills necessary to initiate and maintain conversations in a variety of settings; awareness of feelings and cues in conversation to respond appropriately and have successful reciprocal interactions; lectures, modeling, role play, and practice in the community.

REA:0020 Computers and Technology I 1-2 s.h.
Training in computer literacy and practical skills for computer use in everyday life; computer parts and functions, the Windows operating system, computer applications; use of the personal computer to improve personal, academic and workplace productivity; group discussion, demonstrations, and multimedia experience support diverse learning styles.

REA:0021 Computers and Technology II 1-2 s.h.
Builds on REA:0020; fundamental computer competencies and strategies to simplify everyday life and enhance workplace performance; opportunity to improve practical skills for the workplace, communication with others, and daily life; tools for improving personal organization and communication and for meeting academic, entertainment, and workplace needs; group discussion, demonstration, independent exploration, and a multimedia experience support diverse learning styles.

REA:0030 Health and Wellness I - Exploration 2 s.h.
Importance of health and wellness, personal relationships, sexuality and making healthy choices; overview of health and wellness topics college students face—nutrition, substance use, risky behaviors, personal relationships, sexual health, mental health.

REA:0031 Health and Wellness II - Healthy Lifestyles 2 s.h.
Health and wellness personalized for students; help in assessing individual health and wellness decisions and behaviors to improve current and long-term health and wellness; small group discussion, individual assessments, real-life exploration, interactions with health educators, one-on-one student support; second in a series.

REA:0040 Personal Finance 1-2 s.h.
Skills and strategies needed for managing personal finances and making informed spending decisions; initial focus on strategies for use while on a college campus and a larger goal of lifelong application; topics include budgeting, forms of payment, ATM use and etiquette, protecting yourself from financial fraud, differentiating needs and wants, comparison shopping, understanding discounts, tipping, and other personal finance topics needed for managing financial decisions while living independently.

REA:0041 Personal Finance and Math II 1-2 s.h.
Skills and knowledge needed for managing personal finances; banking, budgeting, insurance, how to be a good consumer; students plan for their financial future by studying paycheck information, actual income, and tax responsibility; research on independent living costs; second in a series.

REA:0045 Lifetime Literacy 1-3 s.h.
Students build writing and reading comprehension skills through text analysis and critical thinking; reading current events articles to construct argumentative and informational writing pieces; use of claim, evidence, and reasoning process to develop organized writing abilities.

REA:0050 Reading Strategies 2 s.h.
Building comprehension strategies and lifelong reading skills; using a novel to develop essential comprehension skills (e.g., summarizing, main ideas, prediction, inference, theme, sequencing); reading for enjoyment while sharpening skills that can be applied in broad reading applications.

REA:0062 Social Skills II 2 s.h.
Continuation of REA:0010; more advanced relationship skills that require self-regulation; self-awareness; applying skills for communicating under stress; structured learning process including repetitive practice and modeling as key components.

REA:0065 Independent Living Lab 0-1 s.h.
Development of independent living skills through a blended model of instruction and applied living in real-life settings; managing a living space independently; living in a shared room and community space; skill-building to manage cleaning, organization, and laundry independently.

REA:0070 College Foundations 2 s.h.
Components of successful independent campus and community living; healthy relationships and personal safety issues; effective communication skills for interacting with peers and college personnel; accessing campus and community resources; practical strategies for campus and community success, including basic budgeting, technology, academic success strategies, and technology.

REA:0072 College Transition II: Preparing for Independent Living 2 s.h.
Individual goal setting and planning for independent living after college; how to be interdependent and independent in the community, socially, in careers, and in educational settings; promoting self-awareness, self-advocacy, self-determination, and community engagement.

REA:0073 Transition III: Applied Independent Living 2 s.h.
Preparation for independent living through development of SMART goals, person-centered planning, community resource mapping, and identifying a circle of support. Planning and leading a transition meeting to outline transition for life after college.

REA:0074 Household Management II 2-4 s.h.
Continuation of REA:0075; preparation for independent apartment living; experiential training, assessment to determine support needs; apartment living, personal care, value shopping and budgeting, preparing meals, successful community living.

REA:0075 Household Management I 1-4 s.h.
Independent living skills introduced in the life skills and health and wellness courses; hands-on experience in room care, clothing care, food/kitchen safety, meal planning and nutrition, food preparation, simple recipes, grocery shopping, event planning.

REA:0100 Career Exploration 3 s.h.
Opportunity to explore, enhance, or broaden work interests, skills, and potential career opportunities; interest inventories, review of vocational experiences, interactive employer presentations, informational interviews, job site experiences; focus on self-assessment of one's individual vocational strengths.

REA:0101 Job Search Strategies 2 s.h.
Fundamental skills for finding employment; creating a résumé, techniques for interviewing and networking, essentials for disclosure and workplace accommodations.

REA:0103 Job Search Strategies II 1 s.h.
Continuation of REA:0101; students update résumés and references; further development of interview skills with emphasis on self-advocacy and advancement in the workplace.

REA:0110 Entrepreneurism 1 s.h.
Characteristics, advantages, and disadvantages of self-employment; basic aspects of forming a business; marketing; acquiring start-up funding and other resources; financial obligations and monitoring of funds required for a successful business; writing a business plan.

REA:0200 Business Support Seminar 1 s.h.
Aspects of careers in business support; office procedures, word processing skills, oral and written communication, records management, business terminology.

REA:0202 Education Career Seminar 1 s.h.
Aspects of careers in education; additional training typically required for careers in education, child/student needs, lesson planning.

REA:0203 Health Services Seminar 1 s.h.
Aspects of careers in health services; office procedures and equipment, customer service skills, terminology used in health care environments.

REA:0204 Health and Human Services Seminar 1 s.h.
Aspects of careers in hospitality and human services sectors; customer service skills, communication etiquette, and interpersonal relationships; industry outlook, terminology, and field experiences.

REA:0205 Human Services Seminar 1 s.h.
Aspects of careers in human services; types of human services environments, interpersonal relationships and boundaries, paperwork requirements, terminology commonly used in human services environments.

REA:0207 Marketing/Sales Seminar 1 s.h.
Aspects of careers in marketing and sales; customer service skills, use of retail equipment, marketing techniques and the importance of product appearance, pricing and advertising, vocabulary used in a retail sales environment.

REA:0208 Parks and Natural Resources Seminar 1 s.h.
Aspects of careers in parks and natural resources management; operation and maintenance of equipment, safety procedures, customer service skills, typical vocabulary for positions involving care and management of shrubs, trees, flowers, and turf.

REA:0209 Skilled Trades Seminar 1 s.h.
Aspects of careers in the skilled trades; occupational skill standards in specific skilled trades, apprenticeships or advanced training required, safety in the workplace, vocabulary typical for specific skilled-trade work environments.

REA:0210 Information/Technology Seminar 1 s.h.
Aspects of careers in information technology; occupational skill requirements and standards, knowledge of typical equipment employees must operate, safety in the workplace, typical vocabulary for information technology work environments.

REA:0211 Hospitality and Food Service Seminar 1 s.h.
Different types of careers in the food industry; workplace skills and tasks; continuing training and education options; equipment and food safety; basic preparation steps, food presentation, place settings; field trips. Requirements: enrollment in UI REACH program.

REA:0213 Recreation Seminar 1 s.h.
Aspects of careers in recreation, training and education requirements, tasks at work, and job prospects.

REA:0215 Advanced Customer Service 1 s.h.
Builds on previously learned customer service concepts with application to a wide range of careers; communication techniques through various modes, technology used in customer service, guest speakers, skill development, managing difficult customer situations, and other essential customer service skills.

REA:0220 Digital Citizenship 1 s.h.
Making informed choices regarding media and technology in a digital age; exploration of media balance and well-being, online communication and relationships, privacy and security, and the impact of a digital footprint; responsible decision-making and communication methods in an online world. Prerequisites: REA:0020.

REA:0250 Academics and Life Skills Exploration I 1-3 s.h.
Expand basic academic and/or life skills with discovery, experiential learning, progress monitoring, and self-reflection; focus on strengthening foundational skills in practical academics and life skills; first of a two-part series.

REA:0251 Academics and Life Skills Exploration II 0-2 s.h.
Builds on basic academic and/or life skills explored in REA:0250; UI REACH instructors and university faculty work together to enhance learning opportunities while providing explicit, interactive learning opportunities; progress monitoring, reflection, and focus on maintenance of basic academic and life skills; second of a two-part series.

REA:0300 Internship Prep arr.
Introduction to workplace readiness skills, job expectations, and workplace environments; participation in job shadowing, creating professional résumés, and use of career assessments and person-centered goals to identify a career path or area of interest.

REA:0301 Internship Experience arr.
Internship experience leading to increased independence in the workplace (e.g., more independent operation of equipment, socialization, workplace safety, problem solving, conflict management); opportunity to acquire additional workplace skills in the student's career emphasis area; employers and mentors guide students in fulfilling their job responsibilities; students maintain a journal and discuss their experience with their advisor or instructor; second of three consecutive internships.

REA:0302 Internship III arr.
Internship experience with opportunities to develop more advanced skills for independent communication, problem solving, and workplace performance in the student's career emphasis area; employers and mentors observe the student in the workplace; students maintain a journal and discuss their experience with their advisor or instructor; third of three consecutive internships.

REA:0303 Internship Group arr.
Individualized community work experiences with periodic classroom seminars; building independent work skills, such as researching bus routes and emailing weekly journals; students, instructors, and employers evaluate student's work performance.

REA:0304 Internship V arr.
Continuation of REA:0303; community work experiences with periodic classroom seminars; emphasis on work skills in student's career area of choice; soft skills needed to be an independent worker.

REA:0305 Career Capstone arr.
Application of knowledge and skills developed during college experience in a hands-on, experiential format. Integration of external learning experiences and activities including interviews, job fairs, networking, career advancement opportunities, and related seminars. Individual or small group experiences include seminars, independent study, and/or service projects. Requirements: UI REACH fourth-year enrollment.

REA:0306 Work Ready Seminar: Applied Job Skills arr.
Supported and structured seminar experience to build students' job search, interview, and workplace skills through an independent work experience on campus; students will apply for paid jobs and work a minimum of 15 hours within the 8-week course; students will specifically receive support with updating or creating resumes/references, completing applications, communications with employers, human resources meetings, and completing trainings or compliance.

REA:0310 WorkKeys Lab 1-2 s.h.
Students build essential career-related skills using curriculum that is aligned with ACT WorkKeys National Career Readiness Certificate (NCRC) assessments; topics include reading for information and applied math skills. WorkKeys is a registered trademark of ACT, Inc.

REA:0501 Special Topics arr.
Topics include leisure resources, current events, science, family life, consumerism, community involvement, self-determination, self-advocacy, leadership, assistive technology, mentoring; course assignments, instruction, and student assessment in classroom and/or community settings; may be required or elective course.

College of Engineering

Dean

- Ann F. McKenna

Associate Dean, Academic Programs

- Nicole M. Grosland

Associate Dean for Research and Faculty

- H.S. Udaykumar

Associate Dean for Graduate Education

- Suresh Raghavan

Undergraduate degree: BSE

Undergraduate certificates: applied climate science and energy technologies; artificial intelligence, modeling and simulation in engineering; naval science and technology; technological entrepreneurship

Graduate degrees: MS; PhD

Graduate certificates: artificial intelligence, modeling and simulation in engineering; sustainable water development

Website: https://engineering.uiowa.edu/

The College of Engineering has six academic departments: the Roy J. Carver Department of Biomedical Engineering [p. 1535] and the departments of Chemical and Biochemical Engineering [p. 1554], Civil and Environmental Engineering [p. 1576], Electrical and Computer Engineering [p. 1613], Industrial and Systems Engineering [p. 1635], and Mechanical Engineering [p. 1655].

Moreover, research and educational activities of the college are supported by four research centers and institutes: the Center for Bioinformatics and Computational Biology, the Iowa Institute for Biomedical Imaging, IIHR—Hydroscience and Engineering, and the Iowa Technology Institute.

Programs

Undergraduate Programs of Study

The College of Engineering offers the Bachelor of Science in Engineering [p. 1527] (BSE) with majors in biomedical [p. 1535], chemical [p. 1554], civil [p. 1576], computer science and engineering [p. 1613], electrical [p. 1613], environmental [p. 1576], industrial [p. 1635], and mechanical [p. 1655] engineering.

For information about each BSE major, see each area in the catalog.

The college also offers combined undergraduate degree programs with the College of Liberal Arts and Sciences and the Tippie College of Business; a dual degree with the University of Northern Iowa; a combined BSE/master's degree program in each engineering discipline; and combined BSE/master's degrees with the Department of Computer Science, the Department of Occupational and Environmental Health, and the School of Planning and Public Affairs. For additional information, see "Combined and Dual Degrees" in the Bachelor of Science in Engineering, BSE [p. 1529] section of the catalog.

In addition, the College of Engineering offers a Certificate in Applied Climate Science and Energy Technologies [p. 1521], the undergraduate Certificate in Artificial Intelligence, Modeling and Simulation in Engineering [p. 1524], a Certificate in Naval Science and Technology [p. 1676], and partners with the Tippie College of Business to offer a Certificate in Technological Entrepreneurship [p. 1681] for undergraduate engineering students.

Graduate Programs of Study

The College of Engineering offers graduate degree programs, the Master of Science (MS) and Doctor of Philosophy (PhD), in biomedical engineering [p. 1535], chemical and biochemical engineering [p. 1554], civil and environmental engineering [p. 1576], electrical and computer engineering [p. 1613], industrial engineering [p. 1635], and mechanical engineering [p. 1655]. See the College of Engineering Graduate Studies website for an overview, and the department sections in the catalog for information about specific areas of research and study, admission and degree requirements, and financial support for the graduate programs. The College of Engineering also offers the graduate Certificate in Artificial Intelligence, Modeling and Simulation in Engineering [p. 1526], Certificate in Transportation Planning [p. 1814], and a graduate Certificate in Sustainable Water Development [p. 1678].

Facilities and Resources

College of Engineering Facilities

Seamans Center for the Engineering Arts and Sciences

The Seamans Center for the Engineering Arts and Sciences is home to the College of Engineering. In addition to classrooms, conference rooms, instructional laboratories, and faculty offices, the Seamans Center houses the Lichtenberger Engineering Library, the Hanson Center for Technical Communication, a machine shop, an electronic shop, student workspaces, computational facilities, and research laboratories. A number of classrooms and open spaces located throughout the building were designed to readily accommodate collaborative work.

Engineering Student Services

The professional staff of Engineering Student Services administers student services for the College of Engineering, including advising, tutoring, student records, and global engineering. It is also the administrative home of Engineering Career Services and the Hanson Center for Technical Communication.

Engineering Career Services

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including engineering career fairs and other programming related to career development.

Engineering Career Services offers individual advising and class presentations on résumé and cover letter preparation,

job and internship search strategies, interviewing skills, job offer evaluation, and much more. Engineering Career Services partners with the Pomerantz Career Center to facilitate on-campus interviewing, postgraduation outcome collection, and the university's online recruiting system, Handshake.

Leadership, Ethics, and Professional Pathways (LEaPP)

The LEaPP Academy aims to provide students with the knowledge, skills, and perspectives that enhance their long-term success, make them valuable leaders to the companies that employ them, and develop them as ethically and globally aware citizens of the world. LEaPP Scholars complete a number of cocurricular activities to earn leadership, ethical thinking, and professional development credentials. Individuals who complete the LEaPP Academy receive collegiate accolades and are honored with graduation cords specific to the LEaPP Program. The LEaPP Academy is designed to be accessible no matter the semester or timeline in which a student joins; each piece is individualized and self-led to offer the best experience to each student based on their needs.

Hanson Center for Communication

The Hanson Center for Communication is an endowed program that works closely with engineering faculty to train students in verbal and written communication throughout the curriculum. The center helps create, manage, and grade writing and presentation assignments and provides training to students, tutors, and faculty on best practices for communication. In addition, the Hanson Center for Communication is home to an innovative peer training center that conducts hundreds of one-on-one and team tutoring sessions each year. The center helps review lab reports, topical papers, technical essays, and technical presentations each semester. Peer tutors are undergraduate students who have shown exceptional promise as communicators and provide individualized feedback throughout the writing and presentation process. In addressing global concerns (organization, clarity, and context), peer tutors help their fellow students transform rough drafts into persuasive, logical documents and presentations.

Global Engineering

Many of today’s top employers are seeking engineering graduates with global experiences and competencies who can effectively interact with colleagues and customers around the world. Successful engineers are able to communicate across cultures, work on diverse teams, and productively deal with issues and conflicts arising from differences.

University of Iowa engineering students have a variety of opportunities to study, pursue internships, or conduct research abroad. Students can enroll in credit-bearing courses in English to fulfill engineering or general education requirements or earn credits toward a minor in another discipline or world language. In addition to completing coursework abroad, engineering students can pursue experiential opportunities abroad, including global internships, conducting independent research in other countries, and volunteering. For more information, see Study Abroad on the College of Engineering website. The College of Engineering and International Programs supports these endeavors by offering students a variety of scholarships and funding.

Engineering Computer Services

Engineering Computer Services (ECS) provides spaces and technology administration for curricular, administrative, and research computing at the College of Engineering. The college has three drop-in computer labs with 225 high-end Linux and Windows computer workstations with graphics processing unit (GPU) support, a 24-seat computer classroom, a 45-seat machine learning and virtual reality-capable computer classroom, and a 400-seat virtual computer lab with GPU support that students can access from the internet. Numerous public domain and commercial engineering applications support the full range of engineering classes. Software is regularly upgraded, and hardware is refreshed at least every four years. The college's computer labs are open 24 hours a day, every day of the year.

Engineering Machine Shop

The Engineering Machine Shop (EMS) is a full-service, light manufacturing facility that supports the curricular, research, and operational needs of the College of Engineering and the university. EMS provides professional design and fabrication services and gives students, staff, and faculty controlled access to a student shop that contains a variety of manufacturing equipment. The shop has a high-resolution 3D scanner, commercial 3D printers, a waterjet, a full wood shop, welding, and multi-axis CNC machines.

Lichtenberger Engineering Library

The Lichtenberger Engineering Library is a branch of the University of Iowa Main Library and is a center of engineering college activity. Its collection includes books (including required course textbooks), tools, equipment, and electronic resources to assist at any stage of research on projects both big and small. Staff are trained to help locate information and provide training on a wide variety of skills, including patent searching, data management, tool usage, and more.

The Engineering Library, located next to the Student Commons in the Seamans Center, provides access to computer workstations, quiet study in the lower level, and group study space where students may reserve a private room for their work. The Engineering Library also houses the Creative Space, a space for students to imagine, tinker, design, and create with virtual reality, 3D scanners, and more.

NEXUS

The NEXUS Program is an art and engineering program. NEXUS promotes collaboration efforts between the College of Engineering and the art community by getting people and ideas together. The goal is to involve students in science, technology, engineering, arts, and mathematics (STEAM) projects throughout the university and the surrounding community. The program helps participants to think outside the box.

College of Engineering Research Centers

Center for Bioinformatics and Computational Biology

The Center for Bioinformatics and Computational Biology (CBCB) is a multidisciplinary research center dedicated to applying high performance networking and computing to basic life science and applied biomedical research. With faculty and students representing more than 20 traditional disciplines, the CBCB has contributed to the understanding of inherited human diseases, including blinding eye disease, cancer, deafness, diabetes, autism, schizophrenia, hypertension, obesity, and heart disease. For almost 20 years, the CBCB

has been at the cutting edge of high-throughput molecular discovery and interpretation in transcriptomics, genomics, and proteomics. At the confluence of these efforts lies the current wavefront of personalized genomic medicine, in which the CBCB plays a central role in partnership with labs, centers, and institutes across the university's Carver College of Medicine and basic science programs across campus. The CBCB has also been a center for industry start-ups and partnerships with numerous commercial enterprises. The center is jointly sponsored by the College of Engineering and the Carver College of Medicine.

Iowa Institute for Biomedical Imaging

The Iowa Institute for Biomedical Imaging conducts research in the following areas: medical imaging (CT, MR, OCT, PET, SPECT, ultrasound, multimodality imaging), medical image analysis and computer-aided diagnosis; cardiovascular image analysis (angiography-intravascular ultrasound data fusion, MR image analysis of congenital heart disease, coronary CT image analysis, early detection of cardiovascular disease); pulmonary image analysis (CT and MR image analysis of the lung); cell image analysis (cell tracking, shape analysis); virtual surgery planning (augmented reality for surgical planning); cancer-related assessment of tumor progression/regression; staging; general machine learning; and disease/treatment outcome prediction. The institute is sponsored by the College of Engineering and the Carver College of Medicine.

IIHR—Hydroscience and Engineering

IIHR—Hydroscience and Engineering is a world-renowned center with more than 100 years of education, research, and public service focusing on hydraulic engineering and fluid mechanics. Based in the C. Maxwell Stanley Hydraulics Laboratory, a five-story red brick building on the banks of the Iowa River, IIHR is a unit of the College of Engineering. IIHR students, faculty members, research engineers and scientists, and staff work together to understand and manage one of the world's greatest resources—water. Students from around the world benefit from IIHR's comprehensive multidisciplinary approach, which includes basic fluid mechanics, laboratory experimentation, and computational approaches.

IIHR research activities include fluid dynamics (turbulent flows, vortex dynamics, ship hydrodynamics, biological fluid flow, atmospheric boundary layer, experimental and computational fluid dynamics); environmental hydraulics (river mechanics, hydraulic structures, fish passage, sediment management, heat disposal in water bodies and power productions, bioremediation of groundwater, computational hydraulics, water-quality monitoring); water and air resources (air pollution, hydroclimatology, hydrogeology, hydrology, hydrometeorology, remote sensing, water resources and basin-scale processes); environmental engineering and science (PCBs in the air and water, innovative ways of removing contaminants from the soil and water, ultra-fine particles of pollutants in the atmosphere, bioremediation strategies for persistent groundwater contaminants); and water sustainability (development of sound strategies and technological solutions to meet the challenges facing society's growing need for water resources). In 2009, the Iowa Flood Center was founded at IIHR as the only academic center devoted solely to flood-related research and education.

The University of Iowa's Water Sustainability Initiative (WSI) brought new interdisciplinary expertise to the institute in 2013 when WSI faculty members (based in the colleges of Liberal Arts and Sciences, Engineering, and Public Health) became affiliated with IIHR. The Iowa Geological Survey joined IIHR in 2014, bringing new expertise in Iowa's subsurface resources, groundwater modeling, innovative geophysical skills, and more.

Students gain hands-on experience through close cooperation with faculty and staff on research projects funded by industry, government, and other organizations.

Iowa Technology Institute

The Iowa Technology Institute (ITI) conducts basic and applied research. The mission is to cultivate collaboration across disciplines, invent advanced technologies, and conduct trailblazing research in design, simulation, and experimentation that enables a safer and more productive future. ITI provides a unique environment for research and development for faculty, graduate and undergraduate students, research fellows, and professional scientists. ITI spans more than 20 laboratories and centers, led by the Operator Performance Laboratory, the Virtual Soldier Research program, and the Atmospheric and Environmental Research Lab.

Research at ITI focuses on advanced manufacturing and materials, human modeling and simulation, aerospace technology, biotechnology, environment and energy, and systems and sensors. Scientists conduct experiments in flight testing, human performance, robotics, biomedical and biochemical research, machine learning, smart sensors, remote sensing, renewable energy, and modeling of environmental change.

ITI has a satellite office in Orlando, Florida, and has major contracts with the U.S. military and industry partners.

High School Program

FIRST Tech Challenge

For Inspiration and Recognition of Science and Technology (FIRST) gives students the opportunity for real-world application of science, technology, engineering, and math (STEM) concepts. Students participate in an atmosphere that encourages team building, entrepreneurship, and sportsmanship. FIRST Tech Challenge (FTC) allows teams of students to be responsible for designing, building, and programming robots to compete in an alliance format against other teams. Teams are required to develop strategies and build robots based on sound engineering principles. Students learn about working in a team environment, effective communication skills, the ability to fail and succeed at the same time, and competing fairly while being supportive of their competition.

Courses

The engineering course requirements for engineering majors are outlined in their respective catalog sections. Each undergraduate program builds upon a core program; see the Bachelor of Science in Engineering [p. 1527] in the catalog. Not all engineering core courses listed are required for each engineering major. Core program courses are intended for College of Engineering students. Undergraduate students in other disciplines who wish to register for core engineering courses should complete a special permission form.

- Engineering Courses [p. 1517]
- Engineering and Information Technology Courses [p. 1518]

Engineering Courses

ENGR:0000 Engineering Internships and Co-ops 0 s.h.
For engineering students completing a semester-long internship experience while working 35-40 hours a week at a professional company.

ENGR:0001 Engineering Co-op 0 s.h.
Multiple-semester cooperative education experience for students working 35-40 hours a week at a professional company.

ENGR:0004 Engineering Academic Internship arr.
Academic credit for engineering majors participating in the Cooperative Education and Internship Program. Requirements: for international students—F-1 or J-1 visa, engineering undergraduate standing, full-time internship offer letter in hand (at least 40 hours/week and one semester in length), internship approved by International Student and Scholar Services for F-1 Curricular Practical Training (CPT) or J-1 Academic Training (AT), concurrent registration in approved 3 s.h. distance education or evening course, and preapproval of internship by Engineering Career Services; non-international students may be eligible on case-by-case basis.

ENGR:1000 Engineering Success for First-Year Students 1 s.h.
Introduction to engineering student life; electronic resources; keys to and skills for success; coping with adversity; selecting a major; advising; curriculum choices and career objectives; ethics; communication; internships and co-ops; job search skills.

ENGR:1029 First-Year Seminar arr.
Introduction to engineering fields of study; work closely with a faculty member or senior administrator; participation that eases the transition to college-level learning; cutting-edge research taking place in the College of Engineering.

ENGR:1100 Introduction to Engineering Problem Solving 3 s.h.
Development and demonstration of specific problem solving skills; directed project or case study involving actual engineering problems and their solutions.

ENGR:1300 Introduction to Engineering Computing 3 s.h.
Engineering problem solving using computers; introduction to digital computations, problem formulation using a procedural high-level language; structured, top-down program design methodology; debugging and testing; introduction to use of software libraries; examples from numerical analysis and contemporary applications in engineering. Corequisites: MATH:1550.

ENGR:2110 Statics 2-3 s.h.
Vector algebra, forces, couples, moments, resultants of force couple systems; friction, equilibrium analysis of particles and finite bodies, centroids; applications. Prerequisites: MATH:1550. Corequisites: MATH:1560 and PHYS:1611.

ENGR:2120 Electrical Circuits 3 s.h.
Kirchhoff's laws and network theorems; analysis of DC circuits; first order transient response; sinusoidal steady-state analysis; elementary principles of circuit design; SPICE analysis of DC, AC, and transient circuits. Corequisites: MATH:2560.

ENGR:2130 Thermodynamics 3 s.h.
Basic elements of classical thermodynamics including first and second laws, properties of pure materials, ideal gas law, reversibility and irreversibility, and Carnot cycle; control volume analysis of closed simple systems and open systems at steady state; engineering applications, including cycles. Prerequisites: PHYS:1611 and CHEM:1110. Corequisites: MATH:1560.

ENGR:2510 Fluid Mechanics 4 s.h.
Fluid properties; hydrostatics; transfer of mass, momentum, and energy in control-volume and differential forms; dimensional analysis and similitude; laminar and turbulent flow in conduits; flow past bluff bodies and airfoils; engineering applications; experimental laboratories, computer simulation projects. Prerequisites: MATH:2560 and ENGR:2710. Corequisites: ENGR:2130.

ENGR:2710 Dynamics 3 s.h.
Vector calculus, Newton's laws, 3D motion of particles and multiparticle systems, 2D motion of rigid bodies applications. Prerequisites: ENGR:2110 and MATH:1550.

ENGR:2720 Materials Science 3 s.h.
Concepts and examples of selection and applications of materials used by engineers; mechanical, electrical, and thermal properties that govern a material's suitability for particular applications; lectures supplemented by laboratory experiments. Prerequisites: CHEM:1110. Corequisites: MATH:1550.

ENGR:2730 Computers in Engineering 3 s.h.
Advanced programming; good software engineering techniques including pseudocode and documentation dynamic data structures, recursive programming, procedural and object-oriented computing, inheritance, and standard template library; C++. Prerequisites: ENGR:1300.

ENGR:2750 Mechanics of Deformable Bodies 3 s.h.
Elementary theory of deformable bodies, stress, strain; axial, transverse, bending, torsion, combined and buckling loads; deflection of beam. Prerequisites: ENGR:2110. Corequisites: MATH:2560.

ENGR:3110 Introduction to Artificial Intelligence and Machine Learning in Engineering 3 s.h.
Introduction to artificial intelligence (AI), machine learning, data science, and data driven problem solving across all engineering disciplines; topics include supervised and unsupervised learning, clustering, heuristics, feature selection, ethics of AI—fairness and privacy issues, and performance evaluation; first in a series. Prerequisites: ENGR:1300. Corequisites: MATH:2550. Requirements: practical knowledge of programming, rudimentary understanding of probability concepts, and sophomore standing.

ENGR:4000 Engineering Honors Seminar 1 s.h.
Completion of an approved project under the supervision of a faculty member. Requirements: engineering honors and junior or higher standing.

ENGR:4001 Leadership Seminar: Mediocrity is Not an Option 1 s.h.
Skills needed to gain competitive edge in professional world with understanding that mediocrity is not an option; importance of developing a career plan, power of networking, significance of soft skills, value of mentoring; participation in series of discussions and activities; deeper insight of strengths and weaknesses, how to enhance skills that employers desire, and become effective leaders in workplace; presentation by retired chief operating officer of a leading aerospace company.

ENGR:5270 Finding Truth in a Sea of Big Data (and Social Media) 1 s.h.
How to detect and defuse misinformation from mainstream and social media; recognition of where misinformation occurs, what makes it misinformation, and provide statisticians or fellow scientists with a technical explanation of why a particular claim is nonsense; content is noncommittal of any political orientation since misinformation comes in all shapes and sizes from all corners of political spectrum. Requirements: engineering graduate standing.

ENGR:7270 Engineering Ethics 1 s.h.
Introduction to practical issues associated with being a responsible scientist; topics in responsible conduct of research in engineering and the sciences using case studies, presentations, and discussions with visiting speakers; conforms to mandates set by the Office of the Vice President for Research and the Graduate College to train graduate students and postdoctoral scholars/fellows in responsible conduct of research. Requirements: first-year graduate standing in College of Engineering.

ENGR:7604 Engineering Ethics for Post Docs 0 s.h.
Introduction to practical issues associated with being a responsible scientist; topics in responsible conduct of research in engineering and the sciences using case studies, presentations, and discussions with visiting speakers; conforms to mandates set by the Office of the Vice President for Research and the Graduate College to train graduate students and postdoctoral scholars/fellows in responsible conduct of research. Requirements: new postdoctoral research scholar/fellow in College of Engineering.

Engineering and Information Technology Courses

EIT:5120 Modern Automation and Control 3 s.h.
Study of sensor, motors, control, process automation, and internet of things (IoT).

EIT:5135 Modern Information Systems 3 s.h.
Introduction to enterprise information systems; RESTful service model, cloud service models, data storage models, big data considerations, network basics, security and privacy considerations; blockchain technology and its applications.

EIT:5150 Applied Artificial Intelligence 3 s.h.
Artificial Intelligence (AI), search and logic, data science and analysis, advanced machine learning and deep learning, digital manufacturing and design, signal processing and fault diagnosis, AI robotics and computer vision, and applications in engineering.

EIT:5155 Cyber-Physical Systems 3 s.h.
Introduction to modern "smart" systems providing intelligent monitoring, control, and coordination of societal, environmental, and business infrastructure; layered architecture for, relevant applications of, and projects involving conceptual design of cyber-physical systems.

EIT:5211 Machine Learning and Scientific Computing in Engineering 3 s.h.
Numerical methods in scientific computing; root problems and optimization; linear algebraic equations; eigenvalue problems; numerical differentiation and integration; interpolation and curve fitting; initial value and boundary value problems; machine learning in regression, classification, and clustering problems; Python programming and scikit-learn packages.

EIT:5216 Manufacturing Process and Modeling 3 s.h.
Fundamental science, modeling, and simulation technologies in materials processing; essential knowledge in automation and control of manufacturing systems; material removal processes, forming, microfabrication, and nontraditional material processes; finite element modeling/simulation of material processes; automation and control of manufacturing systems and processes.

EIT:5220 Advanced Control Engineering 3 s.h.
State-space representation of linear systems, equilibrium points, linearization, controllability, observability, stability, state feedback control, linear observer design, and separation principle.

EIT:5224 Mechanical Design and Realization 3 s.h.
Solid modeling, assemblies, drawings, geometric dimensioning and tolerancing, and basic engineering design process; use of analysis tools (e.g., Finite Element Analysis), fatigue and durability, optimization software.

EIT:5240 Kinematics of Modern Robotics 3 s.h.
Robotics motion, configuration space, and path planning.

EIT:5298 Mechanical Component Durability and Integrity Analysis 3 s.h.
System and component design, stress analysis, static failure, fatigue, fracture mechanics, vibration, materials science, and product life cycle.

EIT:5351 Cybersecurity 3 s.h.
Taxonomy of security threats and attacks; chain-of-trust principle; authentication, access control, and security domains; perimeter security and defense in depth; cryptographic protocols; key management and distribution; security assessment, internet of things (IoT) security and privacy issues.

EIT:5352 Modern Database Systems 3 s.h.
Introduction to contemporary database architectures: relational, key-value, document store, and graph-based; relative strengths and weaknesses of database architectures; enterprise scalability issues; data aggregation and visualization; project work involving use of modern database systems (e.g., MySQL, Redis, MongoDB, Neo4j).

EIT:5353 Big Data and Machine Learning 3 s.h.
Storage, management, and analysis of very large data sets; distributed file systems and object stores; MapReduce framework for processing large data sets; machine learning techniques; classification and clustering; pattern recognition; projects involving big data and machine learning frameworks (e.g., Apache Hadoop).

EIT:5380 Software Engineering Methods, Tools, and Frameworks 3 s.h.
Modern agile software development practices for cloud and web-based applications using state-of-the-art software engineering languages, tools, and technologies; software as a service (SaaS) architecture; software testing; introduction to enterprise application development frameworks; team-based project.

EIT:5381 Enterprise Software Engineering 3 s.h.
Modern DevOps practices and toolchains for enterprise information systems; scalable architecture; cloud services (e.g., SaaS, PaaS, LaaS); load balancing/autoscaling; identity management and security; performance monitoring and tuning; continuous integration and hot deployment.

EIT:5382 Human-Computer Interaction Design and User Experience 3 s.h.
Principles and guidelines for design and evaluation of human-computer interactions (HCI); design methodologies (e.g., participatory design, low- and high-fidelity prototyping); user interface technologies (e.g., input and output devices, interaction styles); quantitative and qualitative evaluation of user interfaces (e.g., expert reviews, usability testing).

Applied Climate Science and Energy Technologies

Chair, Department of Chemical and Biochemical Engineering

- Jun Wang

Certificate Coordinator

- Matthew McGill

Undergraduate certificate: applied climate science and energy technologies

Faculty: https://engineering.uiowa.edu/cbe/people

Website: https://engineering.uiowa.edu/cbe/cbe-undergraduate-program/acset

The applied climate science and energy technologies (ACSET) program takes a multidisciplinary approach, and its coursework has been coordinated and sequenced to provide a broad background in applied climate science and energy technologies as well as foundational knowledge in the area of weather and meteorology. The program is designed to serve a diverse range of student interests, including insurance and business operations, hazard surveillance, public health, precision agriculture, and more.

The certificate is administered by the Department of Chemical and Biochemical Engineering [p. 1554]. Contact the Office of Undergraduate Research (OUR) for more information.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Applied Climate Science and Energy Technologies [p. 1521]

Applied Climate Science and Energy Technologies, Certificate

Requirements

The undergraduate Certificate in Applied Climate Science and Energy Technologies (ACSET) requires 18 s.h. of credit. Students must maintain a grade-point average of at least 2.00 in coursework for the certificate. Up to 6 s.h. of transfer credit may be applied to the certificate. A maximum of 9 s.h. of coursework used to satisfy requirements for a major, a minor, or another certificate may be applied toward this certificate.

The certificate may be earned by any student admitted to the University of Iowa who is not concurrently enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Students should consult with the ACSET coordinator about their intent to earn the certificate and are encouraged to work with their academic advisor and the ACSET coordinator to develop an individual plan of study that complements their degree program and career interests. Due to the interdisciplinary nature of the certificate, students should pay close attention to prerequisites and other requirements that must be completed prior to enrolling in certificate courses.

The undergraduate Certificate in Applied Climate Science and Energy Technologies requires the following coursework.

Core Course

Course #	Title	Hours
This course:		
CBE:2050/CEE:2050	Severe and Unusual Weather	3

Energy Technology and Climate Impacts/Solutions Courses

Students complete at least one course with an emphasis on energy technology and climate impacts/solutions.

Course #	Title	Hours
At least one of these:		
CBE:2030	Energy and Society	3
CBE:2040	Environment, Energy, and Climate Change	3
CBE:3405	Green Chemical and Energy Technologies	3
CEE:4180	Fundamentals of Atmospheric Science	3

Analytical, Statistical, and Applied Courses

Students complete at least two analytical, statistical, and applied courses with a focus on climate, atmospheric, and energy systems.

Course #	Title	Hours
At least two of these:		
CBE:3020	Applied Statistics for Chemical and Natural Resources Engineering	3
CBE:3405	Green Chemical and Energy Technologies	3
CBE:4410/CEE:4107	Sustainable Systems	3
CBE:4459/ CEE:4159/IGPI:4159	Air Pollution Control Technology	3
CBE:4460	Process and Design for Satellites and Environmental Sensors	3
CBE:5410	Electrochemical Engineering	3
CBE:5412	Atmospheric Modeling	3
CBE:5415/IGPI:5415	Satellite Image Processing and Remote Sensing of Atmosphere	3
CBE:5417/ CEE:5417/IGPI:5417	Physical Meteorology and Atmospheric Radiative Transfer	3
CBE:5425/CEE:5115	Atmospheric Chemistry and Physics	3
CEE:4180	Fundamentals of Atmospheric Science	3
CEE:5310/ IGPI:5311/URP:5310	Informatics for Sustainable Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CHEM:4873	Atmospheric and Environmental Chemistry	3
ECE:5630	Sustainable Energy Conversion	3
ISE:5520	Renewable Energy	3
ME:4048	Energy Systems Design	4

Electives

Course #	Title	Hours
At least two of these:		
BAIS:3200	Database Management	3
BAIS:3500	Data Mining	3
BAIS:4150	Business Analytics and Information Systems Capstone	3
CPH:1600	Public Health Science: Inquiry and Investigation in Public Health	3
CPH:2200	Climageddon: Understanding Climate Change and Associated Impacts on Health	3
CPH:2220	Building a Healthier Tomorrow: Public Health Methods to Minimize Disease and Pollutant Exposures	3
CPH:4200	Agriculture, Food Systems, and Sustainability	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ENGR:2730	Computers in Engineering	3

MKTG:4250	Marketing and Sustainability	3
SEES:2050	Foundations of GIS	4
SEES:2310	Introduction to Climatology	3
SEES:3320	Earth's Climate System	3
SEES:4720	Paleoclimatology	3
Additional courses from the "Energy Technology and Climate Impacts/Solutions Courses" list		
Additional courses from the "Analytical, Statistical, and Applied Courses" list		

Artificial Intelligence, Modeling and Simulation in Engineering

Chair, Department of Mechanical Engineering

- Ching-Long Lin

Undergraduate certificate: artificial intelligence, modeling and simulation in engineering

Graduate certificate: artificial intelligence, modeling and simulation in engineering

Faculty: https://engineering.uiowa.edu/me-people

Website: https://engineering.uiowa.edu/mechanical-engineering-undergraduate-program/me-certificates/artificial-intelligence-modeling-and

Artificial intelligence (AI) is a technology that mimics human intelligence to perform complex tasks. Machine learning (ML) is a subfield of AI that uses statistical methods to learn from data without being explicitly programmed. Deep learning (DL) is a main subset of machine learning that uses multi-layered neural networks to learn from data. Modeling and simulation (M&S) in engineering is a field that uses mathematical models as a basis for simulations to generate data analyzed for product and system design. M&S is a knowledge-based approach that develops models to generate data, while ML is a data-based approach that learns from data to generate models.

The AIMS certificate undergraduate program teaches students:

- the importance of uncertainty quantification (UQ) in all methods;
- the various types of combinations of approaches (M&S-assisted ML, ML-assisted M&S, and hybrid); and
- the notion of using hybrid models for the design of intelligent complex machines.

The certificate is administered by the Department of Mechanical Engineering.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Artificial Intelligence, Modeling and Simulation in Engineering [p. 1524]

Graduate Program of Study

- Certificate in Artificial Intelligence, Modeling and Simulation in Engineering [p. 1526]

Artificial Intelligence, Modeling and Simulation in Engineering, Certificate

Requirements

The undergraduate Certificate in Artificial Intelligence, Modeling and Simulation in Engineering (AIMS) requires 18 s.h. Students must maintain a grade-point average of at least 2.00 in coursework specifically for the certificate. The certificate may be earned by any student admitted to the University of Iowa who is not concurrently enrolled in a UI graduate or professional degree program.

Mechanical engineering (ME) students may earn the certificate in AIMS while they complete the design, robotics, and autonomous systems or the manufacturing focus area for their major. In addition, mechanical engineering students may use the certificate as a tailored engineering focus area by adding one eligible course.

Students are strongly encouraged to participate in at least one workshop related to Python, R, or high-performance and parallel computing offered by the Information Technology Services Research Services (ITS-RS) department, and HACKUIOWA organized by the University of Iowa's Hydroinformatics Lab.

Students could petition to substitute certificate courses with artificial intelligence, machine learning, deep learning, and modeling and simulation-related courses offered by ME and other departments. Non-ME students may earn this certificate while completing their degrees without taking extra courses.

The undergraduate certificate in Artificial Intelligence, Modeling and Simulation requires the following coursework.

Required Courses

Students complete one machine learning course and one artificial intelligence course.

Course #	Title	Hours
CS:5430	Machine Learning (may be used as machine learning or artificial intelligence required course)	3
Machine Learning		
One of these:		
ME:4111	Scientific Computing and Machine Learning	3
MATH:3800	Introduction to Numerical Methods	3
Artificial Intelligence		
One of these:		
ME:4150	Artificial Intelligence in Engineering	3
CS:4420	Artificial Intelligence	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3

Elective Courses

Course #	Title	Hours
Three of these:		
ME:4110	Computer-Aided Engineering	3
ME:4112	Engineering Design Optimization	3
ME:4116	Manufacturing Processes Simulations and Automation	3
ME:4117	Finite Element Analysis	3
ME:4120	Advanced Linear Control Systems	3
ME:4175	Computational Naval Hydrodynamics	3
ME:5143	Computational Fluid and Thermal Engineering	3
ME:5170	Data-Driven Analysis in Engineering Mechanics	3
ME:5300	Uncertainty Quantification and Design Optimization	3
BME:2260	Quantitative Physiology	3
BME:4310	Computational Biochemistry	3
BME:5240	Deep Learning in Medical Imaging (DLMI)	3
BME:5335	Computational Bioinformatics	3
BME:5441	Numerical and Statistical Methods for Bioengineering	3
BME:5525	Cardiopulmonary Design and Modeling	3
BME:5620	Introduction to Applied Biomedical Finite Element Modeling	3
CS:4330	Theory of Computation	3
CS:4350	Logic in Computer Science	3
CS:4700	High Performance and Parallel Computing	3
CS:4720/ MATH:4820	Optimization Techniques	3
CS:5360	Randomized Algorithms	3
CS:5710/ MATH:5800	Numerical Methods I	3
CS:5720/ MATH:5810	Numerical Methods II	3
CS:5810	Formal Methods in Software Engineering	3
MATH:4060	Discrete Mathematical Models	3
MATH:4840	Mathematics of Machine Learning	3

Capstone Course

Students must incorporate aspects of artificial intelligence, machine learning, deep learning, and/or modeling and simulation into their capstone project. Students must submit a written report to the director of the AIMS undergraduate certificate program explaining how they incorporate one or more of these aspects into their capstone project shortly after completion of the course.

Course #	Title	Hours
One of these:		
ME:4086	Mechanical Engineering Design Project	3
ME:4098	Individual Investigations: Mechanical Engineering	3
BME:4910	Biomedical Engineering Senior Design I	4
BME:4920	Biomedical Engineering Senior Design II	4
CS:5830	Software Engineering Project (requires permission of certificate director)	3
CS:5990	Individualized Research or Programming Project (requires permission of certificate director)	1-3

Artificial Intelligence, Modeling and Simulation in Engineering, Graduate Certificate

Requirements

The graduate Certificate in Artificial Intelligence, Modeling and Simulation (AIMS) requires a minimum of 15 s.h. of graduate coursework. To earn the certificate, the student is required to maintain a Graduate College major program minimum grade-point average of 3.00.

Students are strongly encouraged to participate in at least one workshop related to Python, R, or high performance and parallel computing offered by the Information Technology Services Research Services (ITS-RS) department, and HACKUIOWA organized by the University of Iowa's Hydroinformatics Lab.

The Certificate in Artificial Intelligence, Modeling and Simulation in Engineering requires the following coursework.

Required Courses

Students must complete at least two of the following courses but may choose to complete all three courses as part of the certificate.

Course #	Title	Hours
At least two of these:		
ME:5170	Data-Driven Analysis in Engineering Mechanics	3
ME:5300	Uncertainty Quantification and Design Optimization	3
ME:6255	Multiscale Computational Science and Engineering	3

Students select courses from the following list to reach a total of 12 s.h. of credit when combined with two or all three of the courses previously listed. Students may petition to substitute other relevant graduate-level courses for the following courses in consultation with the AIMS faculty advisor.

Course #	Title	Hours
At least one of these:		
ME:4117	Finite Element Analysis	3
ME:4150	Artificial Intelligence in Engineering	3
ME:4175	Computational Naval Hydrodynamics	3
ME:5143	Computational Fluid and Thermal Engineering	3
ME:6240	Probabilistic Inference and Estimation for Mechanical Systems	3
ME:7256	Computational Solid Mechanics	3
ME:7257	Probabilistic Mechanics and Reliability	3
ME:7269	Computational Fluid Dynamics and Heat Transfer	3

Elective Course

In addition to the following courses, students may count a graduate-level course from another College of Engineering department or an independent investigation opportunity not in the following list in consultation with the AIMS faculty advisor.

Course #	Title	Hours
At least 3 s.h. from these:		
ME:6198	Individual Investigations: Mechanical Engineering	arr.
A mechanical engineering course (prefix ME) numbered 4100 or above		
A chemistry, mathematics, or physics course (prefix CHEM, MATH, or PHYS) numbered 5000 or above		

Bachelor of Science in Engineering

Undergraduate major: BSE

Website: https://engineering.uiowa.edu/

The Bachelor of Science in Engineering (BSE) degrees with majors in biomedical, chemical, civil, electrical, environmental, industrial, and mechanical engineering are accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET). The computer science and engineering program is accredited by the EAC and the Computing Accreditation Commission (CAC) of ABET. The College of Engineering has six departments and offers eight undergraduate BSE majors. View the BSE majors under each of the College of Engineering departments in the catalog.

Each program has its own set of articulated educational objectives, while all programs are designed to ensure that graduates possess the following at the time of graduation:

- an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics;
- an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors;
- an ability to communicate effectively with a range of audiences;
- an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
- an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
- an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions; and
- an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Computer science and engineering majors will be able to do each of the following as they relate directly to computing:

- analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions;
- design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline;
- communicate effectively in a variety of professional contexts;
- recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles;
- function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline; and
- apply computer science theory and software development fundamentals to produce computing-based solutions.

Cooperative Education and Internship Program

The Cooperative Education and Internship Program supports students as they explore and develop their careers through periods of professional practice. These are professional, engineering-related experiences in business, industry, education, or government that are recognized by the College of Engineering. Experiences range from 10-week summer internships to multiterm co-ops. Students find co-ops and internships in several ways, including career fairs, job search websites, applying directly through the company's website, networking, personal connections, and Handshake (the University of Iowa's primary online recruiting system).

All students in the College of Engineering are eligible to participate in the co-op and internship program upon completion of one full semester at the university. Students are encouraged to begin their search early so that they may acquire a co-op or internship experience starting the summer after their first or second year. Students complete co-op and internship assignments at many companies around the country.

Internships and co-ops may be documented on the transcript when students follow the appropriate registration steps. For further details, see Engineering Career Services on the College of Engineering website.

Programs

Undergraduate Program of Study

Major

- Bachelor of Science in Engineering [p. 1529]

Policies

Students can view academic policies on the College of Engineering Current Students webpage.

Admission

First-year students are eligible for direct admission into the College of Engineering if they achieve a score of at least 265 on the Regent Admission Index (RAI) and meet the high school course requirements.

Engineering high school course requirements include:

- four years of English/language arts;
- four years of mathematics (including two years of algebra, one year of geometry, and one year of higher math such as precalculus or equivalent);
- two years of a single world language;
- three years of natural science, preferably with at least one year of chemistry and at least one year of physics; and
- two years of social studies.

Grades of B or higher in all high school math and science courses are highly recommended.

Students who are unsure whether to pursue a degree in engineering or a degree in liberal arts and sciences are strongly encouraged to begin in engineering if they meet the admission requirements.

Students who fall short of the engineering admission requirements may enroll in the College of Liberal Arts and

Sciences and be designated as engineering interest students. They may apply to transfer into the College of Engineering for the following semester once they have successfully completed MATH:1550 Engineering Calculus I (or equivalent) and either CHEM:1110 Principles of Chemistry I or PHYS:1611 Introductory Physics I.

More information about admission and the College of Engineering is available; see Prospective Undergraduate Students on the College of Engineering website.

Transfer Applicants

Transfer applicants must have completed the same high school unit requirements as entering first-year students and must submit an official high school transcript as well as a transcript of college work undertaken at other institutions. Collegiate coursework may be used to correct high school deficiencies.

Transfer students must have completed, with a grade of B-minus or higher, MATH:1550 Engineering Calculus I (or equivalent), and either CHEM:1110 Principles of Chemistry I or PHYS:1611 Introductory Physics I (the first semester of chemistry designed for majors or the first semester of calculus-based physics) or their equivalents.

Grades earned in additional math, science, and engineering courses (ideally all As and Bs) and overall grade-point average are also considered in transfer applications. Transfer courses completed with a grade below a C-minus are not accepted by the College of Engineering and will not satisfy degree requirements.

Information about admission requirements for transfer students is available on the college's website.

Bachelor of Science in Engineering, BSE

Requirements

The Bachelor of Science in Engineering (BSE) requires a minimum of 128 s.h. of credit. Students must be enrolled as a College of Engineering student for the last 30 s.h. of work toward the degree, or 45 of the last 60 s.h., or a total of 90 s.h. At the time of graduation, students must have a cumulative grade-point average of at least 2.00 in all college work used to complete degree requirements and in all UI coursework in order to be awarded the BSE.

Engineering students earn the BSE degree in one of eight undergraduate programs of study (majors): biomedical engineering [p. 1535], chemical engineering [p. 1554], civil engineering [p. 1576], computer science and engineering [p. 1613], electrical engineering [p. 1613], environmental engineering [p. 1576], industrial engineering [p. 1635], or mechanical engineering [p. 1655].

The collegiate curriculum requires all students to complete a minimum of 30 s.h. of mathematics and basic sciences; 6 s.h. of core engineering; and 19 s.h. of general education courses (including RHET:1030 Rhetoric: Writing and Communication and 15 s.h. of additional electives). Collegiate courses are typically completed early in a student's undergraduate program, thereby allowing students to change programs during the first semesters without a loss in course credit.

These foundational courses serve as prerequisites or corequisites for more advanced coursework in the major. Each major has several focus areas consisting of required and elective courses that provide students the flexibility to tailor their studies to their career interests. Each major culminates in a capstone senior design project.

Collegiate Curriculum Requirements

All students in the College of Engineering are required to complete the following courses as part of their collegiate curriculum.

Requirements	Hours
Mathematics and Basic Sciences	30
Engineering Core	6
General Education	19

Mathematics and Basic Sciences

Students complete a minimum of 30 s.h. in mathematics and basic sciences. Courses with the option of a laboratory component must be taken with the lab. Students should refer to the individual departmental section in the catalog for information about fulfilling the statistics course and the basic science and college-level mathematics courses for their particular BSE program.

Course #	Title	Hours
CHEM:1110	Principles of Chemistry I (with lab)	4
MATH:1550	Engineering Calculus I	4
MATH:1560	Engineering Calculus II	4
MATH:2550	Engineering Matrix Algebra	2
MATH:2560	Engineering Differential Equations	3
PHYS:1611	Introductory Physics I (with lab)	4
Basic Science or College-Level Math		6
Statistics		3

Engineering Core

The engineering core consists of two engineering courses required by all undergraduate programs in the College of Engineering.

Course #	Title	Hours
ENGR:1100	Introduction to Engineering Problem Solving	3
ENGR:1300	Introduction to Engineering Computing	3

General Education

Students are required to complete 19 sh. of general education courses; for more information, see General Education Component [p. 1530] in this section of the catalog.

First- and Second-Semester Plan of Study

The majority of the collegiate curriculum can be completed in the first two semesters.

First Semester

Course #	Title	Hours
ENGR:1100	Introduction to Engineering Problem Solving	3
CHEM:1110	Principles of Chemistry I	4
MATH:1550	Engineering Calculus I	4
RHET:1030	Rhetoric: Writing and Communication	4
Total Hours		**15**

Second Semester

Course #	Title	Hours
ENGR:1300	Introduction to Engineering Computing	3
MATH:1560	Engineering Calculus II	4
MATH:2550	Engineering Matrix Algebra	2
PHYS:1611	Introductory Physics I	4
General education or major requirement course		3-4
Total Hours		**16-17**

Major Courses and Focus Areas

The curriculum for each BSE major is described in each of the departmental sections of the catalog. Each program has a number of focus areas that are designed to help students achieve exposure to and depth of study in an area that is complementary to their major. The focus areas enable students to gain technical skills consistent with their career goals. Moreover, these electives may contribute to earning a minor and/or certificate.

General Education Component

The General Education Component promotes understanding of and appreciation for arts, community, culture, and learning through coursework.

Students who enter the College of Engineering with a BA or BS degree are considered to have satisfied the General Education Component.

Students who enroll in a combined degree program in the College of Engineering and with the College of Liberal Arts and Sciences or with the Tippie College of Business must complete all requirements for both degrees, including all general education requirements. Students are encouraged to complete a course for the Engineering Be Creative requirement that will satisfy a general education requirement for the second college; see the "Engineering Be Creative" section.

General Education Areas

Students are required to complete 19 sh. of the General Education Component as outlined. Some focus areas in certain majors may recommend or require specific courses to fulfill the General Education Component. Credit may be earned by examination; consult the College of Engineering.

- Rhetoric [p. 1530] (4 s.h.)
- Engineering Be Creative [p. 1530] (3 s.h.)
- Cultural Perspectives, Values, and Society [p. 1531] (3 s.h.)
- Approved Course Subjects [p. 1531] (9 s.h.)

Rhetoric

Course #	Title	Hours
This course:		
RHET:1030	Rhetoric: Writing and Communication	4

Transfer students should refer to the Rhetoric section of the GE CLAS Core [p. 22] (College of Liberal Arts and Sciences) in the catalog for information about how transfer credit may affect the Rhetoric requirement.

Engineering Be Creative

Students must complete at least 3 s.h. selected from the following courses. Note that not all courses are offered every semester. Some courses will have sections designated for students with a major in the College of Engineering.

If a course has prerequisites listed, students wishing to take the course for the Engineering Be Creative requirement will need to request that prerequisites be waived by completing the "Request Prerequisite Special Permission" form on MyUI. This form should be completed several weeks prior to registration. Contact the College of Engineering for more information.

The following courses satisfy the Engineering Be Creative requirement.

Course #	Title	Hours
ARTS:1060	Elements of Digital Photography	3
ARTS:1510	Basic Drawing	3
ARTS:1520	Design Fundamentals	3
ARTS:2300	Hand Drawing Bicycles for Designers and Engineers	3
CERM:2010	Ceramics I: Handbuilding	3
CINE:1100	The Art of Smartphone Filmmaking	3
CINE:1150	Introduction to Screenwriting for Nonmajors	3
CINE:1834/ THTR:1834	Modes of Film and Video Production	4
CNW:1620	Introduction to Creative Nonfiction	3
CNW:2680/ ENGL:2730	The Art and Craft of Creative Nonfiction	3
CNW:2700	The Art and Craft of Personal Writing	3
CNW:2720	The Art and Craft of Writing About Culture	3
CNW:2730	The Art and Craft of Science Writing	3
CNW:2740	The Art and Craft of Writing about the Environment	3
CNW:2770	The Art and Craft of Writing for New Media	3
CNW:2780	The Art and Craft of Writing About Sports	3
CNW:2790	The Art and Craft of Humor Writing	3
CNW:2830	The Art and Craft of Immersion Journalism	3
CNW:2840	The Art and Craft of Travel Writing	3
CNW:2910	Writing for Applications and Awards	3
CNW:3632/ ENGL:3732/ WRIT:3632	Prose Style	3
CNW:3640	Writing for Business	3
CW:2100	Creative Writing	3
CW:2870	Fiction Writing	3
CW:2875	Poetry Writing	3
CW:3003	Writing and Reading Science Fiction	3
CW:3107/ INTD:3107	Creative Writing for the Health Professions	3
CW:3215/ INTD:3300	Creative Writing and Popular Culture	3
CW:3218/ INTD:3200	Creative Writing for New Media	3
CW:4745/ WRIT:4745	The Sentence: Strategies for Writing	3
CW:4751	Creative Writing for the Musician	3
CW:4760/ WRIT:4760	The Art of Revision: Rewriting Prose for Clarity and Impact	3
DANC:1150/ LAS:1150	Brazilian Culture and Carnival	3
DANC:2060	Dance and Society in Global Contexts	3
DSGN:2500	Graphic Design I	3
EDTL:4355/ CNW:4355	Approaches to Teaching Writing	3

MTLS:2910	Introduction to Jewelry and Metal Arts	3
MUS:1007	Garage Band: The Basics	2
MUS:1012	Creativity in Music	3
MUS:2800/ ARTS:2800/ CINE:2800/CS:2800/ DANC:2800/ DIGA:2800/ THTR:2800	Digital Arts: An Introduction	3
MUS:3285/ DIGA:3285	New Musical Instruments: From Design to Performance	3
PHTO:2600	Photography I	3
PNTG:2410	Painting I	3
PRNT:2610	Introduction to Printmaking	3
SCLP:2810	Undergraduate Sculpture I	3
SCLP:3840/ DIGA:3840	Robotic Art Studio	4
SCLP:4835/ DIGA:4835	Electronic Objects and Spaces	4
SCLP:4840/ DIGA:4840	Air, Actuators, and Motors	4
TDSN:2210	Introduction to 3D Design	3
THTR:1140	Basic Acting	3
THTR:2215	Theatre Technology	3
THTR:2220	Production Lab	1-3
THTR:2301	Playwriting I	3
THTR:2610/ RHET:2610	Acting for Success	3
THTR:2620	Improvisation for Engineers, Scientists, and the Curious	3
THTR:2880/ DANC:2880/ DIGA:2880	Installations and Interactive Performance	3
THTR:2890/ DANC:2890/ DIGA:2890	Producing and Directing Digital Video	3
THTR:3202	Graphic Design for the Entertainment Industry	2-3
THTR:3208	Mask and Puppet Crafts	3
THTR:3210	Makeup Design for the Stage	3
THTR:3230/ ARTS:3230	Scenic Design I	3
THTR:3240	Costume Design I	3
THTR:3250	Lighting Design I	3
THTR:3260	Sound Design for the Theatre	3
THTR:3270	Entertainment Design	3
THTR:3876/ CINE:3876/ DANC:3876/ DIGA:3876/ INTM:3876	Projection Design	3
THTR:4270/ ARTS:4270	Scenic Art	3
UICB:2110/ BKAT:2110	Introduction to Book Arts	3
UICB:3280/ BKAT:3280	Elements of Book Art	3
UICB:3380/ BKAT:3380	Letterpress	3
UICB:4100/ BKAT:4100	Paperworks	3
UICB:4415/ ARTS:4415	Introduction to Classical Calligraphy	3
WRIT:3005/ CW:3005/ INTD:3005	Professional and Creative Business Communication	3

Cultural Perspectives, Values, and Society

Students complete at least 3 s.h. from the GE CLAS Core [p. 22] areas of Understanding Cultural Perspectives or Values and Society.

The College of Engineering will accept transfer credit for the Cultural Perspectives, Values, and Society requirement. Students enrolled in other University of Iowa undergraduate degree programs should be aware that transfer credit may not be accepted for similar requirements in other colleges.

Approved Course Subjects

Students complete 9 s.h. of coursework from any of the following course subjects.

College of Law

Students may choose from University of Iowa Center for Human Rights [p. 1839] courses (prefix HRTS); view the courses and descriptions in the corresponding College of Law section of the catalog.

College of Liberal Arts and Sciences

Students may choose from courses in the following areas:

African American studies [p. 35] (prefix AFAM);
aging and longevity studies [p. 47] (prefix ASP);
American studies [p. 51] (prefix AMST);
anthropology [p. 64] (prefix ANTH);
art, art history, and design [p. 86] (prefix ARTE, ARTH, ARTS, BKAT, DSGN, DRAW, INTM, MTLS, PHTO, PNTG, PRNT, SCLP, or TDSN) with the exception of ceramics;
cinematic arts [p. 198] (prefix CINE);
classics [p. 217] (prefix CLSA, CLSG, or CLSL);
communication sciences and disorders [p. 246] (prefix CSD);
communication studies [p. 266] (prefix COMM);
creative nonfiction writing [p. 415] (prefix CNW);
creative writing [p. 415] (prefix CW);
criminology, law, and justice [p. 1017] (prefix CRIM);
critical cultural competence [p. 324] (prefix CCCC);
dance [p. 326] (prefix DANC);
digital arts [p. 356] (prefix DIGA);
disability studies [p. 360] (prefix DST);
English [p. 415] (prefix ENGL);
event planning [p. 465] (prefix EVNT);
gender, women's, and sexuality studies [p. 468] (prefix GWSS);
global health studies [p. 487] (prefix GHS);
history [p. 562] (prefix HIST and JSTU);
journalism and mass communication [p. 622] (prefix JMC);
languages, linguistics, literatures, and cultures [p. 659] (prefix ARAB, ASIA, ASL, ASLE, CHIN, CL, FREN, GRMN, IS, ITAL, JPNS, KORE, LING, RUSS, SWAH, and WLLC, with the exception of SOAS);
Latina/o/x studies [p. 763] (prefix LATS);
medieval studies [p. 805] (prefix MDVL);
museum studies [p. 808] (prefix MUSM);
music [p. 814] (prefix MUS);

Native American and Indigenous studies [p. 868] (prefix NAIS);
philosophy [p. 880] (prefix PHIL);
political science [p. 927] (prefix POLI);
psychology [p. 947] (prefix PSY);
religious studies [p. 968] (prefix RELS);
rhetoric [p. 988] (prefix RHET) numbered 2000 or above;
social justice [p. 468] (prefix SJUS);
social work [p. 998] (prefix SSW);
sociology [p. 1017] (prefix SOC);
Spanish, Portuguese, and Latin American studies [p. 1044] (prefix LATS, PORTS, and SPAN);
sport and recreation management (prefix SRM);
sport media and culture [p. 622] (prefix SMC);
sport studies [p. 51] (prefix SPST);
theatre arts [p. 1101] (prefix THTR);
therapeutic recreation (prefix TR); and
writing [p. 766] (prefix WRIT).

View the courses and descriptions in the corresponding College of Liberal Arts and Sciences section of the catalog.

Graduate College

Students may choose from courses in urban and regional planning [p. 1785] (prefix URP) in the School of Planning and Public Affairs; view the courses and descriptions in the corresponding Graduate College section of the catalog.

Tippie College of Business

Students may choose from courses in economics [p. 1185] (prefix ECON), management and entrepreneurship [p. 1237] (prefixes ENTR and MGMT), and marketing [p. 1261] (prefix MKTG); view the courses and descriptions in the corresponding Tippie College of Business section of the catalog.

University College

Students may choose from courses in aerospace studies [p. 2171] (prefix AERO), leadership studies [p. 2199] (prefix LS), and military science [p. 2207] (prefix MILS); view the courses and descriptions in the corresponding University College section of the catalog.

Combined and Dual Degrees

BSE and Undergraduate Degrees

BSE/BBA

The College of Engineering and the Tippie College of Business offer a combined degree program in which students earn two University of Iowa bachelor's degrees: a Bachelor of Business Administration (BBA) from the Tippie College of Business and a Bachelor of Science in Engineering (BSE) from the College of Engineering.

Students in the combined program must complete all requirements for both degrees, including all general education requirements. They must enroll in appropriate mathematics and engineering courses early in their course of study in order to complete the program in a timely way. Because courses in natural sciences, mathematics, humanities, and social sciences count toward the BBA and the BSE, students may count a single course toward both degrees.

Students usually meet the degree requirements of both colleges in about five years; the time required depends on a student's choice of major study areas. Students should consult their advisors about whether the second-grade-only option is available to them. They are assigned two advisors, one in the Tippie College of Business Undergraduate Program Office and the other in their College of Engineering major department.

To enter the combined degree program, students must have approval from both colleges and must be admitted to both colleges. Interested students should contact the Student Development Center. For information about the BBA, including requirements for the degree, see the Undergraduate Programs [p. 1132] (Tippie College of Business) in the catalog.

BSE/Liberal Arts and Sciences Degree

Students may earn two University of Iowa bachelor's degrees in a combined program in the College of Engineering and the College of Liberal Arts and Sciences. Successful candidates are awarded a BSE (Bachelor of Science in Engineering) by the College of Engineering and a BA (Bachelor of Arts), BS (Bachelor of Science), BFA (Bachelor of Fine Arts), or BM (Bachelor of Music) by the College of Liberal Arts and Sciences.

Students in combined degree programs must complete all requirements for both degrees, including the College of Liberal Arts and Sciences GE CLAS Core [p. 22] and the College of Engineering General Education Component. Students are encouraged to complete a course for the Engineering Be Creative requirement that will also satisfy a GE CLAS Core requirement. See General Education Component [p. 1530] in this section of the catalog.

Students in the combined program usually are able to meet the degree requirements of both colleges in about five academic years. The exact length of time necessary to complete the program is determined by the major areas of study selected in each college. Students who enter the combined degree program are assigned two faculty advisors, one in their major department in the College of Engineering and the other in their major department in the College of Liberal Arts and Sciences.

To enter the combined degree program, students must be admitted to both the College of Engineering and the College of Liberal Arts and Sciences and must have College of Engineering approval to enter the combined degree program. Combined degree program applicants must meet the high school course or unit requirements for admission to each of the two colleges.

It is crucial that students enroll in the proper mathematics and engineering courses early in their course of study to expedite the completion of the program. The specific engineering courses taken by each student vary according to one's engineering major. Since courses in natural sciences, mathematics, humanities, and social sciences are accepted for credit by both colleges, students may be able to count a particular course toward both degrees.

Contact the Student Development Center for information about specific requirements. To learn about liberal arts and sciences majors, visit College of Liberal Arts and Sciences [p. 20] in the catalog and select majors of interest in the departments.

BS/BSE Dual Degree with Northern Iowa

The 3+2 dual degree program leads to a BS in applied physics from the University of Northern Iowa (UNI) and a BSE from the University of Iowa. It requires approximately three years of study at UNI followed by approximately two years of study at

Iowa. There is no guarantee that students can complete the 3+2 degree in five years.

Students interested in the program are guaranteed admission to the University of Iowa portion of the program if they have a grade-point average of at least 3.00 (B average) in all coursework and in the chemistry, mathematics, and physics courses required by the University of Northern Iowa physics department.

During the first three years of the program, students complete at least 90 s.h. of coursework at the University of Northern Iowa. They must successfully complete courses in each of the following areas: chemistry, mathematics through differential equations, physics to satisfy the applied physics major requirements, and courses to satisfy the general education requirements. Credit for courses passed with a grade of C or higher is transferred to the University of Iowa as credit for equivalent coursework.

At the University of Iowa, students complete the BSE requirements that are current at the time of their admission to the College of Engineering. Coursework completed at the University of Iowa is transferred to the University of Northern Iowa and applied toward the requirements for that institution's BS in applied physics.

When transferring to the University of Iowa from UNI, students must submit applications for admission, housing, and financial aid to the University of Iowa by the university's established deadlines.

BSE and Graduate Degrees

BSE/MS Programs in Engineering

Engineering students may be eligible to enroll in one of the College of Engineering's combined BSE/MS programs, which allow students to begin working toward a master's degree in engineering while they are completing their bachelor's degree. The combined programs, which are offered by each of the college's departments, permit students to count certain courses toward both degrees, completing both programs in less time than they would need to complete them separately. See "Combined Programs" in each department's BSE sections of the catalog.

BSE in Biomedical Engineering (Biomechanics and Biomaterials Track)/MS in Occupational and Environmental Health (Industrial Hygiene Subprogram)

BSE students majoring in biomedical engineering in the biomechanics and biomaterials track who are interested in earning a Master of Science in occupational and environmental health with an industrial hygiene subprogram may apply to the combined BSE/MS program offered by the College of Engineering and the College of Public Health. The combined program permits students to count a limited amount of credit toward the requirements of both degrees, enabling them to begin the study of public health before they complete the bachelor's degree. See the MS in occupational and environmental health Undergraduate to Graduate (U2G) information on the Department of Occupational and Environmental Health (College of Public Health) website.

BSE in Civil Engineering/MS in Urban and Regional Planning

The College of Engineering and the School of Planning and Public Affairs offer the combined Bachelor of Science in Engineering in civil engineering/Master of Science in urban and regional planning. The program, which is completed in five years, is designed for students who wish to pursue a public or private sector career in planning, a field that encompasses the development of alternatives to improve the quality of life in cities and regions.

For additional information on the BSE in civil engineering [p. 1584], see that section of the catalog. For more information about the graduate degree, see the MS in urban and regional planning [p. 1797] (Graduate College) in the catalog. Contact Engineering Student Services for information about applying to the combined program.

BSE in Computer Science and Engineering/MCS

The College of Engineering and the Department of Computer Science (College of Liberal Arts and Sciences) offer a combined BSE in computer science and engineering/Master of Computer Science for computer science and engineering undergraduate students.

The combined degree program allows students to count a limited amount of credit toward both degrees. For more information, see the Master of Computer Science, MCS [p. 316] in the catalog.

Honors

Honors in Engineering

Outstanding undergraduate students who demonstrate exceptional accomplishment through research, directed independent study, teaching internships, or other approved nondegree enrichment activities may graduate with honors in engineering. They must maintain a University of Iowa grade-point average of at least 3.33, complete an honors project with a faculty member, and participate in a college-wide honors seminar with faculty members and other honors students. Successful completion of the honors requirements leads to a BSE with honors, which is noted on the student's transcript. See Engineering Honors Program on the College of Engineering website for details.

University of Iowa Honors Program

In addition to honors in engineering, undergraduate students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Career Advancement

Engineering is a well-respected profession that is used as a foundation for a variety of careers in industry, medicine, law, government, and consulting. Engineering majors consistently rank among the top-paid majors for bachelor's degree graduates, according to the National Association of Colleges and Employers (NACE). On average, 93–98% of graduates

are employed in their field of study or pursuing advanced education within seven months of graduation.

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including engineering career fairs and other programming related to career development.

Engineering Career Services offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, job offer evaluation, and much more. Engineering Career Services partners with the Pomerantz Career Center to facilitate on-campus interviewing, postgraduation outcome collection, and the university's online recruiting system, Handshake.

Roy J. Carver Department of Biomedical Engineering

Chair

- Kim L. Blackwell

Undergraduate major: biomedical engineering (BSE)

Graduate degrees: MS in biomedical engineering; PhD in biomedical engineering

Faculty: https://engineering.uiowa.edu/bme/people

Website: https://engineering.uiowa.edu/bme

The past half century has seen tremendous growth of technological activity in biology and medicine. As engineers increasingly have become involved with projects in the life and health sciences, biomedical engineering has emerged to bridge the gap between these sciences and engineering.

The Roy J. Carver Department of Biomedical Engineering fosters interdisciplinary activities across departments and colleges and maintains strong ties with the Carver College of Medicine and the colleges of Dentistry, Nursing, and Public Health. The department strives to provide a well-rounded and superior engineering education that attracts outstanding students at both the undergraduate and graduate levels; to conduct high-quality research that enables faculty members and students to keep pace with and initiate new developments; and to serve government, industry, and institutions worldwide by making the department's facilities and faculty expertise accessible.

Department faculty members have teaching and research expertise in areas related to cardiovascular and fluid biomechanics, musculoskeletal biomechanics, biomaterials and tissue engineering, bioinstrumentation, biosystems, biomedical imaging, biological signal analysis, bioinformatics and computational biology, respiratory and pulmonary engineering, computational neuroscience, and other allied fields. Several faculty members have joint appointments with the Carver College of Medicine, the College of Dentistry, or the College of Public Health. Biomedical engineering undergraduates and graduate students collaborate with faculty members and their colleagues on research problems in the life and health sciences.

Programs

Undergraduate Program of Study

Major

- Major in Biomedical Engineering (Bachelor of Science in Engineering) [p. 1543]

Graduate Programs of Study

- Master of Science in Biomedical Engineering [p. 1549]
- Doctor of Philosophy in Biomedical Engineering [p. 1551]

Facilities

Undergraduate Teaching Laboratories

Seven dedicated undergraduate teaching laboratories are associated with the required and elective courses in biomedical engineering: the Bioimaging and Bioinformatics Laboratory; the Biomechanics and Biomaterials Laboratory; the Carver Biomechanics and Mechanobiology Laboratory; the Carver Cellular Engineering Laboratory; the Carver Medical Device Design Laboratory; the Senior Design Laboratory; and the Systems, Instrumentation, and Data Acquisition Laboratory.

Bioimaging and Bioinformatics Laboratory

The Bioimaging and Bioinformatics Laboratory provides computer and experimental equipment to allow students to become familiar with biomedical imaging hardware and software for biomedical image analysis. The laboratory has four lab benches with computers for teamwork, two desktop ultrasound machines, and two desktop magnetic resonance imaging devices. In addition, the lab has 12 sets of in-house-built optics laboratory kits that use light sources and semitranslucent objects to simulate basic x-ray physics. Students are introduced to concepts such as image magnification as it relates to source-object distance (SOD)/source-image distance (SID), depth-dependent magnification, ideal point source versus parallel beam source effects, and projection image formation with lack of depth information artifacts. An instructor workstation and computer projector are available for presentations and software demonstrations. The lab is used primarily for the core course BME:2210 Bioimaging and Bioinformatics, the elective course BME:5210 Medical Imaging Physics, and senior design projects.

Biomechanics and Biomaterials Laboratory

The Biomechanics and Biomaterials Laboratory allows students to perform experiments relating to the cardiovascular and human musculoskeletal systems as well as the various properties of biomaterials. The laboratory houses a table-top material testing machine; a Tekscan I-scan system with associated sensors; two cone-and-plate viscometers; compact stress-strain devices for characterizing cardiovascular tissues; goniometers; human structures biomechanical modeling sets and associated sensors; still, video, and motion-capture digital cameras for kinematic analysis; a ski binding tester; a drop tower for impact testing; digital calipers; various skeletal/bone models; an assortment of hand tools; and dissecting tools. The lab is used for the course BME:2500 Biomaterials and Biomechanics, elective courses in cardiovascular and musculoskeletal biomechanics like BME:4710 Medical Device Design Studio, and senior design projects.

Carver Biomechanics and Mechanobiology Laboratory

The Carver Biomechanics and Mechanobiology Laboratory (CBML) is a shared resource in the Roy J. Carver Department of Biomedical Engineering with a mission to enhance teaching, training, and research in the field of biomechanics and mechanobiology. The lab helps students understand

cardiovascular disease, cancer metastasis, wound healing, medical device function, and stem cell therapies.

The lab houses a planar biaxial stress-strain test apparatus, a pulse duplicator apparatus for characterizing blood flow through mechanical and tissue heart valves, a micron-resolution particle image velocimetry (micro-PIV) system for quantifying flow and particle dynamics at the microscale, a stent crimper for characterizing vascular stent designs, a multimode plate reader for quantifying cell activity and extracellular matrix (ECM) remodeling, a lyophilizer for quantifying elastin and collagen content in soft tissue samples, a micromanipulator for performing micropipette aspiration studies, and a controlled microscope room for imaging live cells over long durations. The lab is used for courses in cardiovascular biomechanics and cellular engineering, other elective courses, and senior design projects.

Carver Cellular Engineering Laboratory

This laboratory trains students in cell culture and biochemical analysis techniques as a foundation for future work in quantitative cell-based studies. Students learn basic cell culture techniques, protein and nucleic acid analysis, as well as techniques for studying the effects of engineered materials on cellular systems.

Major equipment in the lab includes laminar flow hoods, cell culture incubators, centrifuges, spectrophotometers, an ultracold freezer, protein and nucleic acid electrophoresis equipment, thermal cyclers, microscopes, an automated microplate reader, and various support apparatus used in cell-based studies. This teaching lab is used for the courses BME:2400 Cell Biology for Engineers and BME:5421 Cell Material Interactions.

Carver Medical Device Design Laboratory

The Carver Medical Device Design Laboratory provides a space for students to gather to collaborate on the design of medical implants, fixtures for testing such implants, and software for modeling, analyzing, and optimizing the function of these devices. Space and equipment are provided for progressing from a back-of-the-napkin sketch to a finalized computer-aided design (CAD) model and through multiple iterations of physical prototypes.

A variety of tools and equipment are available, such as a micro 24 laser system, a benchtop milling machine, a bandsaw and lathe, a soldering station, an expanded plasma cleaner, a micro pulse arc welder, and five computer workstations. The lab was established to serve students with an interest in medical device design and in required and elective courses in the areas of biomaterials and biomechanics, including BME:2200 Systems, Instrumentation, and Data Acquisition and BME:5101 Biomaterials and Implant Design, and the senior design sequence BME:4910–BME:4920.

Senior Design Laboratory

The Senior Design Laboratory provides a collaborative atmosphere for student groups as they create working prototypes. It has computer workstations, project workspace, and storage space for the development of senior design projects. In addition, a variety of tools and equipment are available in the lab, including electronics measurement devices, soldering tools, Dremel tools, miscellaneous sample medical equipment, and other resources for students. It is used by students taking BME:4910 Biomedical Engineering Senior Design I and BME:4920 Biomedical Engineering Senior Design II.

Systems, Instrumentation, and Data Acquisition Laboratory

The Systems, Instrumentation, and Data Acquisition Laboratory provides a collaborative environment for student teams to gain practical experience designing and testing electronic biomedical devices. It is equipped to measure, acquire, and analyze biomedical signals of clinical and physiological interest; to design, build, and test electronic instrumentation; and to conduct modeling experiments in physiology. The equipment includes computer workstations, power supplies, multimeters, function generators, oscilloscopes, breadboards, electrical components, integrated circuits, various transducers, Arduino microprocessors, and National Instruments data acquisition boards. It is used for the courses BME:2200 Systems, Instrumentation, and Data Acquisition and BME:4710 Medical Device Design Studio, biomeasurements and biological systems analysis, and senior design projects.

Research Facilities and Laboratories

The following laboratories are transformational spaces that enable the biomedical engineering faculty and students (graduate and undergraduate research assistants) to interact with one another by bringing together investigators with complementary fields of study. The laboratories have a direct impact on training graduate students and contribute to numerous research projects across campus. They have been designed to be responsive to current and future needs; to encourage interaction among engineers, scientists, and physicians from various disciplines; to help recruit and retain qualified faculty and students; and to facilitate partnerships and development.

Coordinated Laboratory for Computational Genomics (CLCG)

The Coordinated Laboratory for Computational Genomics (CLCG) aims to catalyze the development of new areas of study and expanded research opportunities in informatics areas related to the basic biological sciences and applied medical research. Founded in 2002 as a joint enterprise between the College of Engineering and Carver College of Medicine, the CLCG involves faculty from five colleges, seven affiliated centers, institutes, and cores, and more than 19 departments. It serves as a coordinating home for interdisciplinary research, undergraduate, pre- and post-doctoral training, as well as faculty recruiting and professional development. At the hub of an inherently interdisciplinary field, the goal of the CLCG is to assist in overcoming traditional disciplinary hurdles to collaboration and assist in utilizing state-of-the-art instrumentation and analysis methods needed by 21st-century biomedical and basic science research.

Bioinformatics and Computational Biology Laboratory

The Center for Bioinformatics and Computational Biology is wired for high-speed networking (100-megabit and gigabit ethernet, hardwired and wireless). It includes two dedicated Linux clusters, 126 computing systems, 178 CPUs, more than 20 terabytes of RAM, and 250 terabytes of disk space. Computer resources include a dedicated experimental,

reconfigurable computer cluster of 18 Linux systems (36 CPUs) connected with a dedicated, switched, copper Gigabit Ethernet intranet and a second dedicated computer server cluster of 16 Linux systems (32 CPUs) connected with a dedicated, switched fiber-optic Gigabit Ethernet intranet. An additional 78 computers are used as compute servers, web servers, database servers, file servers, workstations, laptops, and for other developmental and experimental needs.

Biomechanics of Soft Tissues Laboratory

The Biomechanics of Soft Tissues Laboratory (BioMOST) seeks to leverage principles from biomechanics, biomaterials, and medical imaging to develop tools for plumbing the human body with a focus on the heart, arteries, and lungs. It houses a ViVitro Pulse duplicating left-heart simulating flow loop system, mechanical extension testers, durability testers for accelerated testing of valves, flow loop with programmable pump, resisters and compliance chambers, optical micrometer, a furnace for nitinol shape memory alloy stent fabrication, and the Vascular Simulations Replicator (a portable realistic angio-suite friendly blood flow simulator). The lab also houses high-end image and data processing workstations.

Bioinspired and Bioengineered Microsystems Laboratory

The Bioinspired and Bioengineered Microsystems Lab is interested in exploiting bioinspired and multidisciplinary approaches (cellular, material, and bioengineering) to help understand respiratory diseases and develop effective treatments and accessible diagnostic tests to benefit patients. Structural and proteinaceous materials, such as silk fibroin, are a central research focus, as these materials enable aqueous and ambient processing, facilitate host-implant integration, and exhibit rare immunogenicity, a promising alternative to most synthetic polymers.

The laboratory is equipped with major equipment for material and bioengineering research, including a Leica Stellaris 5 confocal microscopy, a Cellink Inkcredible 3D printer, an Eppendorf 5804R centrifuge, a Laurell spin coater, an OptiMelt Automated Melting Point System, a Class 100 vertical laminar chamber, and a SpectraMax iD3 microplate detection system. The lab also has access to other shared equipment, including a biosafety hood, CO2 incubators, a chemical fume hood, -80°C and -20°C freezers, a fridge, an ice machine, a Thermofisher Barnstead water purification system, and a Tuttnauer 2540E autoclave.

Carver Laboratory for Regenerative Engineering and Translational Science

The Carver Laboratory for Regenerative Engineering and Translational Science is a state-of-the-art multi-investigator wet laboratory devoted to cell and tissue-based research. Housed within this facility are the 3MT (multi-scale mechanics, mechanobiology, and tissue engineering) lab and Worthington lab.

The laboratory is equipped with major equipment to synthesize and characterize biomaterials, including a chemical fume hood, rotary evaporator, freeze-dryer, rheometer, and several light-based curing systems. To enable the growth, maintenance, and characterization of mammalian cells, the lab also houses biosafety cabinets, incubators, a transfection system, an automated cell counter, a low-volume spectrophotometer, a microplate reader, thermal cyclers, quantitative polymerase chain reaction (PCR) instruments, electrophoresis units, and a gel imaging system. The dedicated microscope room includes an atomic force microscope and several fluorescent microscopes, which are equipped with confocal and live cell imaging capabilities.

Computational Laboratory

The Collaborative Computational Laboratory is a shared research computing resource, providing space and computational equipment for research in several fields, including computational fluid dynamics, medical image analysis, magnetic resonance imaging, machine learning, computational neuroscience, and artificial intelligence. Desktop computers, compute servers, and access to the campus research data storage and high-performance computing cluster are available through the lab.

Computational Biomolecular Engineering Laboratory

The Computational Biomolecular Engineering Laboratory focuses on molecular biophysics theory and high-performance computational algorithms used for engineering drugs and organic biomaterials. Located in the Bowen Science Building, the lab is a collaboration between the Roy J. Carver Department of Biomedical Engineering and the Department of Biochemistry and Molecular Biology. It includes eight workstations used to simulate biomolecular phenotypes in the context of understanding the genetics of hearing loss, autism spectrum disorder, and vision loss. Heavy use is made of the University of Iowa Argon compute cluster, including dedicated availability of 22 compute nodes, 76 Nvidia graphics processing units (GPUs), and 100 terabytes of backed-up storage. The lab distributes a high-performance physics-based molecular simulation code called Force Field X (FFX) that is being used to produce a family of protein structures for genes associated with hearing loss, available in the Deafness Variation Database. The software is also used to predict how pharmaceuticals crystalize (i.e., into drug tablets) and to understand their thermodynamic properties (e.g., solubility).

Computational and Experimental Neuroplasticity Laboratory

The Computational and Experimental Neuroplasticity Laboratory (CENlab) is a multidisciplinary research group devoted to the biophysical and biochemical mechanisms of long-term memory storage in neurons and networks. The computational research takes place in the Collaborative Computational Laboratory. The experimental research, located in the Bowen Science Building, utilizes a whole cell patch recording rig, comprised of a vibration isolation table with faraday cage, IR-DIC microscope, temperature controller, LED light source for optogenetics, two micromanipulators, and a low-noise, ultra-fast, digital patch clamp amplifier with integrated A-D connected to a Windows computer for computerized experimental control and data acquisition. In addition, the laboratory contains a fume hood, vibratome, analytical balance, heating stir plate, and a refrigerator for solution and tissue preparation.

Orthopedic Biomechanics Laboratory

The Orthopedic Biomechanics Laboratory occupies 20 rooms on the ground floor of Westlawn. The purpose of the laboratory is macroscopic-level physical testing of musculoskeletal constructs (e.g., bones, articular joints, orthopedic implants) and corresponding computational

modeling. The physical testing area includes a multipurpose wet lab, a multipurpose dry lab, a surgical preparation room, a mechanical testing room, a machine shop, and a specimen storage area. The computational modeling area is arranged around eight separate workstation seats in two adjoining, partially partitioned areas. Adjacent to these core operational areas are offices for faculty, research staff, students, and fellows; a secretarial/reception area; a conference room; and a library.

Pulmonary Microfluidic Laboratory

The Pulmonary Microfluidic Laboratory integrates micro-engineering methods with biology to understand airway physiology, treat pulmonary disease, and improve human health.

Regenerative Engineering Laboratory

The Regenerative Engineering Laboratory inhabits over 1,000 square feet of the Pappajohn Biomedical Discovery Building. The lab leverages the principles of regenerative medicine to promote healing and resolution of disease in vivo and to build better models of human tissues in vitro. The lab is fully equipped to support research at the interface of materials, engineering, and cell biology. The Biosafety Level 2 (BSL-2) cell culture room in the lab has two Panasonic cell culture incubators, two Thermo Scientific biological safety cabinets, a fluorescent microscope, a 37°C bead bath, and centrifuges. A separate four-color fluorescence microscope is also available. The fully automated Leica DMI6000 captures four-color fluorescence images at up to 63x magnification. A built-in z-motor and post-acquisition analysis software allow for the capture and analysis of three-dimensional z-stacks.

The chemistry portion of the lab is equipped for biodegradable particle synthesis and analysis. In addition to a fume hood, sink, and laboratory counters, the lab has an analytical grade Mettler Toledo XS64 balance, water bath sonicator, homogenizer, syringe pumps, and a LabConco -86°C Cascade Lyophilizer. To support long-term storage of the reagents required for the molecular biology and chemistry portions of the lab, a variety of cold storage options are available, including 4°C, -20°C, -80°C, and -130°C.

Respiratory Dynamics Laboratory

The Respiratory Dynamics Laboratory, located in Seamans Center, uses multiscale dynamic imaging and biomechanics to learn how lung structures move, stretch, and transport gas during breathing and mechanical ventilation. The facility houses equipment for isolated lung preparation and imaging, including a laminar flow clean bench, a dissecting microscope, an isolated organ perfusion system, purpose-built mechanical ventilators, and a high-resolution x-ray micro-CT scanner. The lab maintains an array of supplies and equipment for electropneumatic control and measurement of respiratory gas flows and pressures. The facility also includes pressurized air and vacuum outlets, a chemical fume hood, biosafety cabinet, ice machine, water purification system, and cold storage at 4ºC, -20ºC, and -80ºC.

Spine Biomechanics Research Laboratory

The Spine Biomechanics Research Laboratory is equipped for interdisciplinary research. The lab's MTS Bionix servohydraulic testing equipment (with extended columns) permits the application of uniaxial tension or compression together with axial torsion under displacement or load control. The lab also has a fully automated three-dimensional motion measuring system. These devices are used to test the mechanical properties of biomechanical joints and tissues and for biomechanical evaluation of the performance of surgical treatment modalities. Other equipment includes digital cameras, surgical tools, and sensors (i.e., linear variable differential transformers, six-degrees-of-freedom load cell, pressure transducers, and digital inclinometers).

A biaxial biomechanical culture system is available for application of controlled compression and/or shear forces onto the intervertebral disc during culture in order to investigate the disc's biological responses to mechanical loads. This culture system is used in conjunction with an incubator in which cells and tissues can be cultured. Basic equipment for histology and immunohistochemical analyses includes a microtome, ovens, a microscope, and glassware for chemical processes.

Courses

Biomedical Engineering Courses

For current and planned course offerings, visit MyUI.

These advanced courses are offered infrequently depending on the research focus of currently enrolled graduate students: BME:6415 Advanced Biomechanics and Modeling of Soft Tissues and BME:6230 Principles of Magnetic Resonance Imaging.

BME:1010 First-Year Forum **1 s.h.**
Presentations by faculty, graduate students, collaborators from the Carver College of Medicine, and Colleges of Dentistry and Law; may include visits to laboratories and industries.

BME:2010 Professional Seminar: Biomedical Engineering **1 s.h.**
Professional aspects of biomedical engineering presented through lectures and discussions by guest speakers, field trips, films, panel discussions. Requirements: sophomore or higher standing.

BME:2200 Systems, Instrumentation, and Data Acquisition **4 s.h.**
Introduction to engineering art and science of modeling, acquisition, and analysis of data collected from living systems; modeling of physiological and biological systems; concepts of analog circuit design, with emphasis on circuits for collecting data for biomedical applications using operational amplifiers, active filters, conversion, and interface to microcomputers; patient safety; clinical circuits; analysis of data using time domain and Fourier domain techniques and models; time domain sampling, and Nyquist sampling theorem. Prerequisites: ENGR:2120. Corequisites: (HHP:3500 or HHP:2400 or BME:2260) and (BIOS:4120 or STAT:3510).

BME:2210 Bioimaging and Bioinformatics **4 s.h.**
Introduction to bioinformatics and biomedical imaging; computer algorithms, machine learning, databases and SQL, the web and web servers, ethics, computer security, genome technology, public warehouses of biological data; medical imaging hardware and software for acquisition and analysis of medical images, especially those collected from X-ray, CT, MR, and ultrasound systems; medical imaging system physics, including interaction of energy with tissue, concepts of image spatial and temporal resolution; applications of filtering, enhancement, and image processing for analysis of medical images. Prerequisites: ENGR:1300 and BIOL:1411. Corequisites: BIOS:4120 or STAT:3510.

BME:2260 Quantitative Physiology 3 s.h.
Introduction to core concepts in human physiology, homeostatic regulation, and structure-function relationships across cellular and organ systems; emphasis on analytical and quantitative methods including topics from dynamical systems, systems analysis, feedback, and control; students use mathematical modeling and computational simulation (MATLAB) to explore sensitivity analysis and emergent phenomena in complex physiological systems. Prerequisites: CHEM:1120 and BIOL:1411 and MATH:2560 and ENGR:1300.

BME:2400 Cell Biology for Engineers 3 s.h.
Introduction to fundamental concepts in quantitative cell biology from an engineering perspective. Prerequisites: BIOL:1411. Corequisites: BIOS:4120 or STAT:3510.

BME:2500 Biomaterials and Biomechanics 4 s.h.
Introduction to mechanics and materials in biological systems; principles of mechanics (stress, strain, motion, fluid flow) presented and used to characterize behavior of biological entities (tendon/ligament, bone and cartilage, blood, blood vessels, heart); principles of material science; role of biomaterials (metals, polymers, ceramics) in medical devices. Prerequisites: ENGR:2110. Corequisites: (HHP:3500 or HPP:2400 or BME:2260) and (BIOS:4120 or STAT:3510).

BME:2710 Engineering Drawing, Design, and Solid Modeling 3 s.h.
Introduction to methods and principles used by engineers to define and describe geometry and topology of engineered components; use of Parametric Technology's Creo Pro (formerly ProEngineer) 3D computer-aided design software; emphasis on elements of design; basic commands used in parametric design to develop spatial visualization skills and the ability to create and understand 3D solid parametric design for assembly and 3D drawing documentation; creation of 3D assemblies and detailed drawings from art of design to part utilization of solid modeling techniques.

BME:3260 Quantitative Physiology 3 s.h.
Introduction to core concepts in human physiology, homeostatic regulation, and structure-function relationships across cellular and organ systems; emphasis on analytical and quantitative methods including topics from dynamical systems, systems analysis, feedback, and control; students use mathematical modeling and computational simulation (MATLAB) to explore sensitivity analysis and emergent phenomena in complex physiological systems. Prerequisites: CHEM:1120 and BIOL:1411 and MATH:2560 and ENGR:1300.

BME:3710 Medical Device Design: The Fundamentals 3 s.h.
Introduction to medical device design process; project-based; development of prototyping and fabrication skills needed for engineering design projects, safety, communication, and teamwork; focus on physical rehabilitation science and assistive technologies; preparation for senior design course sequence. Prerequisites: BME:2500 and BME:2710. Requirements: junior standing.

BME:3995 Undergraduate Research in Biomedical Engineering arr.
Research performed by a biomedical engineering student under mentorship of a faculty supervisor.

BME:3998 Individual Investigations: Biomedical Engineering arr.
Individual projects for biomedical engineering undergraduate students, such as laboratory study, engineering design projects, analysis and simulation of an engineering system, computer software development.

BME:4135 Health Monitoring of Structural and Mechanical Systems 3 s.h.
Measurements, structural modeling, structural analysis, stiffness method, trusses and frames, structural testing, modal analysis. Prerequisites: ENGR:2750. Same as CEE:4135, ME:4235.

BME:4310 Computational Biochemistry 3 s.h.
Introduction to biomolecular modeling and computer simulation techniques; biomolecular structure and molecular driving forces; principles of structural optimization and conformational sampling; applications to biomolecular phenotypes; scripting and molecular visualization in PyMol, setting up and running molecular dynamics simulations using VMD and NAMD, performing refinement of X-ray diffraction data sets using Phenix, and executing Poisson-Boltzmann electrostatic calculations using APBS. Prerequisites: (MATH:1560 or MATH:1860) and CHEM:1120. Recommendations: BMB:3110 or BMB:3120. Same as BMB:4310.

BME:4314 Introduction to Synthetic Biology in the Lab 4 s.h.
Introduction to theory and practice of large-scale design goals of synthetic biology in which various types of DNA instructions, known from decades of research and discovery on specific biological systems, are taken out of context and used to execute various novel tasks designed to solve real-world problems; basic laboratory instruction in standardized construction techniques for stringing together off-the-shelf DNA components that are then introduced into organisms capable of executing the instructional set; controlled experiments to investigate the degree of variability exhibited by engineered genetic constructs. Prerequisites: BIOL:1411. Same as BIOL:4314.

BME:4710 Medical Device Design Studio 3 s.h.
Intermediate medical device design geared towards electro-mechanical design and techniques; builds on foundational knowledge acquired in BME:3710 and BME:2200; focus on advanced prototyping skills including solid modeling, proper electrical component selection, integrating electrical components into hardware design, and testing electro-mechanical device against industry standards. Prerequisites: BME:2200 and BME:2500 and BME:2710 and BME:3710.

BME:4910 Biomedical Engineering Senior Design I 4 s.h.
Individual or group work on a creative design project involving current problems in biomedical engineering; interdisciplinary projects involving biomedical engineering and health sciences faculty members; first semester of a year-long senior capstone design project. Prerequisites: BIOS:4120 or STAT:3510. Requirements: senior standing.

BME:4920 Biomedical Engineering Senior Design II 4 s.h.
Second semester of a year-long senior capstone design project begun in BME:4910. Prerequisites: BME:4910.

BME:5010 Seminar in Biomedical Engineering 0 s.h.
Presentation of recent advances in biomedical engineering. Requirements: graduate standing.

BME:5101 Biomaterials and Implant Design 3 s.h.
Introduction to material and mechanical considerations underlying a broad range of medical implants; emphasis on understanding factors involved in orthopedic device design; major classes of biomaterials; considerations that underlie implant design, use, failure; contemporary areas of biomaterials and implant development. Prerequisites: ENGR:2750 and BME:2500.

BME:5200 Biomedical Signal Processing 3 s.h.
Application of signal processing methods (e.g., Fourier, Laplace, z-transforms) to biomedical problems, such as analysis of cardiac signals, circadian rhythm, the breathing cycle; computer simulation lab. Same as IGPI:5212.

BME:5210 Medical Imaging Physics 3 s.h.
Physics and data acquisition techniques of major medical imaging modalities (X-ray, CT, MR, ultrasound, PET, SPECT); physical interactions of energy with living tissue; principles and methods for acquiring imaging data and subsequent image construction; how individual modalities influence image quality; MATLAB programming required. Second in a medical imaging sequence. Prerequisites: BME:2200 and BME:2210. Same as ECE:5470, IGPI:5206.

BME:5240 Deep Learning in Medical Imaging (DLMI) 3 s.h.
Overview of deep learning architectures related to medical image analysis, including convolutional neural networks, auto-encoders, generative adversarial networks, and transformers; solve challenging medical imaging problems using image diagnosis, detection, segmentation, registration, and synthesis; use Python libraries including PyTorch, MONAI, SimpleITK, NumPy, and Matplotlib. Prerequisites: ENGR:3110. Requirements: practical knowledge of programming. Recommendations: ECE:5480, proficiency in Python, and comfortable with calculus, matrix algebra, and basic probability and statistics.

BME:5245 Introduction to Computed Tomography 3 s.h.
Principles of computed tomography (CT) from a signal processing perspective. Focus will be on image reconstruction and representation, with and without contrast, including identifiable sectional anatomy. Includes practical aspects such as CT system configurations, artifacts, and quality assurance. Also includes programming and literature readings. Prerequisites: BME:2210.

BME:5251 Advanced Biosystems 3 s.h.
Biological systems unique to systems analysis; operation under nonequilibrium conditions; tools for systems analysis developed from models of systems at equilibrium (i.e., mechanical systems); fundamental difference between biological and mechanical systems that impact systems analysis; expand knowledge of linear systems and begin work with nonlinear systems; various modeling and analysis approaches useful in biomedical and biomedical engineering research. Prerequisites: BME:2200. Same as IGPI:5251.

BME:5335 Computational Bioinformatics 3 s.h.
Introduction to computational methods used in genomics, genome analysis, biological sequence analysis, sequence database search, expression analysis, and biological network analysis; in-depth coverage of principal genome science challenges and contemporary solutions. Prerequisites: (BIOS:4120 or STAT:2020 or STAT:3510) and (CS:5110 or ENGR:1300).

BME:5340 Contemporary Topics in Biomedical Engineering 3 s.h.
New and emerging areas of biomedical engineering and related fields; specific content varies.

BME:5421 Cell Material Interactions 3 s.h.
Examine the current knowledge of cell and material interactions in terms of biomaterial science, the mechanobiology of native tissues and engineered analogs, and immunity. Prerequisites: BME:2400.

BME:5430 Biotransport 3 s.h.
Energy, mass, and momentum transport in living systems; processes essential for understanding how physiological systems function from molecular level through scale of tissues and organs; fluid mechanics and physiological flows, mass transport, biochemical kinetics and reactions, bioheat transfer; conservation laws; various biological applications. Prerequisites: BME:2500.

BME:5431 Biofabrication for Tissue Engineering 3 s.h.
Understanding the principles and approaches of advanced biofabrication for tissue engineering and regenerative medicine. Biofabrication relies on the use of biological materials and cells to create bioengineered tissue to regenerate or repair diseased or injured tissues and organs, such as respiratory bioengineering. Emphasis is on the fundamental mechanisms, processing conditions, and bioinspired strategies of biofabrication, additive approaches, the integration of molecular sciences, and tissue-level micro-physiological systems. Prerequisites: ENGR:2110 and BME:2400 and BME:2500.

BME:5435 Systems Biology for Biomedical Engineering 3 s.h.
Although systems biology is comprised of both experimental and computational aspects, focus is on computational aspects; introduction to deterministic models of biochemical reaction networks; development and application of mathematical models of reaction networks using systems of nonlinear ordinary differential equations; numerical techniques employed to study system stability and perform simulations in realistic biological contexts. Prerequisites: BME:2400 and BME:2200.

BME:5441 Numerical and Statistical Methods for Bioengineering 3 s.h.
Mathematics and computation as indispensable tools needed to model and explain complex phenomena relevant to biomedical engineering problems; introduction to concepts from linear algebra, differential equations, probability and statistics, nonlinear model regression, optimization, numerical integration, and other numerical methods, all using Matlab. Prerequisites: MATH:2560 and MATH:2550.

BME:5445 Stem Cells in Regenerative Engineering 3 s.h.
Discovery and history of stem cells, how they are defined and grouped, and various techniques for their isolation, creation, culture, and characterization; focus on current state of stem cells in medical research and treatment of human disease, as well as future outlook of their use; particular emphasis placed on practical knowledge that students may find useful as they pursue careers in cellular and tissue engineering. Prerequisites: BME:2400 or BIOL:2723.

BME:5451 Research Methods in Cellular Engineering 3 s.h.
Statistical approaches and principles of assays routinely used in cell engineering; design of experiments and statistical approaches commonly used to analyze biological data including t-tests and one- and two-way ANOVAs, taking into consideration the constraints of cellular engineering research; students design, execute, and analyze data collected from actual experiments; review of recently published literature and analysis of public data sets to understand how each assay and test contributes to understanding of cellular phenotype. Prerequisites: BIOL:1411 and (STAT:3510 or BIOS:4120).

BME:5460 Biomedical Micro Devices and Systems 3 s.h.
Micro-sized devices have impacted a variety of biomedical research and successfully entered the mainstreaming commercial markets, such as biochemical molecule sensing, single-cell transcriptomics, cell sorting, and high-throughput drug screening. These micro-devices include lab-on-a-chip, microfluidic, micro-electro-mechanical, micro total analysis systems, and beyond. Examine the history, theory, design, fabrication, and functional units of micro-sized devices; discuss the state-of-the-art technologies and real-life biomedical applications; fabricate and operate lab-on-a-chip devices. Prerequisites: BME:2500.

BME:5510 Cardiovascular Engineering 3 s.h.
Mechanics—forces and motion—at the heart of the cardiovascular system; fluid and solid mechanics inherent to the motion of the heart, valves, arteries, and veins, and how they facilitate the flow of blood; how to use mechanics to understand and diagnose the severity of cardiovascular disease states and to design implants and devices. Prerequisites: BME:2500.

BME:5525 Cardiopulmonary Design and Modeling 3 s.h.
Cardiac and pulmonary systems; physiologic fluid mechanics critical to tissue/organ function, transport, homeostasis, and disease progression; diseases that afflict cardiopulmonary system; focus on role of fluid mechanics in how diseases develop, progress, and are treated; use of computational modeling tools to simulate disease conditions and understand challenges of designing devices and interventions. Prerequisites: ENGR:2510 and BME:2500.

BME:5540 Quantitative Studies of Respiratory and Cardiovascular Systems 3 s.h.
Quantitative physiological aspects of respiratory and cardiovascular systems; classical linear and nonlinear models, including lumped and distributed parameter models to predict air and blood flows in branching tree structures; biomedical instrumentation for respiratory and cardiovascular measurements; computer models to simulate the behavior of the respiratory and cardiovascular systems in frequency and time domains, under conditions of health and disease; functional and quantitative imaging techniques for the respiratory and cardiovascular systems. Prerequisites: BME:2200.

BME:5610 Musculoskeletal Biomechanics 3 s.h.
Fundamentals of mechanical principles applied to analytical and experimental investigations of musculoskeletal systems, emphasizing biomechanical understanding of clinical problems in bones, tendons, ligaments, cartilages, and musculoskeletal joints. Prerequisites: BME:2500 and ENGR:2750.

BME:5620 Introduction to Applied Biomedical Finite Element Modeling 3 s.h.
Introduction to finite element modeling techniques, software, and analysis with particular emphasis on solid biomechanics applications. Topics include various modeling techniques (pre- and post-processing), element types, convergence, anatomic modeling, model verification and validation, and appropriate communication of finite element results. Prerequisites: ENGR:2750 and BME:2500.

BME:5630 Kinetics of Musculoskeletal Systems 3 s.h.
Principles of kinematic and kinetic analyses of multibody systems; multivariable calculus and vectors and matrices required for multibody kinetic analyses; examples of mathematical modeling and human musculoskeletal system. Prerequisites: ENGR:2710.

BME:5640 Ergonomics of Occupational Injuries 3 s.h.
Epidemiology, surveillance systems, ergonomics, biomechanics, physiology, psychology, legal aspects, and cost control. Prerequisites: BME:2500. Corequisites: ENGR:2750.

BME:5715 Advanced Medical Device Design Studio 3 s.h.
Continuation of BME:3710 and BME:4710; biomedical engineering project based; focus on advanced prototyping and manufacturing techniques of mechanical and electromechanical medical devices; implementation of design controls and testing to medical industry standards for quality and safety; development of project management skills and communication within a team; final course in medical device design sequence. Prerequisites: BME:2200 and BME:2500 and BME:2710 and BME:3710 and BME:4710.

BME:5720 Optimization of Structural Systems 3 s.h.
Advanced topics; optimization of structural topology, shape, and material; finite dimensional dynamic response optimization, sensitivity analysis, distributed parameter systems; projects. Same as CEE:5236.

BME:5998 Individual Investigations: Biomedical Engineering arr.
Individual projects for biomedical engineering graduate students, such as laboratory study, engineering design project, analysis and simulation of an engineering system, computer software development, research. Requirements: graduate standing.

BME:5999 Research: Biomedical Engineering MS Thesis arr.
Experimental and/or analytical investigation of an approved topic for partial fulfillment of the requirements for the MS with thesis in biomedical engineering. Requirements: graduate standing.

BME:6225 Communicating Science 3 s.h.
Writing and speaking about biomedical engineering and science research; key principles of writing with clarity and cohesion; practice applying these principles on a piece of research writing students are currently working on; review of best practices for presenting research to peers and at conferences; students share their work with peers through writing and presentations.

BME:6230 Principles of Magnetic Resonance Imaging 3 s.h.
MRI is a powerful and versatile imaging modality capable of providing a wide variety of contrast mechanisms and visualizing soft tissues in detail; principles of MRI from a signal processing perspective; MATLAB programming, literature readings, final project, visits to MRI research scanner facility, guest lectures from leading MRI experts; MRI concepts, interpretation of commonly used pulse sequences in clinical MRI, and emerging trends in MRI. Prerequisites: BME:5210 or BME:5200 or ECE:5460. Recommendations: familiarity with digital signal processing.

BME:6415 Advanced Biomechanics and Modeling of Soft Tissues 3 s.h.
Application of continuum mechanics to the study of soft biological tissues and biomaterials; soft tissue mechanical behaviors such as nonlinear elasticity, viscoelasticity, and anisotropy; use of principles from continuum mechanics for characterizing three dimensional deformation of tissues and development of constitutive models to describe material behavior.

BME:7999 Research: Biomedical Engineering PhD Dissertation arr.
Experimental and/or analytical investigation of an approved topic for partial fulfillment of requirements for PhD with thesis in biomedical engineering.

Biomedical Engineering, BSE

The major in biomedical engineering builds on the foundation provided by the BSE core requirements, preparing students for the challenges and opportunities associated with careers in the profession.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Focus Areas

All BSE students complete a focus area within their chosen major. Students majoring in biomedical engineering select one of four preapproved focus areas: bioimaging, biomechanics and biomaterials, cellular engineering, or computational bioengineering. Each focus area may be designated pre-medicine by completing a specific set of electives.

Bioimaging

Bioimaging represents the acquisition, processing, and visualization of structural or functional images of living systems. Medical imaging and image processing are integral to the extraction of anatomical and biological information from the systems level down to the molecular level. Bioimaging clinically seeks to reveal, diagnose, or examine diseases and also investigates normal anatomy and physiology.

Biomechanics and Biomaterials

Biomechanics is the study of structure and function. It is the application of principles from classical mechanics to problems in biological systems. This focus area emphasizes cardiovascular and/or musculoskeletal biomechanics. The study of biomaterials plays an important role in the design of implants and surgical instrumentation for both cardiovascular and musculoskeletal applications.

Cellular Engineering

Cellular engineering involves the application of engineering principles to problems in cellular and molecular biology, particularly as they relate to human health. The goal of this focus area is to equip students with the quantitative tools necessary to understand, manipulate, and control cellular and subcellular processes for a range of biomedical applications, including those related to stem cells, tissue engineering, and regenerative medicine.

Computational Bioengineering

Computational bioengineering is an interdisciplinary field that develops methods and software tools for modeling and understanding biological data and systems that are typically represented by large amounts of data. Computational bioengineering is a combination of computer science, statistics, informatics, and engineering to analyze and interpret biological and genomic data. It is used for the identification of candidate genes to better understand the genetic basis of disease, unique adaptations, and differences between populations.

Educational Objectives

The department provides undergraduate students with a contemporary education in a multidisciplinary field of engineering. Its objective is to produce graduates who:

- advance the biomedical field through the responsible analysis and development of devices, systems, processes, and policies that improve human health;
- pursue a wide range of career options, including those in industry, academia, and medicine; and
- collaborate on multidisciplinary teams and become leaders in their chosen fields.

Requirements

The Bachelor of Science in Engineering (BSE) with a major in biomedical engineering requires a minimum of 128 s.h. of credit, plus up to two 1 s.h. departmental seminars. At the time of graduation, students must have a cumulative grade-point average of at least 2.00 in all college work used to complete degree requirements and in all UI coursework in order to be awarded the BSE.

All BSE students are required to take the same collegiate curriculum. For information about these collegiate requirements, see the Bachelor of Science in Engineering, BSE [p. 1529] in the catalog. 6 s.h. of a student's major courses fulfill the collegiate curriculum's basic science and college-level math requirement. Students completing the major in biomedical engineering fulfill the collegiate statistics requirement through BIOS:4120 Introduction to Biostatistics or STAT:3510 Biostatistics.

The major in biomedical engineering may include the following departmental seminars depending on when a student declares the major.

Course #	Title	Hours
BME:1010	First-Year Forum	1
BME:2010	Professional Seminar: Biomedical Engineering	1

The program has been designed carefully to enable students to satisfy the entrance requirements of the Graduate College [p. 1682].

The BSE with a major in biomedical engineering requires the following coursework.

Requirements	Hours
Collegiate Curriculum	49
Basic Science and College-Level Math, from Major Requirements or Focus Area coursework	6
Major Requirements	40
Focus Area	33-34

Major Requirements

Major requirements include a set of common courses (38 s.h.) and two capstone design courses (8 s.h.).

Common Courses

Students in the bioimaging or computational bioengineering focus areas may choose between ENGR:2130 Thermodynamics or ENGR:3110 Introduction to Artificial Intelligence and Machine Learning in Engineering.

Course #	Title	Hours
All of these:		
BME:2200	Systems, Instrumentation, and Data Acquisition (with lab)	4
BME:2210	Bioimaging and Bioinformatics (with lab)	4
BME:2260	Quantitative Physiology	3
or HHP:2400	Fundamentals of Human Physiology	
BME:2400	Cell Biology for Engineers (with lab)	3
BME:2500	Biomaterials and Biomechanics (with lab)	4
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
ENGR:2110	Statics	2
ENGR:2120	Electrical Circuits	3
ENGR:2130	Thermodynamics	3
PHYS:1612	Introductory Physics II (with lab)	4

Capstone Design Courses

Course #	Title	Hours
Both of these:		
BME:4910	Biomedical Engineering Senior Design I	4
BME:4920	Biomedical Engineering Senior Design II	4

Focus Area

Students must select focus area courses according to guidelines established by the Roy J. Carver Department of Biomedical Engineering. Biomedical engineering students choose one of four preapproved focus areas: bioimaging [p. 1544], biomechanics and biomaterials [p. 1545], cellular engineering [p. 1545], or computational bioengineering [p. 1546]. For details about focus areas and their requirements, visit Curriculum Focus Areas on the department's website.

Each focus area has a group of four required courses (12–13 s.h.) and a list of suggested electives (21 s.h.).

Pre-Medicine Focus Area Electives

Students who choose to pursue pre-medicine can select any focus area and complete five of the following courses (16 s.h.) as their additional electives.

Course #	Title	Hours
Five of these:		
BIOL:1412	Diversity of Form and Function	4
BIOL:2512	Fundamental Genetics	4
BMB:3110	Biochemistry	3
CHEM:2210	Organic Chemistry I	3
CHEM:2220	Organic Chemistry II	3
CHEM:2410	Organic Chemistry Laboratory	3

Bioimaging

Required Bioimaging Courses

Course #	Title	Hours
All of these:		
BME:5210/ ECE:5470/IGPI:5206	Medical Imaging Physics	3
ECE:3330/IGPI:3330	Introduction to Software Design	3
ECE:5480/IGPI:5480	Digital Image Processing	3
ENGR:2730	Computers in Engineering	3

Bioimaging Electives

Course #	Title	Hours
Two of these:		
BME:5200/ IGPI:5212	Biomedical Signal Processing	3
BME:5240	Deep Learning in Medical Imaging (DLMI)	3
ECE:5330/IGPI:5331	Graph Algorithms and Combinatorial Optimization	3
ECE:5450/IGPI:5450	Machine Learning	3
ECE:5490	Multi-Dimensional Image Analysis Tools and Techniques	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering (if not taken to fulfill major requirements)	3

Additional Electives–Bioimaging

The following courses are suggested additional electives for the bioimaging focus area. Students are encouraged to consult their academic advisor when selecting electives.

Course #	Title	Hours
At least 15 s.h. from these:		
BME:5251/ IGPI:5251	Advanced Biosystems	3
BME:5441	Numerical and Statistical Methods for Bioengineering	3
ECE:5460/IGPI:5460	Digital Signal Processing	3
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
ENGR:2130	Thermodynamics (if not taken to fulfill major requirements)	3
HHP:2100	Human Anatomy	3
HHP:4250	Human Pathophysiology	3
HHP:4260	Respiratory Pathophysiology	3
MATH:3550	Engineering Vector Calculus	3
MATH:3800/ CS:3700	Introduction to Numerical Methods	3
Additional courses from the "Bioimaging Electives" list		3
Courses from the "Pre-Medicine Focus Area Electives" list		3-4

Biomechanics and Biomaterials

Required Biomechanics and Biomaterials Courses

Course #	Title	Hours
All of these:		
ENGR:2510	Fluid Mechanics (with lab)	4
ENGR:2710	Dynamics	3
ENGR:2720	Materials Science	3
ENGR:2750	Mechanics of Deformable Bodies	3

Biomechanics and Biomaterials Electives

Course #	Title	Hours
Two of these:		
BME:2710	Engineering Drawing, Design, and Solid Modeling	3
BME:5101	Biomaterials and Implant Design	3
BME:5510	Cardiovascular Engineering	3
BME:5525	Cardiopulmonary Design and Modeling	3
BME:5610	Musculoskeletal Biomechanics	3

Additional Electives–Biomechanics and Biomaterials

The following courses are suggested additional electives for the biomechanics and biomaterials focus area. Students are encouraged to consult their academic advisor when selecting electives.

Course #	Title	Hours
At least 15 s.h. from these:		
BME:3710	Medical Device Design: The Fundamentals	3
BME:4710	Medical Device Design Studio	3
BME:5421	Cell Material Interactions	3
BME:5430	Biotransport	3
BME:5431	Biofabrication for Tissue Engineering	3
BME:5441	Numerical and Statistical Methods for Bioengineering	3
BME:5460	Biomedical Micro Devices and Systems	3
BME:5540	Quantitative Studies of Respiratory and Cardiovascular Systems	3
BME:5620	Introduction to Applied Biomedical Finite Element Modeling	3
BME:5630	Kinetics of Musculoskeletal Systems	3
BME:5715	Advanced Medical Device Design Studio	3
HHP:2100	Human Anatomy	3
HHP:4130	Skeletal Muscle Physiology	3
HHP:4460	Cardiovascular Physiology	3
ISE:2360 or ME:2300	Design for Manufacturing Manufacturing Processes	3
MATH:3550	Engineering Vector Calculus	3
ME:4110/CEE:4515	Computer-Aided Engineering	3
OEH:4310	Occupational Ergonomics: Principles	3
Additional courses from the "Biomechanics and Biomaterials Electives" list		3
Courses from the "Pre-Medicine Focus Area Electives" list		3-4
May include one of these:		
CEE:4533/IGPI:4115	Finite Element I	3
ME:4117	Finite Element Analysis	3

Cellular Engineering

Required Cellular Engineering Courses

Course #	Title	Hours
All of these:		
BME:5421	Cell Material Interactions	3
BME:5430	Biotransport	3
BME:5435	Systems Biology for Biomedical Engineering	3
ENGR:2750	Mechanics of Deformable Bodies	3

Cellular Engineering Electives

Course #	Title	Hours
Two of these:		
BME:4310/ BMB:4310	Computational Biochemistry	3
BME:5441	Numerical and Statistical Methods for Bioengineering	3
BME:5445	Stem Cells in Regenerative Engineering	3
BME:5451	Research Methods in Cellular Engineering	3
ECE:5480/IGPI:5480	Digital Image Processing	3

Additional Electives–Cellular Engineering

The following courses are suggested additional electives for the cellular engineering focus area. Students are encouraged to consult their academic advisor when selecting electives.

Course #	Title	Hours
At least 15 s.h. from these:		
BME:5431	Biofabrication for Tissue Engineering	3
BME:5460	Biomedical Micro Devices and Systems	3
BME:5525	Cardiopulmonary Design and Modeling	3
BIOL:1412	Diversity of Form and Function	4
BIOL:2512	Fundamental Genetics	4
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3
ENGR:2510	Fluid Mechanics	4
ENGR:2710	Dynamics	3
ENGR:2720	Materials Science	3
ENGR:2730	Computers in Engineering	3
MATH:3550	Engineering Vector Calculus	3

MATH:4750	Introduction to Mathematical Biology	3
ME:5179/CEE:5179	Continuum Mechanics	arr.
Additional courses from the "Cellular Engineering Electives" list		3
Courses from the "Pre-Medicine Focus Area Electives" list		3-4

Computational Bioengineering

Required Computational Bioengineering Courses

Course #	Title	Hours
All of these:		
BME:4310/ BMB:4310	Computational Biochemistry	3
BME:5335	Computational Bioinformatics	3
ECE:3330/IGPI:3330	Introduction to Software Design	3
ENGR:2730	Computers in Engineering	3

Computational Bioengineering Electives

Course #	Title	Hours
Two of these:		
BME:5240	Deep Learning in Medical Imaging (DLMI)	3
ECE:5330/IGPI:5331	Graph Algorithms and Combinatorial Optimization	3
ECE:5820/CS:5820	Software Engineering Languages and Tools	3
ENGR:2130	Thermodynamics (if not taken to fulfill major requirements)	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering (if not taken to fulfill major requirements)	3

Additional Electives–Computational Bioengineering

The following courses are suggested additional electives for the computational bioengineering focus area. Students are encouraged to consult their academic advisor when selecting electives.

Course #	Title	Hours
At least 15 s.h. from these:		
BME:5435	Systems Biology for Biomedical Engineering	3
BME:5441	Numerical and Statistical Methods for Bioengineering	3
ANTH:2320/ GHS:2320	Origins of Human Infectious Disease	3
BIOL:2512	Fundamental Genetics	4
BIOL:3212/ IGPI:3212	Bioinformatics for Beginners	3
BIOL:3314/ IGPI:3314	Genomics	3
CHEM:5431	Statistical Thermodynamics I	3
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
CS:3330	Algorithms	3
CS:5350	Design and Analysis of Algorithms	3
ECE:5450/IGPI:5450	Machine Learning	3
ECE:5800/CS:5800	Fundamentals of Software Engineering	3
ECE:5995	Contemporary Topics in Electrical and Computer Engineering (when topic is applied machine learning)	3
MATH:3550	Engineering Vector Calculus	3
MATH:4750	Introduction to Mathematical Biology	3
Additional courses from the "Computational Bioengineering Electives" list		3
Courses from the "Pre-Medicine Focus Area Electives" list		3-4

Combined Programs

Undergraduate to Graduate (U2G Programs)

Bachelor of Science in Engineering students in biomedical engineering may pair their degree with an Undergraduate to Graduate (U2G) program, which allows the student to earn a bachelor's and master's degree in five years of study. BME undergraduates are eligible to apply for the following U2G graduate programs and any other participating U2G programs. See the Undergraduate to Graduate (U2G) website for available programs.

BSE/MS in Biomedical Engineering

The College of Engineering offers a combined Bachelor of Science in Engineering/Master of Science for biomedical engineering undergraduate students who intend to earn an MS in biomedical engineering. Students admitted to this program are allowed to apply up to 12 s.h. of graduate coursework towards both the BSE and MS degree requirements and attend and participate in the departmental graduate seminar. Students may begin to work on their coursework or master's thesis starting as early as the summer following the junior year of undergraduate studies.

Students applying to the BSE/MS program in biomedical engineering must meet the following criteria at the time of application:

- a minimum of 80 s.h. completed towards their BSE degree;
- a cumulative grade-point average of 3.50 or higher; and
- identification of a research mentor if pursuing a thesis master's degree.

BSE/MPH (Occupational and Environmental Health Subprogram)

The combined BSE in biomedical engineering/MPH with the occupational and environmental health subprogram enables undergraduate students majoring in biomedical engineering to begin work toward the MPH degree while completing their

bachelor's degree. Students may count 15 s.h. of credit toward both the BSE and the MPH degree requirements. See the Master of Public Health, MPH [p. 2092] (occupational and environmental health subprogram) in the catalog.

BSE/MS in Electrical and Computer Engineering

BSE students majoring in biomedical engineering who are interested in earning a Master of Science in electrical and computer engineering may apply to the combined BSE/MS program offered by the College of Engineering. The combined program permits students to count a limited amount of credit toward the requirements of both degrees. See the MS in electrical and computer engineering [p. 1631] in the catalog.

BSE (Biomechanics and Biomaterials Track)/MS in Occupational and Environmental Health (Industrial Hygiene Subprogram)

BSE students majoring in biomedical engineering in the biomechanics and biomaterials track who are interested in earning a Master of Science in occupational and environmental health with an industrial hygiene subprogram may apply to the combined BSE/MS program offered by the College of Engineering and the College of Public Health. The combined program permits students to count a limited amount of credit toward the requirements of both degrees, enabling them to begin the study of public health before they complete the bachelor's degree. See the MS in occupational and environmental health Undergraduate to Graduate (U2G) information on the Department of Occupational and Environmental Health (College of Public Health) website.

Career Advancement

BSE graduates with a major in biomedical engineering may pursue career opportunities in biomedical industries, such as design and development of biomedical instrumentation, diagnostic aids, life support systems, prosthetic and orthotic devices, and man-machine systems; or they may pursue traditional career opportunities in industry, such as those rooted in mechanical or electrical engineering disciplines. Other career options are available in government (Food and Drug Administration, Environmental Protection Agency, National Institutes of Health, Veterans Affairs). Some biomedical engineering graduates elect to continue formal education in engineering, medicine, or law. On average, 93–98% of graduates are employed in their field of study or pursuing advanced education within seven months of graduation.

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including an engineering career fair each semester and other programming related to career development.

Engineering Career Services offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, job offer evaluation, and much more. Engineering Career Services partners with the Pomerantz Career Center to facilitate on-campus interviewing, postgraduation outcome collection, and the university's online recruiting system, Handshake.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biomedical Engineering, BSE

Course	Title	Hours
First Year		
Fall		
RHET:1030	Rhetoric: Writing and Communication [a]	4
CHEM:1110	Principles of Chemistry I [b, c]	4
MATH:1550	Engineering Calculus I [b, d]	4
ENGR:1100	Introduction to Engineering Problem Solving [e]	3
ENGR:1000	Engineering Success for First-Year Students [e]	1
CSI:1600	Success at Iowa	0
	Hours	**16**
Spring		
MATH:1560	Engineering Calculus II [b]	4
MATH:2550	Engineering Matrix Algebra [b]	2
CHEM:1120	Principles of Chemistry II [b]	4
PHYS:1611	Introductory Physics I [b]	4
ENGR:1300	Introduction to Engineering Computing [b]	3
BME:1010	First-Year Forum [f]	1
	Hours	**18**
Second Year		
Fall		
MATH:2560	Engineering Differential Equations [b]	3
BIOL:1411	Foundations of Biology [b]	4
ENGR:2110	Statics [a]	2
ENGR:2120	Electrical Circuits [a]	3
ENGR:2130 or ENGR:3110	Thermodynamics [g] or Introduction to Artificial Intelligence and Machine Learning in Engineering	3
BME:2010	Professional Seminar: Biomedical Engineering [e]	1
Focus Area: Students should fill out the Focus Area Plan of Study Form on the BME Undergraduate webpage by the end of the Fall semester. This course selection can be updated at anytime.		
	Hours	**16**
Spring		
STAT:3510 or BIOS:4120	Biostatistics [h] or Introduction to Biostatistics	3
HHP:2400 or BME:2260	Fundamentals of Human Physiology [i] or Quantitative Physiology	3

BME:2400	Cell Biology for Engineers [b, j]	3
BME:2500	Biomaterials and Biomechanics [b, j]	4
Focus Area: required course [k]		3
	Hours	**16**
Third Year		
Fall		
GE: Approved Course Subjects [l]		3
Focus Area: required course [k]		3
BME:2200	Systems, Instrumentation, and Data Acquisition [b, j]	4
BME:2210	Bioimaging and Bioinformatics [b, j]	4
Focus Area: required course [k]		3
	Hours	**17**
Spring		
Focus Area: required course [k]		3
GE: Engineering Be Creative [m]		3
GE: Approved Course Subjects [l]		3
Focus Area: topic elective [k]		3
Focus Area: additional elective [k, n]		3
	Hours	**15**
Fourth Year		
Fall		
GE: Cultural Perspectives, Values, and Society [o]		3
BME:4910	Biomedical Engineering Senior Design I [e]	4
Focus Area: topic elective [k]		3
Focus Area: additional elective [k, n]		3
Focus Area: additional elective [k, n]		3
	Hours	**16**
Spring		
PHYS:1612	Introductory Physics II [a]	4
GE: Approved Course Subjects [l]		3
BME:4920	Biomedical Engineering Senior Design II [f]	4
Focus Area: additional elective [k, n]		3
Focus Area: additional elective [k, n]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [p]		
	Hours	**17**
	Total Hours	**131**

a Typically this course is offered in fall, spring, and summer sessions. Check MyUI for course availability since offerings are subject to change.

b Typically this course is offered in fall and spring semesters. Check MyUI for course availability since offerings are subject to change.

c Enrollment in chemistry courses requires completion of a placement exam.

d Enrollment in math courses requires completion of a placement exam.

e Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

f Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

g Students in the bioimaging or computational bioengineering focus areas can choose to take either ENGR:2130 or ENGR:3110; students in the biomechanics and biomaterials or cellular engineering focus areas are required to take ENGR:2130. ENGR:2130 is typically offered in the fall, spring, and summer session. ENGR:3110 is typically offered in the Spring semester only.

h BIOS:4120 typically is offered in fall, spring, and summer sessions; STAT:3510 typically is offered in fall and spring sessions. Check MyUI for course availability since offerings are subject to change.

i BME:2260 was created in fall 2023, and its frequency of availability is to be determined. HHP:2400 typically is offered in fall, spring, and summer sessions. Check MyUI for course availability since offerings are subject to change.

j All BME students are required to take the BME core courses (BME:2200, BME:2210, BME:2400, and BME:2500). These courses can be taken in any order

k Students majoring in biomedical engineering select one of four preapproved focus areas: bioimaging, biomechanics and biomaterials, cellular engineering, or computational bioengineering. Each focus area consists of a group of four required courses (12-13 s.h.), two focus area-specific elective courses (6 s.h.), and additional suggested electives (15 s.h.). See General Catalog or consult an advisor for more information.

l See General Catalog for list of approved course subjects.

m See General Catalog for list of approved courses. Students who intend to enroll in a Be Creative course with prerequisites must request a waiver by completing the Request Prerequisite Special Permission form on MyUI.

n Students who choose to pursue pre-medicine can select any focus area and take five of the following courses as their additional electives: BIOL:1412, BIOL:2512, BMB:3110, CHEM:2210, CHEM:2220, or CHEM:2410.

o Students select a course from one of two GE CLAS Core areas: Understanding Cultural Perspectives or Values and Society.

p Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Biomedical Engineering, MS

Graduate study in biomedical engineering prepares students to use contemporary methods at an advanced level during a professional career in engineering design, development, and research.

Each student's course of study is based on individual background, career objectives, and sound academic practice. An individual program for each student may be developed from courses offered by the Roy J. Carver Department of Biomedical Engineering and other departments, especially mechanical engineering, electrical engineering, physiology, mathematics, and biological sciences. Students who want a more general program may combine emphases, while those who want some specialization in a particular field can achieve their goals through the combination of departmental courses and appropriate electives from other departments in the College of Engineering and the university.

Learning Outcomes

By completing the graduate curriculum in biomedical engineering, students will be able to:

- demonstrate broad knowledge of the field of biomedical engineering and deep knowledge in their specific area of study;
- communicate complex technical ideas concisely and effectively to both general and specialized audiences through verbal, visual, and written formats;
- formulate research questions, pose testable hypotheses, employ methods that enhance the reproducibility of research, and apply critical thinking skills to produce solutions to complex engineering problems that intersect with biology and human health; and
- operate with professionalism and under standards of ethical conduct.

Requirements

The Master of Science program in biomedical engineering requires a minimum of 30 s.h. of graduate credit, with or without a thesis. Students must maintain a UI cumulative grade-point average of at least 2.75 in all work for the degree. The MS may be a terminal degree or a step toward the PhD.

All MS students (thesis or nonthesis) must successfully complete the Graduate Core Courses as part of their graduate curriculum during their first year of study. Additionally, students are required to complete 18 s.h. of graduate-level coursework in the College of Engineering over the course of their studies. BSE/MS fast-track students may include courses taken during year four and/or year five.

A tentative plan of study for each student is determined through consultation with an advisor. An MS committee of at least three faculty members, including at least two tenure-track biomedical engineering faculty, is required.

Graduate Core Courses

Course #	Title	Hours
ENGR:7270	Engineering Ethics	1
HHP:3550	Human Physiology With Laboratory	5
ME:5113	Mathematical Methods in Engineering (or equivalent graduate mathematics course; approval of academic advisor required before registering)	3

Depending upon a student's performance in Graduate Core Courses and the nature of their research project, the student's examining committee may specify additional coursework to be completed to satisfy the Graduate Core Courses requirement.

Graduate Core Courses may be substituted by other equivalent courses at the discretion of the student's examining committee. Equivalent coursework taken as part of a student's undergraduate or graduate studies prior to starting the MS program at the University of Iowa may satisfy one or more of the Graduate Core Courses requirements. Students who wish to request a substitution or a waiver of HHP:3550 Human Physiology With Laboratory or ME:5113 Mathematical Methods in Engineering must submit a core course substitution or waiver form. Forms may be obtained from the graduate program coordinator.

Thesis Students

Students who choose the thesis program may count no more than 6 s.h. of thesis research and writing credit toward the degree. All thesis students must successfully complete the final examination administered by their committee, which consists of a written thesis and an oral presentation and defense to the examining committee.

Nonthesis Students

Students who choose the nonthesis program must earn at least 6 s.h. of credit in courses numbered 5000 or above. There is no oral or written exam required for the nonthesis master's degree.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants who have earned a baccalaureate or postbaccalaureate degree in engineering or in the mathematical or physical sciences with a grade-point average (GPA) of at least 3.00 are eligible to be considered for admission to the Master of Science program.

Reference letters, research interests, previous graduate GPA, and other factors may be considered in admission decisions.

Career Advancement

Biomedical engineers with MS degrees can pursue career opportunities in the health care industry in the fields of biomedical devices, diagnostic equipment, and software. Graduates have started careers in research, design, development, sales, and entrepreneurship, and they advance to administrative and leadership positions in their organizations. Graduates also have careers with health care providers, such as in hospitals, or use their biomedical engineering expertise to advance careers in medicine and law. Faculty mentors assigned to graduate students aid in their professional development. Students are exposed to

opportunities through seminar speakers who have relevant expertise and are invited to campus.

The Graduate College offers numerous career advancement opportunities and professional development programs for graduate students. Ongoing program offerings, news, and announcements can be found under Grad Success Center on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biomedical Engineering, MS

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 2.75 is required. [b]		
	Hours	**0**
First Year		
Fall		
BME:5010	Seminar in Biomedical Engineering	0
ENGR:7270	Engineering Ethics [c]	1
HHP:3500	Human Physiology [d]	3
ME:5113	Mathematical Methods in Engineering [e]	3
Other required course [f]		3
	Hours	**10**
Spring		
BME:5010	Seminar in Biomedical Engineering	0
Other required course [f]		3
Other required course [f]		3
Other required course [f]		3
	Hours	**9**
Second Year		
Fall		
BME:5010	Seminar in Biomedical Engineering	0
Other required course [f]		3
Other required course [f]		3
Other required course [f]		3
	Hours	**9**
Spring		
BME:5010	Seminar in Biomedical Engineering	0
Other required course [f]		3
Final Exam [g]		
	Hours	**3**
	Total Hours	**31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c All students must complete this course during first year fall semester; does not count toward the total hours required for the degree.

d Course substitution or waiver allowed upon approval.

e Or equivalent graduate level mathematics course; advisor approval required prior to registration.

f 18 s.h. must be graduate coursework at the 5000 level or above from the College of Engineering or courses from the approved elective list; work with faculty advisor to determine appropriate graduate coursework and sequence.

g Completion of all degree requirements.

Biomedical Engineering, PhD

Graduate study in biomedical engineering prepares students to use contemporary methods at an advanced level during a professional career in engineering design, development, and research.

Each student's course of study is based on individual background, career objectives, and sound academic practice. An individual program for each student may be developed from courses offered by the Roy J. Carver Department of Biomedical Engineering and other departments, particularly mechanical engineering, electrical engineering, physiology, mathematics, and biological sciences. Faculty members in the department have teaching and research expertise in cardiovascular and fluid biomechanics, musculoskeletal biomechanics, biomaterials and tissue engineering, bioinstrumentation, biosystems, biomedical imaging, biological signal analysis, bioinformatics and computational biology, pulmonary engineering, computational neuroscience, and other allied fields.

PhD programs may center on any one of the previously described areas through the choice of appropriate coursework and research topic.

Learning Outcomes

By completing the graduate curriculum in biomedical engineering, students will be able to:

- demonstrate broad knowledge of the field of biomedical engineering and deep knowledge in their specific area of study;
- communicate complex technical ideas concisely and effectively to both general and specialized audiences through verbal, visual, and written formats;
- formulate research questions, pose testable hypotheses, employ methods that enhance the reproducibility of research, and apply critical thinking skills to produce solutions to complex engineering problems that intersect with biology and human health; and
- operate with professionalism and under standards of ethical conduct.

Requirements

The Doctor of Philosophy program in biomedical engineering requires a minimum of 72 s.h. of graduate work, including acceptable transfer credit. At least 42 s.h. must be earned in formal coursework taken after the BSE is awarded, and at least 12 s.h. must be earned through research and the thesis. Students who enter with an MS may count a maximum of 30 s.h. of approved transfer credit toward the PhD, but they must earn 39 s.h. of graduate credit at the University of Iowa, including at least 12 s.h. in research and the thesis. Based on a student's research progress, examination results, or other measures, the graduate committee may require additional formal coursework to strengthen perceived areas of weakness.

All PhD students must successfully complete the Graduate Core Courses as part of their graduate curriculum. Students are expected to complete them during their first year of study. Additionally, students must complete 18 s.h. of graduate-level coursework in the College of Engineering over the course of their studies. Medical scientist training program students are required to complete 12 s.h. of graduate-level coursework in the College of Engineering.

Graduate Core Courses

Course #	Title	Hours
ENGR:7270	Engineering Ethics	1
HHP:3550	Human Physiology With Laboratory	5
ME:5113	Mathematical Methods in Engineering (or equivalent graduate mathematics course; approval of academic advisor required before registering)	3

Depending upon a student’s performance in Graduate Core Courses and the nature of their research project, the student’s examining committee may specify additional coursework to be completed to satisfy the Graduate Core Courses requirement.

Graduate Core Courses may be substituted by other equivalent courses at the discretion of the student’s examining committee. Equivalent coursework taken as part of a student’s undergraduate or graduate studies prior to starting the biomedical engineering graduate program at the University of Iowa may satisfy one or more of the Graduate Core Courses requirements. Students who wish to request a substitution or a waiver for HHP:3550 Human Physiology With Laboratory or ME:5113 Mathematical Methods in Engineering must submit a core course substitution or waiver form. Forms may be obtained from the graduate program coordinator.

Admission to the PhD program is conditional until students successfully complete a qualifying examination. The biomedical engineering faculty administers the exam and decides whether a student's performance is adequate for admission to the PhD program.

Admission to PhD candidacy requires a grade-point average (GPA) of at least 3.00 on all graduate work at the University of Iowa. Upon completion of the coursework specified in the plan of study and with the required GPA and the advisor's recommendation, students are admitted to the comprehensive examination by their committee.

After satisfactorily completing the comprehensive examination, students must complete and defend their dissertations at the final examination. Requirements for the PhD generally can be completed in three to four years beyond the master's degree.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in biomedical engineering in a combined degree program offered by the Carver College of Medicine and the College of Engineering. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Reference letters, research interests, previous graduate grade-point average, and other factors may be considered in admission decisions.

Admission to the Doctor of Philosophy in biomedical engineering is conditional until students successfully complete a qualifying examination.

Career Advancement

Biomedical engineers with PhDs can pursue career opportunities in the health care industry in the fields of biomedical devices, diagnostic equipment, and software. Graduates have started careers in research, design, development, sales, and entrepreneurship, and they have advanced to administrative and leadership positions in their organizations. Graduates also have careers with health care providers, such as in hospitals, or use their biomedical engineering expertise to advance careers in medicine and law. In addition, PhD graduates have careers in academia or at research institutions where they advance the understanding of human health. Faculty mentors assigned to graduate students aid in their professional development. Students are exposed to opportunities through seminar speakers who have relevant expertise and are invited to campus.

The Graduate College offers numerous career advancement opportunities and professional development programs for graduate students. Ongoing program offerings, news, and announcements can be found under Grad Success Center on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biomedical Engineering, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Any Semester		
Exam: Doctoral Qualifying Exam		
	Hours	**0**
Fall		
BME:5010	Seminar in Biomedical Engineering	0
ENGR:7270	Engineering Ethics [c]	1
HHP:3500	Human Physiology [d]	3
ME:5113	Mathematical Methods in Engineering [e]	3
Other required course [f]		3
	Hours	**10**
Spring		
BME:5010	Seminar in Biomedical Engineering	0
Other required course [f]		3
Other required course [f]		3
Other required course [f]		3
	Hours	**9**
Second Year		
Fall		
BME:5010	Seminar in Biomedical Engineering	0
Other required course [f]		3
Other required course [f]		3
Other required course [f]		3
	Hours	**9**
Spring		
BME:5010	Seminar in Biomedical Engineering	0
Other required course [f]		3
Other required course [f]		3
Other required course [f]		3
	Hours	**9**
Third Year		
Fall		
BME:5010	Seminar in Biomedical Engineering	0
Optional coursework or additional research hours		3
Other required course [f]		3
Other required course [f]		3
	Hours	**9**
Spring		
Exam: Doctoral Comprehensive Exam		
Dissertation Prospectus		
BME:5010	Seminar in Biomedical Engineering	0
Optional coursework or additional research hours		3
Optional coursework or additional research hours		3
Optional coursework or additional research hours		3
	Hours	**9**
Fourth Year		
Fall		
BME:5010	Seminar in Biomedical Engineering	0
BME:7999	Research: Biomedical Engineering PhD Dissertation	6
Optional coursework or additional research hours		3
	Hours	**9**
Spring		
BME:5010	Seminar in Biomedical Engineering	0
BME:7999	Research: Biomedical Engineering PhD Dissertation	6
Optional coursework or additional research hours		3
Exam: Doctoral Final Exam [g]		
	Hours	**9**
	Total Hours	**73**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.
c Does not count toward the total hours required for the degree.
d Course substitution or waiver allowed upon approval.
e Or equivalent graduate level mathematics course; advisor approval required prior to registration.
f 18 s.h. must be graduate coursework at the 5000 level or above from the College of Engineering or courses from the approved elective list; work with faculty advisor to determine appropriate graduate coursework and sequence.
g Dissertation defense.

Chemical and Biochemical Engineering

Chair

- Jun Wang

Undergraduate major: chemical engineering (BSE)

Graduate degrees: MS in chemical and biochemical engineering; PhD in chemical and biochemical engineering

Faculty: https://engineering.uiowa.edu/cbe/people

Website: https://engineering.uiowa.edu/cbe

Chemical and biochemical engineers integrate chemical, physical, biological, and computational elements to solve problems and create products that benefit society. Chemical engineers drive innovation in a wide variety of technologies, including energy and fuels, computer chips, pharmaceuticals, biotechnology, advanced materials, consumer goods, waste treatment, decarbonization, and more. Biochemical engineers work on challenges such as turning crops into sustainable fuels and mass producing vaccines.

The Department of Chemical and Biochemical Engineering has six research areas: air quality and climate, biological and pharmaceutical engineering, machine learning and simulation, polymers and advanced materials, remote and smart sensing, and sustainable energy and clean water. Additionally, the program offers 13 different focus areas for undergraduates to specialize in, providing them with the skills and knowledge to excel in these fields.

The program offers a wide range of opportunities and support to help each student succeed, including personalized mentoring, a strong alumni network, and hands-on learning. Students can enhance their education by participating in co-ops and internships, conducting undergraduate research, pursuing minors and certificates, and choosing a five-year undergraduate to graduate option, earning both a bachelor's and master's degree in just five years.

As part of their training, Iowa chemical and biochemical engineers learn to design things in ways that are ethical and responsible. This includes considering health, employee safety, and global impact. The University of Iowa is a leader in chemical process safety education, teaching effective communication and environmentally conscious design.

Programs

Undergraduate Program of Study

Major

- Major in Chemical Engineering (Bachelor of Science in Engineering) [p. 1560]

Graduate Programs of Study

- Master of Science in Chemical and Biochemical Engineering [p. 1570]
- Doctor of Philosophy in Chemical and Biochemical Engineering [p. 1573]

Facilities

Chemical engineers at the University of Iowa, whether undergraduates or graduate students, benefit from the extensive resources of a top research university. Some of the key facilities and resources available to them include libraries, computing centers, machine and electronics shops, a tool library, prototyping and design studios, chemical analysis and microscopy resources, genetic, cell, and tissue analysis facilities, tutoring and writing centers, and other specialized research infrastructure. These resources are utilized according to each student's customized curriculum and research needs, ensuring they get the most out of their education and training. Specific laboratories maintained by the Department of Chemical and Biochemical Engineering to support undergraduate courses are listed as follows.

Materials Science Laboratory

The Materials Science Laboratory allows students in ENGR:2720 Materials Science to delve deeper into the concepts taught in class. It features tensiometers, hardness testers, an Izod impact tester, a contact angle goniometer, and heat treatment/sintering furnaces to characterize and examine the mechanical properties of a variety of materials. Additionally, students use optical microscopes, metallography specimen kits, and crystallography packages to gain hands-on experience of how material properties are related to their structure.

Chemical Engineering Laboratory

The Chemical Engineering Laboratory provides hands-on learning for undergraduate students in CBE:3150 Thermodynamics/Transport Laboratory and CBE:3155 Chemical Reaction Engineering/Separations Laboratory. The lab is equipped for student experimentation in thermodynamics, fluid flow, heat transfer, mass transfer, chemical reaction engineering, and separations. Much of the lab equipment is made of transparent materials so students can see exactly how things work inside. Additional equipment includes a fluid friction apparatus, a jacketed kettle, and a membrane gas separator. Students use state-of-the-art portable analytical devices in their investigations, including densitometers, polarimeters, and refractometers.

Additionally, a wide array of small equipment is available to support laboratory projects and demonstrations in chemical engineering courses and for use by students performing independent investigations or student groups competing in national chemical engineering contests.

Chemical Process Safety Laboratory

The Chemical Process Safety Laboratory is an integral part of CBE:3125 Chemical Process Safety. Through a series of experiments, students learn about flammability, reactivity, explosions, safety valve design, and electrostatics—all crucial for working safely in the chemical industry. The laboratory is equipped with two MiniFlash automatic flash point testers (closed cup), an advanced reactive system screening tool (ARSST), a minimum ignition energy (MIE) apparatus, a flammability chamber, a modified Hartmann tube, a Hartmann bomb, a liquid conductivity apparatus, a powder chargeability apparatus, a powder volume resistivity apparatus, a Van de Graaff generator, two high impedance electrometers, a field meter, a Faraday cage, and relief sizing software.

Biochemical Engineering Laboratory

The Biochemical Engineering Laboratory is an integral part of CBE:3205 Introduction to Biochemical Engineering. Students use this equipment to perform recombinant DNA experiments and to study the growth and metabolism of microorganisms. The lab is equipped with two controlled New Brunswick BioFlo/CelliGen 115 bioreactors, electrophoresis apparatus, and a thermocycler.

Process Control Laboratory

The Process Control Laboratory is used in CBE:4105 Process Dynamics and Control in Design and CBE:5199 Contemporary Topics: Chemical and Biochemical Engineering. In this lab, students use industrial-grade computer-controlled systems to manage flow, levels, composition, and temperature in pilot-scale devices. Students learn software tools, including DeltaV, a common industrial control system, and LabVIEW, a widely used scientific and engineering measurement and automation system.

Learning modules in the Process Dynamics lab focus on actuators (such as valves and motors), valve positioners, sensors, SCADA (supervisory control and data acquisition) software, distributed control system software, control block diagrams, piping and instrumentation diagrams, mathematical modeling of dynamic systems, and the specification of mathematical transfer functions for chemical, physical, and control operations.

CBE:5199 Contemporary Topics: Chemical and Biochemical Engineering is an introduction to the design and programming of DeltaV-based control systems. Students create a DeltaV operator screen for hardware selected from the process control lab. This allows students to integrate hardware and software and achieve computer control by implementing all project phases: (i) design, (ii) programming, (iii) hardware integration, and (iv) testing and troubleshooting.

Graduate Facilities and Laboratories

The department offers a wide variety of facilities to support and develop research activities.

Air Quality, Climate, Remote Sensing, and Smart Sensing Research Thrusts

The department maintains extensive facilities for computational, field, and laboratory studies of air pollution in the context of climate change. Part of this infrastructure is housed at the Center for Global and Regional Environmental Research (CGRER). The center occupies 5,000 square feet of lab and office space on the fourth floor of the Iowa Advanced Technology Laboratories. CGRER members have dedicated queues and storage within the University of Iowa's extensive High Performance Computing (HPC) facility.

Individual professors maintain a wide variety of air pollution sampling equipment, with a focus on both aerosol and gas-phase physics and chemistry in the context of climate, weather, and human health.

The Atmospheric and Environmental Research (AER) Lab has a diverse research portfolio that encompasses three research themes: development of remote sensing theory and algorithms for characterizing atmospheric (aerosol) particles and surface emissions (especially from fires); development and application of chemistry-aware atmospheric models and observation data to studies in air quality, weather, and climate; and interdisciplinary research via collaborative teamwork in such areas as air quality and public health, irrigation and climate change, environmental monitoring and solutions via community science and engagement.

The Iowa Atmospheric Sensor Development Laboratory (IASDL) is a fully equipped research laboratory dedicated to developing new remote sensing instruments to study the Earth's atmosphere. Focused on laser-based, or lidar, remote sensing, researchers in IASDL develop sensors for use in ground-based, airborne, and spaceborne applications. Advanced technologies and onboard machine learning processing are the basis for creating affordable sensors that produce real-time data products to impact air quality, human health, and decision-making. Researchers in IASDL frequently work with the Operator Performance Laboratory, which is home to several research aircraft, and collaborate with researchers at NASA and other organizations.

Biochemical Engineering

Biochemical engineering laboratories provide facilities for the preparation of biological media and the cultivation of organisms, as well as for the separation and analysis of biomolecules. This equipment includes biological incubators and floor incubator shakers, agitated and airlift bioreactors, light microscopes, autoclaves, Vi-Cell cell counter, thermocycler for polymerase chain reaction (PCR) amplification of DNA, high- and low-speed centrifuges, UV-Vis spectrophotometers, a lyophilizer, biological safety cabinets, and an anaerobic glove box. Phase-contrast and epifluorescence microscopes, gel electrophoresis systems, gas chromatography units with flame ionization and electron capture detectors, and several high-performance liquid chromatography systems with refractive index and photodiode array detectors are available for the characterization of microorganisms and constituent biomolecules.

Through collaborative research agreements, graduate students also have access to specialized facilities for electron microscopy, large-scale fermentation, protein structure, recombinant DNA research, and tissue culture/hybridoma; the Flow Cytometry Facility; and the High Resolution Mass Spectrometry Facility.

Biomedical Engineering

The biomedical engineering laboratories house particle technology equipment including microemulsion equipment for drug encapsulation, sonicators, benchtop scale spray dryers, laser diffraction particle sizer, zetapotentiometer; DNA preparation equipment, gel electrophoresis apparatus; interfacial stress rheometer, surface tensiometer, UV-Vis/fluorescent plate reader, high performance liquid chromatograph, luminometer, lyophilizer, custom-built simulated cough machine, microscopes, incubators, wet chemistry equipment, rotary shakers, incubated plate shakers, autoclave, centrifuges, and laboratory computers. Cell culture and bacterial culture facilities are housed adjacent to the laboratories.

Graduate students also have access to core research facilities, including the Central Microscopy Research Facility, Flow Cytometry Facility, Iowa Institute of Human Genetics, Electron Spin Resonance Facility, Nuclear Magnetic Resonance Facility, High Resolution Mass Spectrometry Facility, and the Center for Gene Therapy.

Computer Facilities

The departmental computer facilities contain a variety of laptops, desktop workstations, and printers. The department is supported by the college's Engineering Technology Center, which maintains a large network of high-performance Linux and Windows workstations along with extensive commercial and public domain software. The department has access to the university's central high-performance research computing facility through ITS–Research Services. The University of Iowa also has access to the ACCESS and Blue Waters national supercomputing resources and is a founding member of the Great Lakes Consortium for Petascale Computing. Locally hosted long-term data storage services are available.

Fundamentals and Applications of Photopolymerization

The Photopolymerization Center was established to advance a fundamental understanding of the kinetics and mechanisms of photopolymerizations. To this end, the center provides unique opportunities for collaborations by industrial and academic investigators to explore photopolymerization processes and develop novel applications based on photopolymerizations.

The center provides equipment and instrumentation for the characterization of photopolymerization systems on the molecular, microscopic, and macroscopic levels. Center researchers pursue an understanding of fundamental photophysical and photochemical processes involved in the photoinitiation reaction, characterization of high-speed propagation and termination kinetics that lead to the polymer structure, and evaluation of material properties through the course of the photopolymerization reaction. Both radical and cationic photopolymerizations are studied with state-of-the-art experimental techniques to elucidate the complex chemical and physical mechanisms that control the initiation, propagation, and termination of the active centers.

Machine Learning and Artificial Intelligence Resources

In addition to specialized software developed and maintained by researchers in the Chemical and Biochemical Engineering department, students, staff, and faculty also make use of the university's High Performance Computing (HPC) resources and the Iowa Institute for Artificial Intelligence (IIAI). HPC resources include GPU processors that are particularly useful for running machine learning algorithms. The Iowa Institute for Artificial Intelligence helps department researchers transform ideas for machine learning and artificial intelligence applications from concepts to working code.

Electrochemical Engineering

The electrochemical engineering laboratories house facilities for electrocatalyst synthesis and characterization, located in the Iowa Advanced Technology Laboratories (IATL). The equipment includes muffle furnaces and tube furnaces for materials synthesis, optical microscopes for surface characterization, rotating disk electrode (RDE) and rotating ring-disk electrode (RRDE) systems with rotators for electrochemical measurements, flow cells and electrolyzers for device testing, potentiostats/galvanostats (electrochemical workstations), and scanning electrochemical microscope (SECM) for local electrochemical analysis. Three-dimensional printers are available for fabricating customized equipment components and accessories for fluid handling and control. Graduate students also have access to core research facilities, including the Central Microscopy Research Facility, and MATFab Facility.

Courses

Chemical and Biochemical Engineering Courses

CBE:0000 Chemical Engineering Internship/Co-op 0 s.h.
Chemical engineering students participating in the Cooperative Education Program register for this course during work assignment periods; registration provides a record of participation in the program on the student's permanent record. Requirements: admission to Cooperative Education Program.

CBE:1000 CBE Departmental Seminar 1 s.h.
Introduction to the profession and the department; presentations by guest speakers, visits to laboratories and industries.

CBE:1180 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first- or second-semester standing.

CBE:2030 Energy and Society 3 s.h.
History of energy development and use throughout the world; how energy has affected the development of human societies; societal impact of engineering advances; current state of energy consumption worldwide, including distribution of energy sources, global variations in consumption, advantages and disadvantages of current energy sources; role of fossil fuel consumption in global climate change, potential scenarios for the future of energy.

CBE:2040 Environment, Energy, and Climate Change 3 s.h.
Traditional concerns (e.g., pollution and conservation of energy resources) with clear, scientific explanations; Earth's dynamic processes and response to natural and human-induced stresses; link between energy and climate; reasons why we need to support reducing emissions and build a clean and sustainable environment.

CBE:2050 Severe and Unusual Weather 3 s.h.
Basic weather concepts behind severe weather phenomena and essential safety information; how weather events cause billions of dollars in damage and thousands of casualties; winter storms can impact half of the nation, paralyzing the transportation network with icy roads and wind driven snow; tornadoes can strike within minutes tearing apart homes; hurricanes can destroy entire communities with strong winds, heavy rain, and deadly storm surge; how understanding severe weather and knowing what to do before, during, and after an event can significantly reduce injury, deaths, and property damage. Same as CEE:2050.

CBE:2105 Material and Energy Balances 3 s.h.
Fundamental principles of chemical process analysis, including material and energy balances for single-unit and multiple-unit processes, analysis of reactive and nonreactive systems, introduction to equations of state, thermodynamics of multiphase systems. Prerequisites: MATH:1550.

CBE:2110 Computational Tools for Chemical Engineers 2 s.h.
Numerical methods for solving systems of linear and nonlinear equations, nonlinear regression, multivariable calculus, and ordinary differential equations using chemical engineering examples. Prerequisites: MATH:1550. Corequisites: MATH:1560.

CBE:3000 Professional Seminar: Chemical Engineering 1 s.h.
Professional aspects of chemical engineering presented through lectures and discussions by guest speakers, plant trips, and panel discussions. Prerequisites: CBE:2105. Requirements: sophomore standing.

CBE:3020 Applied Statistics for Chemical and Natural Resources Engineering 3 s.h.
Statistical and computational (Python programming) analysis of weather and climate data, univariate and multivariate statistics, hypothesis testing, statistical forecasting, forecast verification, time-series analysis, trend analysis, and principal component analysis.

CBE:3105 Chemical Engineering Thermodynamics 3 s.h.
Applications of thermodynamic principles to chemical and physical processes; prediction of material properties; phase and chemical equilibria applied to mixtures and reacting systems. Prerequisites: ENGR:2130. Corequisites: CBE:2105.

CBE:3109 Fluid Flow 2 s.h.
Fundamentals of fluid flow, including fluid statics, fluid rheology, laminar and turbulent flow in pipes, external flow, flow through packed beds, fluidized beds, pumps and compressors, boundary layer theory, potential flow, dimensional analysis, and Navier Stokes Equations. Corequisites: CBE:2105.

CBE:3113 Heat and Mass Transfer 3 s.h.
Fundamentals of heat and mass transfer including heat exchanger design; conductive, convective, and radiative heat transfer; mechanisms of diffusional and convective mass transfer. Prerequisites: MATH:2560 and CBE:2105. Recommendations: CBE:3109.

CBE:3117 Separations 3 s.h.
Solution of industrial problems including design of distillation, extraction, absorption, adsorption, drying, membrane processes, and mechanical separations. Prerequisites: CBE:2105 and CBE:3105. Corequisites: CBE:3113.

CBE:3120 Chemical Reaction Engineering 3 s.h.
Application of chemical reaction kinetics to design of chemical reactors: batch reactors, mixed flow reactors, plug flow reactors; reversible and irreversible single reactions; parallel, series, and mixed reactions; temperature and pressure effects on reactor design; heterogeneous catalysis; transport in porous catalysts. Prerequisites: MATH:2560. Corequisites: CBE:3105. Recommendations: CBE:3113.

CBE:3125 Chemical Process Safety 3 s.h.
Application of transport phenomena, thermodynamics, chemical kinetics to study of safety, health, loss prevention; government regulations, toxicology/industrial hygiene, relief sizing, runaway reactions, toxic release and dispersion models, source models, fires and explosions, risk assessment, hazard identification, case studies and accident investigation, incorporation of safety into design; laboratory experiments. Prerequisites: CBE:3105 and CBE:3109. Corequisites: CBE:3113.

CBE:3150 Thermodynamics/Transport Laboratory 3 s.h.
Error analysis, propagation of errors, experimental design, data collection techniques, report writing, oral presentations, laboratory safety; laboratory investigations of thermodynamics, fluid flow, heat transfer, fluid rheology. Prerequisites: CBE:3105 and CBE:3113. Recommendations: STAT:2020 or CBE:3020.

CBE:3155 Chemical Reaction Engineering/Separations Laboratory 3 s.h.
Experimental design, data collection techniques, report writing, oral presentations; laboratory investigations of chemical reaction engineering and separations; experiments with plug flow and batch reactors, distillation, evaporation, membrane separation. Prerequisites: CBE:3117. Corequisites: CBE:3120. Recommendations: STAT:2020.

CBE:3205 Introduction to Biochemical Engineering 3 s.h.
Biochemistry, cellular biology, recombinant DNA and hybridoma technologies; emphasis on engineering aspects of biotechnology, including enzyme kinetics, cell growth kinetics, transport phenomena in bioreactors, bioreactor design, bioseparations, formulation and sterilization of growth media, commercial applications of biotechnology. Prerequisites: CBE:2105. Corequisites: CBE:3109. Recommendations: CBE:3120.

CBE:3405 Green Chemical and Energy Technologies 3 s.h.
Strategies for pollution prevention for chemical processes studied at macroscale (industrial sector), mesoscale (unit operations), and microscale (molecular level); case studies. Prerequisites: CHEM:1070 or CHEM:1110.

CBE:3415 Statistical and Computational Analysis of Weather and Climate Data 3 s.h.
Statistical and computational (Python programming) analysis of weather and climate data, univariate and multivariate statistics, hypothesis testing, statistical forecasting, forecast verification, time-series analysis, principal component analysis, trend analysis, and cluster analysis. Requirements: senior or graduate standing.

CBE:3998 Individual Investigations: Chemical Engineering arr.
Individual projects for chemical engineering undergraduate students, such as laboratory study, engineering design project, analysis and simulation of an engineering system, computer software development, research.

CBE:4105 Process Dynamics and Control in Design 3 s.h.
Theory and application of process dynamics to the design of chemical process control systems; mathematical models of unit operations, transfer functions, feedback and feed-forward control, stability, instrumentation, digital control systems; computer methods, including simulation and commercial software use; laboratory focus on process analysis and design. Prerequisites: MATH:2560 and CBE:2105 and CBE:3109. Corequisites: CBE:3120.

CBE:4109 Chemical Engineering Process Design I 2 s.h.
Engineering economics of process evaluation, including time value of money and bases for cost estimation; preliminary design of chemical process plants using computer-aided engineering. Prerequisites: CBE:3109 and CBE:3113 and CBE:3117. Corequisites: CBE:3120 and CBE:3125.

CBE:4110 Chemical Engineering Process Design II 3 s.h.
Capstone chemical engineering course; design and optimization of chemical process plants; application of process calculations, thermodynamics, kinetics, process synthesis, energy efficiency in separations, heat-exchanger network synthesis, physical property estimation, safety, computer-aided design, unit operations theory, process control, and economics. Prerequisites: CBE:4109. Recommendations: CBE:4105 and CBE:3205.

CBE:4125 Advanced Chemical Process Safety 3 s.h.
Chemical process safety including qualitative and quantitative hazard analysis, risk and consequence analysis, human factors and operator error, incident investigation, management of change procedures, interlocks and safety instrumented systems, layer of protection analysis, dust hazard analysis, and process safety management. Prerequisites: CBE:3125.

CBE:4195 Senior Enriching Activities Seminar 0 s.h.
Aspects of chemical engineering education, including multidisciplinary team skills, understanding the impact of engineering practice locally and globally. Corequisites: CBE:4110. Requirements: completion of enriching activity.

CBE:4410 Sustainable Systems 3 s.h.
New and emerging concepts in sustainable systems design and assessment. Same as CEE:4107.

CBE:4420 Environmental Chemistry 3 s.h.
Principles of general, physical, organic chemistry applied in water and air systems; emphasis on qualitative and quantitative understanding of chemical kinetics and equilibrium; acid-base reactions, complex formation, precipitation, dissolution, and oxidation-reduction reactions; organic nomenclature. Prerequisites: CHEM:1120. Same as CEE:4150.

CBE:4459 Air Pollution Control Technology 3 s.h.
Sources, environmental and health impacts, regulations, modeling of air pollution; processes and alternative strategies for control; global climate considerations. Same as CEE:4159, IGPI:4159.

CBE:4460 Process and Design for Satellites and Environmental Sensors 3 s.h.
Exploration of how to design, develop, and implement science instruments, sensor networks, and satellite mission; emphasis on atmospheric sensors for planetary atmospheres; disciplines required, how to build a team, developing science requirements, developing instrument requirements, development and management of interface controls, workflow tracking, quality assurance verification, and resolving hardware/design problems; considerations needed by a principal investigator, instrument manager, instrument scientist, plan manager, or systems engineer to pursue a major instrument, mission development, industrial plan development, or expansion.

CBE:5000 Seminar in Chemical and Biochemical Engineering 1 s.h.
Presentation and discussion of recent advances and research in chemical and biochemical engineering by guest lecturers, faculty, students. Requirements: graduate standing.

CBE:5100 Graduate Professional Development Seminar 1 s.h.
Seminar participants work with a faculty member to select and attend eight hours of approved seminars and professional development trainings at the University of Iowa; final meeting of participants is held to share notable seminars; typical seminar series include College of Engineering lectures, departmental and research center graduate seminars, chemical and biochemical engineering professional seminar series, and Center for Teaching and Learning offerings. Requirements: master's standing in chemical and biochemical engineering.

CBE:5104 Introduction to Literature Review and Technical Writing 3 s.h.
Review of technical literature, how to contribute to it; produce and present orally a peer-reviewed-journal-quality review article; brainstorming, group writing, research ethics, plagiarism. Recommendations: nonthesis track graduate standing.

CBE:5105 Introduction to Literature Review and Proposal Writing 3 s.h.
Tools for reviewing literature, skills for critical reading of publications, training in successful proposal writing; experience drafting a proposal that can be used as a starting point for the PhD comprehensive.

CBE:5110 Intermediate Thermodynamics 3 s.h.
Fundamental principles of thermodynamics as applied to phase equilibrium; properties of fluids, first and second law, variable composition systems, behavior of real fluids, mathematical techniques for solution thermodynamics. Requirements: CBE:3105 or ME:4160 or graduate standing. Same as ME:5210.

CBE:5115 Transport Phenomena I 3 s.h.
Unified treatment of momentum, mass, energy transport in chemical engineering problems; use of vector and tensor notations in expressing equations of continuity, motion, energy.

CBE:5120 Data Science in Chemical and Engineering Systems 3 s.h.
Theory and application of numerical methods and data driven algorithms towards understanding chemical processes; scientific computing in Python programming language; numerical solutions to differential equations; nonlinear and constrained optimization; data preprocessing and visualization; dimensionality reduction and clustering; supervised machine learning.

CBE:5140 Mathematical Methods in Engineering 3 s.h.
Linear ordinary differential equations, series solutions of differential equations, special functions, Laplace transforms, Fourier series, matrices, linear systems, eigenvalue problems, second-order partial differential equations. Prerequisites: MATH:2550 and MATH:2560. Same as CEE:5513, ME:5113.

CBE:5199 Contemporary Topics: Chemical and Biochemical Engineering arr.
Research techniques for graduate students in chemical and biochemical engineering.

CBE:5210 Bioseparations 3 s.h.
Unit operations used to isolate and purify biologically derived chemicals, including flocculation, filtration, centrifugation, extraction, adsorption, chromatography, precipitation, crystallization, electrophoresis and cell disruption for intracellular product recovery.

CBE:5310 Polymer Science and Technology 3 s.h.
Uses and properties of industrially important polymeric materials; polymer chemistry, polymer structure, characterization, and polymer processing. Prerequisites: CHEM:2210 or CHEM:2230.

CBE:5315 Polymer Chemistry 3 s.h.
Monomer reactivity and polymerization reactions; step, radical, ionic, and ring-opening polymerizations. Prerequisites: CHEM:2220.

CBE:5390 Photopolymerization Topics 1 s.h.
Seminars presented by faculty members, research assistants, students.

CBE:5410 Electrochemical Engineering 3 s.h.
Fundamentals of electrochemical engineering; various applications; focus on processes and systems that transform chemical energy into electrical energy (e.g., batteries, fuel cells) and vice versa (e.g., electrolyzers, oxygen generators for medical applications); electrochemical engineering in an increasingly important role in energy, chemical, environmental, and biomedical sectors.

CBE:5412 Atmospheric Modeling 3 s.h.
Model equations and approaches for atmospheric dynamics and chemistry; numerical methods for radiative, chemical, and aerosol rates; parameterization of subgrid-scale processes; model evaluation and inverse modeling.

CBE:5415 Satellite Image Processing and Remote Sensing of Atmosphere 3 s.h.
Introduction to principles of atmospheric radiation and techniques for satellite image processing; hands-on experience with data calibration, image registration and enhancement, noise filtering and (supervised and unsupervised) multi-spectral classification of satellite imageries; various satellite sensors used for monitoring of different atmospheric processes and constituents. Same as IGPI:5415.

CBE:5417 Physical Meteorology and Atmospheric Radiative Transfer 3 s.h.
Physical processes for weather and climate including radiative transfer, cloud and precipitation formation, and atmospheric electricity; theory of scattering by atmospheric particles (e.g., clouds, aerosols, molecules), atmospheric radiative transfer equations, and numerical techniques and tools to solve these equations. Requirements: senior or graduate standing. Same as CEE:5417, IGPI:5417.

CBE:5425 Atmospheric Chemistry and Physics 3 s.h.
Principal chemical and physical processes affecting atmospheric trace gas and pollutant cycles; emphasis on atmospheric photochemistry, aerosol science, major sources, and removal processes. Corequisites: CBE:3120. Same as CEE:5115.

CBE:5466 Optical Components, Alignment, and Instrumentation for Remote Sensing 3 s.h.
Explore optical components including lenses, mirrors, beam splitters, fiber optics, and filters, and optical assemblies including beam expanders, interferometers, and laser cavities; assess and align optical assemblies using metrology equipment including collimators, autocollimators, and wavemeters; hands-on laboratory work. Work with optics, optical devices, and metrology equipment; learn how to handle, work with, and assess optics and optical components and how to align complex assemblages of components in a sensor. Recommendations: basic or introductory physics course with applications to atmospheric chemistry. Same as ECE:5466, PHYS:5466.

CBE:5740 Engineering Principles of Drug Delivery 3 s.h.
Fundamental concepts in drug delivery from an engineering perspective: delivery mechanisms; materials and formulations for drug delivery; drug modifications (prodrugs, PEGylation); engineering principles of controlled release and targeted delivery (nanoparticles, microparticles, polymer and lipid based systems); quantitative understanding of drug transport; significance of biodistributions and pharmacokinetic models; toxicity issues; immune responses.

CBE:5875 Perspectives in Biotechnology 1 s.h.
Topics related to careers in biotechnology with an emphasis on preparing graduate students for careers outside of academia; discussions led by a series of guest speakers from leading biotech industries; understanding the societal impact of basic research; participation in round-table discussions; and presentation of student research findings. Requirements: graduate standing and good academic standing in a participating department supported by the Predoctoral Training Program in Biotechnology. Same as BMB:5875, CEE:5875, CHEM:5875, MICR:5875, PHAR:5875.

CBE:5998 Individual Investigations: Chemical and Biochemical Engineering arr.
Individual projects for chemical and biochemical engineering graduate students; may include laboratory study, engineering design project, analysis and simulation of an engineering system, computer software development, research. Requirements: graduate standing.

CBE:5999 MS Thesis Research: Chemical and Biochemical Engineering arr.
Experimental and/or analytical investigation of an approved topic for partial fulfillment of requirements for MS with thesis in chemical and biochemical engineering. Requirements: graduate standing.

CBE:6145 Diffusive Transport 3 s.h.
Diffusive transport of heat, mass, and momentum; phenomenological laws and analogies; analytical and numerical solution techniques; inverse heat conduction; multiphase and multicomponent systems. Prerequisites: ME:5145. Same as ME:6245.

CBE:6415 Advanced Satellite and Remote Sensing of Atmosphere 3 s.h.
Cloud masking and retrieval of cloud properties from satellites, aerosol detection and retrievals, Earth radiation energy budget, land and/or ocean remote sensing, microwave remote sensing, wind retrieval, multi-sensor intercomparison and validation, optimization and inversion theory; hands-on projects.

CBE:6435 Advanced Atmospheric Radiative Transfer 3 s.h.
Theory of scattering by atmospheric particles (e.g., clouds, aerosols, molecules), atmospheric radiative transfer equations, and techniques to solve these equations for solar and terrestrial radiation; numerical experiments with Mie scattering, T-matrix calculation, and radiative transfer models.

CBE:7999 Research: Chemical and Biochemical Engineering PhD Dissertation arr.
Experimental and/or analytical investigation of an approved topic for PhD in chemical and biochemical engineering.

Chemical Engineering, BSE

The major in chemical engineering provides students with a comprehensive education at the forefront of technology, focusing on solving pressing societal issues. By emphasizing fundamental concepts, problem-solving skills, laboratory techniques, and effective communication, the program prepares graduates to tackle challenges in the areas of sustainability, climate change, environmental protection, energy, and health while driving innovation to create new sensors, advanced materials, and manufacturing processes.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Focus Areas

All BSE students complete a focus area within their chosen major. Students majoring in chemical engineering select from twelve pre-approved focus areas: biochemical engineering; business, chemical process engineering; computation, data science, and machine learning; energy and environment; entrepreneurship; oil and gas engineering; pharmaceuticals; polymers; pre-medicine; safety and health; and sustainability. Alternatively, students may develop an individualized custom focus area with approval from the department's curriculum committee.

Biochemical Engineering

This focus area allows students to choose from a selection of courses that combine concepts of biology, biochemistry, and engineering. Biochemical engineers leverage knowledge from these fields to manufacture biological products, including fermentation products and pharmaceuticals. Graduates often work in the biotechnology and pharmaceutical industries as production leaders or researchers.

Business

This focus area consists of eight courses from the Tippie College of Business. Students gain foundational business knowledge on topics including finance, economics, accounting, marketing, law, and management. Past students have successfully applied their integrated business and technical knowledge in various settings, including manufacturing plants, consulting, and corporate offices.

Chemical Process Engineering

Process engineering involves the design, optimization, and operation of systems that transform raw materials into valuable products. Process engineers work with a variety of products, including foods and beverages, electronic materials, metals, plastics, fuels, building materials, and pharmaceuticals. Given its broad scope, students can select from a wide range of engineering, math, and science courses, allowing for ample customization based on individual interests.

Computation, Data Science, and Machine Learning

This focus area is designed for students who wish to blend advanced computation and programming with their chemical engineering degree. It can accommodate introductory training in cyber-physical systems, remote sensing, advanced simulation, supply chain management, in silico chemistry and biology, bioinformatics, software design, next-generation controls, machine learning, and artificial intelligence.

Energy and Environment

Students passionate about environmental issues should consider this focus area. Courses prepare students to address environmental challenges and revolutionize energy systems. Topics include air and water pollution, climate change, clean and renewable energy, environmental regulations, and sustainable systems. Students in this focus area may want to consider the Certificate in Applied Climate Science and Energy Technology.

Entrepreneurship

This focus area focuses on succeeding in the world of startups, innovation, business ownership, and new products. It is well-suited for students intending to start and operate their own businesses, as well as those interested in managing innovation within existing companies. A wide range of electives allows students to tailor their business courses to their individual interests. Students in this area should consider the Technological Entrepreneurship Certificate.

Oil and Gas Engineering

Designed for students interested in pursuing careers in oil and gas engineering, this focus area explores foundational elements of chemistry, geology, petrochemical refining, and environmental science. The course plan includes recommendations from experienced advisors with petrochemical backgrounds. Often viewed as the birthplace of chemical engineering, the petroleum industry offers numerous challenging and lucrative opportunities for chemical engineers.

Pharmaceuticals

Chemical and biochemical engineering are central to the design, formulation, and manufacturing of pharmaceutical products. Students passionate about medical applications can aim their chemical engineering skills toward a career in pharmaceuticals by choosing this focus area. The curriculum includes courses on biology, drug delivery, and the mechanisms and chemistry of drug interactions, with options spanning multiple departments, including biomedical engineering, biochemistry and molecular biology, pharmacy, and pharmacology.

Polymers

This focus area enables students to study the development of chemical compounds through polymerization, including the combination of small molecules into engineered networks to produce valuable plastics and other advanced materials. The program is ideal for students who wish to design new materials and understand the relationship between molecular-scale structures and macroscopic-scale properties.

Pre-Medicine

Concepts of chemical engineering are naturally applicable to biological processes. This focus area allows students to apply these concepts to gain a deeper understanding of the atoms and molecules that comprise living organisms and the pathways through which they operate. This program is designed for students aiming to gain acceptance into post-graduate education in the medical field.

Safety and Health

This focus area prepares students to prevent incidents and accidents in chemical and pharmaceutical manufacturing, particularly those resulting from the unintentional release of hazardous materials and energy into the environment, and provide a safe and healthy workplace by preventing injuries and hazards in the workplace environment.

Sustainability

This focus area covers the most important and current topics in environmental science, societal impacts, energy usage, and natural systems. Courses prepare students to understand and discuss these topics as they relate to chemical engineering. This focus area is designed to dovetail with the University of Iowa Certificate in Sustainability [p. 404].

Educational Objectives

The chemical engineering program produces graduates with a strong foundation of scientific and technical knowledge who are equipped with problem-solving, teamwork, and communication skills that will serve them throughout their careers, consistent with the following educational objectives. Within a few years following graduation, graduates will:

- attain careers as practicing chemical engineers in fields such as biomedical, biotechnology, chemical products, climate solutions, computation, energy, environmental engineering, food processing, pharmaceuticals, polymers/advanced materials, or semiconductors;
- pursue advanced studies in disciplines such as business, chemical engineering, computation, dentistry, environmental engineering, law, medicine, or pharmaceuticals; or
- assume professional leadership roles.

The following methods and strategies are used in the chemical engineering undergraduate program to achieve these program educational objectives. The department:

- fosters a unique and personalized undergraduate experience by leveraging the advantages of a small college atmosphere within a comprehensive liberal arts and research university;
- enriches the undergraduate experience through cultural diversity, international opportunities, and/or experiential learning;
- provides a solid foundation and understanding of the fundamental principles of mathematics, science, and engineering;
- provides students with experience in learning and applying tools and analyzing and interpreting data to solve theoretical and open-ended chemical engineering problems;
- provides students with opportunities to participate in collaborative teams;
- develops students' written and oral communication skills to a wide range of audiences;
- provides students with opportunities to design and conduct chemical engineering experiments and to design systems, components, and chemical processes to meet specific needs and constraints;
- provides a contemporary grounding in ethical and professional responsibility, including global, economic, environmental, safety, and societal impacts of engineering decisions; and
- instills the desire and the understanding of the need for lifelong learning.

Requirements

The Bachelor of Science in Engineering (BSE) with a major in chemical engineering requires a minimum of 128 s.h. of credit, plus up to five 1 s.h. seminars and one 0 s.h. course. At the time of graduation, students must have a cumulative grade-point average of at least 2.00 in all college work used to complete degree requirements and in all UI coursework in order to be awarded the BSE.

All BSE students are required to take the same collegiate curriculum. For information about these collegiate requirements, see the Bachelor of Science in Engineering, BSE [p. 1529] in the catalog. 6 s.h. of a student's major courses fulfill the collegiate curriculum's basic science or college-level math requirement. Students completing the major in chemical engineering will also fulfill the collegiate statistics requirement by completing CBE:3020 Applied Statistics for Chemical and Natural Resources Engineering, STAT:2020 Probability and Statistics for the Engineering and Physical Sciences, or STAT:3510 Biostatistics. Some focus areas may suggest or require specific courses to fulfill the general education component of the collegiate curriculum; see the following section titled "Focus Area."

Students are required to participate in at least one enriching activity, which may include a research experience, a cooperative education or internship experience, study abroad, completion of the Certificate in Technological Entrepreneurship [p. 1681], Certificate in Applied Climate Science and Energy Technologies [p. 1521], or other approved experiences.

The major in chemical engineering may include the following departmental seminars depending on when a student declares the major.

Course #	Title	Hours
CBE:1000	CBE Departmental Seminar	1
CBE:3000	Professional Seminar: Chemical Engineering (taken four times for 1 s.h. each)	4
CBE:4195	Senior Enriching Activities Seminar	0

The BSE with a major in chemical engineering requires the following coursework.

Requirements	Hours
Collegiate Curriculum	49
Basic Science and College-Level Math, from Major Requirements or Focus Area	6
Major Requirements	58
Focus Area	12
Free Elective	3

Major Requirements

Common Courses

Major requirements include a set of common courses (53 s.h.), an advanced chemistry or biochemistry and molecular biology course (3 s.h.), an advanced science course (3 s.h.), and two capstone design courses (5 s.h.).

Course #	Title	Hours
All of these:		
CBE:2105	Material and Energy Balances	3
CBE:2110	Computational Tools for Chemical Engineers	2
CBE:3105	Chemical Engineering Thermodynamics	3
CBE:3109	Fluid Flow	2
CBE:3113	Heat and Mass Transfer	3
CBE:3117	Separations	3
CBE:3120	Chemical Reaction Engineering	3
CBE:3125	Chemical Process Safety	3
CBE:3150	Thermodynamics/Transport Laboratory	3
CBE:3155	Chemical Reaction Engineering/Separations Laboratory	3
CBE:3205	Introduction to Biochemical Engineering	3
CBE:4105	Process Dynamics and Control in Design	3
CHEM:1120	Principles of Chemistry II	4
CHEM:2210	Organic Chemistry I	3
or CHEM:2230	Organic Chemistry I for Majors	
CHEM:2220	Organic Chemistry II	3
or CHEM:2240	Organic Chemistry II for Majors	
CHEM:2410	Organic Chemistry Laboratory	3
or CHEM:2420	Organic Chemistry Laboratory for Majors	
ENGR:2130	Thermodynamics	3
ENGR:2720	Materials Science	3

Advanced Chemistry or Biochemistry and Molecular Biology Course

Some focus areas may suggest or require a specific course; see "Focus Area." Students select a course considered advanced for the minor in chemistry [p. 193] (College of Liberal Arts and Sciences) or one of the following courses in the Department of Biochemistry and Molecular Biology (Carver College of Medicine).

Course #	Title	Hours
BMB:3110	Biochemistry	3
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3

Acceptable courses from the Department of Chemistry (College of Liberal Arts and Sciences) include but are not limited to the following.

Course #	Title	Hours
CHEM:3110	Equilibria and Electrochemistry	3
CHEM:3120	Spectroscopy and Separations	3
CHEM:4430	Principles of Physical Chemistry	3
CHEM:4431	Chemical Thermodynamics	3
CHEM:4432	Quantum Mechanics and Chemical Kinetics	3

Advanced Science Course

Students select an advanced science-based course either within or outside of the College of Engineering. Appropriate subject areas could include biochemistry and molecular biology (prefix BMB), biology (prefix BIOL), chemistry (prefix CHEM), microbiology and immunology (prefix MICR), and physics (PHYS). Any course numbered 3000 or above in these areas will fulfill this requirement. Some focus areas may suggest or require a specific course; see "Focus Area." Students may consult an advisor or visit the Department of Chemical and Biochemical Engineering website for more information.

Acceptable courses include but are not limited to the following. Consult an academic advisor for approval to take a course not on this list.

Course #	Title	Hours
CBE:4420	Environmental Chemistry	3
CBE:5315	Polymer Chemistry	3
CBE:5425	Atmospheric Chemistry and Physics	3
BIOL:4213	Bioinformatics	4
BME:2400	Cell Biology for Engineers	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
OEH:4240	Global Environmental Health	3
OEH:6420	Methods in Exposure Science	3
OEH:6710	Human Toxicology and Risk Assessment	3
PHYS:3741	Introduction to Quantum Mechanics I	3
SEES:4540	Isotope Geochemistry	3
Advanced chemistry and biochemistry courses in the areas previously listed		3

The following courses do not fulfill this requirement.

Course #	Title	Hours
CBE:3405	Green Chemical and Energy Technologies	3
CBE:5210	Bioseparations	3
CBE:5310	Polymer Science and Technology	3
CBE:5410	Electrochemical Engineering	3
BIOL:1411	Foundations of Biology	4
BIOL:1412	Diversity of Form and Function	4
PHYS:1612	Introductory Physics II	4

Capstone Design Courses

Course #	Title	Hours
Both of these:		
CBE:4109	Chemical Engineering Process Design I	2
CBE:4110	Chemical Engineering Process Design II	3

Focus Area

Students must select focus area courses according to guidelines established by the Department of Chemical and Biochemical Engineering. The department offers preapproved focus areas in biochemical engineering [p. 1563]; business [p. 1563]; chemical process engineering [p. 1563]; computation, data science, and machine learning [p. 1563]; energy and environment [p. 1564]; entrepreneurship [p. 1565]; oil and gas engineering [p. 1565]; pharmaceuticals [p. 1565]; polymers [p. 1566]; pre-medicine [p. 1566]; safety and health [p. 1566]; and sustainability [p. 1567].

Students may prefer to develop a custom-tailored focus area, which is subject to approval by the department's curriculum committee. Visit the Department of Chemical and Biochemical Engineering website for guidelines for tailored focus areas.

Focus areas in chemical engineering consist of content area courses (12 s.h.) and a free elective course (3 s.h.); carefully selected courses may contribute to earning a minor and/or certificate. Some focus areas also may suggest or require specific courses to fulfill the General Education Component of the collegiate curriculum, the chemical engineering major's advanced chemistry or biochemistry requirement, and/or the major's advanced science requirement.

Biochemical Engineering

Students in the biochemical engineering focus area are encouraged to complete BMB:3110 Biochemistry to satisfy the chemical engineering major's advanced chemistry/ biochemistry or advanced science requirement.

Required Biochemical Course

Course #	Title	Hours
This course:		
CBE:5210	Bioseparations	3

Biochemical Electives

Course #	Title	Hours
9 s.h. from these:		
CBE:3998	Individual Investigations: Chemical Engineering	arr.
CBE:5875/ BMB:5875/ CEE:5875/ CHEM:5875/ MICR:5875/ PHAR:5875	Perspectives in Biotechnology	1
BMB:3110	Biochemistry	3
BIOL:1411	Foundations of Biology	4
BIOL:1412	Diversity of Form and Function	4
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3
BMB:3140	Experimental Biochemistry	3
BME:2400	Cell Biology for Engineers	3
BME:5430	Biotransport	3
CHEM:4850/ PHAR:4850	Upstream Biotechnology Processes	2
MICR:2157	General Microbiology	3
MICR:2158	General Microbiology Laboratory	2

In addition to the courses previously listed, students may select courses in biology (prefix BIOL), biochemistry and molecular biology (prefix BMB), chemistry (prefix CHEM), or microbiology and immunology (prefix MICR) numbered 3000 or above.

Business

The business focus area requires the following courses to fulfill the collegiate curriculum General Education Component approved course subjects requirement.

Course #	Title	Hours
All of these:		
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
MKTG:3000	Introduction to Marketing Strategy	3

Required Business Course

Course #	Title	Hours
One of these:		
FIN:3000	Introductory Financial Management	3
ISE:2500	Engineering Economy	3

Business Electives

Course #	Title	Hours
Three of these:		
ACCT:2100	Introduction to Financial Accounting	3
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3

Chemical Process Engineering

Students choose 12 s.h. from a broad selection of engineering, math, and science courses numbered 3000 or above. Students are encouraged to complete MATH:4820 Optimization Techniques and should consult academic advisors for additional course selection.

Computation, Data Science, and Machine Learning

Computation, Data Science, and Machine Learning Electives

Course #	Title	Hours
12 s.h. from these:		
CBE:3020	Applied Statistics for Chemical and Natural Resources Engineering	3
CBE:3998	Individual Investigations: Chemical Engineering	arr.
CBE:5417/ CEE:5417/IGPI:5417	Physical Meteorology and Atmospheric Radiative Transfer	3
CBE:5425/CEE:5115	Atmospheric Chemistry and Physics	3

ACCT:4200	Advanced Managerial Accounting Analytics	3
BAIS:3500	Data Mining	3
BAIS:3800	Optimization and Simulation Modeling	3
BIOL:4213/ GENE:4213/ IGPI:4213	Bioinformatics	2,4
BME:4310/ BMB:4310	Computational Biochemistry	3
CEE:4512/ME:4112	Engineering Design Optimization	3
CHEM:4480	Introduction to Molecular Modeling	3
CHEM:5431	Statistical Thermodynamics I	3
CS:2110	Programming for Informatics	4
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
CS:3330	Algorithms	3
CS:4740/IGPI:4740/ MATH:4740/ STAT:4740	Large Data Analysis	3
CS:5110/IGPI:5110	Introduction to Informatics	3
ECE:2400	Linear Systems I	3
ECE:3330/IGPI:3330	Introduction to Software Design	3
ECE:5330/IGPI:5331	Graph Algorithms and Combinatorial Optimization	3
ECE:5420	Power Electronics	3
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:3600/CEE:3142/ STAT:3620	Quality Control	3
ISE:4900	Introduction to Six Sigma	3
MATH:3770	Foundations of Analysis	4
MATH:3800/ CS:3700	Introduction to Numerical Methods	3
MATH:5600	Nonlinear Dynamics With Numerical Methods	3
MATH:5700	Introduction to Partial Differential Equations	3
ME:4111/CEE:4511	Scientific Computing and Machine Learning	3
ME:4150	Artificial Intelligence in Engineering	3
ME:5114	Nonlinear Control in Robotic Systems	3
ME:5143	Computational Fluid and Thermal Engineering	3
ME:6115	Cooperative Autonomous Systems	3

Energy and Environment

Required Energy and Environment Course

Course #	Title	Hours
This course:		
CBE:3405	Green Chemical and Energy Technologies	3

Energy and Environment Electives

Course #	Title	Hours
9 s.h. from these:		
CBE:2030	Energy and Society	3
CBE:2040	Environment, Energy, and Climate Change	3
CBE:2050/CEE:2050	Severe and Unusual Weather	3
CBE:4410/CEE:4107	Sustainable Systems	3
CBE:4420/CEE:4150	Environmental Chemistry	3
CBE:4459/ CEE:4159/IGPI:4159	Air Pollution Control Technology	3
CBE:4460	Process and Design for Satellites and Environmental Sensors	3
CBE:5410	Electrochemical Engineering	3
CBE:5412	Atmospheric Modeling	3
CBE:5415/IGPI:5415	Satellite Image Processing and Remote Sensing of Atmosphere	3
CBE:5417/ CEE:5417/IGPI:5417	Physical Meteorology and Atmospheric Radiative Transfer	3
CBE:5425/CEE:5115	Atmospheric Chemistry and Physics	3
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CHEM:4873	Atmospheric and Environmental Chemistry	3
CHEM:5107	Electrochemistry	2-3
CHEM:5438	Surface Chemistry and Heterogeneous Processes	3
ECE:5630	Sustainable Energy Conversion	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ME:4048	Energy Systems Design	4
OEH:6710	Human Toxicology and Risk Assessment	3
SEES:4490	Elements of Geochemistry	3
SEES:4540	Isotope Geochemistry	3
SEES:4630	Hydrogeology	4
SEES:4790	Applied Environmental Geology	3

In addition to the courses previously listed, students may select courses in chemistry (prefix CHEM), occupational and environmental health (prefix OEH), or earth, environment, and sustainability (prefix SEES) numbered 3000 or above.

Entrepreneurship

Required Entrepreneurship Course

Course #	Title	Hours
One of these:		
FIN:3000	Introductory Financial Management	3
ISE:2500	Engineering Economy	3

Entrepreneurship Electives

Course #	Title	Hours
9 s.h. from these:		
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3100	Entrepreneurial Finance	3
An approved course with prefix ENTR that counts toward the technological entrepreneurship certificate		3

Oil and Gas Engineering

The following courses are prerequisites for many of the oil and gas engineering focus area courses. Due to their introductory nature, they do not count toward the focus area's content requirements, but one of the two may be counted as the free elective.

Course #	Title	Hours
CEE:1030/ SEES:1030	Introduction to Earth Science	3-4
SEES:1050	Introduction to Geology	4

The following courses are recommended to students in the oil and gas engineering focus area to fulfill part of the collegiate curriculum General Education Component approved course subjects requirement.

Course #	Title	Hours
Both of these:		
HIST:1115/ SEES:1115	The History of Oil	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3

Students in this focus area are encouraged to select courses for the chemical engineering major's advanced science requirement from the following list.

Course #	Title	Hours
SEES:4110	Global Biogeochemical Cycles	3
SEES:4490	Elements of Geochemistry	3
SEES:4630	Hydrogeology	4
SEES:4640	Contaminant Hydrogeology	3

Required Oil and Gas Course

Course #	Title	Hours
This course:		
CBE:3405	Green Chemical and Energy Technologies	3

Oil and Gas Electives

Course #	Title	Hours
9 s.h. from these:		
CBE:5199	Contemporary Topics: Chemical and Biochemical Engineering	arr.
CBE:5415/IGPI:5415	Satellite Image Processing and Remote Sensing of Atmosphere	3
CBE:5425/CEE:5115	Atmospheric Chemistry and Physics	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
SEES:1290	Energy and the Environment	3
SEES:2410	Mineralogy (recommended for students specializing in petroleum)	4
SEES:2831	Geologic Field Methods	3
SEES:3100	Earth and Planetary Remote Sensing	4
SEES:3330	Sedimentary Geology (recommended for students specializing in petroleum)	4
SEES:3510	Igneous and Metamorphic Petrology (recommended for students specializing in petroleum)	4
SEES:3840	Structural Geology (recommended for students specializing in petroleum)	4
SEES:4760	Mineral and Petroleum Exploration Geology	3
SEES:4780	Global Stratigraphy	3
SEES:4790	Applied Environmental Geology	3
SEES:4820	Tectonics and Basin Analysis	3
SEES:4832	Geologic Field Analysis	3

Pharmaceuticals

Required Pharmaceuticals Course

Course #	Title	Hours
At least one of these:		
PCOL:2220	Drug Use and Abuse	3
PCOL:3101	Pharmacology I: A Drug's Fantastic Journey	3

Pharmaceuticals Electives

Students select from the following engineering, pharmaceutics, and science courses listed to reach a total of 12 s.h. when combined with either or both of the required pharmaceuticals courses.

Course #	Title	Hours
CBE:3998	Individual Investigations: Chemical Engineering	arr.
CBE:5210	Bioseparations	3
CBE:5740	Engineering Principles of Drug Delivery	3
BIOL:1411	Foundations of Biology	4
BMB:3110	Biochemistry	3

BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3140	Experimental Biochemistry	3
BME:4310/ BMB:4310	Computational Biochemistry	3
BME:5421	Cell Material Interactions	3
BME:5430	Biotransport	3
CHEM:3110	Equilibria and Electrochemistry	3
CHEM:3120	Spectroscopy and Separations	3
CHEM:3430	Analytical Measurements	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
HHP:1400	Human Anatomy and Physiology	3
OEH:6450	Aerosol Technology	3
PCOL:3102	Pharmacology II: Mechanisms of Drug Action	3
PHAR:4146	Drug Disposition and Pharmacokinetics	2
PHAR:4736	Properties of Dosage Forms I	3
PHAR:4741	Immunology and Immunotherapies	2
PHAR:4800	Chemical and Biophysical Properties of Drugs	2
PHAR:4850/ CHEM:4850	Upstream Biotechnology Processes	2
A chemistry course (prefix CHEM) numbered 3000 or above		3

Polymers

Students in this focus area are encouraged to take CBE:5315 Polymer Chemistry to satisfy the chemical engineering major's advanced science requirement.

Course #	Title	Hours
This course:		
CBE:5310	Polymer Science and Technology	3

Polymers Electives

Course #	Title	Hours
9 s.h. from these:		
CBE:3998	Individual Investigations: Chemical Engineering	arr.
CBE:5199	Contemporary Topics: Chemical and Biochemical Engineering	arr.
CBE:5390	Photopolymerization Topics	1
CBE:5740	Engineering Principles of Drug Delivery	3
BME:2500	Biomaterials and Biomechanics	4
BME:5421	Cell Material Interactions	3
CHEM:4372	Advanced Organic Chemistry	3
CHEM:5118	Nanomaterials	3
ME:5146	Modeling of Materials Processing	3
ME:5167/CEE:5137	Composite Materials	3
Engineering, math, or science courses numbered 3000 or above		

Pre-Medicine

Students in this focus area are encouraged to complete the major's advanced chemistry or biochemistry and advanced science requirements by completing either the sequence BMB:3120 Biochemistry and Molecular Biology I and BMB:3130 Biochemistry and Molecular Biology II to satisfy both requirements, or BMB:3110 Biochemistry to satisfy one of the two requirements.

The following courses are recommended to students in the pre-medicine focus area to fulfill the collegiate curriculum General Education Component approved course subjects requirement.

Course #	Title	Hours
All of these:		
PSY:1001	Elementary Psychology	3
PSY:2130	Advanced Psychology for Pre-Medical Track	3
SOC:1010	Introduction to Sociology	3-4

Required Pre-Medicine Courses

Course #	Title	Hours
All of these:		
BIOL:1411	Foundations of Biology	4
BIOL:1412	Diversity of Form and Function	4
PHYS:1612	Introductory Physics II	4

Safety and Health

Students in this focus area are encouraged to complete OEH:6710 Human Toxicology and Risk Assessment to satisfy the chemical engineering major's advanced science requirement.

The following courses are recommended to students in the safety and health focus area as part of the collegiate curriculum General Education Component.

Course #	Title	Hours
Approved Course Subjects		
GHS:3560	Global Garbage and Global Health	3
SEES:3760/ GHS:3760	Hazards and Society	3
Understanding Cultural Perspectives		
HHP:1045	Diversity and Inclusion in Healthy Living	3

Required Safety and Health Course

Course #	Title	Hours
This course:		
CBE:4125	Advanced Chemical Process Safety	3

Safety and Health Electives

Course #	Title	Hours
9 s.h. from these:		
CBE:4459/ CEE:4159/IGPI:4159	Air Pollution Control Technology	3
CEE:4158/ OEH:4920	Solid and Hazardous Wastes	3

CPH:3200	Death at Work: Case Studies of Workplace Safety and Health	3
ISE:4175	Safety Engineering	3
OEH:5410	Occupational Safety	3
OEH:5620	Occupational Health	3
OEH:6420	Methods in Exposure Science	3
OEH:6440	Control of Occupational Hazards	3
OEH:6450	Aerosol Technology	3
OEH:6720	Advanced Toxicology	4

Sustainability

Students in the sustainability focus area are encouraged to complete CBE:5425 Atmospheric Chemistry and Physics to satisfy the chemical engineering major's advanced science requirement.

Students in this focus area are required to complete the following courses to fulfill the collegiate curriculum's General Education Component.

Course #	Title	Hours
Be Creative		
CNW:2740	The Art and Craft of Writing about the Environment	3
Approved Course Subjects		
ENGL:1510	Introduction to Environmental Literature	3
or JMC:1800	Environmental Communication	
SEES:1070	Contemporary Environmental Issues	3
SEES:2013/ BUS:2013/ URP:2013	Introduction to Sustainability	3

Sustainability Electives

It is recommended that students choose courses that contribute to completing the Certificate in Sustainability [p. 404] (College of Liberal Arts and Sciences).

Course #	Title	Hours
12 s.h. from these:		
CBE:4410/CEE:4107	Sustainable Systems	3
A course that counts toward the Certificate in Sustainability		3-4
A science or engineering course numbered 3000 or above		
May include one of these:		
SEES:1080	Introduction to Environmental Science	3-4
SEES:1085	Fundamentals of Environmental Science	4

Free Elective

Students are required to select an additional course of their choice and should consult with an academic advisor for assistance in selection as needed.

Students in the business focus area interested in completing the minor in business administration [p. 1156] (Tippie College of Business) are especially encouraged to complete all four courses listed under "Business Electives."

It is recommended that students in the entrepreneurship focus area choose an entrepreneurship course (prefix ENTR) that counts toward the Certificate in Technological Entrepreneurship [p. 1681].

It is recommended that students in the sustainability focus area choose a course that contributes to completing the Certificate in Sustainability [p. 404] (College of Liberal Arts and Sciences).

Combined Programs

BSE/MS in Chemical and Biochemical Engineering

The College of Engineering offers a combined Bachelor of Science in Engineering/Master of Science for chemical engineering undergraduate students who intend to earn an MS in chemical and biochemical engineering. BSE/MS students may count 12 s.h. of coursework (typically advanced chemistry sequences and electives) toward both degrees. Once students complete the requirements for the bachelor's degree, they are granted the BSE, and they typically complete the MS one year later.

To be admitted to the degree program, students must have a cumulative grade-point average of at least 3.25 and must apply to the Graduate College for acceptance into the program before starting their final two semesters. Visit Undergraduate to Graduate (U2G) Programs on the Department of Chemical and Biochemical Engineering website to learn more.

BSE/MS in Civil and Environmental Engineering

Bachelor of Science in Engineering students majoring in chemical engineering who are interested in earning a Master of Science in civil and environmental engineering may apply to the combined BSE/MS program offered by the College of Engineering. The combined program enables undergraduate students to begin work on the MS while completing their BSE. Students admitted to the program may count 9 s.h. of coursework toward both the BSE and the MS degree requirements. They may also count an additional 3 s.h. toward the MS degree requirements before they have been awarded the BSE. For more information, see the MS in civil and environmental engineering [p. 1599] in the catalog.

Career Advancement

Chemical and biochemical engineers work in a wide range of industries, including petroleum and specialty chemical production, polymer and plastic production, food processing, energy, microelectronics production, pharmaceutical production, biochemical processing, and environmental compliance. Potential jobs include production, process development, plant design and construction, and fundamental research. Many experienced chemical and biochemical engineers move through management ranks to high-level administrative positions. On average, 93–98% of graduates are employed in their field of study or pursuing advanced education within seven months of graduation.

The engineering profession is a foundation for a variety of careers in industry, medicine, law, government, and consulting. Engineering majors continue to result in top-paying salaries post-graduation.

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including an engineering career fair each semester and other programming related to career development.

Engineering Career Services also offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, and job offer evaluation.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Chemical Engineering, BSE

Course	Title	Hours
First Year		
Fall		
RHET:1030	Rhetoric: Writing and Communication [a]	4
MATH:1550	Engineering Calculus I [b, c]	4
CHEM:1110	Principles of Chemistry I [b, d]	4
ENGR:1100	Introduction to Engineering Problem Solving [e]	3
CSI:1600	Success at Iowa	0
	Hours	**15**
Spring		
MATH:1560	Engineering Calculus II [b]	4
MATH:2550	Engineering Matrix Algebra [b]	2
CHEM:1120	Principles of Chemistry II [b]	4
PHYS:1611	Introductory Physics I [b]	4
ENGR:1300	Introduction to Engineering Computing [b]	3
CBE:1000	CBE Departmental Seminar [f]	1
	Hours	**18**
Second Year		
Fall		
GE: Approved Course Subjects [g]		3
MATH:2560	Engineering Differential Equations [b]	3
CHEM:2230 or CHEM:2210	Organic Chemistry I for Majors [h] or Organic Chemistry I	3
ENGR:2130	Thermodynamics [a]	3
CBE:2110	Computational Tools for Chemical Engineers [e]	2
CBE:2105	Material and Energy Balances [b]	3
	Hours	**17**
Spring		
GE: Cultural Perspectives, Values, and Society [i]		3
CBE:3020 or STAT:3510 or STAT:2020	Applied Statistics for Chemical and Natural Resources Engineering [j] or Biostatistics or Probability and Statistics for the Engineering and Physical Sciences	3
CHEM:2220 or CHEM:2240	Organic Chemistry II [k] or Organic Chemistry II for Majors	3
CHEM:2410 or CHEM:2420	Organic Chemistry Laboratory [l] or Organic Chemistry Laboratory for Majors	3
CBE:3105	Chemical Engineering Thermodynamics [f]	3
CBE:3109	Fluid Flow [f]	2
CBE:3000	Professional Seminar: Chemical Engineering [b]	1
Focus Area Form: Students should fill out a focus area selection form by the end of their Spring semester. Focus area forms can be updated/ changed at anytime. Please see the Chemical Engineering - Undergraduate Program, Resources and Forms webpage for the link.		
	Hours	**18**
Third Year		
Fall		
ENGR:2720	Materials Science [a]	3
CBE:3113	Heat and Mass Transfer [e]	3
CBE:3125	Chemical Process Safety [e]	3
CBE:3117	Separations [e]	3
CBE:3000	Professional Seminar: Chemical Engineering [b]	1
Focus Area: additional elective [m]		3
	Hours	**16**
Spring		
GE: Engineering Be Creative [n]		3
CBE:3120	Chemical Reaction Engineering [b]	3
CBE:3150	Thermodynamics/Transport Laboratory [f]	3
CBE:3205	Introduction to Biochemical Engineering [f]	3
Focus Area: topic course [m]		3
CBE:3000	Professional Seminar: Chemical Engineering [b]	1
	Hours	**16**
Fourth Year		
Fall		
CBE:3155	Chemical Reaction Engineering/ Separations Laboratory [e]	3
CBE:3000	Professional Seminar: Chemical Engineering [b]	1
CBE:4105	Process Dynamics and Control in Design [e]	3
CBE:4109	Chemical Engineering Process Design I [e]	2
advanced chemistry or biochemistry course [o]		3
Focus Area: topic course [m]		3
Focus Area: topic course [m]		3
	Hours	**18**

Spring

GE: Approved Course Subjects [g]		3
GE: Approved Course Subjects [g]		3
CBE:4110	Chemical Engineering Process Design II [f]	3
advanced science course [p]		3
Focus Area: topic course [m]		3
CBE:4195	Senior Enriching Activities Seminar [f]	0
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [q]		
	Hours	**15**
	Total Hours	**133**

a Typically this course is offered in fall, spring, and summer sessions. Check MyUI for course availability since offerings are subject to change.

b Typically this course is offered in fall and spring semesters. Check MyUI for course availability since offerings are subject to change.

c Enrollment in math courses requires completion of a placement exam.

d Enrollment in chemistry courses requires completion of a placement exam.

e Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

f Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

g See General Catalog for list of approved course subjects. Some focus areas recommend or require specific courses. See General Catalog, chemical and biochemical engineering website, or consult your advisor.

h CHEM:2210 typically is offered in fall, spring, and summer sessions. CHEM:2230 typically is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

i Students select a course from one of two GE CLAS Core areas: Understanding Cultural Perspectives or Values and Society. Some focus areas recommend or require specific courses. See General Catalog, chemical and biochemical engineering website, or consult your advisor.

j CBE:3020 typically is offered in spring semesters only. STAT:2020 and STAT:3510 typically is offered in fall and spring semesters. Check MyUI for course availability since offerings are subject to change.

k CHEM:2220 typically is offered in fall, spring, and summer sessions. CHEM:2240 typically is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

l CHEM:2410 typically is offered in fall, spring, and summer sessions. CHEM:2420 typically is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

m Students select one of many preexisting focus areas or work with an advisor to develop a custom focus area. Focus areas require 12 s.h. specific to their content area and a 3 s.h. elective course. Some focus areas may also suggest or require specific courses to fulfill the General Education Component, advanced chemistry, or advanced science courses. Students who do not declare a specific focus area are automatically placed in chemical process engineering. See General Catalog or consult an advisor for more information.

n See General Catalog for list of approved courses. Students who intend to enroll in a Be Creative course with prerequisites must request a waiver by completing the Request Prerequisite Special Permission form on MyUI. Some focus areas may require specific courses to fulfill this requirement.

o The advanced chemistry/biochemistry course must have a course subject of CHEM or BMB. Some focus areas may suggest or require specific courses to fulfill the advanced chemistry requirement. See General Catalog or consult an advisor for more information.

p Students select an advanced science-based course either within or outside of the College of Engineering. Appropriate subject areas could include biochemistry and molecular biology (prefix BMB), biology (prefix BIOL), chemistry (prefix CHEM), microbiology and immunology (prefix MICR), and physics (PHYS). Some focus areas may suggest or require specific courses to fulfill the advanced science requirement. See General Catalog or consult an advisor for more information.

q Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Chemical and Biochemical Engineering, MS

The Department of Chemical and Biochemical Engineering provides a stimulating academic community where students engage in a highly personalized learning and research environment. The graduate program provides qualified students with deeper and broader training than is possible at the undergraduate level. The Master of Science program provides students with opportunities to obtain specialized knowledge and expertise through advanced coursework in chemical engineering and related disciplines, to engage in interdisciplinary research opportunities (thesis option), and to impact their communities through service learning.

Faculty within the department have focused research projects in biological and pharmaceutical systems, clean energy and water, air quality and climate, polymers and advanced materials, quantum chemical simulation, machine learning, and remote sensing; see Graduate Program on the Department of Chemical and Biochemical Engineering website.

Learning Outcomes

Graduates will:

- demonstrate a mastery of advanced chemical engineering concepts;
- effectively communicate scientific concepts and/or research results in both written and oral formats to scientific and general audiences;
- demonstrate knowledge of and commitment to safe and ethical behavior through adherence to best safety practices and academic integrity principles; and
- demonstrate the ability to serve as a STEM ambassador through outreach and service activities.

Students completing the program with thesis will additionally demonstrate the abilities to:

- perform independent research on an original topic in chemical engineering; and
- critically identify and solve research problems, summarize disciplinary information, and evaluate research findings.

Requirements

The Master of Science program in chemical and biochemical engineering without thesis requires a minimum of 33 s.h. The Master of Science program in chemical and biochemical engineering with a thesis requires a minimum of 30 s.h. in approved graduate courses. Students who pursue the thesis option may earn up to 6 s.h. in CBE:5999 MS Thesis Research: Chemical and Biochemical Engineering. All students must maintain a UI cumulative grade-point average (GPA) of at least 3.00.

Students entering with a degree other than chemical engineering may need to take additional coursework to attain proficiency in core areas of chemical engineering.

The MS in chemical and biochemical engineering requires the following coursework.

Core Courses

Students must maintain a GPA of at least 3.25 in the five core courses.

Course #	Title	Hours
One of these:		
CBE:5104	Introduction to Literature Review and Technical Writing (non-thesis)	3
CBE:5105	Introduction to Literature Review and Proposal Writing (thesis)	3
All of these:		
CBE:5110	Intermediate Thermodynamics	3
CBE:5115	Transport Phenomena I	3
CBE:5120	Data Science in Chemical and Engineering Systems	3
One of these:		
CBE:3205	Introduction to Biochemical Engineering	3
CBE:5315	Polymer Chemistry	3
CBE:5425	Atmospheric Chemistry and Physics	3

Professional Development Experience

Professional growth extends beyond the curriculum and the research laboratory. Graduate professionals must be able to identify and lead educational and research enterprises that advance the scope and impact of the discipline. Important skills include building professional networks, developing a comprehensive outlook for identifying emerging directions in the field, the ability to explain scientific and engineering principles to a variety of audiences, and more. Some examples of professional development experiences include an industrial internship, a second teaching assistant experience, teacher training, organizing a session at a national conference, and organizing a local conference. A student's professional development experience must be developed in consultation with their research mentor and approved by the director of graduate studies. The professional development experience is required for MS thesis students.

Electives

Students supplement the core curriculum with electives tailored to their interests.

Additional Requirements

All thesis students must take ENGR:7270 Engineering Ethics during their first semester and CBE:5000 Seminar in Chemical and Biochemical Engineering each semester in residence. MS thesis students are required to present at CBE:5000. MS thesis students are also required to serve as a teaching assistant at least once during the duration of their graduate studies. Nonthesis students must take CBE:5100 Graduate Professional Development Seminar in each of their final two semesters in the program.

Students in the nonthesis program may petition for entry into the thesis program or the PhD program by requesting a change of status through the Graduate College. The request is reviewed by the Graduate Admissions Committee. If approved

by the committee, the request is forwarded to the chemical and biochemical engineering faculty for final approval. Students then are assigned to research advisors as though they are newly admitted graduate students. For a detailed description of program requirements, see Graduate Program on the Department of Chemical and Biochemical Engineering website.

All students must pass a final examination.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants must provide the following.

- Completed application form.
- Unofficial transcript(s). If admitted, official transcripts are required before enrollment. For international students, all academic records should bear the original stamp or seal of the institution and the signature of a school official. Documents not in English must be accompanied by a complete, literal English translation, certified by the issuing institution.
- Optional: Official Graduate Record Examination (GRE) General Test scores (verbal and quantitative) from Educational Testing Services (the university's institutional code is 6681).
- Statement of purpose.
- Three letters of recommendation.

Admission to the department is competitive and is based on an applicant's previous coursework, research, and/or industrial experience. The admissions committee looks for evidence that an applicant has demonstrated qualities such as creativity, self-initiative, dedication, and perseverance exhibited by successful master's degree students.

Applicants must have earned a four-year baccalaureate degree (Bachelor of Science or Bachelor of Science in Engineering) in chemical engineering or a related science or engineering discipline, such as chemistry, biochemistry, biological engineering, environmental science, atmospheric science, materials science, mathematics, or physics.

Applicants are expected to have a cumulative grade-point average (GPA) of at least 3.00 on a 4.00 scale in work for their undergraduate degree. Applicants through the Undergraduate to Graduate (U2G) BS/MS program must have a cumulative GPA of at least 3.25 on a 4.00 scale.

Career Advancement

Chemical and biochemical engineers work in a wide range of industries, including petroleum and specialty chemical production, polymer and plastic production, food processing, energy, microelectronics production, pharmaceutical production, biochemical processing, environmental monitoring and compliance, applied climate research, and big data analytics. Potential jobs include production, process development, plant design and construction, fundamental research, strategic planning, and policy-making. The engineering profession is also a foundation for a variety of careers in medicine, law, government, consulting, and business management. Many experienced chemical and biochemical engineers move through management ranks to high-level administrative positions. Faculty mentors assigned to graduate students aid in their professional development. Students are exposed to opportunities through seminar speakers who have relevant expertise and are invited to campus.

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including an engineering career fair each semester and other programming related to career development. Engineering Career Services also offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, and job offer evaluation.

The Graduate College offers numerous career advancement opportunities and professional development programs for graduate students. For ongoing program offerings, news, and announcements, see Grad Success Center on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Chemical and Biochemical Engineering, MS

Course	Title	Hours
Academic Career		
Any Semester		
33 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CBE:5104	Introduction to Literature Review and Technical Writing	3
CBE:5120	Data Science in Chemical and Engineering Systems	3
ENGR:7270	Engineering Ethics [b]	1
Elective course [c]		3
	Hours	**10**
Spring		
CBE:5315 or CBE:5425 or CBE:3205	Polymer Chemistry [d] or Atmospheric Chemistry and Physics or Introduction to Biochemical Engineering	3
CBE:5110	Intermediate Thermodynamics	3
Elective course [c]		3
	Hours	**9**
Second Year		
Fall		
CBE:5100	Graduate Professional Development Seminar [e]	1
Elective course [c]		3

Elective course [c]		3
Elective course [c]		2
	Hours	**9**
Spring		
CBE:5100	Graduate Professional Development Seminar [e]	1
CBE:5115	Transport Phenomena I	3
Elective course [c]		3
Exam: Master's Final Exam		
	Hours	**7**
	Total Hours	**35**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Must be completed during first semester.
c Work with faculty advisor to determine appropriate graduate coursework and sequence.
d CBE:5315 is typically offered only during fall semesters .
e Students must take this course in each of their final two semesters in the program; credit earned does not count toward the 33 s.h. required to complete the degree.

Chemical and Biochemical Engineering, PhD

The Department of Chemical and Biochemical Engineering provides a stimulating academic community where students engage in a highly personalized learning and research environment. The graduate program provides qualified students with deeper and broader training than is possible at the undergraduate level. The Doctor of Philosophy program provides students with opportunities to obtain specialized knowledge and expertise through advanced coursework in chemical engineering and related disciplines, to engage in interdisciplinary research opportunities, and to impact their communities through service learning. The department emphasizes research; most opportunities for graduates are in research and development.

Faculty within the department have focused research projects in biological and pharmaceutical systems, clean energy and water, air quality and climate, polymers and advanced materials, quantum chemical simulation, machine learning, and remote sensing; see Graduate Program on the Department of Chemical and Biochemical Engineering website.

Learning Outcomes

Graduates will:

- demonstrate a mastery of advanced chemical engineering concepts;
- effectively communicate scientific concepts and/or research results in both written and oral formats to scientific and general audiences;
- demonstrate the ability to perform independent research on an original topic in chemical engineering;
- demonstrate the ability to critically identify and solve research problems, summarize disciplinary information, and evaluate research findings;
- demonstrate knowledge of and commitment to safe and ethical behavior through adherence to best safety practices and academic integrity principles; and
- demonstrate the ability to serve as a STEM ambassador through outreach and service activities.

Requirements

The Doctor of Philosophy program in chemical and biochemical engineering requires a minimum of 72 s.h. of graduate credit. However, the degree is granted primarily on the basis of research achievement rather than on the accumulation of semester hours. Students must maintain a UI cumulative grade-point average (GPA) of at least 3.25.

All students must complete a core curriculum, which consists of one course each in transport phenomena, chemical thermodynamics, chemical reaction kinetics, technical communication, and data science plus five additional courses (total of 30 s.h.).

Students entering with a degree other than chemical engineering may need to take additional coursework to attain proficiency in core areas of chemical engineering.

The PhD in chemical and biochemical engineering requires the following coursework.

Core Courses

Students must complete the five core courses with a minimum GPA of 3.50.

Course #	Title	Hours
All of these:		
CBE:5105	Introduction to Literature Review and Proposal Writing	3
CBE:5110	Intermediate Thermodynamics	3
CBE:5115	Transport Phenomena I	3
CBE:5120	Data Science in Chemical and Engineering Systems	3
One of these:		
CBE:3205	Introduction to Biochemical Engineering	3
CBE:5315	Polymer Chemistry	3
CBE:5425	Atmospheric Chemistry and Physics	3

Professional Development Experience

Professional growth extends beyond the curriculum and the research laboratory. Graduate professionals must be able to identify and lead educational and research enterprises that advance the scope and impact of the discipline. Important skills include building professional networks, developing a comprehensive outlook for identifying emerging directions in the field, the ability to explain scientific and engineering principles to a variety of audiences, and more.

Some examples of professional development experiences include an industrial internship, a second teaching assistant experience, teacher training, organizing a session at a national conference, and organizing a local conference. A student's professional development experience must be developed in consultation with their research mentor and approved by the director of graduate studies.

Service Expectations

The service expectation has two components: one that explicitly links the student's research to service and another that connects the student to the more general support activities of their academic and professional community.

For the first service component, students must discuss the impact of research and highlight how research provides outreach opportunities in a comprehensive proposal chapter. Like the rest of the proposal, the chapter is expected to be prospective and prompt the student to incorporate broader impacts into their professional activities.

For the second service component, students must identify approximately 10 hours of appropriate service in their individual development plan and then carry it out during the semester. Students submit documentation, including a description of the event and a photograph showing them carrying out the service.

Electives

Students supplement the core curriculum with electives tailored to their research area.

Additional Requirements

All students are required to take ENGR:7270 Engineering Ethics during their first semester and CBE:5000 Seminar in Chemical and Biochemical Engineering every semester in residence. Students are required to present at one CBE:5000 graduate seminar.

In addition to a minimum GPA in the five core courses, students are required to pass a comprehensive examination before they can become degree candidates. The comprehensive examination is the presentation and defense of the candidate's research proposal. These examinations are arranged by members of the examining committee and may be repeated at the committee's discretion. Comprehensive examination policies are published in the Manual of Rules and Regulations on the Graduate College website. All students are also required to serve as a teaching assistant at least once during the duration of their graduate studies. A final examination, which is a defense of the thesis, completes the doctoral program.

For a detailed description of program requirements, see Graduate Program on the Department of Chemical and Biochemical Engineering website.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in chemical and biochemical engineering in a combined degree program offered by the College of Engineering and the Carver College of Medicine. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants must provide the following.

- Completed application form.
- Unofficial transcript(s). If admitted, official transcripts will be required before enrollment. For international students, all academic records should bear the original stamp or seal of the institution and the signature of a school official. Documents not in English must be accompanied by a complete, literal English translation certified by the issuing institution.
- Optional: Official Graduate Record Examination (GRE) General Test scores (verbal and quantitative) from Educational Testing Services (the university's institutional code is 6681).
- Statement of purpose.
- Three letters of recommendation.

Admission to the department is competitive and is based on an applicant's previous coursework, research, and/or industrial experience. The admissions committee looks for evidence that an applicant has demonstrated qualities such as creativity, self-initiative, dedication, and perseverance exhibited by successful PhD or master's degree students.

Applicants must have earned a four-year baccalaureate degree (Bachelor of Science or Bachelor of Science in Engineering) in chemical engineering or a related science or engineering discipline, such as chemistry, biochemistry, biological engineering, environmental science, atmospheric science, materials science, mathematics, and physics. An MS is not a prerequisite for admission to the PhD program. Applicants to the PhD program are expected to have a cumulative grade-point average of at least 3.00 on a 4.00 scale in work for their undergraduate degree.

Career Advancement

The PhD program is designed to equip students with the skills to pursue a career in industry, academia, or government. Faculty and alumni mentors assigned to graduate students aid in their professional development. Students are exposed to opportunities through seminar speakers who have relevant expertise and are invited to campus.

The Graduate College offers numerous career advancement opportunities and professional development programs for graduate students. For ongoing program offerings, news, and announcements, see Grad Success Center on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Chemical and Biochemical Engineering, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CBE:5000	Seminar in Chemical and Biochemical Engineering [b]	1
CBE:5105	Introduction to Literature Review and Proposal Writing	3
CBE:5120	Data Science in Chemical and Engineering Systems	3
ENGR:7270	Engineering Ethics [c]	1
Elective course [d]		3
	Hours	**11**
Spring		
CBE:3205 or CBE:5315 or CBE:5425	Introduction to Biochemical Engineering [e] or Polymer Chemistry or Atmospheric Chemistry and Physics	3
CBE:5000	Seminar in Chemical and Biochemical Engineering [b]	1
CBE:5110	Intermediate Thermodynamics	3
Elective course [d]		3

Elective course [d]		3
	Hours	**13**
Second Year		
Fall		
CBE:5000	Seminar in Chemical and Biochemical Engineering [b]	1
CBE:7999	Research: Chemical and Biochemical Engineering PhD Dissertation	3
Elective course [d]		3
Elective course [d]		3
	Hours	**10**
Spring		
CBE:5000	Seminar in Chemical and Biochemical Engineering [b]	1
CBE:5115	Transport Phenomena I	3
CBE:7999	Research: Chemical and Biochemical Engineering PhD Dissertation	6
	Hours	**10**
Third Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [f]		
	Hours	**0**
Fall		
CBE:5000	Seminar in Chemical and Biochemical Engineering [b]	1
CBE:7999	Research: Chemical and Biochemical Engineering PhD Dissertation	8
	Hours	**9**
Spring		
CBE:5000	Seminar in Chemical and Biochemical Engineering [b]	1
CBE:7999	Research: Chemical and Biochemical Engineering PhD Dissertation	8
	Hours	**9**
Fourth Year		
Fall		
CBE:5000	Seminar in Chemical and Biochemical Engineering [b]	1
CBE:7999	Research: Chemical and Biochemical Engineering PhD Dissertation	6
	Hours	**7**
Spring		
CBE:5000	Seminar in Chemical and Biochemical Engineering [b]	1
	Hours	**1**
Fifth Year		
Fall		
CBE:5000	Seminar in Chemical and Biochemical Engineering [b]	1
	Hours	**1**
Spring		
CBE:5000	Seminar in Chemical and Biochemical Engineering [b]	1
Exam: Doctoral Final Exam [g]		
	Hours	**1**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Students must take this course each semester in residence.
c Must be completed during first semester.
d Work with faculty advisor to determine appropriate graduate coursework and sequence.
e CBE:5315 is typically offered only during fall semesters .
f Complete within three years of entering program.
g Dissertation defense.

Civil and Environmental Engineering

Chair

- A. Allen Bradley Jr.

Undergraduate majors: civil engineering (BSE); environmental engineering (BSE)

Graduate degrees: MS in civil and environmental engineering; PhD in civil and environmental engineering

Faculty: https://engineering.uiowa.edu/cee/cee-people

Website: https://engineering.uiowa.edu/cee

Civil and environmental engineering is one of the three largest fields of engineering. It traditionally has been concerned with infrastructure facilities that are both large in scale and essential to modern life. Civil and environmental engineering projects include transportation systems and their components, such as bridges, highways, public transit systems, railways, harbors, airports, and seaports; large-scale structures and office buildings that provide enclosed working and living space; and environmental and hydraulic systems that provide clean water and air, including filtration plants and distribution systems for municipal and industrial water supplies, wastewater treatment plants, dams, levees, and irrigation systems.

Growth areas of civil and environmental engineering include water sustainability, infrastructure development, construction management, computer-aided design, hazardous waste management, and engineered environmental systems. In the future, civil and environmental engineers will be called upon to design structures for the earth, prevent erosion and sedimentation of rivers, predict the effects of global climate change on the environment, provide modern and efficient transportation systems, and ensure the quality of air, surface waters, and groundwaters.

In planning and design, civil and environmental engineers work with other engineers, architects, landscape architects, planners, economists, financiers, sociologists, lawyers, and other specialists as members of the design team. Some civil and environmental engineers work in engineering offices; others may be called upon to construct or supervise outdoor projects they have designed. These field assignments, many of which are in remote and fascinating parts of the world, are particularly appealing to many civil and environmental engineers. There also is significant potential for entrepreneurial work by civil and environmental engineers as they start their own companies.

In addition to the degree programs offered by the Department of Civil and Environmental Engineering, the department also participates in two Graduate College programs: Applied Mathematical and Computational Sciences [p. 1695], an interdisciplinary doctoral program; and Transportation Planning [p. 1813], a graduate certificate program.

Certificates

Sustainable Water Development

The graduate Certificate in Sustainable Water Development trains science, technology, engineering, and mathematics (STEM) students to address future challenges of water scarcity and variability while also meeting the food and energy demands of Earth's growing population. The Department of Civil and Environmental Engineering administers the certificate program; see the Certificate in Sustainable Water Development [p. 1678] in the catalog.

Related Certificate: Transportation Planning

The graduate Certificate in Transportation Planning focuses on the varied and complex problems of transportation and on interdisciplinary approaches to addressing them. The departments of Civil and Environmental Engineering, Industrial and Systems Engineering, Mechanical Engineering (College of Engineering), and Economics (Tippie College of Business), and the School of Planning and Public Affairs (Graduate College) participate in the program.

The certificate is coordinated by the School of Planning and Public Affairs; see the Certificate in Transportation Planning [p. 1814] in the catalog.

Programs

Undergraduate Programs of Study

Majors

- Major in Civil Engineering (Bachelor of Science in Engineering) [p. 1584]
- Major in Environmental Engineering (Bachelor of Science in Engineering) [p. 1592]

Graduate Programs of Study

- Master of Science in Civil and Environmental Engineering [p. 1599]
- Doctor of Philosophy in Civil and Environmental Engineering [p. 1604]

Facilities

Undergraduate Teaching Laboratories

Environmental Engineering Teaching Laboratory

Located at the water plant, this laboratory is designed to provide undergraduate students hands-on experience in water laboratory testing and analysis. It serves several program-required and elective courses with a laboratory component.

Engineering Fluids Laboratories

The Engineering Fluids Laboratories comprise a trio of rooms. The Fluids Fundamentals Lab includes recently built equipment and some that has been around for decades. The Advanced Measurements Lab includes larger experimental devices, such as a wind tunnel and a towing tank. The third laboratory, the Fluids Workshop, is a space in which students can perform their experiments.

Hydraulics Laboratory

The Hydraulics Laboratory experimental facilities include flumes and pipe systems to perform experiments on open-channel and closed-conduit flows. Instruments are available

for measuring various flow quantities such as discharge, pressure, velocity, and temperature.

Computer-Aided Design (CAD) Lab

The CAD Lab contains 17 workstations, all connected to the engineering computer network, that allow students to access AutoCAD, Pro/ENGINEER, and a full complement of structural, hydraulic, transportation, and environmental software to support work on engineering design projects.

Geomechanics Laboratory

This modern 936-square-foot climate-controlled wet teaching lab features two sinks, 10 central compressed air outlets, 10 central vacuum outlets, and a fume hood. It can accommodate up to 18 students at a time. The lab is outfitted for measurements of soil grain specific gravities, soil densities, grain-size distributions, Atterberg limits, hydraulic conductivities, liquefaction, soil compressibility, time-dependent soil consolidation properties, shear strength of soils via direct shear and triaxial compression machines, and soil compaction behavior.

Structures, Mechanics, and Materials Laboratory

The Structures, Mechanics, and Materials Laboratory is a teaching lab where students conduct experiments to quantify the physical and mechanical properties of construction materials. Equipment is available to test metals, aggregates, concrete, and asphalt.

Graduate Laboratories

Structures, Mechanics, and Materials

Facilities for computations, materials testing, geotechnical experiments, and small-scale structural testing are available for research and teaching. Faculty, staff, and students in structures, mechanics, and materials (SMM) have access to the computing resources of the Engineering Technology Center and the Iowa Technology Institute (ITI). Both centers continuously update their computing facilities to maintain pace with the rapidly changing field.

A wide range of experimental facilities are available for testing structural materials such as Portland cement concrete, asphalt, metals, timber, and composites. These facilities include several loading frames (purely uniaxial, purely torsional, and axial-torsional) that are available with computer-based control and data collection systems. Facilities for creep testing, triaxial soil testing, and high-cycle fatigue testing are also available. The laboratories have a variety of ovens and other facilities for the preparation and treatment of test specimens.

Four well-equipped physical testing laboratories are dedicated to SMM teaching and research: the Civil Materials Laboratory, the Soil Mechanics Laboratory, the Plasticity Laboratory, and the Asphalt Laboratory. The Civil Materials Laboratory currently has a small-scale, single-degree-of-freedom shaker table. Faculty, staff, and students have access through ITI to a six-degree-of-freedom man-rated shaker table with a 4,000-pound payload and a 12-camera Vicon motion-capture system.

Transportation Engineering

The department's Asphalt Laboratory is equipped with a set of Superpave testing equipment and asphalt mixture performance testing equipment. The lab has a Hamburg wheel tracking device for measuring the moisture sensitivity of asphalt mixtures, asphalt foaming equipment for mix design of cold in-place recycled asphalt using foamed asphalt, and equipment for semi-circular bending and indirect tensile strength tests and volumetric analysis of asphalt mixtures. The Asphalt Laboratory is one of the department's many laboratories for testing the strength behavior of other materials.

Water and the Environment

The teaching and research functions of the department are closely connected to the research activities of IIHR—Hydroscience and Engineering. The institute houses some of the most modern research facilities in the world, including a 100-meter towing tank, a wave basin facility for ship hydrodynamics research, several flumes, an array of field instrumentation for hydrologic experiments, extensive laboratory space for hydraulic modeling, state-of-the-art instrumentation for flow measurements and visualization, and comprehensive computational facilities.

Research related to ecohydraulics and the environment takes place at the Lucille A. Carver Mississippi Riverside Environmental Research Station. IIHR—Hydroscience and Engineering operates the 250-square-foot facility, which is located on the Mississippi River near Muscatine, Iowa. The station provides engineers and biological scientists with an ideal facility in which to examine the multifaceted ecohydraulic processes of the upper Mississippi. It is equipped with water quality laboratories, research boats, and a seminar room.

The Environmental Engineering and Science Laboratories provide state-of-the-art facilities, equipment, and expertise to support both undergraduate and graduate-level instruction and research. The labs support research in contaminant fate and transport in various media (air, water, soil, plants, and microbes), drinking water disinfection and distribution, wastewater treatment, geochemical-contaminant interactions, bioremediation, and phytoremediation. They also provide resources for analytical chemistry, electrochemistry, molecular biology, microscopy, computer modeling, and simulated environments at bench- and pilot-scale levels.

The Environmental Engineering and Science Laboratories are affiliated with the university's Center for Health Effects of Environmental Contamination, the Center for Global and Regional Environmental Research, the Environmental Health Sciences Research Center, an affiliate of the National Institute of Environmental Health Sciences (NIEHS), IIHR—Hydroscience and Engineering, and the Iowa Superfund Research Program.

Courses

Civil and Environmental Engineering Courses

CEE:1010 Introduction to Careers in Environmental Engineering 0 s.h.
Past, present, and future roles of environmental engineers in society; introduction to the discipline's historical roots and early visionary leaders in sanitation engineering and public health; growth during the environmental movement, and current role of environmental engineers in modern society as stewards for clean air, water, and energy; range of career opportunities available to environmental engineering majors, particularly in the emerging role of ambassadors for sustainable development.

CEE:1030 Introduction to Earth Science 3-4 s.h.
Relationships between plate tectonics, geologic time, and the rock cycle with volcanoes and igneous, sedimentary, metamorphic rocks; fossils; radioactive isotopes; landscape evolution; mountain building; natural resources; their impacts on civilization. GE: Natural Sciences with Lab; Natural Sciences without Lab. Same as SEES:1030.

CEE:1031 Introduction to Earth Science Laboratory 1 s.h.
Laboratory component of SEES:1030. Requirements: completion of 3 s.h. in SEES:1030 or CEE:1030. GE: Natural Sciences Lab only. Same as SEES:1031.

CEE:2010 Civil and Environmental Engineering Professional Practice and Ethics 1 s.h.
Introduction to the Civil and Environmental Engineering department, its curriculum, and the profession; explore the fields of civil and environmental engineering and provide a primer on the steps necessary to become a licensed professional engineer; introduce professional ethics, engineering work products, and project lifecycle.

CEE:2015 Civil Engineering Tools 2 s.h.
Tools and methods used in civil engineering career: AutoCAD, programming, project estimating, heavy equipment productivity estimation, and earthwork estimation.

CEE:2050 Severe and Unusual Weather 3 s.h.
Basic weather concepts behind severe weather phenomena and essential safety information; how weather events cause billions of dollars in damage and thousands of casualties; winter storms can impact half of the nation, paralyzing the transportation network with icy roads and wind driven snow; tornadoes can strike within minutes tearing apart homes; hurricanes can destroy entire communities with strong winds, heavy rain, and deadly storm surge; how understanding severe weather and knowing what to do before, during, and after an event can significantly reduce injury, deaths, and property damage. Same as CBE:2050.

CEE:2240 Drafting and Modeling With AutoCAD and Rhino 3 s.h.
Learn to expertly navigate AutoCAD and Rhino software to produce precise plans, elevations, and sections for various objects and interior spaces. Develop proficiency in creating and manipulating geometric forms. Explore the intricacies of texture mapping, background settings, and lighting techniques to enhance the realism of models. Master the use of cameras and viewpoints to create compelling visualizations and walkthroughs. Delve into basic animation principles to bring dynamic elements to designs. This comprehensive experience equips students with the technical skills and creative tools needed to excel in the field of digital design and modeling. Prerequisites: ARTS:1510 and ARTS:1520 and (CERM:2010 or DSGN:2500 or DRAW:2310 or INTM:2710 or MTLS:2910 or PHTO:2600 or PNTG:2410 or PRNT:2610 or SCLP:2810 or TDSN:2210). Same as TDSN:2240.

CEE:3001 Leadership Skills for Engineers 1 s.h.
Survey of leadership ideas and principles as applied to situations commonly encountered in civil engineering practice, especially as they relate to challenges that beginning engineers face; speakers in selected engineering professions provide context and examples; exercises on leadership principles. Requirements: junior standing in civil and environmental engineering.

CEE:3002 Technical Communication in Civil and Environmental Engineering 1 s.h.
Develop communication skills through data and oral presentations; demonstrate an ability to acquire data and new knowledge from reliable sources; prepare high-quality graphs for presentations. Requirements: sophomore standing.

CEE:3003 Project Management Skills 1 s.h.
Review and extension of civil and environmental engineering project management skills in preparation for capstone senior design course; project scheduling, cost estimating, contract types, construction phasing; review for Fundamentals of Engineering Exam (FE) and practice tests in four subdisciplinary areas. Requirements: senior standing.

CEE:3142 Quality Control 3 s.h.
Basic techniques of statistical quality control; application of control charts for process control variables; design of inspection plans and industrial experimentation; modern management aspects of quality assurance systems. Offered fall semesters. Prerequisites: STAT:2020 or BAIS:9100 or (STAT:3100 and STAT:3101 and STAT:3200). Same as ISE:3600, STAT:3620.

CEE:3155 Principles of Environmental Engineering 4 s.h.
Water supply and treatment processes; wastewater treatment processes; processes for air pollution control, groundwater remediation; solid and hazardous waste management. Prerequisites: CHEM:1110.

CEE:3328 Fluvial Geomorphology 3 s.h.
Hydrologic principles, stream channel processes, and fluvial geomorphology within drainage basin systems; spatial and temporal variations in water distribution, analysis of hydrological data, flow mechanisms, sediment transport, forecasting procedures, hydrograph construction, modeling. Requirements: SEES:3020 or another 3000-level geology or hydraulics course. Same as SEES:3380.

CEE:3371 Principles of Hydraulics and Hydrology 3 s.h.
Hydraulics of pressure conduits and open channels, dimensional analysis, flow measurements, hydraulic machinery, laboratory. Prerequisites: ENGR:2510.

CEE:3430 Water Treatment 4 s.h.
Physical, chemical, and biological processes and operations to remove and treat chemical and pathogenic pollutants and protect human and environmental health; relevant to drinking water, municipal wastewater, water reuse, stormwater, industrial process water, agricultural wastewater; modern technologies and appropriate designs for the developing world; theory and applications; hands-on laboratory. Prerequisites: CEE:3155 and ENGR:2510.

CEE:3530 Geomechanics 4 s.h.
Identification and classification of earth materials; hydraulic and mechanical properties of soils; soil improvement; laboratory testing. Prerequisites: ENGR:2750.

CEE:3533 Principles of Structural Engineering 4 s.h.
Fundamental principles of structural analysis applied to statically determinate and indeterminate structures, continuous beams, trusses, and frames; external and internal equilibrium, compatibility of deformation, influence lines, virtual work; parallel use of classical and matrix formulation; slope deflection, flexibility and stiffness methods; use of computers. Prerequisites: ENGR:2750.

CEE:3586 Civil Engineering Materials 3 s.h.
Structure, strength and failure, durability, deformation, practice, and processing for primary construction materials systems, including steel, aluminum, concrete, asphalt, fiber-reinforced composites, masonry, timber. Prerequisites: ENGR:2750.

CEE:3763 Principles of Transportation Engineering 3 s.h.
History of transportation modes, new transport technologies, traffic operations and control, economic evaluation of transport alternatives, transportation planning, roadway design and construction, route location, preventive maintenance strategies. Requirements: sophomore standing.

CEE:3783 Surveying and Remote Sensing 3 s.h.
Engineering surveying measurements, methods, computations. Prerequisites: ENGR:1100.

CEE:3790 Resilient Infrastructure and Emergency Response 3 s.h.
Concepts of resilient cities with specific emphasis on role of infrastructure and built environment; risk analysis, hazard mitigation and emergency response to various threats; resiliency through good design.

CEE:3996 Civil and Environmental Engineering: Engineering Project 1 s.h.
Support for student learning associated with an engineering project; students work as a team to design and fabricate a product; student projects are often associated with a contest or competitions (e.g., steel bridge, concrete canoe).

CEE:3997 Engineering Service Project 1-3 s.h.
Provides support of student learning associated with a variety of international engineering service projects facilitated by the Department of Civil and Environmental Engineering; service projects are usually designed and built as part of an Engineers Without Borders USA and/or a Bridges to Prosperity (Continental Crossings) approved program; active involvement by students in these organizations required.

CEE:3998 Individual Investigations: Civil Engineering arr.
Individual projects for civil engineering undergraduate students: laboratory study, engineering design project, analysis and simulation of an engineering system, computer software development, research.

CEE:4102 Groundwater 3 s.h.
Groundwater quality and quantity; Darcy's Law, 2D flow equation, unsaturated zone, contaminant transport, redox reactions, drinking water quality, bioremediation; laboratories in permeameter testing, porous media grain size analysis, pump testing, monitoring well installation.

CEE:4104 Groundwater Modeling 3 s.h.
Groundwater flow and contaminant transport modeling; numerical methods, applications of groundwater modeling to water supply, groundwater resources evaluation, remediation design using software; GMS (MODFLOW, MODPATH, and MT3D). Prerequisites: MATH:1860 and SEES:4630. Same as SEES:4660.

CEE:4107 Sustainable Systems 3 s.h.
New and emerging concepts in sustainable systems design and assessment. Same as CBE:4410.

CEE:4118 Statistical Methods in Water and the Environment 3 s.h.
Basic methods required for data analysis and interpretation of processes related to water and the environment; emphasis on formulating questions, choosing appropriate statistical tools for a given problem, drawing appropriate conclusions from analyses; concepts related to statistical inference and common probabilistic models, linear regression, non-parametric statistics; how to perform these analyses using R programming language; introduction to statistical methods through use of hands-on analyses with real data. Prerequisites: STAT:2020 and MATH:2560.

CEE:4119 Hydrology 3 s.h.
Overview of fundamental processes in water cycle, including precipitation, evaporation, infiltration, and runoff; quantitative approaches for predicting streamflow and design discharges; applications to flood hazard assessment and stormwater management. Prerequisites: ENGR:2510.

CEE:4135 Health Monitoring of Structural and Mechanical Systems 3 s.h.
Measurements, structural modeling, structural analysis, stiffness method, trusses and frames, structural testing, modal analysis. Prerequisites: ENGR:2750. Same as BME:4135, ME:4235.

CEE:4150 Environmental Chemistry 3 s.h.
Principles of general, physical, organic chemistry applied in water and air systems; emphasis on qualitative and quantitative understanding of chemical kinetics and equilibrium; acid-base reactions, complex formation, precipitation, dissolution, and oxidation-reduction reactions; organic nomenclature. Prerequisites: CHEM:1120. Same as CBE:4420.

CEE:4157 Environmental Engineering Design 3 s.h.
Application of physical, chemical, and biological operations and processes to the design of water and wastewater treatment systems; applications in solid and hazardous waste treatment. Prerequisites: CEE:3155.

CEE:4158 Solid and Hazardous Wastes 3 s.h.
Sources, characteristics, collection, disposal of solid and hazardous wastes; environmental impacts of hazardous waste management; resource recovery systems. Requirements: for OEH:4920—OEH:4240. Same as OEH:4920.

CEE:4159 Air Pollution Control Technology 3 s.h.
Sources, environmental and health impacts, regulations, modeling of air pollution; processes and alternative strategies for control; global climate considerations. Same as CBE:4459, IGPI:4159.

CEE:4160 Introduction to Bridge Engineering 3 s.h.
Bridge engineering and design; history of the bridge; factors that affect bridge design; bridges according to use (e.g., road, rail, pedestrian and bicycle) and type (e.g., suspension, cable stay, truss); how sustainability concepts may impact bridge design; substantial design exercise. Prerequisites: CEE:3533.

CEE:4162 Structural Systems for Buildings 3 s.h.
Detailed analysis and design of gravity and lateral force resisting systems for buildings; roof, floor, and bearing wall gravity systems; steel braced frames, steel and concrete moment frames, and masonry and timber shear walls lateral systems; introduction to tall building structures. Prerequisites: CEE:3533.

CEE:4164 Design of Wood Structures 3 s.h.
Framing layout and analysis of wood frame structures for gravity and lateral loads; design of structural members for bending, axial load, and shear, including joists, beams, columns, engineered lumber, bearing walls, shear walls, and diaphragms; introduction to connection design. Prerequisites: CEE:3533.

CEE:4176 Transportation Research Methods and Analysis 3 s.h.
Methods for measuring current and future transportation demand based on changes in population, preferences, built environment, and changing policy objectives; survey design and analysis; basics of travel demand modeling. Same as URP:4262.

CEE:4180 Fundamentals of Atmospheric Science 3 s.h.
Review of fundamental principles in atmospheric sciences needed for study of interdisciplinary topics involving the Earth's atmosphere; understanding weather and climate processes to address problems in engineering; hydrometeorology of rainfall and its measurement by remote sensing; impact of climate anomalies and climate change on water resources; exchange of water, energy, and chemicals at the land-atmosphere boundary; forecasting of atmospheric chemistry and air quality. Prerequisites: ENGR:2510.

CEE:4317 Remote Sensing 3 s.h.
Fundamentals of electromagnetic waves, atmospheric radiative transfer, passive remote sensing, weather radar, hydrologic application of remote sensing.

CEE:4370 Open Channel Flow and Sediment Transport 3 s.h.
In-depth analysis of governing flow equations; steady uniform flow in channels of different resistance and cross section; flow control sections; specific energy considerations; analysis and computation of gradually varied profiles and spatially varied flow effected by lateral outflow and inflow; unsteady flow; flood routing. Prerequisites: CEE:3371.

CEE:4371 Water Resources Engineering 3 s.h.
Planning and economics of varied water resources projects; stochastic basis for design; flood damage mitigation, reservoirs, river morphology, economic analysis of water projects, urban water requirements, water supply, hydroelectric power systems, river navigation; contemporary civil-engineering problems and issues associated with water infrastructure development. Corequisites: CEE:3371.

CEE:4374 Water Resource Design 3 s.h.
Prerequisites to storm water management systems design, including design flows and rates; analysis and design of storm sewers, detention basins, street and highway drainage facilities, culverts, dams, spillways, measures for energy dissipation; review of wastewater transfer systems and design. Prerequisites: CEE:3371.

CEE:4385 Water Scarcity in Rural India 3 s.h.
Scientific, engineering, economic, and social aspects contributing to water scarcity in rural India; experiential learning using instruments and analysis of water enhancement projects.

CEE:4506 Design of Concrete Structures 3 s.h.
Fundamental analysis and design of reinforced concrete members and structures, flexure, shear, bond, continuity, beams, one-way slab system; columns. Prerequisites: CEE:3533.

CEE:4511 Scientific Computing and Machine Learning 3 s.h.
Numerical methods in scientific computing; root problems and optimization; linear algebraic equations; eigenvalue problems; numerical differentiation and integration; interpolation and curve-fitting; initial value and boundary value problems; machine learning in regression, classification, and clustering problems; Python programming and packages. Prerequisites: MATH:2560. Same as ME:4111.

CEE:4512 Engineering Design Optimization 3 s.h.
Engineering design projects involving modeling, formulation, and analysis using optimization concepts and principles; linear and nonlinear models, optimality conditions, numerical methods. Prerequisites: ENGR:2110 and MATH:2550. Requirements: junior standing. Same as ME:4112.

CEE:4515 Computer-Aided Engineering 3 s.h.
Computational engineering modeling and simulation, geometric modeling, grid generation, finite-element and finite-volume methods, uncertainty analysis, optimization, engineering applications. Prerequisites: ENGR:2750. Corequisites: ME:3052. Same as ME:4110.

CEE:4532 Fundamentals of Vibrations 3 s.h.
Vibration of linear discrete and continuous mechanical and structural systems; harmonic, periodic, and arbitrary excitation; modal analysis; applications. Prerequisites: ENGR:2750. Same as ME:4153.

CEE:4533 Finite Element I 3 s.h.
One- and two-dimensional boundary value problems; heat flow, fluid flow, torsion of bars; trusses and frames; isoparametric mapping; higher order elements; elasticity problems; use of commercial software. Prerequisites: ENGR:2750. Same as IGPI:4115.

CEE:4535 Design of Steel Structures 3 s.h.
Concepts and procedures in steel design; LRFD (load and resistance factor design) methodology for beams/columns; analysis and design of indeterminate structures. Prerequisites: CEE:3533.

CEE:4539 Foundations of Structures 3 s.h.
Application of soil mechanics to analysis of structural foundations; slope stability analysis; bearing capacity and settlement of shallow and deep foundations; retaining structures, braced cuts, reinforced earth structures; usage of computational models; subsurface exploration methods. Prerequisites: CEE:3530.

CEE:4560 Pavement Engineering 3 s.h.
Fundamental design principles; characterization and testing of asphalt and concrete paving materials; stresses and stain development within pavement structure; basic principles of mechanistic-empirical pavement design procedures. Prerequisites: CEE:3763.

CEE:4730 Transportation Infrastructure Construction and Management 3 s.h.
Analytical methods for developing transportation infrastructure construction and management systems; e-construction, transportation infrastructure condition evaluation, performance modeling, maintenance and rehabilitation optimization, asset management, development of transportation infrastructure construction and management system; application of information technology and mobile computing to solving transportation infrastructure construction and management problems. Prerequisites: CEE:3763.

CEE:4762 Design of Transportation Systems 3 s.h.
Overview of different modes within transportation systems; concepts of sustainability and livability in transportation system design; derivation of standards for geometric design of highways; roundabout design; cross-sectional and longitudinal geometric design of highways. Prerequisites: CEE:3763.

CEE:4763 Traffic Engineering 3 s.h.
Design of traffic control devices; evaluation and analysis of intersections and transportation networks using appropriate computer software. Prerequisites: CEE:3763.

CEE:4850 Project Design and Management in Civil Engineering 3 s.h.
Design of civil engineering systems, individual and team design projects oriented toward the solution of local problems, project management, construction management, contracts, budgeting, bidding. Corequisites: CEE:3003. Requirements: final semester.

CEE:5083 Introduction to Comp Flow in Pipes and Channels 3 s.h.
General review of numerical methods in hydraulics (finite-difference, finite-element, and method of characteristics); stability and accuracy of numerical schemes; steady free surface flows; flow transients in pipelines and channels.

CEE:5095 Career Paths in Sustainable Water Development 0 s.h.
Introduction to different career paths in the food, energy, and water (FEW) sector; speakers from a variety of different careers—including researchers, professors, entrepreneurs, consultants, and civic, professional, and global engineers—discuss their own career paths as well as current opportunities in their fields; students prepare individual development plans that identify their preferred career (i.e., training) path, a plan of study (i.e., path coursework), mentors, and their preferred research area. Requirements: graduate standing in sustainable water development program.

CEE:5096 Water, Energy, and Food Nexus Seminar 0 s.h.
Invited presentations on research, policy, economics, and social drivers of water, energy, and food in the 21st century.

CEE:5097 Coaching Seminar on Communicating Water Science 0 s.h.
Presentation of student research on water, energy, and food in the 21st century; students receive live, immediate feedback from their peers and faculty coaches on best practices to improve their oral communication skills.

CEE:5098 Graduate Seminar in Structures, Materials, Mechanics, and Transportation 0 s.h.
Presentation and discussion of recent advances and research in structures, mechanics, materials, and transportation engineering by guest lecturers, faculty, and students. Requirements: graduate standing.

CEE:5099 Civil and Environmental Engineering Graduate Seminar 0 s.h.
Presentation and discussion of current topics, case studies, and research in civil and environmental engineering by students, faculty, and invited speakers.

CEE:5110 Managing and Sharing Your Research Data 1 s.h.
Overview of essential practices in managing the data you collect and generate during research. Topics include file organization; documenting your work and lab notebooks; optimizing spreadsheet data and cleanup tools; reproducibility; funder and publisher requirements; and conclude with how and where to share and publish data, from choosing a repository to creating a data record, including licensing, ownership, preservation of access, reuse, and citation. Applicable for any student currently doing research, or planning to do so. Same as OEH:5110.

CEE:5115 Atmospheric Chemistry and Physics 3 s.h.
Principal chemical and physical processes affecting atmospheric trace gas and pollutant cycles; emphasis on atmospheric photochemistry, aerosol science, major sources, and removal processes. Corequisites: CBE:3120. Same as CBE:5425.

CEE:5137 Composite Materials 3 s.h.
Mechanical behavior of composite materials and their engineering applications; composite constituents (fibers, particles, matrices) and their properties and behavior; macromechanical behavior of composite laminae; micromechanical predictions of composite overall properties; classical lamination theory; composite beams and plates. Prerequisites: ENGR:2750. Same as ME:5167.

CEE:5151 Building Future Leaders in Sustainable Development 3 s.h.
Focus on competencies needed to translate training and research into action for social good; topics include ethics, cultural competency, collaboration and team science, use-inspired design, and engagement. Same as SDG:5100.

CEE:5156 Physical and Chemical Environmental Processes 3 s.h.
Theory of physical and chemical operations and processes in water and wastewater treatment, including fundamental aspects of process dynamics; lectures, laboratory. Prerequisites: CEE:4150. Corequisites: CEE:3155.

CEE:5179 Continuum Mechanics arr.
Mechanics of continuous media; kinematics of deformation, concepts of stress and strain; conservation laws of mass, momentum and energy; constitutive theories; boundary and initial value problems. Prerequisites: ENGR:2750 or ENGR:2510. Same as ME:5179.

CEE:5225 Communicating Data Through Stories 3 s.h.
How to communicate science effectively and responsively with multiple audiences from peers and professors to potential employers, policymakers, and the lay public; focus on speaking about science clearly and vividly in ways that can engage varied audiences, especially those outside the student's own field; connecting and finding common ground with an audience, defining goals, identifying main points, speaking without jargon, explaining meaning and context, using storytelling techniques and multimedia elements. Same as GRAD:5225, SDG:5225.

CEE:5236 Optimization of Structural Systems 3 s.h.
Advanced topics; optimization of structural topology, shape, and material; finite dimensional dynamic response optimization, sensitivity analysis, distributed parameter systems; projects. Same as BME:5720.

CEE:5310 Informatics for Sustainable Systems 3 s.h.
Introduction to fundamental and advanced environmental informatics concepts and procedures including automated data collection, data management, data transformations, and processing to support modeling and analysis; scientific visualization of environmental data to support management of food, energy, and water (FEW) resources; sustainability in FEW systems. Same as IGPI:5311, URP:5310.

CEE:5350 Watershed Hydrology and Ecosystem Processes 3 s.h.
Introduction to hydrologic and ecosystem processes within a watershed; description of water, energy, and nutrient cycling in watersheds; focus on hydrologic and water-quality issues in agricultural Midwest; watershed modeling techniques, ecosystem goods and services, and selected case studies in watershed and ecosystem management problems. Requirements: graduate standing.

CEE:5355 Advanced Hydrology 3 s.h.
Expanding on core principles of hydraulics and hydrology, explore advanced distributed hydrologic modeling techniques used in early warning systems. Topics include probabilistic forecasting, spatial forecast verification, data assimilation, and data-driven simulation. Emphasis is placed on scientific computing using C++, Python, R, and MATLAB for practical learning. Prerequisites: CEE:3371.

CEE:5369 Intermediate Mechanics of Fluids 3 s.h.
Basic concepts and definitions; pressure distribution in a fluid; governing equations and boundary conditions; integral and differential analysis; dimensional analysis and similarity; experimental analysis; laminar and turbulent internal and external flows; potential flows; engineering applications. Prerequisites: ENGR:2510. Same as ME:5160.

CEE:5372 Experimental Methods in Fluid Mechanics and Heat Transfer 3 s.h.
Hands-on experience in methodology of conducting experiments in fluid mechanics and heat transfer from design to data acquisition and processing; essential theoretical elements, experimental methodologies, data acquisition systems, uncertainty analysis; wide variety of instruments for fundamental and applied experimentation; work in small groups; design, implement, test, and report an experiment in area of interest. Same as ME:5162.

CEE:5380 Fluid Flows in Environmental Systems 3 s.h.
Introduction to environmental fluid flows and transport processes with focus on application and developing a language of environmental fluid mechanics; topics include physical and mathematical description of conservation and transport laws, statistical techniques for analyzing environmental flow data, scaling and similarity, stratification, turbulent flux measurement and modeling, environmental boundary conditions; application to surface waters and the planetary boundary layer; applied project involving collection and analysis of environmental flow data.

CEE:5390 PCBs in the Environment 3 s.h.
Polychlorinated biphenyls (PCBs) as potent carcinogens and linked to metabolic syndrome, autism, learning disabilities, hearing loss, and neurological disorders; how these compounds become to be such ubiquitous environmental pollutants; what the impact of their presence is; how sites are remediated and exposures reduced; in-depth examination through literature review, laboratory experiments, computational modeling, final written reports, and presentations. Recommendations: laboratory experience.

CEE:5410 Politics and Economics of the Food, Energy, Water Nexus 3 s.h.
Focus on the relationships between food, energy, and water resources; current and future political and economic frameworks that shape the food, energy, and water nexus.

CEE:5417 Physical Meteorology and Atmospheric Radiative Transfer 3 s.h.
Physical processes for weather and climate including radiative transfer, cloud and precipitation formation, and atmospheric electricity; theory of scattering by atmospheric particles (e.g., clouds, aerosols, molecules), atmospheric radiative transfer equations, and numerical techniques and tools to solve these equations. Requirements: senior or graduate standing. Same as CBE:5417, IGPI:5417.

CEE:5440 Foundations of Environmental Chemistry and Microbiology 3 s.h.
Investigation of chemical and biological processes at the food-energy-water nexus; example topic areas include biogeochemical cycling of nutrients, biomass conversion, resource recovery from wastewater, removing pollutants from drinking water sources, water reuse, engineered natural treatment systems, pollutant transformation and control, treatment of process waters. Requirements: undergraduate senior standing or graduate standing.

CEE:5460 Water Quality and Flow 3 s.h.
Laboratory and field experiments to promote student learning of flow-dependent movement and associated environmental transformation of surface water and groundwater pollutants; exploration of water quality and flow fundamentals needed to design and numerically model treatment reactors for small-community wastewater, urban storm water, and agricultural runoff; emphasis on engineered solutions that couple water quality and flow considerations as potential mitigations for adverse effects on natural water cycle caused by floods and other natural and human-influenced phenomena.

CEE:5513 Mathematical Methods in Engineering 3 s.h.
Linear ordinary differential equations, series solutions of differential equations, special functions, Laplace transforms, Fourier series, matrices, linear systems, eigenvalue problems, second-order partial differential equations. Prerequisites: MATH:2550 and MATH:2560. Same as CBE:5140, ME:5113.

CEE:5540 Intermediate Mechanics of Deformable Bodies 3 s.h.
Application of equilibrium analyses, strain-displacement relations, and constitutive relationships to practical structural systems and elementary plane elasticity problems. Prerequisites: ENGR:2750. Same as ME:5150.

CEE:5549 Fracture Mechanics 3 s.h.
Three-dimensional stress states, definition and criteria for failure, nominal and local yield phenomena, linear elastic and elastic plastic fracture mechanics, plane stress and plane strain fracture toughness, J-Integral, crack opening displacement, environmental assisted cracking, fatigue crack growth, fail safe, and damage tolerant design. Prerequisites: ENGR:2750. Corequisites: ME:3052. Same as ME:5159.

CEE:5678 Application Simulation to Transportation 3 s.h.
Transportation system management and traffic engineering; application of real-time simulation and visualization. Prerequisites: CEE:3763 or CEE:4763. Same as URP:5678.

CEE:5875 Perspectives in Biotechnology 1 s.h.
Topics related to careers in biotechnology with an emphasis on preparing graduate students for careers outside of academia; discussions led by a series of guest speakers from leading biotech industries; understanding the societal impact of basic research; participation in round-table discussions; and presentation of student research findings. Requirements: graduate standing and good academic standing in a participating department supported by the Predoctoral Training Program in Biotechnology. Same as BMB:5875, CBE:5875, CHEM:5875, MICR:5875, PHAR:5875.

CEE:5990 Structural Engineering Practicum A 2 s.h.
Students select a design project and develop two or more alternative design concepts in consultation with a three-member advisory committee consisting of at least one faculty member and one design professional; entire design process documented in a written report. Prerequisites: CEE:4506 and CEE:4535.

CEE:5991 Structural Engineering Practicum B 1 s.h.
Detailed design development of one of the concepts developed in CEE:5990; students perform detailed design calculations using applicable structural analysis and design software, produce professional quality structural plans including connection details, and defend design to a three-member advisory committee. Prerequisites: CEE:5990.

CEE:5998 Individual Investigations: Civil and Environmental Engineering arr.
Individual projects for civil and environmental engineering graduate students: laboratory study, engineering design project, analysis and simulation of an engineering system, computer software development, research. Requirements: graduate standing.

CEE:5999 Research: Civil and Environmental Engineering MS Thesis arr.
Experimental and/or analytical investigation of an approved topic for partial fulfillment of requirements for the MS with thesis in civil and environmental engineering. Requirements: graduate standing.

CEE:6225 Communicating Science 3 s.h.
Writing and speaking about environmental engineering and science research; key principles of writing with clarity and cohesion, and practice applying these principles on a piece of research writing that students are currently working on; review best practices for presenting research to peers and at conferences; students are required to share their work with peers through writing and presentations. Recommendations: graduate standing in earth and environmental sciences; MS students must be thesis option.

CEE:6250 Environmental Biotechnology 3 s.h.
Environmental biotechnology utilizes microorganisms to improve sustainability of human society; basic concepts and quantitative tools needed for microbiological processes to behave in ways that are understandable, predictable, and unified; application of these fundamental principles to a variety of modern applications. Prerequisites: CEE:5440.

CEE:6253 Environmental Organic Chemistry 3 s.h.
Environmental factors that govern processes that determine fate of organic chemicals in natural and engineered systems; knowledge of chemical fate applied toward quantitatively assessing environmental behavior of organic chemicals; holistic view on physical-chemical properties of organic compounds, including aspects of gas-solid partitioning, bioaccumulation, and transformations in the atmosphere.

CEE:6255 Environmental Biotechnology and Bioremediation 3 s.h.
Concepts in molecular microbial ecology and bioremediation; microbial diversity and genetics, evolution of biodegradation pathways, application of quantitative PCR, high-throughput amplicon and metagenomic and transcriptomic sequencing, proteomics, stable isotopes; bioremediation research and practice.

CEE:6299 Advanced Topics in Water and the Environment 1-3 s.h.
Advanced topics or areas of study not formally offered in other civil and environmental courses; topics include environmental engineering and science, hydraulics, hydrology, water resources, and sustainable water development.

CEE:6310 Analytical Methods in Mechanical Systems 3 s.h.
Vector and function spaces; functionals and operators in Hilbert spaces; calculus of variations and functional analysis with application to mechanics; Ritz and Galerkin methods. Prerequisites: ME:5113. Same as ME:6214.

CEE:6376 Viscous Flow 3 s.h.
Equations of viscous flow; classical analytical and numerical solutions; flow regimes and approximations; laminar boundary layers—equations, solution methods, applications; stability theory and transition; incompressible turbulent flow—mean-flow and Reynolds-stress equations, modeling, turbulent boundary layers and free shear flows. Requirements: for ME:6260—ME:5160; for CEE:6376—CEE:5369. Same as ME:6260.

CEE:6520 Watershed Sedimentation 3 s.h.
Exploration of rich and complex field of sediment transport, geomorphology, and contaminant transport; associated physical, chemical, and biological processes with associated mathematical modeling; investigation of current topics not covered elsewhere, including physical processes affecting stability/mobility, transport, and fate of soil/sediments; lack of general understanding in development of fine-scale sedimentary structure in different systems, particularly contamination and contamination release; suspension effects on turbulent flows. Prerequisites: CEE:4370.

CEE:6532 Finite Element II 3 s.h.
Computer implementation; plate and shell elements; mixed and hybrid formulations; nonlinear analysis; recent development; introduction to boundary element method. Prerequisites: CEE:4533. Same as IGPI:6216, ME:6215.

CEE:6599 Advanced Topics in Infrastructure Systems 1-3 s.h.
Advanced topics or areas of study not formally offered in other structures and transportation courses; topics may include one or more areas (e.g., structural dynamics, advanced structural systems, earthquake engineering, sustainable systems).

CEE:7250 Advanced Fracture Mechanics 3 s.h.
Fracture of modern engineering materials; linear-elastic fracture; computational methods; functionally graded materials; elastic-plastic fracture; multiscale fracture and fatigue crack initiation. Prerequisites: ME:5113 and (ME:5159 or CEE:4533). Same as ME:7250.

CEE:7999 Research: Civil and Environmental Engineering PhD Dissertation arr.
Experimental and/or analytical investigation of an approved topic for partial fulfillment of requirements for the PhD in civil and environmental engineering.

Civil Engineering, BSE

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Educational Objectives

Within a few years of graduation, graduates of the Bachelor of Science in Engineering (BSE) program in civil engineering will:

- be productive and contributing members of the civil engineering profession as practitioners, entrepreneurs, researchers, or teachers;
- be engaged in learning, understanding, and applying new ideas as the field develops;
- pursue advanced studies, if qualified and interested; and
- promote the safety, health, and welfare of the public and the environment through professional practice and civic leadership.

Requirements

The Bachelor of Science in Engineering (BSE) with a major in civil engineering requires a minimum of 128 s.h. of credit. At the time of graduation, students must have a cumulative grade-point average of at least 2.00 in all college work used to complete degree requirements and in all UI coursework in order to be awarded the BSE.

All BSE students are required to take the same collegiate curriculum. For information about these collegiate requirements, see the Bachelor of Science in Engineering, BSE [p. 1529] in the catalog. 6 s.h. of a student's major courses fulfill the collegiate curriculum's basic science or college-level math requirement. Students completing the major in civil engineering fulfill the collegiate statistics requirement by completing STAT:2020 Probability and Statistics for the Engineering and Physical Sciences. Some focus areas may suggest or require specific courses to fulfill the general education component of the collegiate curriculum; see the section titled "Focus Area."

The BSE with a major in civil engineering requires the following coursework.

Requirements	Hours
Collegiate Curriculum	49
Basic Science and College-Level Math, from Major Requirements or Focus Area	6
Major Requirements	52
Focus Area	21-22

Major Requirements

Major requirements include a set of common courses (45 s.h.), four professional skills courses (4 s.h.), two design courses (6 s.h.), and one capstone design course (3 s.h.).

Common Courses

Course #	Title	Hours
All of these:		
CEE:1030	Introduction to Earth Science (no lab required)	3
or SEES:1080	Introduction to Environmental Science	
CEE:2015	Civil Engineering Tools	2
CEE:3155	Principles of Environmental Engineering	4
CEE:3371	Principles of Hydraulics and Hydrology	3
CEE:3530	Geomechanics	4
CEE:3533	Principles of Structural Engineering	4
CEE:3586	Civil Engineering Materials	3
CEE:3763	Principles of Transportation Engineering	3
ENGR:2110	Statics	2
ENGR:2130	Thermodynamics	3
ENGR:2510	Fluid Mechanics	4
ENGR:2710	Dynamics	3
ENGR:2750	Mechanics of Deformable Bodies	3
And one of these:		
CHEM:1120	Principles of Chemistry II	4
PHYS:1612	Introductory Physics II (with lab)	4

Professional Skills

Course #	Title	Hours
All of these:		
CEE:2010	Civil and Environmental Engineering Professional Practice and Ethics	1
CEE:3001	Leadership Skills for Engineers	1
CEE:3002	Technical Communication in Civil and Environmental Engineering	1
CEE:3003	Project Management Skills	1

Design Courses

Some focus areas require specific courses to fulfill part of this requirement; see "Focus Area." Students cannot count both CEE:4506 Design of Concrete Structures and CEE:4535 Design of Steel Structures towards the design requirement for the major.

Course #	Title	Hours
Two of these:		
CEE:4157	Environmental Engineering Design	3
CEE:4374	Water Resource Design	3
CEE:4506	Design of Concrete Structures	3
or CEE:4535	Design of Steel Structures	
CEE:4762	Design of Transportation Systems	3

Capstone Design Course

Course #	Title	Hours
This course:		
CEE:4850	Project Design and Management in Civil Engineering	3

Focus Area

Students must select focus area courses according to guidelines established by the Department of Civil and Environmental Engineering. Civil engineering students may choose from several standard focus areas developed by the department or create an individual focus area tailored to their interests.

Standard focus areas are offered in the broad field of civil practice [p. 1585] and in the four technical areas: environmental engineering [p. 1585]; hydraulics and water resources [p. 1586]; structures, mechanics, and materials [p. 1587]; and transportation engineering [p. 1588]. Other areas of focus include informatics [p. 1586], management [p. 1586], pre-architecture [p. 1587], and urban studies [p. 1588]. To see guidelines related to tailored focus areas, visit Civil Engineering Focus Areas on the Department of Civil and Environmental Engineering website.

Focus areas in civil engineering consist of content area courses, design courses, and elective courses; carefully selected elective courses may contribute to earning a minor and/or certificate. Some focus areas may also suggest or require specific courses to fulfill the design requirement for the major curriculum or the general education component of the collegiate curriculum.

Civil Practice

Students complete five civil and environmental engineering electives (15 s.h.) and two additional elective courses (6 s.h.).

Civil and Environmental Engineering Electives

Students complete 15 s.h. in civil and environmental engineering electives. These electives may include any Department of Civil and Environmental Engineering course (prefix CEE) not already taken for the major numbered 3000 or above.

It is recommended that students select from the following courses.

Course #	Title	Hours
CEE:3783	Surveying and Remote Sensing	3
CEE:3790	Resilient Infrastructure and Emergency Response	3
CEE:4102	Groundwater	3
CEE:4119	Hydrology	3
CEE:4158/ OEH:4920	Solid and Hazardous Wastes	3
CEE:4159/ CBE:4459/IGPI:4159	Air Pollution Control Technology	3
CEE:4371	Water Resources Engineering	3
CEE:4539	Foundations of Structures	3
CEE:4763	Traffic Engineering	3

Additional Electives–Civil Practice

Students complete 6 s.h. in additional electives. These electives may include any Department of Civil and Environmental Engineering course (prefix CEE) numbered 3000 or above and not already taken for the major or preapproved courses taken outside of the College of Engineering; see PreApproved Non-Engineering Electives [p. 1589] in this section of the catalog. Students should consult with an academic advisor.

The following courses are suggested electives in the civil practice focus area.

Course #	Title	Hours
ENGR:2120	Electrical Circuits	3
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:2500	Engineering Economy	3

Environmental Engineering

Students complete one required course (4 s.h.), four focus area electives (12 s.h.), and two additional elective courses (6 s.h.).

Students in the environmental engineering focus area are required to complete CEE:4157 Environmental Engineering Design as one of their design courses for the civil engineering major. The second design course may be selected from the approved list; see "Design Courses."

Required Environmental Course

Course #	Title	Hours
This course:		
CEE:3430	Water Treatment	4

Environmental Electives

Course #	Title	Hours
Four of these:		
CEE:4102	Groundwater	3
CEE:4107/CBE:4410	Sustainable Systems	3
CEE:4119	Hydrology	3
CEE:4150/CBE:4420	Environmental Chemistry	3
CEE:4158/ OEH:4920	Solid and Hazardous Wastes	3
CEE:4159/ CBE:4459/IGPI:4159	Air Pollution Control Technology	3

Additional Electives–Environmental Engineering

Students complete 6 s.h. in additional electives. These electives may include any Department of Civil and Environmental Engineering course (prefix CEE) numbered 3000 or above and not already taken for the major, or preapproved courses taken outside of the College of Engineering; see Preapproved Non-Engineering Electives [p. 1589] in this section of the catalog. Students should consult with an academic advisor.

The following courses are suggested electives in the environmental engineering focus area.

Course #	Title	Hours
ENGR:2120	Electrical Circuits	3
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:2500	Engineering Economy	3

Hydraulics and Water Resources

Students complete two required courses (6 s.h.), three focus area electives (9–10 s.h.), and two additional elective courses (6 s.h.).

Students in the hydraulics and water resources focus area are required to complete CEE:4374 Water Resource Design as one of their design courses for the civil engineering major. The second design course may be selected from the approved list; see "Design Courses."

Required Hydraulics and Water Resources Courses

Course #	Title	Hours
Both of these:		
CEE:4119	Hydrology	3
CEE:4371	Water Resources Engineering	3

Hydraulics and Water Resources Electives

Course #	Title	Hours
Three of these:		
CEE:3430	Water Treatment	4
CEE:3783	Surveying and Remote Sensing	3
CEE:4102	Groundwater	3
CEE:4107/CBE:4410	Sustainable Systems	3
CEE:4157	Environmental Engineering Design	3
CEE:4180	Fundamentals of Atmospheric Science	3
CEE:4370	Open Channel Flow and Sediment Transport	3

Additional Electives–Hydraulics and Water Resources

Students complete 6 s.h. in additional electives. These electives may include any Department of Civil and Environmental Engineering course (prefix CEE) numbered 3000 or above and not already taken for the major, or preapproved courses taken outside of the College of Engineering; see Preapproved Non-Engineering Electives [p. 1589] in this section of the catalog. Students should consult with an academic advisor.

The following courses are suggested electives in the hydraulics and water resources focus area.

Course #	Title	Hours
ENGR:2120	Electrical Circuits	3
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:2500	Engineering Economy	3

Informatics

Students complete three required courses (10 s.h.), two focus area electives (6 s.h.), and two additional electives (6 s.h.).

Required Informatics Courses

Course #	Title	Hours
All of these:		
CS:2110	Programming for Informatics	4
CS:2420	Analyzing Data for Informatics	3
CS:2520	Human-Computer Interaction for Informatics	3

Informatics Electives

Course #	Title	Hours
Two of these:		
CEE:3783	Surveying and Remote Sensing	3
CEE:3790	Resilient Infrastructure and Emergency Response	3
CEE:4102	Groundwater	3
CEE:4119	Hydrology	3
CEE:4158/ OEH:4920	Solid and Hazardous Wastes	3
CEE:4159/ CBE:4459/IGPI:4159	Air Pollution Control Technology	3
CEE:4371	Water Resources Engineering	3
CEE:4539	Foundations of Structures	3
CEE:4763	Traffic Engineering	3
An additional civil and environmental engineering course (prefix CEE) numbered 3000 or above		3

Additional Electives–Informatics

Students complete 6 s.h. in additional electives.

Course #	Title	Hours
Two of these:		
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:2500	Engineering Economy	3
An additional design course; see "Design Courses"		3
An additional civil and environmental engineering course (prefix CEE)		3

Management

Students complete five required courses (15 s.h.) and two additional elective courses (6 s.h.). Students in the management focus area must complete the minor in business administration [p. 1156] in the Tippie College of Business; this typically requires additional coursework outside of the civil engineering major.

Required Management Courses

Course #	Title	Hours
All of these:		
ACCT:2100	Introduction to Financial Accounting	3
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
FIN:3000	Introductory Financial Management	3
or ISE:2500	Engineering Economy	
MGMT:2100	Introduction to Management	3

MKTG:3000	Introduction to Marketing Strategy	3

Additional Electives–Management

Students complete 6 s.h. in additional electives. These electives may include any Department of Civil and Environmental Engineering course (prefix CEE) numbered 3000 or above and not already taken for the major. Students should consult with an academic advisor.

The following courses are suggested electives in the management focus area.

Course #	Title	Hours
CEE:3783	Surveying and Remote Sensing	3
CEE:3790	Resilient Infrastructure and Emergency Response	3
CEE:4102	Groundwater	3
CEE:4119	Hydrology	3
CEE:4158/ OEH:4920	Solid and Hazardous Wastes	3
CEE:4159/ CBE:4459/IGPI:4159	Air Pollution Control Technology	3
CEE:4371	Water Resources Engineering	3
CEE:4539	Foundations of Structures	3
CEE:4763	Traffic Engineering	3

Pre-Architecture

Students complete one required course (3 s.h.), one pre-architecture elective (3 s.h.), two structures electives (6 s.h.), one civil and environmental engineering elective (3 s.h.), and two art electives (6 s.h.). Students in the pre-architecture focus area must complete the minor in art [p. 126] in the College of Liberal Arts and Sciences; this typically requires additional coursework outside of the civil engineering major.

Students in the pre-architecture focus area are required to take CEE:4506 Design of Concrete Structures as one of their design courses for the civil engineering major. The second design course may be selected from the approved list, with the exception of CEE:4535 Design of Steel Structures; see "Design Courses."

Required Pre-Architecture Course

Course #	Title	Hours
This course:		
TDSN:2210	Introduction to 3D Design	3

Pre-Architecture Elective

Course #	Title	Hours
One of these:		
DRAW:2310	Life Drawing I	3
DSGN:2500	Graphic Design I	3
PHTO:2600	Photography I	3
PNTG:2410	Painting I	3
PRNT:2610	Introduction to Printmaking	3

Structures Electives

Course #	Title	Hours
Two of these:		
CEE:4164	Design of Wood Structures	3
CEE:4535	Design of Steel Structures	3
CEE:4539	Foundations of Structures	3

Civil and Environmental Engineering Elective

Course #	Title	Hours
One of these:		
A third structures course; see "Structures Electives"		3
An additional design course; see "Design Courses"		3
An additional civil and environmental engineering course (prefix CEE) numbered 3000 or above		3

Art Electives

Students complete 6 s.h. in additional electives chosen from courses that count toward the art minor in the College of Liberal Arts and Sciences. Students should consult with an academic advisor.

The following courses are suggested electives in the pre-architecture focus area.

Course #	Title	Hours
CEE:2240/ TDSN:2240	Drafting and Modeling With AutoCAD and Rhino	3
CERM:2010	Ceramics I: Handbuilding	3
INTM:2710/ CINE:2869	Introduction to Intermedia	3
MTLS:2910	Introduction to Jewelry and Metal Arts	3
SCLP:2810	Undergraduate Sculpture I	3
TDSN:2250	Digital Prototyping	3

Structures, Mechanics, and Materials

Students complete CEE:4535 Design of Steel Structures, four focus area electives (12 s.h.), and two additional elective courses (6 s.h.).

Students in the structures, mechanics, and materials focus area are required to take CEE:4506 Design of Concrete Structures as one of their design courses for the civil engineering major. The second design course may be selected from the approved list; see "Design Courses."

Required Structures, Mechanics, and Materials Course

Course #	Title	Hours
This course:		
CEE:4535	Design of Steel Structures	3

Structures, Mechanics, and Materials Electives

Course #	Title	Hours
12 s.h. from these:		
CEE:3783	Surveying and Remote Sensing	3
CEE:4135/ BME:4135/ME:4235	Health Monitoring of Structural and Mechanical Systems	3
CEE:4160	Introduction to Bridge Engineering	3

CEE:4162	Structural Systems for Buildings	3
CEE:4164	Design of Wood Structures	3
CEE:4511/ME:4111	Scientific Computing and Machine Learning	3
CEE:4512/ME:4112	Engineering Design Optimization	3
CEE:4532/ME:4153	Fundamentals of Vibrations	3
CEE:4533/IGPI:4115	Finite Element I	3
CEE:4539	Foundations of Structures	3
CEE:5179/ME:5179	Continuum Mechanics	arr.
CEE:5236/ BME:5720	Optimization of Structural Systems	3
CEE:5540/ME:5150	Intermediate Mechanics of Deformable Bodies	3

Additional Electives–Structures, Mechanics, and Materials

Students complete 6 s.h. in additional electives. These electives may include any Department of Civil and Environmental Engineering course (prefix CEE) numbered 3000 or above and not already taken for the major or preapproved courses taken outside of the College of Engineering; see Preapproved Non-Engineering Electives [p. 1589] in this section of the catalog. Students should consult with an academic advisor.

The following courses are suggested electives in the structures, mechanics, and materials focus area.

Course #	Title	Hours
ENGR:2120	Electrical Circuits	3
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:2500	Engineering Economy	3

Transportation Engineering

Students complete five focus area electives (15 s.h.), and two additional elective courses (6 s.h.).

Students in the transportation engineering focus area are required to take CEE:4762 Design of Transportation Systems as one of their design courses for the civil engineering major. The second design course may be selected from the approved list; see "Design Courses."

Transportation Electives

Course #	Title	Hours
15 s.h. from these:		
CEE:3142/ISE:3600/ STAT:3620	Quality Control	3
CEE:3783	Surveying and Remote Sensing	3
CEE:3790	Resilient Infrastructure and Emergency Response	3
CEE:3998	Individual Investigations: Civil Engineering	arr.
CEE:4160	Introduction to Bridge Engineering	3
CEE:4176/URP:4262	Transportation Research Methods and Analysis	3
CEE:4560	Pavement Engineering	3
CEE:4730	Transportation Infrastructure Construction and Management	3
CEE:4763	Traffic Engineering	3
CEE:5678/URP:5678	Application Simulation to Transportation	3

Additional Electives–Transportation Engineering

Students complete 6 s.h. in additional electives. These electives may include any Department of Civil and Environmental Engineering course (prefix CEE) numbered 3000 or above and not already taken for the major or preapproved courses taken outside of the College of Engineering; see Preapproved Non-Engineering Electives [p. 1589] in this section of the catalog. Students should consult with an academic advisor.

The following courses are suggested electives in the transportation engineering focus area.

Course #	Title	Hours
ENGR:2120	Electrical Circuits	3
ENGR:2720	Materials Science	3
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:2500	Engineering Economy	3

Urban Studies

Students complete one required course (3 s.h.), four focus area electives (12 s.h.), and two additional elective courses (6 s.h.).

Students planning to pursue the combined Bachelor of Science in Engineering/Master of Science program in urban and regional planning should complete URP:6202 Land Use Planning: Law and Practice and URP:6203 The Making of Cities: Histories and Theories of Planning. These courses can be counted toward the collegiate curriculum general education component approved course subjects requirement. See Combined Programs [p. 1589] in this section of the catalog.

Required Urban Studies Course

Course #	Title	Hours
This course:		
URP:3001/ SEES:3920	Planning Livable Cities	3

Urban Studies Electives

In addition to the following courses, students may also select courses that fulfill requirements for the minor in urban studies [p. 2244].

Course #	Title	Hours
12 s.h. from these:		
CRIM:4120	Environmental Criminology	3
PBAF:3560/ POLI:3560/ RHET:3560/ SJUS:3560	Public Policy and Persuasion	3
PBAF:3570/ GHS:3570/ POLI:3570	Poverty Policy	3

URP:2020/ PBAF:2020	Environment and Society: Sustainability, Policy, and Politics	3
URP:4225/ PBAF:4225	Applied GIS for Planning and Policy Making	3
URP:4253/ PBAF:4253	Designing Sustainable and Healthy Cities	1-3
URP:4260/ PBAF:4260	Transportation Policy and Planning	3
URP:4266/ PBAF:4266	Transportation, Urban Form, and Sustainability	3
URP:4273/ PBAF:4273	Community Development Through Creative Placemaking	3
URP:4280/ PBAF:4280	Planning for Disaster Mitigation and Recovery	2-3
URP:4295	Economic Development Policy	3

Additional Electives–Urban Studies

Students complete 6 s.h. in additional electives. These electives may include any Department of Civil and Environmental Engineering course (prefix CEE) numbered 3000 or above and not already taken for the major. Students should consult with an academic advisor.

The following courses are suggested electives in the urban studies focus area.

Course #	Title	Hours
CEE:3783	Surveying and Remote Sensing	3
CEE:3790	Resilient Infrastructure and Emergency Response	3
CEE:4102	Groundwater	3
CEE:4119	Hydrology	3
CEE:4158/ OEH:4920	Solid and Hazardous Wastes	3
CEE:4159/ CBE:4459/IGPI:4159	Air Pollution Control Technology	3
CEE:4371	Water Resources Engineering	3
CEE:4539	Foundations of Structures	3
CEE:4763	Traffic Engineering	3

Preapproved Non-Engineering Electives

Students pursuing a technical focus area (civil practice; environmental engineering; hydraulics and water resources; structures, mechanics, and materials; and transportation) may also choose from the following courses to satisfy their additional electives.

Course #	Title	Hours
CEE:2240/ TDSN:2240	Drafting and Modeling With AutoCAD and Rhino	3
CEE:3328/ SEES:3380	Fluvial Geomorphology	3
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
LAW:8992	Water Law	arr.
OEH:4240	Global Environmental Health	3
SEES:1070	Contemporary Environmental Issues	3
SEES:2050	Foundations of GIS	4
SEES:3360	Soil Genesis and Geomorphology	3
SEES:3390	Integrated Watershed Analysis	3
SEES:3520/ IGPI:3520	GIS for Environmental Applications	3
URP:3350/ ECON:3750/ SEES:3940	Transportation Economics	3

Combined Programs

BSE/MS in Civil and Environmental Engineering

The College of Engineering offers the combined Bachelor of Science in Engineering/Master of Science program for civil engineering undergraduate students who intend to earn an MS in civil and environmental engineering. BSE/MS students may attend the departmental graduate seminar and work on a master's thesis or research project while they are still undergraduates. They may count a limited amount of coursework toward both degrees. Once students complete the requirements for the bachelor's degree, they are granted the BSE, and they are expected to complete the MS one year later.

To be admitted to the degree program, students must have completed at least 80 s.h. and have a cumulative grade-point average (GPA) of at least 3.25. They must submit an application form to the Department of Civil and Environmental Engineering, along with a letter stating their proposed area of specialization and the name of a department faculty member willing to be their primary MS advisor. Graduate Record Examination (GRE) General Test scores are not required for the degree program.

Applications are due by May 15.

BSE/MS in Urban and Regional Planning

The College of Engineering and the School of Planning and Public Affairs offer the combined Bachelor of Science in Engineering/Master of Science in urban and regional planning. The program, which is completed in five years, is designed for students who wish to pursue a public or private sector career in planning, a field that encompasses the development of alternatives to improve the quality of life in cities and regions.

Graduates are technically oriented professionals who have a clear understanding of policy development and implementation, which they apply to civil and industrial engineering problems. They fill positions such as public works director, transportation engineer, and public utilities staff member.

Each student in the combined program has two advisors, one in civil engineering and one in planning and public affairs. Students enroll in the College of Engineering for their first four years in the program and in the Graduate College for their fifth year. They follow the standard curriculum of their BSE program during the first two years and begin adding courses from the planning and public affairs program during the third year. Successful students receive a BSE at the end of the

fourth year and an MS in urban and regional planning at the end of the fifth year.

Students in the combined program must maintain a cumulative GPA of at least 3.00 in order to graduate with an MS in urban and regional planning.

For more information, see the MS in urban and regional planning [p. 1797] (Graduate College) in the catalog. Contact Engineering Student Services for information about applying to the combined program.

Career Advancement

When it comes to building the nation's infrastructure or protecting the natural environment, civil engineers are at the forefront. They not only design roads, bridges, and structures, provide clean drinking water, and protect people from natural hazards like flooding or earthquakes, they also engage with the public to create a more sustainable future. On average, 93–98% of graduates are employed in their field of study or pursuing advanced education within seven months of graduation.

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including engineering career fairs and other programming related to career development.

Engineering Career Services offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, job offer evaluation, and much more. Engineering Career Services partners with the Pomerantz Career Center to facilitate on-campus interviewing, postgraduation outcome collection, and the university's online recruiting system, Handshake.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Civil Engineering, BSE

Course	Title	Hours
First Year		
Fall		
RHET:1030	Rhetoric: Writing and Communication [a]	4
MATH:1550	Engineering Calculus I [b, c]	4
CHEM:1110	Principles of Chemistry I [b, d]	4
ENGR:1100	Introduction to Engineering Problem Solving [e]	3
CSI:1600	Success at Iowa	0
	Hours	**15**
Spring		
GE: Approved Course Subjects [f]		3
MATH:1560	Engineering Calculus II [b]	4
MATH:2550	Engineering Matrix Algebra [b]	2
PHYS:1611	Introductory Physics I [b]	4
ENGR:1300	Introduction to Engineering Computing [b]	3
	Hours	**16**
Second Year		
Fall		
MATH:2560	Engineering Differential Equations [b]	3
CHEM:1120 or PHYS:1612	Principles of Chemistry II [b] or Introductory Physics II	4
ENGR:2110	Statics [a]	2
ENGR:2130	Thermodynamics [a]	3
SEES:1080 or CEE:1030	Introduction to Environmental Science [b] or Introduction to Earth Science	3
CEE:2015	Civil Engineering Tools [e]	2
	Hours	**17**
Spring		
GE: Cultural Perspectives, Values, and Society [g]		3
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences [b]	3
ENGR:2710	Dynamics [a]	3
ENGR:2750	Mechanics of Deformable Bodies [a]	3
CEE:3763	Principles of Transportation Engineering [h]	3
CEE:2010	Civil and Environmental Engineering Professional Practice and Ethics [h]	1
CEE:3002	Technical Communication in Civil and Environmental Engineering [h]	1
Students select their focus area by submitting a Focus Area Selection form (https://workflow.uiowa.edu/form/ce-enve-fa-submission)		
	Hours	**17**
Third Year		
Fall		
CEE:3530	Geomechanics [e]	4
CEE:3533	Principles of Structural Engineering [e]	4
ENGR:2510	Fluid Mechanics [b]	4
Focus Area: required or elective course [i]		3
CEE:3001	Leadership Skills for Engineers [e]	1
	Hours	**16**
Spring		
GE: Engineering Be Creative [j]		3
CEE:3155	Principles of Environmental Engineering [h]	4
CEE:3371	Principles of Hydraulics and Hydrology [h]	3
CEE:3586	Civil Engineering Materials [h]	3
Focus Area: required or elective course [i]		3
	Hours	**16**
Fourth Year		
Fall		
GE: Approved Course Subjects [f]		3
design course [k]		3
design course [k]		3
Focus Area: required or elective course [i]		3

Focus Area: elective course [i]		3
CEE:3003	Project Management Skills [e]	1
	Hours	**16**
Spring		
GE: Approved Course Subjects [f]		3
CEE:4850	Project Design and Management in Civil Engineering [b]	3
Focus Area: required or elective course [i]		3
Focus Area: elective course [i]		3
Focus Area: elective course [i]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**15**
	Total Hours	**128**

a Typically this course is offered in fall, spring, and summer sessions. Check MyUI for course availability since offerings are subject to change.
b Typically this course is offered in fall and spring semesters. Check MyUI for course availability since offerings are subject to change.
c Enrollment in math courses requires completion of a placement exam.
d Enrollment in chemistry courses requires completion of a placement exam.
e Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.
f See General Catalog for list of approved course subjects.
g Students select a course from one of two GE CLAS Core areas: Understanding Cultural Perspectives or Values and Society.
h Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
i Students select one of several standard focus areas developed by the department or create an individual focus area tailored to their interests. Focus areas in civil engineering include at least 21 s.h. in content area courses and electives; carefully selected elective courses may contribute to earning a minor and/or certificate. See General Catalog or consult an advisor for more information.
j See General Catalog for list of approved courses. Students who intend to enroll in a Be Creative course with prerequisites must request a waiver by completing the Request Prerequisite Special Permission form on MyUI.
k Students are required to complete two design courses (6 s.h.). Some focus areas require specific design courses; refer to General Catalog or consult an advisor for more information.
l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Environmental Engineering, BSE

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Educational Objectives

Within a few years of graduation, graduates of the Bachelor of Science in Engineering (BSE) program in environmental engineering will:

- be productive and contributing members of the environmental engineering profession as practitioners, entrepreneurs, researchers, or teachers;
- be engaged in learning, understanding, and applying new ideas as the field develops;
- pursue advanced studies, if qualified and interested; and
- promote the safety, health, and welfare of the public and the environment through professional practice and civic leadership.

Requirements

The Bachelor of Science in Engineering (BSE) with a major in environmental engineering requires a minimum of 128 s.h. of credit, plus up to two professional skills seminars. At the time of graduation, students must have a cumulative grade-point average of at least 2.00 in all college work used to complete degree requirements and in all UI coursework in order to be awarded the BSE.

All BSE students are required to take the same collegiate curriculum. For information about these collegiate requirements, see the Bachelor of Science in Engineering, BSE [p. 1529] in the catalog. 6 s.h. of a student's major courses fulfill the basic science or college-level math collegiate requirement. Students completing the major in environmental engineering fulfill the collegiate statistics requirement by completing STAT:2020 Probability and Statistics for the Engineering and Physical Sciences. The focus area may require specific courses to count toward the general education component of the collegiate curriculum; see the section titled "Focus Area."

The major in environmental engineering may include the following professional skills seminars depending on when a student declares the major.

Course #	Title	Hours
CEE:1010	Introduction to Careers in Environmental Engineering (typically taken spring semester of the first year)	0
CEE:2010	Civil and Environmental Engineering Professional Practice and Ethics (typically taken in the spring semester of the second year)	1

The BSE with a major in environmental engineering requires the following coursework.

Requirements	Hours
Collegiate Curriculum	49
Basic Science and College-Level Math, from Major Requirements or Focus Area	6
Major Requirements	58
Focus Area	15-16

Major Requirements

Major requirements include a set of common courses (58 s.h.), three professional skills courses (3 s.h.), and one capstone design course (3 s.h.).

Common Courses

Course #	Title	Hours
All of these:		
CEE:1030	Introduction to Earth Science (no lab required)	3
or SEES:1080	Introduction to Environmental Science	
CEE:3155	Principles of Environmental Engineering (with lab)	4
CEE:3371	Principles of Hydraulics and Hydrology	3
CEE:3430	Water Treatment (with lab)	4
CEE:4102	Groundwater	3
CEE:4150	Environmental Chemistry	3
CEE:4157	Environmental Engineering Design	3
CEE:4158	Solid and Hazardous Wastes	3
CEE:4159	Air Pollution Control Technology	3
CEE:4374	Water Resource Design	3
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
CHEM:2210	Organic Chemistry I (no lab required)	3
ENGR:2110	Statics	2
ENGR:2130	Thermodynamics	3
ENGR:2510	Fluid Mechanics	4
ENGR:2710	Dynamics	3
ENGR:2720	Materials Science	3

Professional Skills

Course #	Title	Hours
All of these:		
CEE:3001	Leadership Skills for Engineers	1
CEE:3002	Technical Communication in Civil and Environmental Engineering	1
CEE:3003	Project Management Skills	1

Capstone Design Course

Course #	Title	Hours
This course:		
CEE:4850	Project Design and Management in Civil Engineering	3

Focus Area

Students must select focus area courses according to guidelines established by the Department of Civil and Environmental Engineering. Environmental engineering students may choose from several standard focus areas developed by the department or create an individual focus area tailored to their interests.

The department offers standard focus areas are offered in chemistry [p. 1593], ecological engineering [p. 1593], environmental [p. 1594], geoscience [p. 1594], hydrosciences [p. 1595], informatics [p. 1595], public health [p. 1595], sustainability [p. 1596], and urban studies [p. 1596]. To see guidelines related to tailored focus areas, see Environmental Engineering Focus Areas on the Department of Civil and Environmental Engineering website.

Focus areas in environmental engineering consist of content area courses and electives; carefully selected elective courses may contribute to earning a minor and/or certificate.

Chemistry

Students in the chemistry focus area complete at least 9 s.h. in chemistry electives and at least 6 s.h. in additional electives.

Chemistry Electives

Course #	Title	Hours
At least 9 s.h. from these:		
CHEM:2220	Organic Chemistry II	3
CHEM:2410	Organic Chemistry Laboratory	3
CHEM:3110	Equilibria and Electrochemistry	3
CHEM:3120	Spectroscopy and Separations	3
CHEM:3250	Inorganic Chemistry	3
CHEM:3430	Analytical Measurements	3
CHEM:3440	Physical Measurements	3
CHEM:3530	Inorganic Chemistry Laboratory	3
CHEM:4431	Chemical Thermodynamics	3
CHEM:4432	Quantum Mechanics and Chemical Kinetics	3
Another course approved for the minor in chemistry; see "Chemistry, Minor" in the College of Liberal Arts and Sciences section of the catalog.		3

Additional Electives–Chemistry Focus Area

Course #	Title	Hours
At least 6 s.h. from these:		
CEE:2015	Civil Engineering Tools	2
CEE:4107/CBE:4410	Sustainable Systems	3
CEE:4119	Hydrology	3
CEE:4371	Water Resources Engineering	3
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:2500	Engineering Economy	3
OEH:4240	Global Environmental Health	3
SEES:2050	Foundations of GIS	4
A civil and environmental engineering course (prefix CEE) numbered 3000 or above		3

Ecological Engineering

Students in the ecological engineering focus area complete two required courses (4 s.h.) and at least 11 s.h. in ecological engineering and additional electives.

Required Ecological Engineering Courses

Course #	Title	Hours
Both of these:		
BIOL:2673/ SEES:2673	Ecology	3
SEES:1081	Introduction to Environmental Sciences Laboratory	1

Ecological Engineering Electives

Students can view courses applicable for the minor in earth and environmental sciences [p. 398] in the College of Liberal Arts and Sciences section of the catalog.

Course #	Title	Hours
At least one of these (minimum 3 s.h.):		
SEES:2950	Environmental Conservation	4
SEES:3315	Ecosystem Ecology	4
SEES:3350	Urban Ecology	3
SEES:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3
SEES:4110	Global Biogeochemical Cycles	3
SEES:4310	Climate Change	3
A course that counts toward the minor in earth and environmental sciences		3-4
At least one of these:		
CHEM:3430	Analytical Measurements	3
SEES:2001	Second-Year Field Trip for Earth and Environmental Sciences	1
SEES:2831	Geologic Field Methods	3
SEES:3001	Third-Year Field Trip for Earth and Environmental Sciences	1
SEES:3095	Field Ecology	4
SEES:3096	Winter Ecology	2
SEES:3230	Prairie Restoration	3
SEES:4001	Fourth-Year Field Trip for Earth and Environmental Sciences	2
SEES:4010	Field Methods in Physical Geography	3
SEES:4680	Field Methods in Hydrologic Science	3
A course that counts toward the minor in earth and environmental sciences		2-4

Additional Electives–Ecological Engineering Focus Area

Students select additional electives from the preceding ecological engineering electives or from the following list to bring the total for the focus area to 15 s.h. Courses not listed here may be counted with departmental approval.

Course #	Title	Hours
CEE:2015	Civil Engineering Tools	2
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:2500	Engineering Economy	3
OEH:4240	Global Environmental Health	3
SEES:2050	Foundations of GIS	4
SEES:3210	Principles of Paleontology	3
A civil and environmental engineering course (prefix CEE) numbered 3000 or above		

Environmental

Students in the environmental focus area complete two content area courses (6 s.h.) and three additional electives (9 s.h.).

Environmental Electives

Course #	Title	Hours
Two of these:		
CEE:4107/CBE:4410	Sustainable Systems	3
CEE:4119	Hydrology	3
CEE:4371	Water Resources Engineering	3

Additional Electives–Environmental Focus Area

Students complete 9 s.h. in additional electives. These electives may include any Department of Civil and Environmental Engineering course (prefix CEE) not already taken for the major numbered 3000 or above.

The following courses are additional suggested electives in the environmental focus area.

Course #	Title	Hours
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
CPH:3500/ GHS:3500	Global Public Health	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ENGR:2120	Electrical Circuits	3
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:2500	Engineering Economy	3
LAW:8992	Water Law	arr.
OEH:4240	Global Environmental Health	3
SEES:2050	Foundations of GIS	4

Geoscience

Students in the geoscience focus area complete two required courses (4 s.h.) and at least 11 s.h. in geoscience and additional electives.

Required Geoscience Courses

Course #	Title	Hours
All of these:		
SEES:1081	Introduction to Environmental Sciences Laboratory	1
SEES:3020	Earth Surface Processes	3

Geoscience Electives

Course #	Title	Hours
At least one of these:		
SEES:2410	Mineralogy	4
SEES:3080	Introduction to Oceanography	2
SEES:3320	Earth's Climate System	3
SEES:3360	Soil Genesis and Geomorphology	3
SEES:3380/ CEE:3328	Fluvial Geomorphology	3
SEES:3390	Integrated Watershed Analysis	3
SEES:4490	Elements of Geochemistry	3
SEES:4790	Applied Environmental Geology	3
SEES:4800	Global Geophysics	3
At least one of these:		
SEES:4010	Field Methods in Physical Geography	3
SEES:4680	Field Methods in Hydrologic Science	3

Additional Elective–Geoscience Focus Area

Students select additional electives from the preceding geoscience electives or from the following list to bring the total for the focus area to 15 s.h. Students can view courses applicable for the minor in earth and environmental sciences [p. 398] in the College of Liberal Arts and Sciences section of the catalog.

Course #	Title	Hours
CEE:2015	Civil Engineering Tools	2
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:2500	Engineering Economy	3
OEH:4240	Global Environmental Health	3
SEES:2050	Foundations of GIS	4
A civil and environmental engineering course (prefix CEE) numbered 3000 or above		3
A course that counts toward the minor in earth and environmental sciences		1-4

Hydrosciences

Students in the hydrosciences focus area complete four required courses (10 s.h.), one hydrosciences elective (3–4 s.h.), and one field methods elective (3 s.h.).

Required Hydrosciences Courses

Course #	Title	Hours
All of these:		
CEE:4119	Hydrology	3
CEE:4371	Water Resources Engineering	3
SEES:1081	Introduction to Environmental Sciences Laboratory	1
SEES:3020	Earth Surface Processes	3

Hydrosciences Elective

Course #	Title	Hours
One of these:		
SEES:3380/ CEE:3328	Fluvial Geomorphology	3
SEES:3390	Integrated Watershed Analysis	3
SEES:4490	Elements of Geochemistry	3
SEES:4630	Hydrogeology	4
SEES:4640	Contaminant Hydrogeology	3
SEES:4790	Applied Environmental Geology	3

Field Methods Elective–Hydrosciences

Course #	Title	Hours
One of these:		
SEES:4010	Field Methods in Physical Geography	3
SEES:4680	Field Methods in Hydrologic Science	3

Informatics

Students in the informatics focus area complete three required courses (10 s.h.) and two informatics electives (at least 5 s.h.).

Required Informatics Courses

Course #	Title	Hours
All of these:		
CS:2110	Programming for Informatics	4
CS:2420	Analyzing Data for Informatics	3
CS:2520	Human-Computer Interaction for Informatics	3

Informatics Electives

Course #	Title	Hours
At least 5 s.h. from these:		
CEE:2015	Civil Engineering Tools	2
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:2500	Engineering Economy	3
OEH:4240	Global Environmental Health	3
SEES:2050	Foundations of GIS	4
A civil and environmental engineering course (prefix CEE) numbered 3000 or above		3

Public Health

Students in the public health focus area complete one required course (3 s.h.), three focus area electives (9 s.h.), and at least 3 s.h. in additional electives.

Students in the public health focus area are required to complete the undergraduate certificate in public health in the College of Public Health [p. 2073]. The public health focus area requires CPH:1400 Fundamentals of Public Health as part of the collegiate curriculum general education component.

Required Public Health Course

Course #	Title	Hours
This course:		
CPH:1600	Public Health Science: Inquiry and Investigation in Public Health	3

Public Health Electives

Course #	Title	Hours
Three of these:		
CPH:1800	Social and Psychological Determinants of Health: Changing Behavior, Improving Health	3
CPH:2400	The U.S. Health System in a Global Context	3
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
CPH:3500/ GHS:3500	Global Public Health	3

Additional Elective–Public Health Focus Area

Students complete at least 3 s.h. in additional electives. The following courses are suggested electives in the public health focus area. Students can view courses applicable for the Certificate in Public Health [p. 2091] in the College of Public Health section of the catalog.

Course #	Title	Hours
CPH:2200	Climageddon: Understanding Climate Change and Associated Impacts on Health	3
CPH:2220	Building a Healthier Tomorrow: Public Health Methods to Minimize Disease and Pollutant Exposures	3
CPH:4200	Agriculture, Food Systems, and Sustainability	3
CPH:4220/ GHS:4530/ OEH:4530	Global Road Safety	3

Courses that count toward the undergraduate Certificate in Public Health	2-3

Sustainability

Students in the sustainability focus area should complete ENGL:1510 Introduction to Environmental Literature or JMC:1800 Environmental Communication as an approved general education course. In addition, students complete two required courses (6 s.h.); one communication, ethics, and interpretation elective (3 s.h.); at least 3 s.h. in sustainability electives; and at least 3 s.h. in additional electives.

Required Sustainability Courses

Course #	Title	Hours
Both of these:		
SEES:1070	Contemporary Environmental Issues	3
SEES:2013/ BUS:2013/ URP:2013	Introduction to Sustainability	3

Communication, Ethics, and Interpretation Elective–Sustainability

Course #	Title	Hours
One of these:		
CNW:2740	The Art and Craft of Writing about the Environment	3
ENTR:3500	Social Entrepreneurship	3
FREN:1007	Nature/Ecology French Philosophy and Fiction	3
HIST:3230	American Environmental History	3
LAW:8622	International Environmental Law	3
MGMT:2000	Introduction to Law	3
RHET:3700	Advocacy and Sustainability: Crafting Stories of People, Place, and Resilience	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3
URP:6273/ PBAF:6273	Community Development Through Creative Placemaking	3

Sustainability Elective

Course #	Title	Hours
At least 3 s.h. from these:		
CEE:4107/CBE:4410	Sustainable Systems	3
ABRD:3445	India Winterim (with consent of advisor)	arr.
ANTH:2261	Human Impacts on the Environment	3
ENTR:3700	Sustainable Innovation and Management	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
EVNT:3180	Sustainable Events	3
GHS:4100	Topics in Global Health (when topic is sustainability)	1-3
MKTG:4250	Marketing and Sustainability	3
SEES:2930	Water Resources	3
SEES:3400	Iowa Environmental Policy in Practice	3
SEES:3760/ GHS:3760	Hazards and Society	3
TDSN:3260	Design for Production (when topic is special issues and topics in design)	4
URP:6256/ PBAF:6256	Environmental Policy	3
URP:6273/ PBAF:6273	Community Development Through Creative Placemaking	3

Additional Elective–Sustainability Focus Area

In addition to the following courses, students may select a course that fulfills requirements for the Certificate in Sustainability [p. 404].

Course #	Title	Hours
At least 3 s.h. from these:		
CEE:2015	Civil Engineering Tools	2
ISE:2500	Engineering Economy	3
SEES:2050	Foundations of GIS	4
A civil and environmental engineering course (prefix CEE) numbered 3000 or above		3

Urban Studies

Students in the urban studies focus area should complete URP:3001 Planning Livable Cities as an approved general education course. In addition, students complete at least 12 s.h. in urban studies electives and at least 3 s.h. in additional electives.

Urban Studies Electives

In addition to the following courses, students may select courses that fulfill requirements for the minor in urban studies [p. 2244].

Course #	Title	Hours
At least 12 s.h. from these:		
CRIM:4120	Environmental Criminology	3
PBAF:3560/ POLI:3560/ RHET:3560/ SJUS:3560	Public Policy and Persuasion	3
PBAF:3570/ GHS:3570/ POLI:3570	Poverty Policy	3
URP:2020/ PBAF:2020	Environment and Society: Sustainability, Policy, and Politics	3
URP:4225/ PBAF:4225	Applied GIS for Planning and Policy Making	3
URP:4253/ PBAF:4253	Designing Sustainable and Healthy Cities	1-3
URP:4260/ PBAF:4260	Transportation Policy and Planning	3
URP:4266/ PBAF:4266	Transportation, Urban Form, and Sustainability	3
URP:4273/ PBAF:4273	Community Development Through Creative Placemaking	3

URP:4280/ PBAF:4280	Planning for Disaster Mitigation and Recovery	2-3
URP:4295	Economic Development Policy	3

Additional Elective–Urban Studies Focus Area

Course #	Title	Hours
At least 3 s.h. from these:		
CEE:2015	Civil Engineering Tools	2
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ENGR:2730	Computers in Engineering	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3
ISE:2500	Engineering Economy	3
OEH:4240	Global Environmental Health	3
SEES:2050	Foundations of GIS	4
URP:3350/ ECON:3750/ SEES:3940	Transportation Economics	3
A civil and environmental engineering course (prefix CEE) numbered 3000 or above		3

Combined Programs

BSE/MS in Civil and Environmental Engineering

The College of Engineering offers a Bachelor of Science in Engineering/Master of Science program for environmental engineering undergraduate students who intend to earn an MS in civil and environmental engineering. BSE/MS students may attend the departmental graduate seminar and work on a master's thesis or research project while they are still undergraduates. They may count a limited amount of coursework toward both degrees. Once students complete the requirements for the bachelor's degree, they are granted the BSE, and they are expected to complete the MS one year later.

To be admitted to the degree program, students must have completed at least 80 s.h. and have a cumulative grade-point average of at least 3.25. They must submit an application form to the Department of Civil and Environmental Engineering, along with a letter stating their proposed area of specialization and the name of a department faculty member willing to be their primary MS advisor. Graduate Record Examination (GRE) General Test scores are not required for the fast-track degree program.

Applications are due by May 15.

Career Advancement

Environmental engineers apply engineering principles to design systems that control pollution and protect public health. Environmental engineers restore air, soil, and water quality at contaminated sites, and develop systems that convert waste into clean energy. Environmental engineering addresses the complex food, energy, and water issues of the 21st century. On average, 93–98% of graduates are employed in their field of study or pursuing advanced education within seven months of graduation.

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including engineering career fairs and other programming related to career development.

Engineering Career Services offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, job offer evaluation, and much more. Engineering Career Services partners with the Pomerantz Career Center to facilitate on-campus interviewing, postgraduation outcome collection, and the university's online recruiting system, Handshake.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Environmental Engineering, BSE

Course	Title	Hours
First Year		
Fall		
RHET:1030	Rhetoric: Writing and Communication [a]	4
MATH:1550	Engineering Calculus I [b, c]	4
CHEM:1110	Principles of Chemistry I [b, d]	4
ENGR:1100	Introduction to Engineering Problem Solving [e]	3
CSI:1600	Success at Iowa	0
	Hours	**15**
Spring		
MATH:1560	Engineering Calculus II [b]	4
MATH:2550	Engineering Matrix Algebra [b]	2
CHEM:1120	Principles of Chemistry II [b]	4
PHYS:1611	Introductory Physics I [b]	4
ENGR:1300	Introduction to Engineering Computing [b]	3
CEE:1010	Introduction to Careers in Environmental Engineering [f]	0
	Hours	**17**
Second Year		
Fall		
MATH:2560	Engineering Differential Equations [b]	3
CHEM:2210	Organic Chemistry I [a]	3
ENGR:2110	Statics [a]	2
ENGR:2130	Thermodynamics [a]	3
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences [b]	3

SEES:1080 or CEE:1030	Introduction to Environmental Science [b] or Introduction to Earth Science	3
	Hours	**17**
Spring		
GE: Approved Course Subjects [g]		3
BIOL:1411	Foundations of Biology [a]	4
ENGR:2710	Dynamics [a]	3
CEE:3155	Principles of Environmental Engineering [f]	4
CEE:3002	Technical Communication in Civil and Environmental Engineering [f]	1
CEE:2010	Civil and Environmental Engineering Professional Practice and Ethics [f]	1
Students select their focus are by filling out a Focus Area Selection form (https://workflow.uiowa.edu/form/ce-enve-fa-submission)		
	Hours	**16**
Third Year		
Fall		
GE: Cultural Perspectives, Values, and Society [h]		3
ENGR:2510	Fluid Mechanics [b]	4
CEE:4150	Environmental Chemistry [e]	3
CEE:4158	Solid and Hazardous Wastes [e]	3
Focus Area: course [i]		3
CEE:3001	Leadership Skills for Engineers [e]	1
	Hours	**17**
Spring		
GE: Engineering Be Creative [j]		3
ENGR:2720	Materials Science [a]	3
CEE:3371	Principles of Hydraulics and Hydrology [f]	3
CEE:3430	Water Treatment [f]	4
CEE:4159	Air Pollution Control Technology [f]	3
	Hours	**16**
Fourth Year		
Fall		
GE: Approved Course Subjects [g]		3
CEE:4102	Groundwater [e]	3
CEE:4157	Environmental Engineering Design [e]	3
CEE:4374	Water Resource Design [e]	3
Focus Area: course [i]		3
CEE:3003	Project Management Skills [e]	1
	Hours	**16**
Spring		
GE: Approved Course Subjects [g]		3
CEE:4850	Project Design and Management in Civil Engineering [b]	3
Focus Area: course [i]		3
Focus Area: course [i]		3
Focus Area: course [i]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**129**

a Typically this course is offered in fall, spring, and summer sessions. Check MyUI for course availability since offerings are subject to change.

b Typically this course is offered in fall and spring semesters. Check MyUI for course availability since offerings are subject to change.

c Enrollment in math courses requires completion of a placement exam.

d Enrollment in chemistry courses requires completion of a placement exam.

e Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

f Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

g See General Catalog for list of approved course subjects. Some focus areas may require specific courses that may be taken for General Education Component credit.

h Students select a course from one of two GE CLAS Core areas: Understanding Cultural Perspectives or Values and Society.

i Students select a standard focus area developed by the department or create an individual focus area tailored to their interests. Focus areas require 15 s.h. and consist of content area courses and additional electives; carefully selected elective courses may contribute to earning a minor and/or certificate. Some focus areas may require additional courses that may be taken for General Education Component credit. See the General Catalog or consult an advisor for more information.

j See General Catalog for list of approved courses. Students who intend to enroll in a Be Creative course with prerequisites must request a waiver by completing the Request Prerequisite Special Permission form on MyUI.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Civil and Environmental Engineering, MS

Graduate study in civil and environmental engineering prepares students for professional careers and further study. The principal concentration areas are environmental engineering and environmental science; hydraulics, hydrology, and water resources; structures, mechanics, and materials; sustainable water development; and transportation.

Research and Study Areas

Structures, Mechanics, and Materials

The structures, mechanics, and materials curriculum is designed for students who wish to gain knowledge and skill in the mechanics of solids and structures that they can apply to civil infrastructure systems and other fields. The program concentrates on developing appropriate methodologies for tackling broad, complex issues related to civil infrastructure systems, and on educating engineers in the implementation and application of methodologies to actual engineering projects. Faculty members have expertise in structural engineering, design optimization, solid mechanics, and computational methods.

Transportation Engineering

The transportation engineering curriculum is geared toward students interested in developing specialized knowledge and skills applicable to the diverse set of issues associated with transportation. Faculty members have expertise in traffic engineering, infrastructure management systems, pavement engineering, advanced construction materials, dynamic load and pavement simulation, optimal design, winter highway maintenance, real-time simulation, human factors, intelligent sensors, nondestructive testing, transportation planning, and travel demand modeling.

Water and the Environment

The water and the environment graduate program focuses on both fundamental and applied aspects of environmental systems and processes across a range of scales. The water and the environment program offers unique opportunities for students to actively participate in the research, analysis, and design aspects of real-world problems. There are three areas of specialization: environmental engineering and science; hydraulics, hydrology, and water resources; and sustainable water development.

The environmental engineering and science curriculum provides a comprehensive base of coursework and research in the areas of air and water quality management; environmental chemistry and microbiology; natural systems modeling; and processes for water supply, pollution control, and solid and hazardous waste management.

The hydraulics, hydrology, and water resources curriculum is associated with IIHR—Hydroscience and Engineering, a world-renowned research institute, where senior staff members of the institute are professors in the program. IIHR offers unique curriculum opportunities in laboratory and field-scale experimentation and in mathematical modeling with IIHR's high-speed computer facilities.

The sustainable water development curriculum is focused on training interdisciplinary professional engineers, researchers, educators, and those who are ready to meet the water resource challenges of communities most in need. Community service and professional development experiences complement innovative research at the food, energy, and water nexus.

Across all specialization areas within water and the environment, interdisciplinary research and study are conducted with programs including the Center for Global and Regional Environmental Research, the Center for Health Effects of Environmental Contamination, the Center for Hydrologic Development, the Iowa Flood Center, the Iowa Superfund Research Program, the Hazardous Substances Research Center, and the Center for Biocatalysis and Bioprocessing; the departments of Chemical and Biochemical Engineering (College of Engineering), Microbiology and Immunology (Carver College of Medicine), and Occupational and Environmental Health (College of Public Health); the School of Earth, Environment, and Sustainability (College of Liberal Arts and Sciences); and the School of Planning and Public Affairs (Graduate College). Other areas of interdisciplinary focus include groundwater contamination, biotechnology, global climate change, and hazardous substances.

Learning Outcomes

Students will gain the ability to:

- apply principles of engineering and science for problem solving to meet societal needs;
- communicate effectively with a range of audiences;
- make ethical and professional judgments that consider the global, economic, environmental, and societal contexts of their decisions and proposed engineering solutions; and
- conduct research through the use of modern research tools and methodologies (thesis students only).

Requirements

The Master of Science program in civil and environmental engineering requires a minimum of 30 s.h. of graduate credit for thesis students; 31 s.h. for nonthesis students. The program enables students to concentrate in one or more areas of their choice. Students must maintain a UI cumulative grade-point average of at least 2.75.

The thesis option requires a minimum of 25 s.h. (eight courses) with the remaining 5 s.h. obtained in CEE:5999 Research: Civil and Environmental Engineering MS Thesis.

With the approval of their advisor, students develop a study plan that satisfies the requirements of their chosen curriculum. Students must pass an oral examination and, in some program options, a written examination.

Core Courses

All students must successfully complete the civil and environmental graduate core courses for their area of focus. Students are expected to complete these courses during their first year of study.

Elective Courses

Students choose elective courses from any academic area that strengthens their knowledge in their area of focus and provides needed research topic training. Individual Investigations: Civil and Environmental Engineering (CEE:5998) is not considered a suitable elective.

Seminars

All full-time students are required to register for and participate in seminars in their respective program of study. This includes CEE:5096 Water, Energy, and Food Nexus Seminar for areas that fall under the water and environment curriculum (environmental engineering, environmental science, hydraulics, sustainable water development, and water resources) or CEE:5098 Graduate Seminar in Structures, Materials, Mechanics, and Transportation for students in transportation engineering or structures, mechanics, and materials.

Ethics Course

Students must enroll in ENGR:7270 Engineering Ethics.

Thesis

Students may earn up to 5 s.h. of research credit in CEE:5999 Research: Civil and Environmental Engineering MS Thesis. A total of 3 s.h. may be taken on an A–F graded basis at the discretion of the advisor.

Combined Programs

MS (Sustainable Water Development Subprogram)/MS in Urban and Regional Planning

The Department of Civil and Environmental Engineering and the School of Planning and Public Affairs collaborate to offer a combined Master of Science in civil and environmental engineering with a sustainable water development subprogram/Master of Science in urban and regional planning.

Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. For more information, see the MS in urban and regional planning [p. 1797] (Graduate College) in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Each of the program's curricula is flexible; students may be admitted from all disciplines of engineering as well as from the mathematical and basic sciences.

Applicants should have a cumulative undergraduate grade-point average (GPA) of at least 3.00. Those with GPAs slightly lower should contact the department.

Graduate Record Examination (GRE) General Test scores are not required.

Career Advancement

The current and projected demand for MS graduates is excellent. Graduates are placed in advanced technical positions in industry, consulting firms, or government, or they may continue their graduate study. On average, 93–98% of graduates are employed in their field of study or pursuing advanced education within seven months of graduation.

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including engineering career fairs and other programming related to career development.

Engineering Career Services offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, job offer evaluation, and much more. Engineering Career Services partners with the Pomerantz Career Center to facilitate on-campus interviewing, postgraduation outcome collection, and the university's online recruiting system, Handshake.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Civil and Environmental Engineering, MS

- Environmental Engineering Subprogram [p. 1600]
- Environmental Science Subprogram [p. 1601]
- Hydraulics Subprogram [p. 1601]
- Structures, Mechanics and Materials Subprogram [p. 1602]
- Sustainable Water Development Subprogram [p. 1602]
- Transportation Subprogram [p. 1602]
- Water Resources Subprogram [p. 1603]

Environmental Engineering Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE Elective course [b]		3
CEE Elective course [b]		3
ENGR:7270	Engineering Ethics [c]	1
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**16**
Spring		
CEE:5310	Informatics for Sustainable Systems	3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3

CEE Elective course [b]		3
CEE Elective course [b]		3
CEE Elective course [b]		3
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
Final Exam [e]		
	Hours	**15**
	Total Hours	**31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and CEE website for specifics.
c Must be completed during first semester.
d Required every semester.
e Final exam is required for some program areas. Refer to Graduate Program Resources on the CEE website for details.

Environmental Science Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE Elective course [b]		3
CEE Elective course [b]		3
ENGR:7270	Engineering Ethics [c]	1
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**16**
Spring		
CEE:5310	Informatics for Sustainable Systems	3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE Elective course [b]		3
CEE Elective course [b]		3
CEE Elective course [b]		3
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
Final Exam [e]		
	Hours	**15**
	Total Hours	**31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and CEE website for specifics.
c Must be completed during first semester.
d Required every semester.
e Final exam is required for some program areas. Refer to Graduate Program Resources on the CEE website for details.

Hydraulics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE Elective course [b]		3
CEE Elective course [b]		3
ENGR:7270	Engineering Ethics [c]	1
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**16**
Spring		
CEE:5310	Informatics for Sustainable Systems	3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE Elective course [b]		3
CEE Elective course [b]		3
CEE Elective course [b]		3
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
Final Exam [e]		
	Hours	**15**
	Total Hours	**31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and CEE website for specifics.
c Must be completed during first semester.
d Required every semester.
e Final exam is required for some program areas. Refer to Graduate Program Resources on the CEE website for details.

Structures, Mechanics and Materials Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; more information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CEE Core course [b]		3
CEE Core course [b]		3
CEE Elective course [c]		3
CEE Elective course [c]		3
CEE:5990	Structural Engineering Practicum A	2
ENGR:7270	Engineering Ethics [d]	1
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [e]	0
	Hours	**15**
Spring		
CEE Core course [b]		3
CEE Elective course [c]		3
CEE Elective course [c]		3
CEE Elective course [c]		3
CEE Elective course [c]		3
CEE:5991	Structural Engineering Practicum B	1
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [e]	0
Final Exam [f]		
	Hours	**16**
	Total Hours	**31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Complete three courses from CEE:4512, CEE:5513, CEE:5540, CEE:4533, CEE:5179, CEE:5310.
c Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and department website for specifics.
d Must be completed during first semester.
e Required every semester.
f Successful completion of all degree requirements.

Sustainable Water Development Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE Elective course [b]		3
CEE Elective course [b]		3
ENGR:7270	Engineering Ethics [c]	1
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**16**
Spring		
CEE:5310	Informatics for Sustainable Systems	3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE Elective course [b]		3
CEE Elective course [b]		3
CEE Elective course [b]		3
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
Final Exam [e]		
	Hours	**15**
	Total Hours	**31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and CEE website for specifics.
c Must be completed during first semester.
d Required every semester.
e Final exam is required for some program areas. Refer to Graduate Program Resources on the CEE website for details.

Transportation Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. must be graduate level coursework; more information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CEE:5310	Informatics for Sustainable Systems	3
CEE:4560	Pavement Engineering	3
CEE:5678	Application Simulation to Transportation	3
CEE Elective course [b]		3
CEE Elective course [b]		3
ENGR:7270	Engineering Ethics [c]	1

CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [d]	0
	Hours	**16**
Spring		
CEE:4730	Transportation Infrastructure Construction and Management	3
STAT:4100 or STAT:4200	Statistical Inference I or Statistical Methods and Computing	3
CEE Elective course [b]		3
CEE Elective course [b]		3
CEE Elective course [b]		3
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [d]	0
Final Exam [e]		
	Hours	**15**
	Total Hours	**31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and department website for specifics.
c Must be completed during first semester.
d Required every semester.
e Successful completion of all degree requirements.

Water Resources Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE Elective course [b]		3
CEE Elective course [b]		3
ENGR:7270	Engineering Ethics [c]	1
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**16**
Spring		
CEE:5310	Informatics for Sustainable Systems	3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE Elective course [b]		3
CEE Elective course [b]		3
CEE Elective course [b]		3
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
Final Exam [e]		
	Hours	**15**
	Total Hours	**31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and CEE website for specifics.
c Must be completed during first semester.
d Required every semester.
e Final exam is required for some program areas. Refer to Graduate Program Resources on the CEE website for details.

Civil and Environmental Engineering, PhD

Graduate study in civil and environmental engineering prepares students for professional careers and further study. The principal concentration areas are environmental engineering and environmental science; hydraulics, hydrology, and water resources; structures, mechanics, and materials; sustainable water development; and transportation.

Research and Study Areas

Structures, Mechanics, and Materials

The structures, mechanics, and materials curriculum is designed for students who wish to gain knowledge and skill in the mechanics of solids and structures that they can apply to civil infrastructure systems and other fields. The program concentrates on developing appropriate methodologies for tackling broad, complex issues related to civil infrastructure systems and on educating engineers in the implementation and application of methodologies to actual engineering projects. Faculty members have expertise in structural engineering, design optimization, solid mechanics, and computational methods.

Transportation Engineering

The transportation engineering curriculum is geared toward students interested in developing specialized knowledge and skills applicable to the diverse set of issues associated with transportation. Faculty members have expertise in traffic engineering, infrastructure management systems, pavement engineering, advanced construction materials, dynamic load and pavement simulation, optimal design, winter highway maintenance, real-time simulation, human factors, intelligent sensors, nondestructive testing, transportation planning, and travel demand modeling.

Water and the Environment

The water and the environment graduate program focuses on both fundamental and applied aspects of environmental systems and processes across a range of scales. The water and the environment program offers unique opportunities for students to actively participate in the research, analysis, and design aspects of real-world problems. There are three areas of specialization: environmental engineering and science; hydraulics, hydrology, and water resources; and sustainable water development.

The environmental engineering and science curriculum provides a comprehensive base of coursework and research in the areas of air and water quality management; environmental chemistry and microbiology; natural systems modeling; and processes for water supply, pollution control, and solid and hazardous waste management.

The hydraulics, hydrology, and water resources curriculum is associated with IIHR—Hydroscience and Engineering, a world-renowned research institute, where senior staff members of the institute are professors in the program. IIHR offers unique curriculum opportunities in laboratory and field-scale experimentation and in mathematical modeling with IIHR's high-speed computer facilities.

The sustainable water development curriculum is focused on training interdisciplinary professional engineers, researchers, educators, and those who are ready to meet the water resource challenges of communities most in need. Community service and professional development experiences complement innovative research at the food, energy, and water nexus.

Across all specialization areas within water and the environment, interdisciplinary research and study are conducted with programs including the Center for Global and Regional Environmental Research, the Center for Health Effects of Environmental Contamination, the Center for Hydrologic Development, the Iowa Flood Center, the Iowa Superfund Research Program, the Hazardous Substances Research Center, and the Center for Biocatalysis and Bioprocessing; the departments of Chemical and Biochemical Engineering (College of Engineering), Microbiology and Immunology (Carver College of Medicine), and Occupational and Environmental Health (College of Public Health); the School of Earth, Environment, and Sustainability (College of Liberal Arts and Sciences); and the School of Planning and Public Affairs (Graduate College). Other areas of interdisciplinary focus include groundwater contamination, biotechnology, global climate change, and hazardous substances.

Learning Outcomes

Students will gain the ability to:

- apply critical thinking skills and principles of engineering and science to solve problems that address societal needs;
- communicate effectively with a range of audiences;
- make ethical and professional judgments that consider the global, economic, environmental, and societal contexts of their decisions and proposed engineering solutions; and
- conduct original research that advances discovery through the use of modern research tools and methodologies.

Requirements

The Doctor of Philosophy program in civil and environmental engineering requires a minimum of 72 s.h. of graduate coursework, including at least 43 s.h. in formal coursework. Students may count a maximum of 29 s.h. in CEE:7999 Research: Civil and Environmental Engineering PhD Dissertation toward the degree. Students must maintain a UI cumulative grade-point average of at least 3.00.

Students may count up to 24 s.h. from the MS in civil and environmental engineering or from another qualified graduate program toward the PhD with departmental approval.

All students usually need at least three years of full-time graduate study to complete the degree. They must pass a qualifying examination and must pass a written and oral comprehensive examination before they may be formally admitted to PhD candidacy; the comprehensive examination is usually taken after all required coursework has been completed. Students devote one year to the preparation of a dissertation that contributes to knowledge in the field; they must defend their dissertation successfully in a final examination.

Core Courses

Students must successfully complete the appropriate civil and environmental graduate core courses for their area of focus. They are expected to complete core courses during their first year of study.

Elective Courses

Students should choose elective courses from any academic area that strengthens their knowledge in their area of focus and provides needed research topic training. Independent study, such as CEE:5998 Individual Investigations: Civil and Environmental Engineering, is not considered a suitable elective.

Seminars

All full-time students are required to register for and participate in seminars in their respective program of study. This includes CEE:5096 Water, Energy, and Food Nexus Seminar for areas that fall under the water and the environment curriculum (environmental engineering, environmental science, hydraulics, sustainable water development, and water resources) or CEE:5098 Graduate Seminar in Structures, Materials, Mechanics, and Transportation for students in transportation engineering or structures, mechanics, and materials. Depending on the program of study, there may be additional seminar requirements.

Ethics Course

Students must enroll in ENGR:7270 Engineering Ethics.

Dissertation

Students must complete a dissertation and may apply up to 29 s.h. in CEE:7999 Research: Civil and Environmental Engineering PhD Dissertation toward the degree. A total of 6 s.h. may be taken on an A–F graded basis at the discretion of the advisor.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Each of the program's curricula is flexible; students may be admitted from all disciplines of engineering as well as from the mathematical and basic sciences.

Applicants should have a graduate grade-point average (GPA) of at least 3.00. Those with GPAs slightly lower should contact the department.

Graduate Record Examination (GRE) General Test scores are not required.

Career Advancement

Graduates are placed in advanced technical positions in academia, industry, consulting firms, or government.

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including engineering career fairs and other programming related to career development.

Engineering Career Services offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, job offer evaluation, and much more. Engineering Career Services partners with the Pomerantz Career Center to facilitate on-campus interviewing, postgraduate outcome collection, and the university's online recruiting system, Handshake.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Civil and Environmental Engineering, PhD

- Environmental Engineering Subprogram [p. 1605]
- Environmental Science Subprogram [p. 1606]
- Hydraulics Subprogram [p. 1607]
- Structures, Mechanics and Materials Subprogram [p. 1608]
- Sustainable Water Development Subprogram [p. 1609]
- Transportation Subprogram [p. 1610]
- Water Resources Subprogram [p. 1611]

Environmental Engineering Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. of graduate level coursework must be completed; up to 24 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Any Semester		
Qualifying Exam [b]		
	Hours	**0**
Fall		
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
ENGR:7270	Engineering Ethics [c]	1
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**10**
Spring		
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE:5095	Career Paths in Sustainable Water Development [f]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**9**

Second Year		
Any Semester		
Comprehensive Exam [g]		
	Hours	**0**
Fall		
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**15**
Spring		
CEE:6225	Communicating Science [j]	3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**15**
Third Year		
Fall		
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	9
	Hours	**12**
Spring		
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**9**
Fourth Year		
Fall		
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	2
	Hours	**2**
Spring		
Final Exam [k]		
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**0**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Typically completed by the end of the first year. Refer to the CEE website and the Gradual College Manual of Rules and Regulations for details.

c Must be completed during first semester.

d Required every semester.

e Work with academic advisor to determine graduate elective coursework and sequence. See General Catalog and CEE website for specifics.

f Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

g Oral exam typically completed by the end of the second year after passing the Qualifying Exam; written dissertation prospectus must be submitted to the committee two weeks before exam.

h Enrollment during four semesters is required.

i Total of 29 s.h. from CEE:7999 is required. May take up to 6 s.h. for a letter grade; all other credits must be taken on S/U basis.

j Technical communication requirement; approved courses include RHET:7500, RHET:7930, RHET:7940. Other courses may be considered and should be submitted to the CEE Director of Graduate Studies for approval.

k Oral dissertation defense.

Environmental Science Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. of graduate level coursework must be completed; up to 24 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Any Semester		
Qualifying Exam [b]		
	Hours	**0**
Fall		
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
ENGR:7270	Engineering Ethics [c]	1
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**10**
Spring		
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE:5095	Career Paths in Sustainable Water Development [f]	0

CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**9**
Second Year		
Any Semester		
Comprehensive Exam [g]		
	Hours	**0**
Fall		
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**15**
Spring		
CEE:6225	Communicating Science [j]	3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**15**
Third Year		
Fall		
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	9
	Hours	**12**
Spring		
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**9**
Fourth Year		
Fall		
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	2
	Hours	**2**
Spring		
Final Exam [k]		
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**0**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Typically completed by the end of the first year. Refer to the CEE website and the Gradual College Manual of Rules and Regulations for details.
c Must be completed during first semester.
d Required every semester.
e Work with academic advisor to determine graduate elective coursework and sequence. See General Catalog and CEE website for specifics.
f Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
g Oral exam typically completed by the end of the second year after passing the Qualifying Exam; written dissertation prospectus must be submitted to the committee two weeks before exam.
h Enrollment during four semesters is required.
i Total of 29 s.h. from CEE:7999 is required. May take up to 6 s.h. for a letter grade; all other credits must be taken on S/U basis.
j Technical communication requirement; approved courses include RHET:7500, RHET:7930, RHET:7940. Other courses may be considered and should be submitted to the CEE Director of Graduate Studies for approval.
k Oral dissertation defense.

Hydraulics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. of graduate level coursework must be completed; up to 24 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Any Semester		
Qualifying Exam [b]		
	Hours	**0**
Fall		
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
ENGR:7270	Engineering Ethics [c]	1
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**10**
Spring		
CEE Elective course [e]		3
CEE Elective course [e]		3

CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE:5095	Career Paths in Sustainable Water Development [f]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**9**
Second Year		
Any Semester		
Comprehensive Exam [g]		
	Hours	**0**
Fall		
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**15**
Spring		
CEE:6225	Communicating Science [j]	3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**15**
Third Year		
Fall		
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	9
	Hours	**12**
Spring		
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**9**
Fourth Year		
Fall		
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	2
	Hours	**2**
Spring		
Final Exam [k]		
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**0**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Typically completed by the end of the first year. Refer to the CEE website and the Gradual College Manual of Rules and Regulations for details.
c Must be completed during first semester.
d Required every semester.
e Work with academic advisor to determine graduate elective coursework and sequence. See General Catalog and CEE website for specifics.
f Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
g Oral exam typically completed by the end of the second year after passing the Qualifying Exam; written dissertation prospectus must be submitted to the committee two weeks before exam.
h Enrollment during four semesters is required.
i Total of 29 s.h. from CEE:7999 is required. May take up to 6 s.h. for a letter grade; all other credits must be taken on S/U basis.
j Technical communication requirement; approved courses include RHET:7500, RHET:7930, RHET:7940. Other courses may be considered and should be submitted to the CEE Director of Graduate Studies for approval.
k Oral dissertation defense.

Structures, Mechanics and Materials Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; up to 24 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Any Semester		
Qualifying Exam [b]		
	Hours	**0**
Fall		
CEE Core course [c]		3
CEE Core course [c]		3
CEE Core course [c]		3
ENGR:7270	Engineering Ethics [d]	1
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [e]	0
	Hours	**10**
Spring		
CEE Core course [c]		3

CEE Core course [c]		3
CEE Elective course [f]		3
CEE Elective course [f]		3
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [e]	0
	Hours	**12**
Second Year		
Any Semester		
Comprehensive Exam [g]		
	Hours	**0**
Fall		
CEE Elective course [f]		3
CEE Elective course [f]		3
CEE Elective course [f]		3
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [e]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [h]	6
	Hours	**15**
Spring		
CEE:6225	Communicating Science [i]	3
CEE Elective course [f]		3
CEE Elective course [f]		3
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [e]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [h]	6
	Hours	**15**
Third Year		
Fall		
CEE Elective course [f]		3
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [e]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [h]	9
	Hours	**12**
Spring		
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [e]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [h]	6
	Hours	**6**
Fourth Year		
Fall		
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [e]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [h]	2
	Hours	**2**
Spring		
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [e]	0
Final Exam [j]		
	Hours	**0**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Typically completed by the end of first year; refer to department website and Graduate Handbook for specifics.
c Complete five courses from CEE:4512, CEE:5513, CEE:5540, CEE:4533, CEE:5179, CEE:5310.
d Must be completed during first semester.
e Required every semester.
f Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and department website for specifics.
g Oral exam to be completed within one year of passing the Qualifying Exam, typically by the end of second year; a written prospectus is submitted to the committee two weeks before oral exam.
h Minimum of 29 s.h. required. Up to 6 s.h. for a letter grade; all other credits must be taken on S/U basis.
i Technical communication requirement; approved courses include RHET:7500, RHET:7930, RHET:7940. Other courses may be considered and should be submitted to the CEE Director of Graduate Studies for approval.
j Dissertation defense.

Sustainable Water Development Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. of graduate level coursework must be completed; up to 24 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Any Semester		
Qualifying Exam [b]		
	Hours	**0**
Fall		
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
ENGR:7270	Engineering Ethics [c]	1
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**10**
Spring		
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3

CEE:5095	Career Paths in Sustainable Water Development [f]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**9**
Second Year		
Any Semester		
Comprehensive Exam [g]		
	Hours	**0**
Fall		
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**15**
Spring		
CEE:6225	Communicating Science [j]	3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**15**
Third Year		
Fall		
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	9
	Hours	**12**
Spring		
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**9**
Fourth Year		
Fall		
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	2
	Hours	**2**
Spring		
Final Exam [k]		
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**0**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Typically completed by the end of the first year. Refer to the CEE website and the Gradual College Manual of Rules and Regulations for details.
c Must be completed during first semester.
d Required every semester.
e Work with academic advisor to determine graduate elective coursework and sequence. See General Catalog and CEE website for specifics.
f Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
g Oral exam typically completed by the end of the second year after passing the Qualifying Exam; written dissertation prospectus must be submitted to the committee two weeks before exam.
h Enrollment during four semesters is required.
i Total of 29 s.h. from CEE:7999 is required. May take up to 6 s.h. for a letter grade; all other credits must be taken on S/U basis.
j Technical communication requirement; approved courses include RHET:7500, RHET:7930, RHET:7940. Other courses may be considered and should be submitted to the CEE Director of Graduate Studies for approval.
k Oral dissertation defense.

Transportation Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; up to 24 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Any Semester		
Qualifying Exam [b]		
	Hours	**0**
Fall		
CEE:5310	Informatics for Sustainable Systems	3
CEE:4560	Pavement Engineering	3
CEE:5678	Application Simulation to Transportation	3
ENGR:7270	Engineering Ethics [c]	1
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [d]	0
	Hours	**10**
Spring		
CEE:4730	Transportation Infrastructure Construction and Management	3

STAT:4200 or STAT:4100	Statistical Methods and Computing or Statistical Inference I	3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [d]	0
	Hours	**12**
Second Year		
Any Semester		
Comprehensive Exam [f]		
	Hours	**0**
Fall		
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [g]	6
	Hours	**15**
Spring		
CEE:6225	Communicating Science [h]	3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [g]	6
	Hours	**15**
Third Year		
Fall		
CEE Elective course [e]		3
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [g]	9
	Hours	**12**
Spring		
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [g]	6
	Hours	**6**
Fourth Year		
Fall		
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [g]	2
	Hours	**2**
Spring		
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation [d]	0
Final Exam [i]		
	Hours	**0**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Typically completed by the end of first year; refer to department website and Graduate Handbook for specifics.
c Must be completed during first semester.
d Required every semester.
e Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and department website for specifics.
f Oral exam to be completed within one year of passing the Qualifying Exam, typically by the end of second year; a written prospectus is submitted to the committee two weeks before oral exam.
g Minimum of 29 s.h. required. Up to 6 s.h. for a letter grade; all other credits must be taken on S/U basis.
h Technical communication requirement; approved courses include RHET:7500, RHET:7930, RHET:7940. Other courses may be considered and should be submitted to the CEE Director of Graduate Studies for approval.
i Dissertation defense.

Water Resources Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. of graduate level coursework must be completed; up to 24 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Any Semester		
Qualifying Exam [b]		
	Hours	**0**
Fall		
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
ENGR:7270	Engineering Ethics [c]	1
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**10**
Spring		
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3

CEE:5095	Career Paths in Sustainable Water Development [f]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**9**

Second Year

Any Semester

Comprehensive Exam [g]		
	Hours	**0**

Fall

CEE Elective course [e]		3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**15**

Spring

CEE:6225	Communicating Science [j]	3
CEE Elective course [e]		3
CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**15**

Third Year

Fall

CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	9
	Hours	**12**

Spring

CEE Elective course [e]		3
CEE:5097	Coaching Seminar on Communicating Water Science [h]	0
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	6
	Hours	**9**

Fourth Year

Fall

CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
CEE:7999	Research: Civil and Environmental Engineering PhD Dissertation [i]	2
	Hours	**2**

Spring

Final Exam [k]		
CEE:5096	Water, Energy, and Food Nexus Seminar [d]	0
	Hours	**0**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Typically completed by the end of the first year. Refer to the CEE website and the Gradual College Manual of Rules and Regulations for details.

c Must be completed during first semester.

d Required every semester.

e Work with academic advisor to determine graduate elective coursework and sequence. See General Catalog and CEE website for specifics.

f Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

g Oral exam typically completed by the end of the second year after passing the Qualifying Exam; written dissertation prospectus must be submitted to the committee two weeks before exam.

h Enrollment during four semesters is required.

i Total of 29 s.h. from CEE:7999 is required. May take up to 6 s.h. for a letter grade; all other credits must be taken on S/U basis.

j Technical communication requirement; approved courses include RHET:7500, RHET:7930, RHET:7940. Other courses may be considered and should be submitted to the CEE Director of Graduate Studies for approval.

k Oral dissertation defense.

Electrical and Computer Engineering

Chair

- Gary E. Christensen

Undergraduate majors: computer science and engineering (BSE); electrical engineering (BSE)

Graduate degrees: MS in electrical and computer engineering; PhD in electrical and computer engineering

Faculty: https://engineering.uiowa.edu/ece-people

Website: https://engineering.uiowa.edu/ece

Electrical engineers and computer engineers make vital contributions to nearly all facets of modern society through their work in areas such as the internet of things (IoT), artificial intelligence, deep learning, computer systems, software applications, medical imaging, robotics, wireless communications, and fiber optics. From smart technologies to high-definition TV, cellular telephones, and computer networks, the contributions of electrical and computer engineers are constantly reinventing the world.

Many benefits that have sprung from electrical and computer engineering technology now are taken for granted —noninvasive imaging of the brain and other internal organs, astonishing views of the solar system's outer planets, and wireless telecommunications. Electrical and computer engineers also play crucial roles in major emerging technologies, such as driverless vehicles, smart cities, and human genomics.

As the United States strives to retain or enlarge its share of national and international markets, electrical and computer engineers will play a more important role in fostering innovation, increasing productivity, and creating intelligent systems to improve the quality of life for residents.

Electrical and computer engineers work in research, design, development, manufacturing, sales, market analysis, consulting, field service, and management. They are employed in computer, semiconductor, software, aerospace, telecommunication, medical, radio, TV, and power industries, and many graduates pursue entrepreneurial ventures.

Programs

Undergraduate Programs of Study

Majors

- Major in Computer Science and Engineering (Bachelor of Science in Engineering) [p. 1620]
- Major in Electrical Engineering (Bachelor of Science in Engineering) [p. 1625]

Graduate Programs of Study

- Master of Science in Electrical and Computer Engineering [p. 1631]
- Doctor of Philosophy in Electrical and Computer Engineering [p. 1633]

Research and Study Areas

Augmented Reality and Multimodal Sensing

The department is actively involved in research to advance augmented reality and virtual reality systems, particularly regarding their underlying multimodal imaging and sensing techniques. Work in this area relies on mathematics, instrumentation, software engineering, computer vision, and computer graphics to design and engineer novel methodologies and systems for sensing, virtually replicating, understanding, and then augmenting the world around us. This is an interdisciplinary research area that encompasses fields such as 3D/4D surface imaging and measurement, 3D/4D data compression and communication, real-time computer vision, computer-aided surgeries, machine learning, computer graphics, human-computer interaction, multimedia on mobile devices, and computer-aided design. In addition to advancing the basic science within those fields, departmental researchers are pursuing various applications of their work via collaborations with the Carver College of Medicine [p. 1843], the Digital Arts [p. 356] faculty cluster, the Iowa Initiative for Artificial Intelligence, the Iowa Institute for Biomedical Imaging, and the Iowa Technology Institute.

Bioinformatics and Computational Biology

The Center for Bioinformatics and Computational Biology (CBCB) is a multidisciplinary research enterprise that encompasses numerous laboratories and collaborates with many graduate programs on campus. Graduate students may earn the Certificate in Informatics [p. 1760] (Graduate College) to augment their PhD training in disciplines ranging from molecular biology to biochemistry to computer science to engineering.

The Coordinated Laboratory for Computational Genomics, a CBCB affiliate, engages in a broad range of research activities that complement the Human Genome Project. Members of the laboratory develop new hardware and software techniques for analysis and annotation of the genomic sequence, its transcription and translation, and the proteome. Other efforts are aimed at the systematic capture and curation of phenotypic information acquired from massive databases of clinical information derived from collaborations with the Carver College of Medicine. The goal of these projects is to elucidate the mechanisms of human disease and develop promising new methods for cures and treatments.

The laboratory's facilities include more than 200 workstations, three Linux clusters, and access to the National Science Foundation (NSF) TeraGrid and other high-performance computing facilities. Projects in the laboratory frequently involve cutting-edge genomic and proteomic instruments such as the Roche 454 next-generation sequencing platform and several high-throughput gene expression (microarray) measurement platforms.

Computer Systems

High-performance computing research involves the development of collaborative and parallel computing environments and associated software tools and the use of these facilities and tools in varied application domains, including image processing and computational biology. Current work in networking focuses on protocols and layer-

integration schemes that support high-performance wireless networking and on control and coordination of mobile ad hoc networks. Current research facilities in these areas include several large cluster computers and an experimental asynchronous transfer mode (ATM) network.

Departmental facilities that support this work include Linux and Windows workstations and server nodes that provide college-wide networked computer services. Advanced computing facilities are also available at national supercomputing centers and federal laboratories.

Control Systems and Systems Theory

Control systems and systems theory use feedback to improve the predictability and efficiency of engineered systems ranging from electronic amplifiers to vehicle guidance systems, manufacturing processes, communication channels, and the Internet. Work in control systems and systems theory draws heavily on results from mathematics, physics, and computer science to model the systems that are to be controlled and to implement feedback controllers.

Current research emphasizes optimal, adaptive, digital, robust, and stochastic control and the control of discrete event dynamical systems. Recent work has concerned the estimation, identification, and robust control of linear and nonlinear dynamical systems; set membership identification; control over wireless communication channels; coordinated fault tolerant control of unmanned vehicles; use of control theory to analyze distributed computing, communications, and manufacturing systems; interplay between communications and control; design of fast digital controllers using subband coding; and multirate control systems.

Research in control systems and systems theory is supported by extensive computing resources and collaborations with local industry, the Driving Safety Research Institute, the Iowa Technology Institute, and the Carver College of Medicine [p. 1843].

Nanoscale Electronics and Spintronics

Nanotechnology is the branch of technology that deals with dimensions that are 10,000 times smaller than the width of the hair. Nanoscience and nanotechnology involve the ability to see and control individual atoms and molecules. Utilizing the nanofabrication and nanoimaging facilities available on campus, nanoscale transistors, optical circuits, biosensors, and solar cells are being developed. Departmental researchers are pursuing experimental, theoretical, and large-scale computational approaches.

Optoelectronics

Current research topics are optical and electronic properties of semiconductors, semiconductor devices, electro-optics, nonlinear optics, nonlinear wave propagation in plasmas, nanotechnology, and medical devices. This research is at the interface of optical engineering, materials engineering, quantum physics, and electromagnetics.

Much work is done in collaboration with other University of Iowa departments, including the departments of Physics and Astronomy, Chemistry (College of Liberal Arts and Sciences), Internal Medicine, and Neurosurgery (Carver College of Medicine). Facilities include two molecular beam epitaxy reactors (in physics and astronomy), a microfabrication laboratory with nanometer resolution capabilities, electrical characterization capability to 22 GHz, several Ti-sapphire lasers, a mid-infrared optical parametric oscillator, and plasma equipment for nonlinear wave plasma interaction studies.

Examples of current projects are the design and fabrication of diode lasers and light-emitting diodes based on the bandgap engineering of antimony and arsenic-based III-V compound semiconductors, phase control of laser arrays, development of an all-optical power equalizer, characterization of quantum well devices, nonlinear waveguide devices, development of a noncontact method to measure transport properties, plasma and optical soliton excitation and propagation, development of cellular probes, gas sensors, and a laser scalpel for medical research.

Signal and Image Processing

Research in image processing and basic and applied signal processing is supported by a digital signal processing laboratory and an image analysis laboratory. Collaborative research with faculty in the departments of Radiology, Neurology, Psychiatry, Internal Medicine, Ophthalmology and Visual Sciences, Radiation Oncology (Carver College of Medicine), and the Roy J. Carver Department of Biomedical Engineering is directed at quantitative analysis of medical images.

In the area of signal processing, current projects include the analysis and design of efficient adaptive algorithms for signal processing, efficient coding and transmission of speech, speech processing aids for the hearing impaired, robust equalization of uncertain channels, application of neural networks to communications systems, multi-rate signal processing, and subband coding and channel equalization.

Image processing and analysis projects include the development of novel methods for image segmentation, image registration, computer-aided detection and diagnosis, early identification of disease patterns from medical image data, computer-aided surgical planning, virtual and augmented reality medical image visualization, building anatomic atlases, and a broad range of translational medicine projects focusing on research and clinical applications of the novel methods. The areas of interest span all scales, from molecules to cells to small animals to humans, and cover a broad range of organ systems and targeted diseases. The spectrum of medical imaging modalities used for research and applications in image processing and analysis is equally broad, encompassing all existing modalities, including X-ray, CT, MR, PET, SPECT, and OCT.

The Medical Image Analysis Labs consist of several specialized facilities for digital image processing. They are equipped with state-of-the-art devices for data storage, transfer, visualization, and analysis. High-capacity data storage devoted to image processing research offers more than 35 TB of online hard disk space. An augmented reality medical image visualization lab serves as a high-performance collaborative resource for the Iowa Institute for Biomedical Imaging. The institute makes additional resources available to image processing research, including small and large animal as well as human research scanning facilities, and provides a backbone for interdisciplinary medical image analysis research to electrical and computer engineering graduate students and faculty.

Wireless Communication Systems

The department is engaged in research using wireless sensor networks (WSNs), which consist of spatially distributed autonomous devices that use sensors to cooperatively monitor physical or environmental conditions such as temperature, sound, vibration, pressure, motion, and pollutants at different locations. WSNs are used for environment and habitat monitoring, health care applications, home automation, and traffic control. Current research includes the application of WSNs, traditional telemetry, and commercial cellular communication infrastructure for geosciences data collection (e.g., rainfall, water quality, and soil moisture).

Another important research interest involving distributed sensor networks is the distributed control of power systems, especially requirements of the next-generation electric grid with smart metering and distributed generation using small-scale wind and solar generators. Research on WSNs also includes the design of cooperative communication techniques for energy-efficient WSNs and issues of localization, network organization, and control.

Research activities in communication systems focus on the design and analysis of receivers for digital wireless communications, especially the development of effective and practical receivers for multiple-user wireless cellular systems in multipath channels. Topics of research include the design, analysis, and experimental demonstration of large-scale distributed multiple-input multiple-output (MIMO) arrays for communication sensing and electronic warfare; precision interference cancellation techniques using feedback control; and synchronization and channel estimation for massive MIMO Base Stations.

Facilities

Undergraduate Core

Electrical and computer engineering provides core instruction for the college in electrical circuits, electronics, instrumentation, and computers. A key part of this core teaching responsibility lies in providing students with an early opportunity to use engineering laboratory instrumentation.

Undergraduate Laboratories

The department's undergraduate laboratories include facilities for the study of the internet of things (IoT), electrical and electronic circuits, wireless communication, power and sustainable energy, signals and systems, embedded systems, measurement automation, communication systems, control systems, image processing, robotics, and optics. The laboratories are equipped with modern equipment, including digital oscilloscopes, computer-controlled virtual instrumentation, and software and hardware for embedded systems development.

Graduate Facilities and Laboratories

The department has laboratories intended primarily for graduate research in the areas of virtual and augmented reality, deep learning, big data, bioinformatics, image processing, software engineering, electro-optics, control systems, medical imaging and image analysis, large-scale intelligent systems, and wireless communication. Linux, Macintosh, and Windows workstations and server nodes provide college-wide networked computing support. Through cooperative arrangements, advanced computing facilities at national supercomputing centers, federal laboratories, and other universities are available for graduate research.

Courses

Electrical and Computer Engineering Courses

ECE:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities, field trips). Requirements: first- or second-semester standing.

ECE:2400 Linear Systems I **3 s.h.**
Introduction to continuous and discrete time signals and systems with emphasis on Fourier analysis; examples of signals and systems; notion of state and finite state machines; causality; linearity and time invariance; periodicity; Fourier transforms; frequency response; convolution; IIR and FIR filters, continuous and discrete Fourier transforms; sampling and reconstruction; stability. Prerequisites: ENGR:2120 and MATH:2560.

ECE:2410 Principles of Electronic Instrumentation **4 s.h.**
Principles of analog signal amplification, signal conditioning, filtering; operational amplifier circuit analysis and design; principles of operation of diodes, bipolar transistors, field effect transistors; discrete transistor amplifier analysis and design; laboratory included. Prerequisites: ENGR:2120 and PHYS:1612 and MATH:2560.

ECE:3000 Electrical and Computer Engineering Professional Seminar **1 s.h.**
Professional aspects of electrical and computer engineering, and computer science, presented through lectures and discussions by guest speakers, field trips, and panel discussions. Requirements: junior standing.

ECE:3320 Introduction to Digital Design **3 s.h.**
Modern design and analysis of digital switching circuits; combinational logic; sequential circuits and system controllers; interfacing and busing techniques; design methodologies using medium- and large-scale integrated circuits; lab arranged. Requirements: sophomore standing.

ECE:3330 Introduction to Software Design **3 s.h.**
Design of software for engineering systems; algorithm design and structured programming; data structures; introduction to object-oriented programming in JAVA; applications to engineering problems; lab arranged. Prerequisites: ENGR:2730. Same as IGPI:3330.

ECE:3350 Computer Architecture and Organization **3 s.h.**
Basic concepts; computer evolution, register transfer level design, simulation techniques, instruction sets (CISC and RISC), assembly language programming, ALU design, arithmetic algorithms and realization of arithmetic functions, hardwired and microprogrammed control, memory hierarchies, virtual memory, cache memory, interrupts and DMA, input/output; introduction to high performance techniques, pipelining, multiprocessing; introduction to hardware description languages (Verilog, VHDL); students design and simulate a simple processor. Prerequisites: ENGR:2730 and ECE:3320.

ECE:3360 Embedded Systems 3 s.h.
Microprocessors and microcontrollers as components in engineering systems; embedded system design processes; microcontroller/microprocessor architecture; interrupts and traps; memory and device interfacing; low-level and high-level software design for embedded systems; examples of embedded system architecture and design; fundamentals of operating systems; tasks and processes; context switching and scheduling; memory and file management, interprocess communication; device drivers. Prerequisites: ENGR:2730 and ECE:3320. Corequisites: ECE:2410.

ECE:3400 Linear Systems II 3 s.h.
Builds on concepts from ECE:2400 towards application in digital signal processing; lab exercises, hands-on term project; review of key linear systems concepts; MATLAB basics, tools, and functions for digital signal processing; discrete time systems, difference equations in digital signal processing; Fourier analysis of discrete time signals; transient, steady-state, and frequency response of discrete time, linear time-invariant (LTI) systems; Z-transform analysis; sampling theorem and aliasing; power spectral density and periodograms; recording and processing of sound and music; finite impulse response (FIR) and infinite impulse response (IIR) filters; designing and using filters in MATLAB. Prerequisites: ECE:2400.

ECE:3410 Electronic Circuits 4 s.h.
Design and analysis of FET and BJT amplifiers; low, midrange, high-frequency analysis; difference amplifiers; feedback amplifiers; SPICE simulation; power amplifiers; digital logic families. Prerequisites: ECE:2410 and ECE:2400.

ECE:3500 Communication Systems 3 s.h.
Introduction to analog and digital communications, with an emphasis on modulation and noise analysis; Fourier analysis, probability theory, random variable and processes, AM, FM, pulse-coded modulation, binary digital modulation, SNR analysis of AM and FM, BER analysis of digital modulation schemes. Prerequisites: ECE:2400.

ECE:3540 Communication Networks 3 s.h.
Communication networks, layered network architectures, applications, network programming interfaces (e.g., sockets), transport, congestion, routing, data link protocols, local area networks, emerging high-speed networks, multimedia networks, network security, internet protocol; technology examples. Prerequisites: ENGR:2730. Corequisites: STAT:2020.

ECE:3600 Control Systems 3 s.h.
Fundamental concepts of linear feedback control, mathematical modeling, transfer functions, system response, feedback effects, stability, root-locus and frequency response analysis and design, compensation, lab arranged. Prerequisites: ECE:2400.

ECE:3700 Electromagnetic Theory 3 s.h.
Electric and magnetic forces, Maxwell's equations, wave propagation; applications, including radiation, transmission lines, circuit theory. Prerequisites: MATH:3550 and PHYS:1612.

ECE:3720 Semiconductor Devices 3 s.h.
Fundamentals of semiconductor physics and devices; principles of the p-n junction diode, bipolar transistor, field effect transistor. Prerequisites: ECE:3410 and PHYS:1612 and PHYS:2704.

ECE:3995 Undergraduate Contemporary Topics in Electrical and Computer Engineering 3 s.h.
New topics or areas of study not offered in other electrical and computer engineering courses; based on faculty/student interest; not available for individual study.

ECE:3998 Individual Investigations: Electrical Engineering arr.
Individual projects for electrical engineering undergraduate students: laboratory study, engineering design project, analysis and simulation of an engineering system, computer software development, research.

ECE:4720 Introductory Optics 3 s.h.
Wave motion and superposition, electromagnetic theory, photons, propagation of light, geometrical and physical optics, interference, diffraction, polarization, Fourier optics, coherence, lasers, a and nonlinear optics. Prerequisites: (PHYS:1512 or PHYS:2703 or PHYS:1612) and (MATH:1560 or MATH:1860). Same as PHYS:4720.

ECE:4728 Introductory Solid State Physics 3 s.h.
Phenomena associated with solid state; classification of solids and crystal structures, electronic and vibrational properties in solids; thermal, optical, magnetic, dielectric properties of solids. Prerequisites: PHYS:3741. Same as PHYS:4728.

ECE:4880 Electrical and Computer Engineering Senior Design 1 3 s.h.
Design problems requiring integration of subject matter from other required electrical and computer engineering courses. Prerequisites: ECE:2410 and ENGR:2730. Requirements: senior standing.

ECE:4890 Electrical and Computer Engineering Senior Design 2 3 s.h.
Individual or team project; demonstration of completed project and formal engineering report. Prerequisites: ECE:4880 and (3 of the following are required: ECE:3330, ECE:3350, ECE:3360, ECE:3400, ECE:3410, ECE:3500, ECE:3600, CS:3330). Requirements: completion of three required subprogram courses.

ECE:5000 Graduate Seminar: Electrical and Computer Engineering 0 s.h.
Presentation and discussion of recent advances and research in electrical and computer engineering by guest lecturers, faculty, students. Requirements: graduate standing.

ECE:5320 High Performance Computer Architecture 3 s.h.
Problems involved in designing and analyzing current machine architectures using hardware description language (HDL) simulation and analysis, hierarchical memory design, pipeline processing, vector machines, numerical applications, multiprocessor architectures and parallel algorithm design techniques; evaluation methods to determine relationship between computer design and design goals. Prerequisites: ECE:3350 or CS:3620. Same as CS:5610.

ECE:5330 Graph Algorithms and Combinatorial Optimization 3 s.h.
Combinatorial optimization problems; time complexity; graph theory and algorithms; combinatorial optimization algorithms; complexity theory and NP-completeness; approximation algorithms; greedy algorithms and matroids. Prerequisites: ECE:3330. Same as IGPI:5331.

ECE:5410 Advanced Circuit Techniques 3 s.h.
Advanced circuit techniques and principles; analog circuit design including amplifiers, oscillators, multipliers, modulators, phase-locked loops, active filters, switching power supplies, analog to digital and digital to analog converters; lab activities include circuit simulation, design, printed circuit board (PCB) layout and fabrication, assembly, and testing. Prerequisites: ECE:3410.

ECE:5415 Radio Frequency Electronics 3 s.h.
Active and passive devices and transmission line structures at radio frequencies; analysis and design of radio frequency electronic circuits including amplifiers, mixers, multipliers, detectors, radio frequency filters, and oscillators using scattering parameters and the Smith chart; impedance matching, noise and distortion, and power amplifiers; laboratory projects include designing, simulating, building, and testing a radio frequency amplifier and other components used in a radio receiver or transmitter. Prerequisites: ECE:2410 and ECE:3700.

ECE:5420 Power Electronics 3 s.h.
Fundamental concepts and design techniques of power electronics circuits; switching power pole and various switch-mode DC to DC power conversion topologies; feedback control of switch-mode DC to DC power supplies; diode rectification of AC utility power and Power Factor Control (PFC) circuits; electromagnetic concepts and design of high-frequency inductors and transformers; electrically isolated switch-mode DC power supply topologies and soft-switching DC-DC converters and inverters; techniques for synthesis of DC and low-frequency AC sinusoidal voltages. Prerequisites: PHYS:1611 and ENGR:2120 and MATH:2560. Requirements: junior standing.

ECE:5430 Electric Drive Systems 3 s.h.
Basic characteristics of DC and AC electric motors and their associated power electronics interfaces; applications of electric machines and drives that are essential for wind turbines, electric and hybrid-electric; emphasis on vehicles; electric machines in context of overall drives and associated applications; space-vector theory used to analyze electric machines and drives; DC motor/generator characteristics and control; AC single phase and three-phase motor characteristics and feedback control, including AC synchronous and induction motors. Prerequisites: ENGR:2120 and PHYS:1611 and MATH:2560. Requirements: junior standing.

ECE:5450 Machine Learning 3 s.h.
Fundamentals of machine learning theory including regression, classification, neural networks, clustering, and principal component analysis; engineering applications. Prerequisites: ECE:2400 or BME:2200. Same as IGPI:5450.

ECE:5455 Statistical Foundations of Inference and Machine Learning 3 s.h.
Basic strategies to cope with noise in measurements with three objectives at core of most machine learning tasks —hypothesis testing (where one must choose between various hypotheses), parameter estimation (where multiple parameters whose values define how a system will behave must be estimated from noisy measurements), and filtering (where a noisy music signal must be cleaned up); topics include probability and statistics, random variables and signals, hypothesis testing, parameter estimation, discrete- and continuous-time random processes, and optimal filtering; assignments, written exams, and projects. Prerequisites: STAT:2020 and ECE:2400.

ECE:5460 Digital Signal Processing 3 s.h.
Theory, techniques used in representing discrete-time signals; system concepts in frequency and sampling domains; FIR and IIR digital filter theory, design and realization techniques; theory, application of discrete Fourier transforms/FFT. Prerequisites: ECE:3400. Same as IGPI:5460.

ECE:5466 Optical Components, Alignment, and Instrumentation for Remote Sensing 3 s.h.
Explore optical components including lenses, mirrors, beam splitters, fiber optics, and filters, and optical assemblies including beam expanders, interferometers, and laser cavities; assess and align optical assemblies using metrology equipment including collimators, autocollimators, and wavemeters; hands-on laboratory work. Work with optics, optical devices, and metrology equipment; learn how to handle, work with, and assess optics and optical components and how to align complex assemblages of components in a sensor. Recommendations: basic or introductory physics course with applications to atmospheric chemistry. Same as CBE:5466, PHYS:5466.

ECE:5470 Medical Imaging Physics 3 s.h.
Physics and data acquisition techniques of major medical imaging modalities (X-ray, CT, MR, ultrasound, PET, SPECT); physical interactions of energy with living tissue; principles and methods for acquiring imaging data and subsequent image construction; how individual modalities influence image quality; MATLAB programming required. Second in a medical imaging sequence. Prerequisites: BME:2200 and BME:2210. Same as BME:5210, IGPI:5206.

ECE:5480 Digital Image Processing 3 s.h.
Mathematical foundations and practical techniques for digital manipulation of images; image sampling, compression, enhancement, linear and nonlinear filtering and restoration; Fourier domain analysis; image pre-processing, edge detection, filtering; image segmentation. Prerequisites: ECE:2400 or BME:2200. Same as IGPI:5480.

ECE:5490 Multi-Dimensional Image Analysis Tools and Techniques 3 s.h.
Broad exposure to common tools of medical imaging analysis in commercial, clinical, and research settings, including algorithm development (using C+++ and ITK), rapid prototyping (SimpleITK, nipype, ipython notebook), statistical analysis (R), machine learning (scikit-learn, keras/tensorflow) and reproducible science tools (python, git, bash); special emphasis on big data challenges associated with volume, velocity, and veracity; real-world settings for problems include image-guided robotic surgery, dose treatment planning, and image analysis. Prerequisites: ECE:5480 and (ECE:3330 or CS:2820).

ECE:5500 Digital Communications 3 s.h.
Random processes, source coding, digital transmission at baseband, optimum receiver design for Gaussian noise, error probability and power spectrum analysis, signal design for bandlimited channels, digital carrier modulation, bandwidth/energy/error probability tradeoffs, coding for error detection and correction. Prerequisites: STAT:2020 and ECE:3500.

ECE:5520 Introduction to Information and Coding Theories 3 s.h.
Quantitative measure of information; source encoding; error detecting codes; block and convolutional codes, design of hardware and software implementations; Viterbi decoding. Prerequisites: ECE:3500 and STAT:2020.

ECE:5525 Cryptography 3 s.h.
Introduction to cryptography, steam ciphers and block ciphers, data encryption standards, public key cryptosystems, digital signatures, message authentication codes, hash functions, and key management. Prerequisites: MATH:2550 and ENGR:2730.

ECE:5550 Internet of Things 3 s.h.
Internet of things (IoT) describes the evolution of the internet to intelligent devices, sensors, actuators, controllers, and other types of internet-enabled components; soon, IoT-based applications will enable seminal advances in a wide range of areas including health and lifestyle, transportation, smart cities, environment, energy, agriculture, and industry; topics include IoT logical and physical structure, IoT-enabled internet services, IoT devices/platforms/endpoints, IoT application domains, IoT security and privacy issues, and IoT data analytic; case studies and projects focused on design and implementation of a working IoT application. Prerequisites: ENGR:2730. Requirements: background in computer networks or embedded systems.

ECE:5600 Control Theory 3 s.h.
State space approach; controllability, observability, canonical forms, Luenberger observers, feedback control via pole placement, stability, minimal realization and optimal control. Prerequisites: ECE:3600.

ECE:5620 Electric Power Systems and Renewable Energy 3 s.h.
Overview of electric power systems; traditional and renewable forms of power generation; single phase and three-phase representations of electric power signals and electromagnetic concepts; AC transmission lines and underground cables, power flow in a power system network, AC power transformers, High Voltage DC (HVDC) power transmission and its application to renewable energy, electric power distribution, synchronous generators, voltage regulation and stability, power system transients and dynamic stability, control of interconnected power systems, transmission line faults, transient over-voltages and surge protection. Prerequisites: PHYS:1611 and ENGR:2120 and MATH:2560. Requirements: junior standing.

ECE:5630 Sustainable Energy Conversion 3 s.h.
Overview of sustainable energy conversion technologies; thermal energy conversion; Carnot and Rankine cycles; solar resource and raw energy availability, PV solar cell characteristics, solar panel construction, Maximum Power Point (MPP) tracking and utility grid interface; wind energy conversion resource and available energy, wind turbine configurations, electrical power interface electronics; ocean energy conversion tidal and wave resources and conversion technologies; tidal basin containment conversion and tidal current turbine systems. Prerequisites: ENGR:2120 and PHYS:1611 and MATH:2560. Requirements: junior standing.

ECE:5640 Computer-Based Control Systems 3 s.h.
Discrete and digital control systems; application of computers in control; sampling theorem; discrete time system models; analysis and design of discrete time systems; control design by state variable and input/output methods; advanced topics in digital controls; lab. Prerequisites: ECE:5600. Same as IGPI:5641.

ECE:5700 Advanced Electromagnetic Theory 3 s.h.
Time varying fields; plane wave propagation, reflection, refraction; waves in anisotropic media transmission lines, impedance matching, Smith chart; metallic and dielectric wave guides; resonators; antennas, antenna arrays. Prerequisites: ECE:3700.

ECE:5780 Optical Signal Processing 3 s.h.
Linear systems description of optical propagation; diffraction and angular plane wave spectrum; lenses as Fourier transformers, lens configurations as generalized optical processors; lasers, coherence, spatial frequency analysis; holography; convolvers, correlators, matched filters; synthetic aperture radar; optical computing. Requirements: for ECE:5780—ECE:3700; for PHYS:4820—PHYS:3812. Same as PHYS:4820.

ECE:5790 Electro Optics 3 s.h.
Wave equation solutions; optical birefringence; finite beam propagation in free space, dielectric waveguides and fibers; optical resonators; nonlinear phenomena; electro-optic, acousto-optic modulation; optical detection, noise; application to communication systems. Requirements: for ECE:5790—ECE:3700; for PHYS:4726—PHYS:3812. Same as PHYS:4726.

ECE:5800 Fundamentals of Software Engineering 3 s.h.
Problem analysis, requirements definition, specification, design, implementation, testing/maintenance, integration, project management; human factors; management, technical communication; design methodologies; software validation, verification; group project experience. Prerequisites: CS:2820 or ECE:3330. Same as CS:5800.

ECE:5810 Formal Methods in Software Engineering 3 s.h.
Models, methods, and their application in all phases of software engineering process; specification methods; verification of consistency, completeness of specifications; verification using tools. Prerequisites: ECE:3330 or CS:2820. Recommendations: CS:4350. Same as CS:5810.

ECE:5820 Software Engineering Languages and Tools 3 s.h.
Modern agile software development practices for cloud and web-based applications, using state-of-the-art software engineering languages, tools, and technologies; agile software development practices, software-as-a-service (SAAS), and the Ruby on Rails Development Framework. Prerequisites: ECE:3330 or CS:2820. Same as CS:5820.

ECE:5830 Software Engineering Project 3 s.h.
Team software development project using concepts and methodologies learned in earlier software engineering classes; practical aspects of large-scale software development. Prerequisites: ECE:5820. Same as CS:5830.

ECE:5840 Software Security 3 s.h.
Principles of computer security with emphasis on software development and deployment; cryptographic tools, authentication, access control, database and datacenter security, malicious software, denial of service attacks, firewalls, intrusion detection and prevention, buffer overflow attacks, and software and operating system security; case study investigations using hands-on tools. Prerequisites: ECE:3330 or CS:2820.

ECE:5845 Modern Databases 3 s.h.
Introduction to contemporary database architectures including relational, key-value, document-store, and graph databases; SQL, normalization; NoSQL models; relative strengths and weaknesses of database architectures; enterprise scalability issues; projects involving use of modern database systems (e.g., Postgres/MySQL, Redis, MongoDB, Neo4J). Prerequisites: ENGR:2730 or CS:2230.

ECE:5995 Contemporary Topics in Electrical and Computer Engineering arr.
New topics or areas of study not offered in other electrical and computer engineering courses; based on faculty/student interest; not available for individual study.

ECE:5998 Individual Investigations: Electrical and Computer Engineering arr.
Individual projects for electrical and computer engineering graduate students; laboratory study, engineering design project, analysis and simulation of an engineering system, computer software development, research. Requirements: graduate standing.

ECE:5999 Research: Electrical and Computer Engineering MS Thesis arr.
Experimental and/or analytical investigation of approved topic for partial fulfillment of requirements for MS degree with thesis in electrical and computer engineering. Requirements: graduate standing.

ECE:6725 Microfabrication and Thin Film Materials 3 s.h.
Microfabrication and nanofabrication techniques and thin film materials growth used to create micro-, nano-, and opto-electronic devices that underlie modern technology; introduction to microfabrication techniques, physics, and chemistry; growth and properties of thin film materials upon which fabrication is performed; review of materials science; introduction to vacuum science and technology; survey of micro- and nano-devices; examination of thin film growth and deposition science, plasma etching and sputtering, micro- and nano-patterning and characterization, and film nucleation, growth, structure, and properties. Prerequisites: (PHYS:2704 or ENGR:2130 or CHEM:1120) and (MATH:1560 or MATH:1860) and (PHYS:1612 or PHYS:2703) and CHEM:1110. Recommendations: background in thermal and statistical physics, introductory quantum mechanics, and introductory chemistry. Same as ME:6725, PHYS:6725.

ECE:7470 Image Analysis and Understanding 3 s.h.
Mathematical foundations and practical techniques of digital image analysis and understanding; image segmentation (from edges and regions), object description (from boundaries, regions, scale, scale insensitive descriptions, 3D shape, texture) pattern recognition (statistical and syntactic methods, cluster analysis), image understanding (knowledge representation, control strategies, matching, context, semantics), image analysis and understanding systems; lab arranged. Prerequisites: ECE:5480. Same as IGPI:7470.

ECE:7480 Advanced Digital Image Processing 3 s.h.
Advanced local operators (scale-space imaging, advanced edge detection, line and corner detection), image morphology (binary/gray scale operators, morphological segmentation and watershed), digital topology and geometry (binary/fuzzy digital topology, distance functions, skeletonization), color spaces, wavelets and multi-resolution processing (Haar transform, multi-resolution expansions, wavelet transforms in one or two dimensions, fast wavelet transform, wavelet packets), image registration (intensity correlation, mutual information, and landmark-based deformable registration methods). Prerequisites: ECE:5460 and ECE:5480. Same as IGPI:7480.

ECE:7720 Semiconductor Physics 3 s.h.
Electronic, optical, and materials properties of semiconductors. Prerequisites: PHYS:4728 and PHYS:5742. Same as PHYS:7720.

ECE:7930 Seminar: Plasma Physics arr.
Current research. Same as PHYS:7930.

ECE:7999 Research: Electrical and Computer Engineering PhD Thesis arr.
Experimental and/or analytical investigation of approved topic for partial fulfillment of requirements for PhD in electrical and computer engineering.

Computer Science and Engineering, BSE

The Bachelor of Science in Engineering (BSE) program in computer science and engineering combines the technical content of a computer science degree and a computer engineering degree in a single degree program. The program curriculum is jointly taught by faculty from the Department of Electrical and Computer Engineering and the Department of Computer Science (College of Liberal Arts and Sciences). The program provides students with a strong theoretical and conceptual understanding of the principles underlying computer software and hardware along with the engineering analysis, design, and multidisciplinary teamwork skills needed to develop large and complex systems containing both software and hardware components.

The computer science and engineering program encompasses the technical rigor of a Bachelor of Science program in computer science and a Bachelor of Science program in computer engineering. This major is jointly accredited in computer science and computer engineering by the Accreditation Board for Engineering and Technology (ABET). Graduates gain the foundational knowledge provided by a computer science education together with the critical thinking, problem-solving, and system design skills at the heart of a computer engineering curriculum.

The major provides technical depth and breadth as well as flexibility and the opportunity for students to customize their programs according to their own goals and interests. Students choose one of several focus areas according to the type of job or research they plan to pursue; students also have the opportunity to work with their academic advisor to build a focus area plan that adheres to their goals and interests. Students select a focus area to personalize their curriculum and to prepare them for certain jobs or research studies they intend to seek.

In their senior year, students complete a two-semester capstone design sequence culminating in the development and implementation of a significant, original project. The capstone design experience emphasizes teamwork, professionalism, open-ended problem solving, and the ability to work within real-world constraints and engineering standards.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Educational Objectives

Graduates of the computer science and engineering program will:

- exhibit leadership and vision in contributing to the computing-related technical and policy decisions of industry, government, and research enterprises;
- demonstrate computing skills and problem-solving abilities that permit them to contribute in a variety of technical, business, and academic careers;
- thrive in diverse, global, and multidisciplinary environments;
- possess the ability to communicate effectively and participate collaboratively in interactions with other computing and engineering professionals; and
- understand the importance of participating in lifelong learning activities that enhance their professional and personal development.

Requirements

The Bachelor of Science in Engineering (BSE) with a major in computer science and engineering requires a minimum of 128 s.h. of credits. At the time of graduation, students must have a cumulative grade-point average of at least 2.00 in all college work used to complete degree requirements and in all UI coursework in order to be awarded the BSE.

All BSE students are required to take the same collegiate curriculum. For information about these collegiate requirements, see the Bachelor of Science in Engineering, BSE [p. 1529] in the catalog. 6 s.h. of a student's major courses fulfill the basic science or college-level math collegiate requirement. Students completing the major in computer science and engineering fulfill the collegiate statistics requirement by completing STAT:2020 Probability and Statistics for the Engineering and Physical Sciences.

The major in computer science and engineering includes ECE:3000 Electrical and Computer Engineering Professional Seminar, typically taken in the third year.

The BSE with a major in computer science and engineering requires the following coursework.

Requirements	Hours
Collegiate Curriculum	49
Basic Science and College-Level Math, from Major Requirements or Focus Area	6
Major Requirements	52
Focus Area	21

Major Requirements

Major requirements include a set of common courses (52 s.h.) and two capstone design courses (6 s.h.).

Common Courses

Course #	Title	Hours
All of these:		
ECE:2400	Linear Systems I	3
ECE:2410	Principles of Electronic Instrumentation	4
ECE:3320	Introduction to Digital Design	3
ECE:3330	Introduction to Software Design	3
ECE:3350	Computer Architecture and Organization	3
ECE:3360	Embedded Systems	3
ECE:3540	Communication Networks	3
CS:1210	Computer Science I: Fundamentals	4
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
CS:3330	Algorithms	3
CS:3620	Operating Systems	3
CS:3820	Programming Language Concepts	3
ENGR:2120	Electrical Circuits	3

ENGR:2730	Computers in Engineering	3
PHYS:1612	Introductory Physics II (with lab)	4

Capstone Design Courses

In their senior year, students complete a two-semester capstone design sequence culminating in the development and implementation of a significant, original project.

Course #	Title	Hours
Both of these:		
ECE:4880	Electrical and Computer Engineering Senior Design 1	3
ECE:4890	Electrical and Computer Engineering Senior Design 2	3

Focus Area

Students must select focus area courses according to guidelines established by the Department of Electrical and Computer Engineering. A number of established focus areas are available, and students may also work with their academic advisor to create a customized plan tailored to their goals and interests.

Students complete a minimum of 21 s.h. in electives, including at least one complementary theory elective course (3 s.h.). Carefully selected elective and general education courses may contribute to earning a minor and/or certificate, including the Certificate in Sustainability [p. 404] (College of Liberal Arts and Sciences) or the Certificate in Technological Entrepreneurship [p. 1681].

For a complete list of focus areas and course selection guidelines, see Focus Areas on the Department of Electrical and Computer Engineering website. Although general guidelines and requirements for elective courses are listed, course recommendations for specific focus areas differ. While some courses may apply to more than one focus area requirement, a single course may only count once toward completing a focus area.

Electrical and Computer Engineering Electives

Students choose two focus area electives from electrical and computer engineering courses (prefix ECE) not already required for the major. Students must consult an academic advisor and gain approval from the undergraduate curriculum chair to count ECE:5998 Individual Investigations: Electrical and Computer Engineering toward this requirement.

Course #	Title	Hours
Both of these:		
Technical course in electrical and computer engineering (prefix ECE) numbered 3400 or above, excluding ECE:3998, ECE:5000, and ECE:5999		3
Advanced course in electrical and computer engineering (prefix ECE) numbered 5001-5995		3

Computer Science Electives

Students choose two focus area electives (at least 6 s.h.) from computer science courses (prefix CS) not already required for the major. At least one course must be numbered 4000 or above.

Course #	Title	Hours
Two of these, with at least one numbered 4000 or above:		
ECE:5320/CS:5610	High Performance Computer Architecture	3
ECE:5800/CS:5800	Fundamentals of Software Engineering	3
ECE:5810/CS:5810	Formal Methods in Software Engineering	3
ECE:5820/CS:5820	Software Engineering Languages and Tools	3
ECE:5830/CS:5830	Software Engineering Project	3
CS:3700/ MATH:3800	Introduction to Numerical Methods	3
CS:3980	Topics in Computer Science I	3
CS:4330	Theory of Computation	3
CS:4350	Logic in Computer Science	3
CS:4400	Database Systems	3
CS:4420	Artificial Intelligence	3
CS:4440	Web Mining	3
CS:4470	Health Data Analytics	3
CS:4500	Research Methods in Human-Computer Interaction	3
CS:4630	Mobile Computing	3
CS:4640	Computer Security	3
CS:4700/ MATH:4860	High Performance and Parallel Computing	3
CS:4720/ MATH:4820	Optimization Techniques	3
CS:4740/IGPI:4740/ MATH:4740/ STAT:4740	Large Data Analysis	3
CS:4980	Topics in Computer Science II	3
CS:5340	Limits of Computation	3
CS:5350	Design and Analysis of Algorithms	3
CS:5360	Randomized Algorithms	3
CS:5370	Computational Geometry	3
CS:5430	Machine Learning	3
CS:5620	Distributed Systems and Algorithms	3
CS:5630	Cloud Computing Technology	3
CS:5710/ MATH:5800	Numerical Methods I	3
CS:5720/ MATH:5810	Numerical Methods II	3
CS:5850	Programming Language Foundations	3
CS:5860	Lambda Calculus and Applications	3
CS:5980	Topics in Computer Science III	arr.

The following courses do not count towards the major; students take more advanced versions of these courses as part of their required coursework.

Course #	Title	Hours
CS:2630	Computer Organization	4
CS:2820	Introduction to Software Development	4
CS:3210	Programming Languages and Tools	arr.
CS:3640	Introduction to Networks and Their Applications	3

Additional Electives

Students select an additional 6 s.h. in courses to reach a minimum of 18 s.h. in focus area electives. Courses may be from the electrical and computer engineering (prefix ECE) or computer science (prefix CS) categories in the previous lists, or they may be chosen from outside of those lists with the approval of an academic advisor.

Theory Elective

Course #	Title	Hours
One of these:		
ECE:5330/IGPI:5331	Graph Algorithms and Combinatorial Optimization	3
ECE:5450/IGPI:5450	Machine Learning	3
ECE:5520	Introduction to Information and Coding Theories	3
ECE:5525	Cryptography	3
ECE:5810/CS:5810	Formal Methods in Software Engineering	3
CS:4330	Theory of Computation	3
CS:4350	Logic in Computer Science	3
CS:4720/ MATH:4820	Optimization Techniques	3
CS:5340	Limits of Computation	3
CS:5360	Randomized Algorithms	3
CS:5370	Computational Geometry	3
CS:5430	Machine Learning	3
CS:5620	Distributed Systems and Algorithms	3
CS:5850	Programming Language Foundations	3
CS:5860	Lambda Calculus and Applications	3

Double Major in Computer Science and Engineering/ Electrical Engineering

Students may earn a double major in computer science and engineering (CSE) and electrical engineering (EE). They must satisfy all requirements of the electrical track of the EE major and all requirements of the CSE major.

Combined Programs

BSE/MS in Electrical and Computer Engineering

The College of Engineering offers a Bachelor of Science in Engineering/Master of Science for computer science and engineering undergraduate students who intend to earn an MS in electrical and computer engineering. BSE/MS students may take up to 12 s.h. of graduate-level coursework and do thesis-level research while they are still undergraduates. They may count 9 s.h. of graduate coursework toward both degrees. Once students complete the requirements for the bachelor's degree, they are granted the BSE, and they normally complete the MS one year later.

To be admitted to the degree program, students must have completed at least 80 s.h., have a cumulative grade-point average of at least 3.25, and submit a letter of application to the chair of the Department of Electrical and Computer Engineering. For more information, see Joint BS/MS Degree Program Undergraduate to Graduate (U2G) on the Department of Electrical and Computer Engineering website.

BSE/MCS

The College of Engineering and the Department of Computer Science (College of Liberal Arts and Sciences) offer a combined Bachelor of Science in Engineering/Master of Computer Science for computer science and engineering undergraduate students.

The combined degree program allows students to count a limited amount of credit toward both degrees. For more information, see the Master of Computer Science, MCS [p. 316] in the catalog.

Career Advancement

Students who earn a major in computer science and engineering work in research, design, development, manufacturing, sales, market analysis, consulting, field service, and management. They are employed in computer, semiconductor, software, aerospace, telecommunication, medical, radio, TV, and power industries, and many graduates pursue entrepreneurial ventures.

The major also prepares students for further study in many areas demanding computational and engineering skill sets.

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including engineering career fairs and other programming related to career development.

Engineering Career Services offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, job offer evaluation, and much more. Engineering Career Services partners with the Pomerantz Career Center to facilitate on-campus interviewing, postgraduate outcome collection, and the university's online recruiting system, Handshake.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Computer Science and Engineering, BSE

Course	Title	Hours
Academic Career		
Any Semester		
Students select one of several established focus areas or work with their academic advisor to create a customized plan. Focus areas require at least 21 s.h. in elective courses and one theory elective (3 s.h.). See General Catalog, the Department of Electrical and Computer Engineering website, or an advisor for more information.		
	Hours	**0**
First Year		
Fall		
MATH:1550	Engineering Calculus I [a, b]	4
CHEM:1110	Principles of Chemistry I [a, c]	4
ENGR:1100	Introduction to Engineering Problem Solving [d]	3
ENGR:1300	Introduction to Engineering Computing [a]	3
CSI:1600	Success at Iowa	0
	Hours	**14**
Spring		
RHET:1030	Rhetoric: Writing and Communication [e]	4
PHYS:1611	Introductory Physics I [a]	4
MATH:1560	Engineering Calculus II [a]	4
MATH:2550	Engineering Matrix Algebra [a]	2
CS:1210	Computer Science I: Fundamentals [e]	4
	Hours	**18**
Second Year		
Fall		
GE: Approved Course Subjects [f]		3
MATH:2560	Engineering Differential Equations [a]	3
PHYS:1612	Introductory Physics II [a]	4
ENGR:2120	Electrical Circuits [e]	3
ENGR:2730	Computers in Engineering [a]	3
	Hours	**16**
Spring		
GE: Cultural Perspectives, Values, and Society [g]		3
CS:2210	Discrete Structures [e]	3
CS:2230	Computer Science II: Data Structures [e]	4
ECE:2400	Linear Systems I [a]	3
ECE:2410	Principles of Electronic Instrumentation [a]	4
Focus Area Form: Students should fill out a focus area selection form by the end of their Spring semester. Focus area forms can be updated/ changed at anytime. Please see the Electrical and Computer Engineering (ECE) - Undergraduate Focus Area Forms webpage for the link.		
	Hours	**17**
Third Year		
Fall		
GE: Engineering Be Creative [h]		3
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences [a]	3
ECE:3320	Introduction to Digital Design [d]	3
ECE:3330	Introduction to Software Design [a]	3
Focus Area: computer science elective [i]		3 - 4
ECE:3000	Electrical and Computer Engineering Professional Seminar [d]	1
	Hours	**16-17**
Spring		
GE: Approved Course Subjects [f]		3
CS:3330	Algorithms [a]	3
CS:3820	Programming Language Concepts [a]	3
ECE:3350	Computer Architecture and Organization [j]	3
ECE:3360	Embedded Systems [a]	3
Focus Area: additional elective [i]		3
	Hours	**18**
Fourth Year		
Fall		
CS:3620	Operating Systems [a]	3
ECE:3540	Communication Networks [d]	3
ECE:4880	Electrical and Computer Engineering Senior Design 1 [a]	3
Focus Area: ECE elective [i]		3 - 4
Focus Area: additional elective [i]		3
	Hours	**15-16**
Spring		
GE: Approved Course Subjects [f]		3
ECE:4890	Electrical and Computer Engineering Senior Design 2 [a]	3
Focus Area: theory elective [i]		3
Focus Area: advanced computer science elective [i]		3 - 4
Focus Area: Advance ECE Course [i]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15-16**
	Total Hours	**129-132**

a Typically this course is offered in fall and spring semesters. Check MyUI for course availability since offerings are subject to change.

b Enrollment in math courses requires completion of a placement exam.

c Enrollment in chemistry courses requires completion of a placement exam.

d Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

e Typically this course is offered in fall, spring, and summer sessions. Check MyUI for course availability since offerings are subject to change.

f See General Catalog for list of approved course subjects.

g Students select a course from one of two GE CLAS Core areas: Understanding Cultural Perspectives or Values and Society.

h See General Catalog for list of approved courses. Students who intend to enroll in a Be Creative course with

prerequisites must request a waiver by completing the Request Prerequisite Special Permission form on MyUI.

i Students complete 21 semester hours of focus area courses, not required in their major, composed of: one theory elective (3 s.h.), two electrical and computer engineering courses (prefix ECE) (6 s.h.), two computer science courses (prefix CS) (6 s.h.), and two additional electives (6 s.h.). See General Catalog and Department of Electrical and Computer Engineering website for specific requirements and recommendations. Or consult an advisor for more information.

j Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Electrical Engineering, BSE

Electrical engineers develop technologies and systems for a wide variety of applications ranging from telecommunications to medical imaging. They play a central role in the design and implementation of any technology that is powered by electricity as well as the generation and distribution of electric power. Topics covered in the electrical engineering curriculum include the design of electronic circuits, communication systems, control systems, and semiconductor devices. Students may opt to specialize in any of these areas as well as others that include electrical power generation and distribution, medical image processing, computer systems, or design of micro- and nano-scale optical and electronic devices.

The major provides technical depth and breadth as well as flexibility and the opportunity for students to customize their programs according to their own goals. Students choose one of several focus areas according to the type of job or research they plan to pursue. More than 20 focus areas are available; see Focus Areas on the Department of Electrical and Computer Engineering website. Students also have the opportunity to work with their academic advisor to build a focus area plan that adheres to their goals and objectives. Focus areas allow students to personalize their curriculum and prepare them for the jobs or research they intend to pursue.

In their senior year, students complete a two-semester capstone design sequence culminating in a significant, original project.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Educational Objectives

Graduates of the electrical engineering program will:

- exhibit leadership and vision in contributing to the technical and policy decisions of industry, government, and research enterprises;
- demonstrate problem-solving abilities that permit them to contribute to a variety of technical, business, and academic careers;
- thrive in diverse, global, and multidisciplinary environments;
- possess the ability to communicate effectively and participate collaboratively in interactions with engineers and other professionals; and
- understand the importance of participating in lifelong learning activities that enhance their professional and personal development.

Requirements

The Bachelor of Science in Engineering (BSE) with a major in electrical engineering requires a minimum of 128 s.h. of credit. At the time of graduation, students must have a cumulative grade-point average of at least 2.00 in all college work used to complete degree requirements and in all UI coursework in order to be awarded the BSE.

The curriculum is built on a common core of electrical and computer engineering courses taken by all students. Beginning in their sophomore year, students select either the electrical or computer curricular track and begin taking more specialized courses. The electrical track is intended to provide a broad background in electrical engineering concepts and practice that prepares students for graduate study or electrical engineering careers in a wide range of industries and organizations. The computer track provides focus and depth for students preparing for graduate study or a career in computer hardware or software engineering. Students begin taking track and focus area elective courses in their third year.

All BSE students are required to take the same collegiate curriculum. For information about these collegiate requirements, see the Bachelor of Science in Engineering, BSE [p. 1529] in the catalog. 6 s.h. of a student's major courses fulfill the basic science or college-level math collegiate requirement. Students completing the major in electrical engineering fulfill the collegiate statistics requirement by completing STAT:2020 Probability and Statistics for the Engineering and Physical Sciences.

The BSE with a major in electrical engineering requires the following coursework.

Requirements	Hours
Collegiate Curriculum	49
Basic Science and College-Level Math, from Major Requirements or Focus Area	6
Major Requirements, Computer Track	46
Focus Area, Computer Track	27
Major Requirements, Electrical Track	49
Focus Area, Electrical Track	24

Major Requirements

Major requirements include a set of common courses (29 s.h.), required courses within one of two tracks (16 s.h. in the computer track, 19 s.h. in the electrical track), one departmental seminar (1 s.h.), and two capstone design courses (6 s.h.).

Common Courses

Course #	Title	Hours
All of these:		
ECE:2400	Linear Systems I	3
ECE:2410	Principles of Electronic Instrumentation	4
ECE:3320	Introduction to Digital Design	3
ECE:3360	Embedded Systems	3
ECE:3700	Electromagnetic Theory	3
ENGR:2120	Electrical Circuits	3
ENGR:2730	Computers in Engineering	3
MATH:3550	Engineering Vector Calculus	3
PHYS:1612	Introductory Physics II (with lab)	4

Tracks

Beginning in the second year of study, students select either the electrical or computer curricular track and begin taking more specialized courses. The options for breadth and depth courses in the focus area are in part informed by the track a student is completing; see the section titled "Focus Area."

Computer Track Required Courses

Course #	Title	Hours
All of these:		
ECE:3330	Introduction to Software Design	3
ECE:3350	Computer Architecture and Organization	3
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
CS:3330	Algorithms	3

Electrical Track Required Courses

Course #	Title	Hours
All of these:		
ECE:3400	Linear Systems II	3
ECE:3410	Electronic Circuits	4
ECE:3500	Communication Systems	3
ECE:3600	Control Systems	3
ECE:3720	Semiconductor Devices	3
PHYS:2704	Physics IV (without lab)	3

Departmental Seminar

The major in electrical engineering includes ECE:3000 Electrical and Computer Engineering Professional Seminar, typically taken in the third year.

Capstone Design Courses

In their final year of study, students complete a two-semester capstone design sequence culminating in the development and implementation of a significant, original project. The capstone design experience emphasizes teamwork, professionalism, open-ended problem solving, and the ability to work within real-world constraints and engineering standards.

Course #	Title	Hours
Both of these:		
ECE:4880	Electrical and Computer Engineering Senior Design 1	3
ECE:4890	Electrical and Computer Engineering Senior Design 2	3

Focus Area

Students must select focus area courses according to guidelines established by the Department of Electrical and Computer Engineering. A number of established focus areas are available, and students also may work with their academic advisor to create a customized plan tailored to their goals and objectives. Focus areas allow students to personalize their curriculum and to prepare them for the jobs or research they intend to pursue.

Focus areas in the electrical engineering major consist of one breadth elective (at least 3 s.h.), one depth elective (3 s.h.), two electrical and computer engineering courses (prefix ECE) numbered above 5000 (6 s.h.), two technical electives that align with the focus area (at least 6 s.h.), and two additional elective courses (6 s.h.). Students completing the computer track take an additional elective course (at least 3 s.h.) in electrical and computer engineering (prefix ECE).

The options for breadth and depth courses in the focus area are in part informed by the track a student is completing—computer or electrical. Carefully selected elective and general education courses may contribute to earning a minor and/or certificate, including the Certificate in Sustainability [p. 404] (College of Liberal Arts and Sciences) or the Certificate in Technological Entrepreneurship [p. 1681] (College of Engineering). Students who take an additional advanced math course meet the requirements for a minor in mathematics [p. 801] (College of Liberal Arts and Sciences). Students on the computer track who take an additional approved computer science course (prefix CS) meet the requirements for a minor in computer science [p. 314] (College of Liberal Arts and Sciences).

For a complete list of focus areas and course selection guidelines, see Focus Areas on the Department of Electrical and Computer Engineering website. Although general guidelines and requirements for elective courses are listed, course recommendations for specific focus areas differ. While some courses may apply to more than one focus area requirement, a single course may only count once toward completing a focus area.

Breadth Elective

Students in the computer track must choose their breadth elective from the list of required electrical track courses. Students in the electrical track must choose their breadth elective from the list of required computer track courses. See the section titled "Tracks." Students in either track may instead use ECE:3540 Communication Networks as their breadth elective.

Depth Elective

The depth elective must be an advanced course, normally numbered 4000 or above, in a subject area within a student's track.

Computer Track

Options for the computer track include the following.

Course #	Title	Hours
ECE:5320/CS:5610	High Performance Computer Architecture	3
ECE:5450/IGPI:5450	Machine Learning	3
ECE:5460/IGPI:5460	Digital Signal Processing	3
ECE:5480/IGPI:5480	Digital Image Processing	3
ECE:5525	Cryptography	3
ECE:5800/CS:5800	Fundamentals of Software Engineering	3
ECE:5810/CS:5810	Formal Methods in Software Engineering	3
ECE:5840	Software Security	3
ECE:5845	Modern Databases	3
CS:4400	Database Systems	3
CS:4420	Artificial Intelligence	3

Electrical Track

Options for the electrical track include the following.

Course #	Title	Hours
ECE:5320/CS:5610	High Performance Computer Architecture	3
ECE:5410	Advanced Circuit Techniques	3
ECE:5415	Radio Frequency Electronics	3

ECE:5455	Statistical Foundations of Inference and Machine Learning	3
ECE:5480/IGPI:5480	Digital Image Processing	3
ECE:5500	Digital Communications	3
ECE:5600	Control Theory	3
ECE:5620	Electric Power Systems and Renewable Energy	3
ECE:5640/IGPI:5641	Computer-Based Control Systems	3
ECE:5700	Advanced Electromagnetic Theory	3

Advanced Electrical and Computer Engineering Electives

Students complete at least two Department of Electrical and Computer Engineering courses (prefix ECE) numbered above 5000. Specific recommendations vary based on focus area.

Additional Electives

Students select additional courses from the focus area categories or from a list of suggested electives for their specific focus area. Additional electives for students pursuing the computer track total at least 15 s.h. (typically five courses) while electrical track electives total at least 12 s.h. (typically four courses).

Students may select courses in the Department of Electrical and Computer Engineering (prefix ECE) not already taken for the major. Courses not listed here may be able to count toward the focus area requirements; students should consult an academic advisor.

While course recommendations for specific focus areas differ, the following is a list of potential elective courses for either track.

Course #	Title	Hours
ACCT:2100	Introduction to Financial Accounting	3
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
CEE:4107/CBE:4410	Sustainable Systems	3
CHEM:1120	Principles of Chemistry II	4
CHEM:2220	Organic Chemistry II	3
CHEM:2410	Organic Chemistry Laboratory	3
ENGR:2130	Thermodynamics	3
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3100	Entrepreneurial Finance	3
ISE:2500	Engineering Economy	3
ISE:4172	Big Data Analytics	3
MATH:3800/ CS:3700	Introduction to Numerical Methods	3
MATH:4040	Matrix Theory	3
MATH:4200	Complex Variables	3
SEES:2013/ BUS:2013/ URP:2013	Introduction to Sustainability	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3
STAT:4520/ IGPI:4522/ PSQF:4520	Bayesian Statistics	3
STAT:4580/ DATA:4580/ IGPI:4580	Data Visualization and Data Technologies	3

Double Major in Electrical Engineering/Computer Science and Engineering

Students may earn a double major in electrical engineering (EE) and computer science and engineering (CSE). They must satisfy all requirements of the electrical track of the EE major and all requirements of the CSE major.

Combined Programs

BSE/MS in Electrical and Computer Engineering

The College of Engineering offers a Bachelor of Science in Engineering/Master of Science for electrical engineering undergraduate students who intend to earn a MS in electrical and computer engineering. BSE/MS students may take up to 12 s.h. of graduate-level coursework and do thesis-level research while they are still undergraduates. They may count 9 s.h. of graduate coursework toward both degrees. Once students complete the requirements for the bachelor's degree, they are granted the BSE, and they typically complete the MS one year later.

To be admitted to the degree program, students must have completed at least 80 s.h., have a cumulative grade-point average of at least 3.25, and submit a letter of application to the chair of the Department of Electrical and Computer Engineering. For more information, see Joint BS/MS Degree Program Undergraduate to Graduate (U2G) on the Department of Electrical and Computer Engineering website.

Career Advancement

The engineering profession is a foundation for a variety of careers in industry, medicine, law, government, and consulting. Engineering majors consistently rank among the top-paid majors for bachelor's degree graduates, according to the National Association of Colleges and Employers (NACE). Electrical engineers find employment everywhere smart technology is employed. On average, 93–98% of graduates are employed in their field of study or pursuing advanced education within seven months of graduation.

Electrical engineers work in research, design, development, manufacturing, sales, market analysis, consulting, field service, and management. They are employed in computer, semiconductor, software, aerospace, telecommunication, medical, radio, television, and power industries.

Engineering Career Services develops and promotes experiential education and professional opportunities for students. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including an engineering career fair and other career-development programming each semester.

Engineering Career Services also offers individual advising and class presentations on résumé and cover letter

preparation, job and internship search strategies, interviewing skills, and job offer evaluation.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Electrical Engineering, BSE

- Computer Track [p. 1628]
- Electrical Track [p. 1629]

Computer Track

Course	Title	Hours
Academic Career		
Any Semester		
Students select one of several established focus areas or work with their academic advisor to create a customized plan. Focus areas require at least 27 s.h. in elective and/or required courses. See General Catalog, the Department of Electrical and Computer Engineering website, or an advisor for more information.		
	Hours	**0**
First Year		
Fall		
RHET:1030	Rhetoric: Writing and Communication [a]	4
MATH:1550	Engineering Calculus I [b, c]	4
CHEM:1110	Principles of Chemistry I [b, d]	4
ENGR:1100	Introduction to Engineering Problem Solving [e]	3
CSI:1600	Success at Iowa	0
	Hours	**15**
Spring		
GE: Approved Course Subjects [f]		3
MATH:1560	Engineering Calculus II [b]	4
MATH:2550	Engineering Matrix Algebra [b]	2
PHYS:1611	Introductory Physics I [b]	4
ENGR:1300	Introduction to Engineering Computing [b]	3
	Hours	**16**
Second Year		
Fall		
GE: Cultural Perspectives, Values, and Society [g]		3
MATH:2560	Engineering Differential Equations [b]	3
PHYS:1612	Introductory Physics II [a]	4
ENGR:2120	Electrical Circuits [a]	3
ENGR:2730	Computers in Engineering [b]	3
	Hours	**16**
Spring		
MATH:3550	Engineering Vector Calculus [b]	3
CS:2210	Discrete Structures [a]	3
CS:2230	Computer Science II: Data Structures [a]	4
ECE:2400	Linear Systems I [b]	3
ECE:2410	Principles of Electronic Instrumentation [b]	4
Focus Area: Students fill out a focus area plan of study form by the end of their Spring semester. The form link is located on the Electrical and Computer Engineering (ECE) Undergraduate ECE Forms webpage.		
	Hours	**17**
Third Year		
Fall		
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences [b]	3
CS:3330	Algorithms [b]	3
ECE:3320	Introduction to Digital Design [e]	3
ECE:3330	Introduction to Software Design [b]	3
ECE:3700	Electromagnetic Theory [e]	3
ECE:3000	Electrical and Computer Engineering Professional Seminar [e]	1
	Hours	**16**
Spring		
GE: Engineering Be Creative [h]		3
ECE:3350	Computer Architecture and Organization [i]	3
ECE:3360	Embedded Systems [b]	3
Focus Area: elective ECE course [j]		3
Focus Area: technical elective [j]		3
Focus Area: additional elective [j]		3
	Hours	**18**
Fourth Year		
Fall		
GE: Approved Course Subjects [f]		3
ECE:4880	Electrical and Computer Engineering Senior Design 1 [b]	3
Focus Area: breadth elective [j]		3
Focus Area: ECE 5000 or above course [j]		3
Focus Area: technical elective [j]		3
	Hours	**15**
Spring		
GE: Approved Course Subjects [f]		3
ECE:4890	Electrical and Computer Engineering Senior Design 2 [b]	3
Focus Area: depth elective [j]		3
Focus Area: ECE 5000 or above course [j]		3
Focus Area: additional elective [j]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**128**

a Typically this course is offered in fall, spring, and summer sessions. Check MyUI for course availability since offerings are subject to change.

b Typically this course is offered in fall and spring semesters. Check MyUI for course availability since offerings are subject to change.

c Enrollment in math courses requires completion of a placement exam.

d Enrollment in chemistry courses requires completion of a placement exam.
e Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.
f See General Catalog for list of approved course subjects.
g Students select a course from one of two GE CLAS Core areas: Understanding Cultural Perspectives or Values and Society.
h See General Catalog for list of approved courses. Students who intend to enroll in a Be Creative course with prerequisites must request a waiver by completing the Request Prerequisite Special Permission form on MyUI.
i Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
j Students in the computer track complete nine focus area courses, not required in their curriculum, including: one breadth elective (3 s.h.); one depth elective (3 s.h.); two courses with prefix ECE numbered above 5000 (6 s.h.); two technical electives (6 s.h.), two additional elective courses (6 s.h.), and one ECE technical elective (3 s.h.). See General Catalog and Department of Electrical and Computer Engineering website for requirements and recommendations or consult an advisor for more information.
k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Electrical Track

Course	Title	Hours
Academic Career		
Any Semester		
Students select one of several established focus areas or work with their academic advisor to create a customized plan. Focus areas require at least 24 s.h. in elective and/or required courses. See General Catalog, the Department of Electrical and Computer Engineering website, or an advisor for more information. [a]		
	Hours	**0**
First Year		
Fall		
RHET:1030	Rhetoric: Writing and Communication [b]	4
MATH:1550	Engineering Calculus I [c, d]	4
CHEM:1110	Principles of Chemistry I [c, e]	4
ENGR:1100	Introduction to Engineering Problem Solving [f]	3
CSI:1600	Success at Iowa	0
	Hours	**15**
Spring		
GE: Approved Course Subjects [g]		3
MATH:1560	Engineering Calculus II [c]	4
MATH:2550	Engineering Matrix Algebra [c]	2
PHYS:1611	Introductory Physics I [c]	4
ENGR:1300	Introduction to Engineering Computing [c]	3
	Hours	**16**
Second Year		
Fall		
GE: Cultural Perspectives, Values, and Society [h]		3
MATH:2560	Engineering Differential Equations [c]	3
PHYS:1612	Introductory Physics II [c]	4
ENGR:2120	Electrical Circuits [b]	3
ENGR:2730	Computers in Engineering [c]	3
	Hours	**16**
Spring		
MATH:3550	Engineering Vector Calculus [c]	3
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences [c]	3
PHYS:2704	Physics IV [i]	3
ECE:2400	Linear Systems I [c]	3
ECE:2410	Principles of Electronic Instrumentation [c]	4
Focus Area: Students complete their focus area plan of study by the end of the Spring semester. The link is located on the Electrical and Computer Engineering (ECE) Undergraduate ECE Forms webpage.		
	Hours	**16**
Third Year		
Fall		
ECE:3000	Electrical and Computer Engineering Professional Seminar [f]	1
ECE:3320	Introduction to Digital Design [f]	3
ECE:3400	Linear Systems II [f]	3
ECE:3410	Electronic Circuits [f]	4
ECE:3700	Electromagnetic Theory [f]	3
Focus Area: technical elective [j]		3
	Hours	**17**
Spring		
GE: Engineering Be Creative [k]		3
ECE:3360	Embedded Systems [c]	3
ECE:3500	Communication Systems [i]	3
ECE:3600	Control Systems [i]	3
ECE:3720	Semiconductor Devices [i]	3
Focus Area: additional elective [j]		3
	Hours	**18**
Fourth Year		
Fall		
GE: Approved Course Subjects [g]		3
ECE:4880	Electrical and Computer Engineering Senior Design 1 [c]	3
Focus Area: ECE 5000 or above course [j]		3
Focus Area: technical elective [j]		3
Focus Area: breadth elective [j]		3
	Hours	**15**
Spring		
GE: Approved Course Subjects [g]		3
ECE:4890	Electrical and Computer Engineering Senior Design 2 [c]	3
Focus Area: ECE 5000 or above course [j]		3
Focus Area: additional elective [j]		3
Focus Area: depth elective [j]		3

Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]	
Hours	**15**
Total Hours	**128**

a Students in the electrical track complete eight focus area courses including: one breadth elective (3 s.h.); one depth elective (3 s.h.); two courses with prefix ECE numbered above 5000 (6 s.h.); two technical electives (6 s.h.); and two additional elective courses (at least 6 s.h.). See General Catalog and Department of Electrical and Computer Engineering website or consult an advisor for more information.

b Typically this course is offered in fall, spring, and summer sessions. Check MyUI for course availability since offerings are subject to change.

c Typically this course is offered in fall and spring semesters. Check MyUI for course availability since offerings are subject to change.

d Enrollment in math courses requires completion of a placement exam.

e Enrollment in chemistry courses requires completion of a placement exam.

f Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

g See General Catalog for list of approved course subjects.

h Students select a course from one of two GE CLAS Core areas: Understanding Cultural Perspectives or Values and Society.

i Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

j Students in the electrical track complete eight focus area courses including: one breadth elective (3 s.h.); one depth elective (3 s.h.); two courses with prefix ECE numbered above 5000 (6 s.h.); two technical electives (6 s.h.); and two additional elective courses (at least 6 s.h.). See General Catalog and Department of Electrical and Computer Engineering website for requirements and recommendations or consult an advisor for more information.

k See General Catalog for list of approved courses. Students who intend to enroll in a Be Creative course with prerequisites must request a waiver by completing the Request Prerequisite Special Permission form on MyUI.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Electrical and Computer Engineering, MS

The Department of Electrical and Computer Engineering stimulates excellence in scholarship and research through close contact with the faculty and programs tailored to fit students' individual needs.

Students select an advisor and, with the advisor, plan an individual program bounded only by the broad guidelines of the Graduate College and the program. The department maintains close interdisciplinary ties with other University of Iowa departments, especially with the departments of Physics and Astronomy and Computer Science (College of Liberal Arts and Sciences); the Roy J. Carver Department of Biomedical Engineering and the departments of Industrial and Systems Engineering and Mechanical Engineering (College of Engineering); and the Carver College of Medicine. Principal areas of graduate study include medical image analysis, signal and image processing, control systems and systems theory, wireless communications, waves and materials, computer systems, and computational genomics. View principal areas of study under Research and Study Areas [p. 1613] in the Electrical and Computer Engineering section of the catalog.

Learning Outcomes

Students will:

- demonstrate a broad knowledge of electrical and computer engineering topics;
- be able to analyze electrical and computer engineering problems and apply their knowledge to solve them; and
- demonstrate professional skills of effective communication and ethical conduct in professional, social, and scholarly activities.

In addition to the learning outcomes listed, students who complete a thesis will:

- demonstrate a mastery of concepts in their specific area of study;
- be able to employ experimental methods to investigate and generate reports for research-oriented problems; and
- demonstrate leadership in professional, social, and scholarly activities.

Requirements

The Master of Science program in electrical and computer engineering requires 30 s.h. of graduate credit with or without thesis. Either option may precede PhD study. MS students must maintain a UI cumulative grade-point average of at least 3.00.

Thesis students must complete at least 12 s.h. from an approved list of electrical and computer engineering courses and 6 s.h. in ECE:5999 Research: Electrical and Computer Engineering MS Thesis. Nonthesis students must complete at least 18 s.h. from an approved list of electrical and computer engineering courses; they may count no more than 3 s.h. of independent study toward the degree. For a list of approved courses, see the Department of Electrical and Computer Engineering Graduate Handbook on the department's website. Courses required for the BSE in electrical engineering do not count toward the MS requirements.

Students who plan to satisfy thesis requirements must successfully complete a final examination, which is conducted by a committee of at least three faculty members. The final examination consists of an oral defense of the thesis.

Software Engineering Subprogram

A software engineering subprogram is available to both thesis and nonthesis students. Both thesis and nonthesis options require a minimum of 30 s.h. of graduate credit. All rules for additional credit and the MS final examination are the same as for the MS without the subprogram. Successful completion of the subprogram results in a degree designation that specifies the software engineering subprogram on a student's transcript.

The MS in electrical and computer engineering with a software engineering subprogram requires the following coursework.

Course #	Title	Hours
ECE:5320	High Performance Computer Architecture	3
ECE:5330	Graph Algorithms and Combinatorial Optimization	3
ECE:5800	Fundamentals of Software Engineering	3
ECE:5810	Formal Methods in Software Engineering	3
ECE:5820	Software Engineering Languages and Tools	3
ECE:5830	Software Engineering Project	3

In addition to the listed courses, thesis students complete another 3 s.h. of approved coursework and 6 s.h. in ECE:5999 Research: Electrical and Computer Engineering MS Thesis; nonthesis students complete another 9 s.h. of approved coursework. Students who complete one or more required courses as undergraduates can substitute courses from the list of approved electrical and computer engineering courses; see the list of approved courses in the Department of Electrical and Computer Engineering Graduate Handbook on the department's Graduate Program Information website.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants must have a grade-point average (GPA) of at least 3.00 on all electrical and computer engineering, mathematics, and physics coursework. Those with a GPA between 2.75 and 3.00 in electrical and computer engineering, mathematics, and physics coursework may be admitted on probation if warranted by other aspects of their academic records.

Students with baccalaureate degrees in related areas (e.g., physics, mathematics, and computer science) may be admitted on conditional status. They may be required to complete additional coursework, without earning graduate credit, before being granted regular status.

Each application is reviewed individually. Extenuating circumstances may permit deviations from the usual standards.

Career Advancement

The engineering profession is a foundation for a variety of careers in industry, medicine, law, government, and consulting. Electrical engineers find employment everywhere smart technology is employed. On average, 93–98% of graduates are employed in their field of study or pursuing advanced education within seven months of graduation.

Engineering Career Services develops and promotes experiential education and professional opportunities for students. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including an engineering career fair and other career-development programming each semester.

Engineering Career Services also offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, and job offer evaluation.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Electrical and Computer Engineering, MS

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
ENGR:7270	Engineering Ethics [c]	1
ECE required course [d]		3
ECE required course [d]		3
ECE required course [d]		3
ECE:5000	Graduate Seminar: Electrical and Computer Engineering [e]	0
	Hours	**10**
Spring		
ECE required course [d]		3
ECE required course [d]		3
ECE required course [d]		3
ECE:5000	Graduate Seminar: Electrical and Computer Engineering [e]	0
	Hours	**9**
Second Year		
Fall		
Elective course [f]		3
Elective course [f]		3
Elective course [f]		2
ECE:5000	Graduate Seminar: Electrical and Computer Engineering [e]	0
	Hours	**8**
Spring		
Elective course [f]		3
ECE:5000	Graduate Seminar: Electrical and Computer Engineering [e]	0
Final Exam [g]		
	Hours	**3**
	Total Hours	**30**

a Students must complete at least 18 s.h. from an approved list of Electrical and Computer Engineering courses; they may count no more than 3 s.h. of independent study toward the degree.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Must be completed during first semester.

d Work with faculty advisor to determine appropriate coursework and sequence, depending on area of interest or specialization; may include no more than 3 s.h. of independent study.

e Required attendance every semester until degree completion.

f Work with academic advisor to determine appropriate elective coursework and sequence.

g Completion of degree requirements.

Electrical and Computer Engineering, PhD

The Department of Electrical and Computer Engineering stimulates excellence in scholarship and research through close contact with the faculty and programs tailored to fit students' individual needs.

Students select an advisor and, with the advisor, plan an individual program bounded only by the broad guidelines of the Graduate College and the program. The department maintains close interdisciplinary ties with other University of Iowa departments, especially with the departments of Physics and Astronomy and Computer Science (College of Liberal Arts and Sciences); the Roy J. Carver Department of Biomedical Engineering and the departments of Industrial and Systems Engineering and Mechanical Engineering (College of Engineering); and the Carver College of Medicine. The principal areas of graduate study include medical image analysis, signal and image processing, control systems and systems theory, wireless communications, waves and materials, computer systems, and computational genomics. View principal areas of study under Research and Study Areas [p. 1613] in the Electrical and Computer Engineering section of the catalog.

Learning Outcomes

Graduates will:

- demonstrate a detailed knowledge of electrical and computer engineering topics and a mastery of advanced concepts within their specific area of study;
- master the analytical and methodological skills needed to identify, evaluate, and analyze novel discovery in their areas of specialization;
- be able to employ experimental methods to investigate and generate reports for research-oriented problems; and
- demonstrate professional skills, including concise and effective communication of complex technical ideas to both general and specialized audiences through verbal, visual, and written formats; leadership in their field of study; and ethical conduct in professional, social, and scholarly activities.

Requirements

The Doctor of Philosophy program in electrical and computer engineering requires a minimum of 72 s.h. of graduate credit. At least 45 s.h. must be earned in formal coursework (not in thesis work or other independent study), including 30 s.h. from an approved list of electrical and computer engineering courses. For the list of approved courses, see the Department of Electrical and Computer Engineering Graduate Handbook on the department's website. Each student's study plan must be approved by the student's advisor and by the graduate committee. Students must maintain a UI cumulative grade-point average (GPA) of 3.25 or higher in all graduate coursework.

Students take a qualifying examination and a comprehensive examination. Then they must successfully complete a research program that includes a minimum of 18 s.h. of PhD research and culminates in the preparation of a thesis. Finally, the candidate must present a successful oral defense of the thesis.

Qualifying Process

Acceptance to the PhD program requires successful completion of the PhD qualifying process. The qualifying process consists of two parts—an examination and a course breadth requirement. The half-day written exam is given once a year, late in the spring semester. It covers two subjects chosen by a student from a list of nine. Students normally are expected to take the qualifying examination within the first 30 s.h. of their graduate studies. A cumulative GPA of at least 3.25 is required for admittance to the exam. Students who fail the examination may retake it only once the next time it is offered.

To complete the breadth requirement, students must take two courses associated with the same list of nine subjects that the examination is drawn from and complete the courses with grades of at least A-minus. The breadth courses must not duplicate the subjects chosen for the examination and must be completed within the fourth semester of graduate study.

Comprehensive Examination

Following successful completion of the qualifying examination and invitation to the PhD program, a student must complete the two-part comprehensive examination. The first part is a written research proposal that includes a thorough literature survey providing the motivation and background for the proposal. The second part is an oral examination.

Students must pass the qualifying examination before they may take the comprehensive exam, and they must complete the comprehensive exam no later than three calendar years after passing the qualifying exam. Students who fail to meet this deadline must retake the qualifying exam. The qualifying exam and the comprehensive exam may not be taken in the same semester.

Thesis

The final requirement for completion of the PhD program is the preparation and successful defense of the thesis. This must be completed no sooner than six months but no longer than three years after the completion of the comprehensive examination.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants must have a grade-point average of at least 3.25 on all electrical and computer engineering, mathematics, and physics coursework.

Each application is reviewed individually. Extenuating circumstances may permit deviations from the usual standards.

Career Advancement

Engineering is a well-respected profession that is used as a foundation for a variety of careers in industry, medicine, law, government, and consulting.

Engineering Career Services develops and promotes experiential education and professional opportunities for students. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers,

including an engineering career fair and other career-development programming each semester. Engineering Career Services also offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, and job offer evaluation.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Electrical and Computer Engineering, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
ENGR:7270	Engineering Ethics [b]	1
ECE required course [c]		3
ECE required course [c]		3
ECE required course [c]		3
ECE:5000	Graduate Seminar: Electrical and Computer Engineering [d]	0
	Hours	**10**
Spring		
ECE required course [c]		3
ECE required course [c]		3
ECE required course [c]		3
ECE:5000	Graduate Seminar: Electrical and Computer Engineering [d]	0
	Hours	**9**
Second Year		
Any Semester		
Qualifying Exam [e]		
	Hours	**0**
Fall		
ECE required course [c]		3
ECE required course [c]		3
ECE required course [c]		3
Other required course [c]		3
ECE:5000	Graduate Seminar: Electrical and Computer Engineering [d]	0
	Hours	**12**
Spring		
ECE required course [c]		3
Other required course [c]		3
Other required course [c]		3
Other required course [c]		3
ECE:5000	Graduate Seminar: Electrical and Computer Engineering [d]	0
	Hours	**12**
Third Year		
Fall		
ECE:7999	Research: Electrical and Computer Engineering PhD Thesis	3
Other required course [c]		3
Elective course [f]		3
ECE:5000	Graduate Seminar: Electrical and Computer Engineering [d]	0
	Hours	**9**
Spring		
ECE:7999	Research: Electrical and Computer Engineering PhD Thesis	3
Elective course [f]		2
Elective course [f]		3
ECE:5000	Graduate Seminar: Electrical and Computer Engineering [d]	0
	Hours	**8**
Fourth Year		
Any Semester		
Comprehensive Exam [g]		
	Hours	**0**
Fall		
ECE:7999	Research: Electrical and Computer Engineering PhD Thesis	6
ECE:5000	Graduate Seminar: Electrical and Computer Engineering [d]	0
	Hours	**6**
Spring		
ECE:7999	Research: Electrical and Computer Engineering PhD Thesis	6
ECE:5000	Graduate Seminar: Electrical and Computer Engineering [d]	0
Final Exam [h]		
	Hours	**6**
	Total Hours	**72**

a At least 45 s.h. must be earned in formal coursework (not in thesis work or other independent study), including 30 s.h. from an approved list of Electrical and Computer Engineering courses. Work with faculty advisor to determine appropriate graduate coursework and sequence.
b Must be completed during first semester.
c Work with faculty advisor to determine appropriate coursework and sequence.
d Required attendance every semester until degree completion.
e Typically completed no later than the end of second year spring semester; consists of two parts: an examination and a course breadth requirement. See the department website for more specifics.
f Work with academic advisor to determine appropriate elective coursework and sequence.
g Includes both written and oral components. See the department website for more specifics.
h Dissertation defense.

Industrial and Systems Engineering

Chair

- Yong Chen

Undergraduate major: industrial engineering (BSE)

Graduate degrees: MS in industrial engineering; PhD in industrial engineering

Faculty: https://engineering.uiowa.edu/people/ise-people

Website: https://engineering.uiowa.edu/ise

The Department of Industrial and Systems Engineering offers undergraduate and graduate degrees and research programs in industrial and systems engineering.

Industrial and systems engineering encompasses analysis, design, and implementation of systems through optimal use of resources—human, material, energy, information, and financial. Systems may range from small units to extremely large operations. The industrial engineer must be skilled in mathematics, physical sciences, management, and human relations, and understand and design solutions for the complexities of manufacturing, computer systems, economics, optimization, human behavior, and systems analysis and design.

Programs

Undergraduate Program of Study

Major

- Major in Industrial Engineering (Bachelor of Science in Engineering) [p. 1641]

Graduate Programs of Study

- Master of Science in Industrial Engineering [p. 1648]
- Doctor of Philosophy in Industrial Engineering [p. 1651]

Facilities

The following facilities and laboratories are operated by faculty in the Department of Industrial and Systems Engineering and may employ undergraduate and graduate students. For information about laboratories affiliated with core courses coordinated by other College of Engineering departments, see those departmental catalog sections.

Design for Manufacturing Laboratory

The Design for Manufacturing Laboratory provides students with experience in computer-aided design and computer-aided manufacturing (CAD/CAM) systems. It is equipped with three-axis computer numerical control (CNC) mills (Haas and Tormach), a CNC metal lathe (Haas), a manual vertical mill, a manual lathe, a drill press, a plastic injection molder, band saw, disc sander, bench grinder, polishing wheel, hand drill, foot shear, and plastic 3D printers. The lab has the latest software technology, including Creo Parametric.

Driving Safety Research Institute

The Driving Safety Research Institute (DSRI) is home to the National Advanced Driving Simulator—one of the world's largest and most realistic driving simulators—as well as a fleet of on-road research vehicles and a collection of other driving simulators. For the last 30 years, the University of Iowa has conducted advanced research and development to make roads safer and move vehicle and simulation technology forward. Most importantly, DSRI serves as a place where students can learn firsthand about how innovation occurs in science and engineering.

Major areas of research include driving behavior, drowsy and distracted driving, effects of drugs on driving, connected and automated vehicle technologies and how drivers use those technologies, simulation science, and safety and crash data analytics. Faculty, staff, and students at DSRI collaborate with nearly all UI colleges in their automotive safety research, and staff researchers have a range of backgrounds from psychology, engineering, computer science, and more. Research at DSRI is funded by government agencies and industry leaders for the public and private sectors. DSRI works with undergraduate, graduate, and doctoral students in driving research studies. Many of these studies include the use of the DSRI miniSim, which offers a range of high-performance driving simulators from desktop versions to half cabs. Students are often hired to help build custom miniSims for clients around the world and can work on both the software and hardware side of development

Automated vehicle technology is revolutionizing transportation, and DSRI is at the forefront of this research. The UI was the first in the world to test a highly automated vehicle on gravel roads, all while looking to improve accessibility for people living in rural areas. Their on-road vehicles are all instrumented to collect data and are also used for researching how drivers use advanced vehicle safety features and for analyzing driving performance in novice drivers, older drivers, or those with medical conditions.

Graphical Representation of Knowledge Lab (GROK)

The GROK Lab develops technologies to help scientists and doctors improve their understanding and control of complex systems such as robots, distributed sensor networks, and augmented-reality systems. The lab designs and builds software, electronic circuits, and mechanical devices that create or modify complex systems and that extend scientists' understanding of how to make these systems perform their intended tasks better.

The lab has a variety of software development platforms and manufacturing tools, including computer numerical control (CNC) machines and supplies for casting and molding, as well as a suite of equipment for circuit design, testing, and assembly. The GROK lab has developed technologies used by NASA to control robots exploring South America and Mars. Its most recent projects have focused on using distributed wireless sensor networks to monitor factory-related health hazards and on developing surgical simulators to better train orthopedic surgeons.

Intelligent Factory Operations & Manufacturing Automation Lab (INFORMAT)

The Intelligent Factory Operations & Manufacturing Automation (INFORMAT) Lab is a cutting-edge facility dedicated to advancing research and education in smart manufacturing and automation. Envisioned as a futuristic factory and production platform, this wet-lab space integrates collaborative robotic systems, advanced manufacturing processes, state-of-the-art sensing technologies, and data analytics to enable in situ monitoring and self-correcting handling and manufacturing of novel materials. The lab provides students with hands-on learning opportunities in manufacturing, robotics, simulation, and AI applications, preparing them to address the evolving challenges of modern manufacturing industries.

Intelligent Systems Laboratory

The Intelligent Systems Laboratory conducts research in data science and computational intelligence leading to applications in manufacturing, energy, service industry, and health care. The current project focuses on smart manufacturing, digital industry, cloud and edge modeling, service manufacturing, and autonomous systems. Many of the intelligent manufacturing concepts pursued globally have originated in the laboratory. The pioneering research has been marked with the publication of the textbook *Intelligent Manufacturing Systems* (Prentice Hall) and the Journal of Intelligent Manufacturing.

Laboratory for IoT-Enabled Data Analytics and System Informatics

The lab utilizes high-performance computing workstations to model uncertainty quantifications and complex variable relationships. The aim is to develop engineering-guided statistical techniques to facilitate the interpretability, real-time monitoring, and root cause analysis of complex systems. The lab focuses on developing and applying data analytics tools to various promising areas, including advanced manufacturing systems, driver simulation and monitoring systems, and water and hydrology modeling systems. The research in the group requires algorithm development, hardware design, theoretic analysis, and simulation and emulation.

Operator Performance Laboratory

The Operator Performance Laboratory (OPL) is a flight test organization at the University of Iowa. The lab specializes in civilian and military flight testing and assessment of technologies in operational contexts, such as flight in degraded visual environments and GPS-denied environments. One area of focus is the quantification of data link and sensor performance for manned and unmanned aircraft in such an operational context. OPL develops, tests, and evaluates helmet-mounted displays (HMDs), synthetic vision systems, live virtual constructive (LVC) training systems, physiological-based workload measurement systems, pilot spatial orientation enhancement systems, and embedded flight simulation capabilities.

Unmanned aircraft operations include test flights supporting commercial unmanned aircraft systems (UAS) autonomy, 5th- and 6th-generation manned-unmanned teaming (MUMT) concepts, and the extension of LVC toward MUMT. The OPL team developed the Cognitive Assessment Tool Set (CATS), which is able to accurately quantify human cognitive workload using a flight-approved sensor package. CATS has been used in many flight tests as the data collection and analysis tool for pilot behavior in real-world flight environments. OPL pioneered the development and testing of LVC technology that blends ground-based battlespace simulations with airborne testbeds equipped with radar and weapons simulators that can employ simulated ordnance for effect in distributed simulation environments. This capability has been demonstrated many times, including at the Interservice/Industry Training Simulation Education Conference. In 2004, the OPL team developed and tested a synthetic vision system that was subsequently commercialized by Dynon Avionics under the brand name Skyview. This system has sold over 10,000 units and is flying in thousands of aircraft.

OPL has performed many flight test projects on its fleet of aircraft, exceeding a total 2,400 flight hours of developmental test and evaluation and operational test and evaluation data collection. OPL has 10 instrumented research aircraft. These include two L-29 fighter jet trainers, two MI-2 twin-turbine helicopters, one A-36 Bonanza, one Cessna 172, three TBM 3M UAS (62 lbs), and one Vapor 55 (55 lbs). The OPL L-29s are the only tactical jet research aircraft that are equipped with the F-35 HMD. The OPL MI-2 is a one-of-a-kind sensor platform with a conformal HMD using full-color symbology to show threats and obstacles acquired by its suite of onboard sensors. Each OPL aircraft is also a flight simulator. Additionally, the OPL has a Boeing 737-800 full flight deck simulator, an unmanned aerial vehicle (UAV) ground control station simulator, a fast jet simulator, and deployable command and control (C2) bus as well as a C2 high mobility multipurpose wheeled vehicle for use as a forward command node in rugged terrain. OPL has an extensive deployable telemetry infrastructure. OPL's flight support system is also deployable using mobile tool control, spares, jigs, and jacks, among other means.

Science of Next-Generation (SONG) Manufacturing Laboratory

The SONG lab focuses on the design, manufacturing, and diagnostics of extreme materials—particularly ceramics, composites, and energetics—that operate under high-temperature and high-strain-rate conditions. Their research aims to leverage novel far-from-equilibrium conditions for the assembly and manufacture of extreme materials. Their work employs multi-scale in-situ experimental tools, including high-strain-rate dynamic testing, high-speed optical imaging, and high-speed thermometry to probe processing and material dynamics under extreme conditions.

Courses

Industrial and Systems Engineering Courses

ISE:1000 First-Year Seminar **0-1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

ISE:2000 Industrial Engineering Sophomore Seminar 0 s.h.
Curriculum and profession; ethics and professionalism in classroom and workplace. Requirements: sophomore or transfer standing in engineering.

ISE:2360 Design for Manufacturing 3 s.h.
Fundamentals of design, engineering graphics, and manufacturing processes; computer graphics using Creo for CAD/CAM; typical industrial processes, including machining, casting, forming; prototype fabrication using additive manufacturing techniques; next generation manufacturing and design tools; laboratory exercises and projects. Topics include engineering design, computer graphics, computer-aided design, engineering materials, traditional and non-traditional manufacturing techniques, numerically controlled machine tools, additive manufacturing and process planning.

ISE:2500 Engineering Economy 3 s.h.
Basic concepts of engineering economy: time value of money, cash flow equivalence, depreciation, tax considerations, continuous cash flows, cost accounting overview; main analysis techniques—present worth, uniform annual cost, rate of return, benefit/cost ratio, replacement and break-even analysis. Corequisites: STAT:2020.

ISE:3000 Professional Seminar: Industrial Engineering 0 s.h.
Professional aspects of industrial engineering presented through lectures and discussions by guest speakers, field trips, films, panel discussions. Requirements: junior standing.

ISE:3300 Manufacturing Systems 3 s.h.
Manufacturing and logistics systems, supply chain management, MRP/ERP systems, lean manufacturing, concurrent engineering, value stream mapping and six sigma. Offered spring semesters. Prerequisites: ISE:2360 and ISE:3700.

ISE:3350 Process Engineering 3 s.h.
Methodologies, algorithms, and tools for processing modeling, analysis, and reengineering; modeling issues in product and component design, product and process modularity, quality, reliability, and agility. Prerequisites: ISE:3700.

ISE:3400 Human Factors 3 s.h.
Design of human-machine systems; development of optimum work environments by applying principles of behavioral science and basic knowledge of human capacities and limits. Offered fall semesters. Prerequisites: PSY:1001.

ISE:3450 Ergonomics 3 s.h.
Ergonomic design of jobs and products in an industrial and consumer market setting; principles of good design, examples of poor design; consequences of poor job and product design; principles of work sampling, usability studies, performance rating, sizing and planning of workstations, hand tool design, ergonomic design in transportation; related group project.

ISE:3500 Information Systems Design 3 s.h.
Structure and design of computer-based information systems; concepts of information systems, decision-making; computer hardware, software, data structures; methods for determining system requirements; designing, implementing, evaluating, managing information systems; applied projects. Prerequisites: ENGR:1300.

ISE:3600 Quality Control 3 s.h.
Basic techniques of statistical quality control; application of control charts for process control variables; design of inspection plans and industrial experimentation; modern management aspects of quality assurance systems. Offered fall semesters. Prerequisites: STAT:2020 or BAIS:9100 or (STAT:3100 and STAT:3101 and STAT:3200). Same as CEE:3142, STAT:3620.

ISE:3610 Stochastic Modeling 3 s.h.
Fundamental probabilistic models and applications of industrial engineering; overview of probability and distributions, stochastic processes and Markov chains, queuing theory, inventory theory, decision theory under uncertainty, and elements of risk management. Prerequisites: STAT:2020. Corequisites: ISE:3700.

ISE:3660 Data Analytics With R 3 s.h.
Basics of data analytics and data mining; how to implement a variety of popular data mining methods in R to tackle business and engineering problems; focus on process of turning raw data into intelligent decisions and algorithms commonly used to build predictive models and find relevant patterns in data. Prerequisites: STAT:2020.

ISE:3700 Operations Research 3 s.h.
Operations research models and applications; emphasis on deterministic model (linear programming, duality). Offered fall semesters. Prerequisites: MATH:2550. Corequisites: STAT:2020.

ISE:3750 Digital Systems Simulation 3 s.h.
Simulation modeling and analysis; emphasis on construction of models, interpretation of modeling results; input and output analysis; hands-on usage of ARENA simulation software, manufacturing, health care, and service. Offered spring semesters. Prerequisites: ISE:3610 and ISE:3700.

ISE:3760 Applied Linear Regression 3 s.h.
Regression analysis with focus on applications; model formulation, checking, and selection; interpretation and presentation of analysis results; simple and multiple linear regression; logistic regression; ANOVA; polynomial regression; tree models; bootstrapping; hands-on data analysis with computer software. Prerequisites: STAT:2020 or STAT:2010 or STAT:3120. Same as DATA:3200, IGPI:3200, STAT:3200.

ISE:3998 Individual Investigations: Industrial Engineering arr.
Independent projects in industrial engineering for undergraduate students, including laboratory study, an engineering design project, analysis and simulation of an engineering system, computer software development, CAD/CAM applications, or research.

ISE:4116 Manufacturing Processes Simulations and Automation 3 s.h.
Material processing, metal cutting theories, forming, micro/nano fabrication, programmable logic controller, computer numerical controllers, discrete control system, DC and AC servo motors, Command generation. Prerequisites: ME:2300 or ISE:2360. Same as ME:4116.

ISE:4172 Big Data Analytics 3 s.h.
Principles of data mining and machine learning in context of big data; basic data mining principles and methods—pattern discovery, clustering, ordering, analysis of different types of data (sets and sequences); machine learning topics including supervised and unsupervised learning, tuning model complexity, dimensionality reduction, nonparametric methods, comparing and combining algorithms; applications of these methods; development of analytical techniques to cope with challenging and real "big data" problems; introduction to MapReduce, Hadoop, and GPU computing tools (Cuda and OpenCL). Prerequisites: STAT:2020 or BAIS:9100. Requirements: basic programming skills in C, C++, Java, or Python; knowledge of Matlab, Octave, or R; and knowledge of a word processor. Recommendations: ISE:3760 and CS:4400 and CS:3330 and MATH:2550.

ISE:4175 Safety Engineering 3 s.h.
Systems safety principles and methods, occupational safety, product safety and liability, accident investigation and prevention methods and analysis, hazard analysis, and standards and regulations.

ISE:4600 Industrial Engineering Design Project 1-4 s.h.
Projects involving product and related operational system design in an industrial or service organization; associated entrepreneurial or intrapreneurial planning. Corequisites: ISE:2500 and ISE:3300 and ISE:3350 and ISE:3400 and ISE:3450 and ISE:3500 and ISE:3600 and ISE:3750, if not taken as prerequisites. Requirements: completion of all ISE coursework.

ISE:4620 Design of Experiments for Quality Improvement 3 s.h.
Development of skills necessary to efficiently and effectively design and analyze experiments for quality improvement; topics include experiment planning, design, and statistical analysis of the results; experimentation is beneficial in all phases of industrial processes including new product design, process development, and manufacturing process improvement; students develop successful experiments that can lead to reduced development lead time, enhanced process performance, and improved product quality. Prerequisites: STAT:2020. Requirements: junior (third year) standing.

ISE:4900 Introduction to Six Sigma 3 s.h.
Six Sigma techniques for the DMAIC cycle (Define, Measure, Analyze, Improve, Control); what is needed for data collection (process inputs and outputs, measurement tools), conduct analysis (hypothesis testing, process capability studies), and conduct process improvement studies (design of experiments, response surface methodology); overview of Six Sigma, process and project management skills; application of the DMAIC model to a real-life improvement projection (a "learn-by-doing" approach). Prerequisites: ISE:3600.

ISE:5000 Graduate Seminar: Industrial Engineering 1 s.h.
Recent advances and research in industrial engineering presented by guest lecturers, faculty, students. Requirements: graduate standing.

ISE:5310 Advanced Computational Design and Manufacturing 3 s.h.
Provides understanding and practical experience in application of computational techniques to solve design and manufacturing problems; introduction to underlying concepts behind 3D geometry representations, algorithms, and underlying mathematical foundations essential to solving a wide variety of problems in computer-aided design (CAD), computer-aided manufacturing (CAM), and computer-aided engineering (CAE); hands-on computational skills working on team-based course projects. Requirements: knowledge of basic C/C++ programming concepts.

ISE:5420 Automated Vehicle Systems 3 s.h.
Overview of vehicle technologies (HAV) and advanced driver assistance systems (ADAS) including a historical perspective, testing, policy and regulation, algorithm design, and human factors. Recommendations: ISE:3400.

ISE:5460 User Experience Design 3 s.h.
Introduction to user experience (UX) research and design fundamentals; UX design as a critical first step in user research, designing products and services for users (e.g., digital, physical, hybrid), and validating products and services; UX theory, methods, and design; examination of user research techniques to facilitate UX design; UX design to achieve user engagement when using products and services; how demand for UX professionals has increased; lectures, readings, hands-on UX design activities, and UX design project.

ISE:5520 Renewable Energy 3 s.h.
Introduction to different sources of renewable energy generation including wind, solar, fuel cells, and bioenergy; design of energy solutions for different stand-alone applications (i.e., factories, data centers, hospitals) and system-wide solutions powering transportation systems, cities, or states; application-specific topics such as energy storage, control of energy generators, operations and maintenance, performance optimization, equipment health monitoring, predictive engineering, and integration of renewable energy with a grid.

ISE:5620 Design of Experiments 3 s.h.
Principles and methods of statistical design of experiments for product and process improvement; students develop skills necessary for planning, analysis, and optimization of experimental data, which can be applied across various fields of research including engineering, medicine, and the physical sciences. Prerequisites: STAT:2020.

ISE:5650 Mechatronics Engineering for Smart Device Design 3 s.h.
Introduction to basic mechatronics system components and design principles using mechatronics to meet functionality requirements of products, processes, and systems; lab-oriented assignments and team-based projects presented with innovative case studies in diverse application domains; labs require students to use a micro-controller kit to finish hardware development assignments; for students who plan to have a career in areas such as product development, robotics, design and manufacturing automation, technology management and innovations. Prerequisites: ENGR:2120 and ISE:2360.

ISE:5730 Digital Industry 3 s.h.
Modeling methodologies, analysis, and optimization of digital enterprise models; autonomous building of models from data stores; introduction to different application-as-a-service models embedded in edge, fog, and cloud architectures and solutions; science of process modeling and analysis illustrated with case studies. Prerequisites: ISE:3700.

ISE:5740 Design and Analysis of Computer Experiments 3 s.h.
Introduction to basic concepts of computer experiments; differences between computer and physical experiments; three technical contents including parametric and nonparametric prediction/inference models for computer experiments, space filling design for computer experiments, and criterion-based experiment design. Requirements: coding capability in at least one popular software (e.g., R, MATLAB, Python). Recommendations: STAT:4540, BAIS:9100 or MBA:8150, ISE:6790, or coding capability in R, MATLAB, or Python.

ISE:5995 Contemporary Topics in Industrial Engineering arr.
New topics or areas of study not offered in other industrial engineering courses; topics based on faculty/student interest.

ISE:5998 Individual Investigations: Industrial Engineering arr.
Individual projects for industrial engineering graduate students: laboratory study, engineering design, analysis and simulation of an engineering system, computer software development, research. Requirements: graduate standing.

ISE:5999 Research: Industrial Engineering MS Thesis arr.
Experimental and/or analytical investigation of an approved topic for partial fulfillment of requirements for MS with thesis in industrial engineering. Requirements: graduate standing.

ISE:6211 Human Factors in Healthcare Systems 3 s.h.
Solving human factors problems in health care work systems; cognitive systems engineering, interface design, health care productivity, patient safety; specific research including decision-making, information transfer, and communication; discrete event and dynamic systems simulation modeling; human computer interaction; health information technology/systems; usability; business models of organizational, technical, and social elements of health care systems.

ISE:6220 Cognitive Engineering 3 s.h.
Cognitive engineering principles; decision-making and judgment; distributed cognition; cognitive work; human system interaction; cognitive work analysis; situated action and ecological models; mental models and representation; cognitive engineering methods and applications.

ISE:6300 Innovation Science and Studies 3 s.h.
Innovative typology and sources, classical innovation models, measuring innovation, innovation discovery from data, evolutionary computation in innovation, innovation life cycle.

ISE:6350 Computational Intelligence 3 s.h.
Concepts, models, algorithms, and tools for development of intelligent systems; data mining, expert systems, neural networks for engineering, medical and systems applications. Same as NURS:6900.

ISE:6380 Deep Learning 3 s.h.
Basic principles of deep neural networks for various engineering applications; skill sets to design and implement deep learning algorithm for engineering applications; essential topics of deep learning for its practical use and exploring diverse methods and architectures for different types of applications.

ISE:6410 Research Methods in Human Factors Engineering 3 s.h.
Logic and methods for research and for analysis and evaluation of complex human-machine systems; advanced techniques for enhancement of human interaction with advanced information technology; emphasis on cognitive task analysis techniques for innovative design, understanding of how technology affects safety, performance, user acceptance.

ISE:6420 Human/Computer Interaction 3 s.h.
Development of projects using human factors principles in the design of computer interfaces.

ISE:6450 Human Factors in Aviation 3 s.h.
Measuring, modeling, and optimizing human visual performance; display design for optimal legibility, research in visibility, legibility, conspicuity, and camouflage; visibility model development.

ISE:6460 The Design of Virtual Environments 3 s.h.
Development of techniques for designing and creating three-dimensional representations of information for simulation, scientific visualization, and engineering; emphasis on human factors issues, software.

ISE:6480 Unmanned Aircraft Systems 3 s.h.
Applications and research in unmanned aircraft systems (UAS) with focus on engineering aspects; new era of aviation and how UAS are fast emerging as a disruptive technology in aviation; applications ranging from film production, photography, precision agriculture, remote sensing, and infrastructure inspections to military applications; problem space of UAS from a variety of angles including engineering controls design, data links, UAS types, human factors, regulatory aspects.

ISE:6600 Linear Programming 3 s.h.
Mathematical programming models; linear and integer programming, transportation models, large-scale linear programming, network flow models, convex separable programming. Requirements: calculus and linear algebra. Same as BAIS:6600, IGPI:6600.

ISE:6650 Human Analytics and Behavioral Operations 3 s.h.
Introduction to several quantitative applications related to determining workforce size, skills-sets, and multifunctionality in service and manufacturing systems, based on measurable quality and productivity performance at the intersection of human factors engineering and production planning; modeling and solving problems in a context of speed and accuracy trade-off; models include learning, forgetting, teamwork, fatigue, procrastination, and individual difference measures.

ISE:6760 Pattern Recognition for Financial Data 3 s.h.
Modeling and harvesting useful information and patterns for financial data; topics include basic concepts of financial data, financial data visualization, modeling and forecasting of financial time series, seasonal models, volatility models, value at risk, principal component analysis, and factor models.

ISE:6780 Financial Engineering and Optimization 3 s.h.
Quantitative methods of modeling various financial instruments (i.e., stocks, options, futures) and tools for measurement and control of risks inherent to financial markets; fundamentals of interest rates; options and futures contract valuation, including weather and energy derivatives; risk management and portfolio optimization; emphasis on modeling and solution techniques based on optimization and simulation approaches traditional to industrial engineering and operations research. Recommendations: basic knowledge of probability and statistics, numerical methods, and optimization.

ISE:6790 Advanced Data Analytics and Informatics 3 s.h.
Advanced analytics techniques (i.e., linear mixed effects model, Gaussian process model, Bayesian analytics); team project on selected data analytics topics from Kaggle using real industrial data for performance demonstration; emphasis on understanding methodology and technology applications; application of each analytics technique on various industrial data context. Recommendations: STAT:4540 or MBA:8150; working knowledge of important discrete and continuous distributions, joint distributions, linear regression, random process, hypotheses testing, and analysis of variance; and programming capability in any language (e.g., Matlab, R, Python).

ISE:6810 Advanced Topics on Additive Manufacturing 3 s.h.
Review of critical challenges facing 3D printing; emphasis on techniques and practical experience in developing novel additive manufacturing processes and applications; topics include 3D content creation and preparation, CAD systems for additive manufacturing, additive manufacturing processes, fabrication speed and improvements, rapid tooling and indirective processes.

ISE:7998 Special Topics in Industrial Engineering arr.

ISE:7999 Research: Industrial Engineering PhD Dissertation arr.
Experimental and/or analytical investigation of an approved topic for partial fulfillment of requirements for PhD in industrial engineering.

Industrial Engineering, BSE

The major in industrial engineering requires a strong foundation of courses in engineering science, mathematics, design, manufacturing, social science, and the humanities. Advanced work includes specialty courses in human factors and ergonomics, management, information systems, manufacturing, quality control, and operations research. Design is an integral part of the undergraduate program; all students complete a comprehensive design experience.

The Department of Industrial and Systems Engineering offers a host of options for each engineering student. From the undergraduate engineering degree, a dual Undergraduate to Graduate (U2G) degree, focus areas, and extracurricular activities, there are many options available to explore and develop professional skills. The industrial and systems engineering undergraduate program emphasizes a broad education in engineering fundamentals and the opportunity for in-depth learning in a focus area.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Focus Areas and Specialized Opportunities

As part of the mission to help students be engineers and something more, the Department of Industrial and Systems Engineering offers a variety of focus area options so that students can pursue specialized interests. Industrial engineering focus areas include big data analytics, computer and information systems, design and manufacturing, entrepreneurship, human factors and ergonomics, management, and an option to tailor a focus area to an individual student's interests.

Big Data Analytics

Big data analytics is the process of examining big data in an effort to uncover hidden patterns, unknown correlations, and other useful information—95% of the data in the world today has been created in the last few years alone. This data comes from everywhere: sensors used to gather climate information, posts to social media sites, digital pictures and videos, purchase transaction records, and cell phone GPS signals, to name a few.

Computer and Information Systems

Industrial engineers have a natural role to play in this field by using quantitative system analysis, manufacturing system knowledge, and human factors skills to help design and refine computer systems that are becoming ever more complex. The field offers substantial opportunities for technical skill development, travel, and interaction with a diverse range of professionals.

Design and Manufacturing

Many graduates find careers in manufacturing industries that include the use of computer-aided design and manufacturing, virtual and physical prototyping, 3D design, design and simulation of manufacturing processes, and manufacturing systems. They find employment in diverse industries, including the supplier manufacturing industry (e.g., John Deere, Caterpillar, Collins Aerospace, Raytheon, Boeing), health care (e.g., Johnson & Johnson, Zimmer), software, and the information industry (e.g., Creo Parametric, CATIA, SolidWorks, AutoCAD).

Entrepreneurship

Entrepreneurship allows engineering students to explore venture capital, marketability of products, and technology transfer. They gain exposure to understanding sound business practices, acquire team-building skills in both small and large companies, understand the entrepreneurial approach to acquiring and managing resources, learn how to create a business plan, and obtain valuable contacts and networking opportunities with businesses and industries.

Human Factors and Ergonomics

The human factors and ergonomics focus area represents an increasingly important engineering specialty. The dramatic increase in netcentric computer technology makes system performance increasingly dependent on the match between system characteristics and human capabilities. Graduates find employment in diverse industries that include health care (e.g., GE, Medtronics, Guidant), original equipment manufacturer (OEM) and supplier manufacturing industry (e.g., Collins Aerospace, Boeing, John Deere, Caterpillar), computer systems (e.g., Microsoft, Intel, IBM), the government (e.g., NHTSA, NTSB, NASA, the Department of Defense), and consulting (e.g., Accenture, Battelle). Human factors considers cognitive characteristics, and ergonomics considers physical characteristics. This focus area provides advanced education in psychology, systems, statistics, and biomechanics.

Management

Industrial engineers are often assigned managerial tasks, project management, and financial assessments as they relate to project budgets, cost calculations, and optimization criteria. This focus area prepares students for a career in engineering and business management.

Tailored

Students work with an advisor to tailor a program that is specific to their individual needs. For more information about guidelines for tailored focus areas, see Focus Areas on the Department of Industrial and Systems Engineering website.

Student Organizations

Student organizations can have an enormous impact on an undergraduate student's career. The College of Engineering is home to a number of student organizations and clubs. Popular organizations for industrial and systems engineering students include the Institute of Industrial and Systems Engineers (IISE) and the Human Factors and Ergonomics Society (HFES).

Undergraduate Resources

Undergraduate resources are available to students to pursue research, access professional services available in the college and across the university, and participate in or view sports and arts events on campus and around town.

Scholarships

A variety of engineering scholarships and funding opportunities are available to industrial and systems engineering students.

Accreditation

The undergraduate program in industrial engineering is accredited by the Engineering Accreditation Commission of ABET.

Educational Objectives

The following educational objectives of the program are defined in conjunction with the accreditation process.

Within a few years of graduation, industrial engineering graduates will:

- continue learning;
- lead and inspire others; and
- engage in the community and society.

Requirements

The Bachelor of Science in Engineering (BSE) with a major in industrial engineering requires a minimum of 128 s.h. of credit, including two 0 s.h. departmental seminars. At the time of graduation, students must have a cumulative grade-point average of at least 2.00 in all college work used to complete degree requirements and in all UI coursework in order to be awarded the BSE.

All BSE students are required to take the same collegiate curriculum. For information about these collegiate requirements, see the Bachelor of Science in Engineering, BSE [p. 1529] in the catalog. 6 s.h. of a student's major courses fulfill the basic science or college-level math collegiate requirement. Students completing the major in industrial engineering fulfill the collegiate statistics requirement by completing STAT:2020 Probability and Statistics for the Engineering and Physical Sciences. Students within the department are also required to take PSY:1001 Elementary Psychology to fulfill part of the BSE collegiate curriculum general education component approved course subjects requirement.

The BSE with a major in industrial engineering requires the following coursework.

Requirements	Hours
Collegiate Curriculum	49
Basic Science and College-Level Math, from Major Requirements or Focus Area	6
Major Requirements (includes two 0 s.h. seminars)	52
Focus Area	22

Major Requirements

Major requirements include a set of common courses (40 s.h.), at least 11 s.h. in engineering fundamentals elective courses, a systems elective (3 s.h.), two departmental seminars (0 s.h.), and one capstone design course (4 s.h.).

Common Courses

Course #	Title	Hours
All of these:		
ISE:2360	Design for Manufacturing	3
ISE:2500	Engineering Economy	3
ISE:3300	Manufacturing Systems	3
ISE:3350	Process Engineering	3
ISE:3400	Human Factors	3
ISE:3450	Ergonomics	3
ISE:3500	Information Systems Design	3
ISE:3600	Quality Control	3
ISE:3610	Stochastic Modeling	3
ISE:3660	Data Analytics With R	3
ISE:3700	Operations Research	3
ISE:3750	Digital Systems Simulation	3
PHYS:1612	Introductory Physics II (with lab)	4

Engineering Fundamentals

Students who are required to complete ENGR:2730 Computers in Engineering as part of their focus area must select a different course to fulfill the engineering fundamentals requirement.

Course #	Title	Hours
At least 11 s.h. from these:		
BME:2710	Engineering Drawing, Design, and Solid Modeling	3
CBE:2040	Environment, Energy, and Climate Change	3
ECE:2400	Linear Systems I (P: ENGR:2120 and MATH:2560)	3
ECE:2410	Principles of Electronic Instrumentation (P: ENGR:2120, PHYS:1612, MATH:2560)	4
ENGR:2110	Statics	2
ENGR:2120	Electrical Circuits	3
ENGR:2130	Thermodynamics	3
ENGR:2710	Dynamics	3
ENGR:2720	Materials Science	3
ENGR:2730	Computers in Engineering	3
ENGR:2750	Mechanics of Deformable Bodies	3
ENGR:3110	Introduction to Artificial Intelligence and Machine Learning in Engineering	3

Systems Elective

Students who complete ENGR:2730 Computers in Engineering or ISE:4900 Introduction to Six Sigma as part of their focus area must select a different course to fulfill their systems elective or work with their academic advisor for an appropriate substitution.

Course #	Title	Hours
One of these:		
ISE:4172	Big Data Analytics	3
ISE:4175	Safety Engineering	3
ISE:4900	Introduction to Six Sigma	3
ENGR:2730	Computers in Engineering	3
An industrial and systems engineering course (prefix ISE) numbered 5000 or above		3

Departmental Seminars

Course #	Title	Hours
Both of these:		
ISE:2000	Industrial Engineering Sophomore Seminar	0

ISE:3000	Professional Seminar: Industrial Engineering (taken in the third year)	0

Capstone Design Course

Course #	Title	Hours
This course:		
ISE:4600	Industrial Engineering Design Project	4

Focus Area

Students must select focus area courses according to guidelines established by the Department of Industrial and Systems Engineering. Focus areas include big data analytics [p. 1643], computer and information systems [p. 1643], design and manufacturing [p. 1643], entrepreneurship [p. 1644], human factors and ergonomics [p. 1644], management [p. 1645], and an option to tailor a focus area to an individual student's interests. For more information about focus area options and guidelines for tailored focus areas, see Focus Areas on the Department of Industrial and Systems Engineering website.

Focus areas in the industrial engineering major include content area courses and electives; carefully selected elective courses may contribute to earning a minor and/or certificate.

Big Data Analytics

Students in the big data analytics focus area complete four required courses (12 s.h.), two focus area electives (at least 6 s.h.), and one math or science elective (at least 3 s.h.).

Required Big Data Analytics Courses

Course #	Title	Hours
One of these:		
BAIS:3500	Data Mining	3
ECE:5450/IGPI:5450	Machine Learning	3
All of these:		
ENGR:2730	Computers in Engineering	3
STAT:4540/ BAIS:4540/ DATA:4540/ IGPI:4540	Statistical Learning	3
STAT:4580/ DATA:4580/ IGPI:4580	Data Visualization and Data Technologies	3

Big Data Analytics Electives

Course #	Title	Hours
Two of these:		
ISE:4172	Big Data Analytics	3
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
CS:5110/IGPI:5110	Introduction to Informatics	3
ECE:3330/IGPI:3330	Introduction to Software Design	3
STAT:4740/ CS:4740/IGPI:4740/ MATH:4740	Large Data Analysis	3

Math or Science Elective–Big Data Analytics

Course #	Title	Hours
One of these:		
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
MATH:3550	Engineering Vector Calculus	3
MATH:3800/ CS:3700	Introduction to Numerical Methods	3
PHYS:2704	Physics IV (with or without lab)	3-4
STAT:3210	Experimental Design and Analysis	3

Computer and Information Systems

Students in the computer and information systems focus area complete five required courses (16 s.h.) and two focus area electives (at least 6 s.h.).

Required Computer and Information Systems Courses

Course #	Title	Hours
All of these:		
CS:2210	Discrete Structures	3
CS:2230	Computer Science II: Data Structures	4
ECE:3330/IGPI:3330	Introduction to Software Design	3
ENGR:2730	Computers in Engineering	3
MATH:3800/ CS:3700	Introduction to Numerical Methods	3

Computer and Information Systems Electives

Students in this focus area who wish to receive the minor in computer science [p. 314] must take CS:3330 Algorithms and CS:3210 Programming Languages and Tools or CS:3980 Topics in Computer Science I.

Course #	Title	Hours
Two of these:		
CS:2630	Computer Organization	4
CS:3210	Programming Languages and Tools	3
CS:3330	Algorithms	3
CS:3820	Programming Language Concepts	3
CS:3980	Topics in Computer Science I	3
CS:4400	Database Systems	3
CS:5800/ECE:5800	Fundamentals of Software Engineering	3

Design and Manufacturing

Students in the design and manufacturing focus area complete two required courses (6 s.h.), three focus area electives (at least 9 s.h.), one math or science elective (at least 3 s.h.), and one advanced engineering elective (at least 3 s.h.).

Required Design and Manufacturing Courses

Course #	Title	Hours
Both of these:		
ARTS:1020	Elements of 3D Design	3
TDSN:2240/ CEE:2240	Drafting and Modeling With AutoCAD and Rhino	3

Design and Manufacturing Electives

Course #	Title	Hours
Three of these:		
ISE:4116/ME:4116	Manufacturing Processes Simulations and Automation	3
ISE:4900	Introduction to Six Sigma	3
ISE:5310	Advanced Computational Design and Manufacturing	3
ISE:5620	Design of Experiments	3
ISE:5650	Mechatronics Engineering for Smart Device Design	3
BME:2500	Biomaterials and Biomechanics	4
BME:2710	Engineering Drawing, Design, and Solid Modeling	3
BME:5101	Biomaterials and Implant Design	3
ME:4112/CEE:4512	Engineering Design Optimization	3
ME:5167/CEE:5137	Composite Materials	3
MTLS:3285	Fabrication and Design: Hand-Made Bicycle	4
MTLS:4910	Mixed Media and Professional Practices	3-4
TDSN:2250	Digital Prototyping	3
TDSN:3200	Product Design	4

Math or Science Elective–Design and Manufacturing

Course #	Title	Hours
One of these:		
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
MATH:3550	Engineering Vector Calculus	3
MATH:3800/ CS:3700	Introduction to Numerical Methods	3
PHYS:2704	Physics IV (with or without lab)	3-4

Advanced Engineering Elective–Design and Manufacturing

Students select one course numbered 3000 or above from any department in the College of Engineering (prefix BME, CBE, CEE, ECE, ISE, or ME), excluding department seminars.

Entrepreneurship

Students in the entrepreneurship focus area complete three required courses (9 s.h.), two technological entrepreneurship courses (6 s.h.), one advanced elective (3 s.h.), and one math or science elective (at least 3 s.h.).

Required Entrepreneurship Courses

Course #	Title	Hours
All of these:		
ISE:4900	Introduction to Six Sigma	3
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3100	Entrepreneurial Finance	3

Technological Entrepreneurship Certificate Courses

Students select two courses that count toward the Certificate in Technological Entrepreneurship [p. 1681] for a total of 6 s.h.

Advanced Elective

Course #	Title	Hours
One of these:		
A course numbered 3000 or above in biomedical engineering (prefix BME), chemical and biochemical engineering (prefix CBE), civil and environmental engineering (prefix CEE), electrical and computer engineering (prefix ECE), industrial and systems engineering (prefix ISE), or mechanical engineering (prefix ME)		3
A course numbered 3000 or above in accounting (prefix ACCT), business analytics and information systems (prefix BAIS), business (prefix BUS), economics (prefix ECON), entrepreneurship (prefix ENTR), finance (prefix FIN), management (prefix MGMT), or marketing (prefix MKTG)		3

Math or Science Elective–Entrepreneurship

Course #	Title	Hours
One of these:		
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
MATH:3550	Engineering Vector Calculus	3
MATH:3800/ CS:3700	Introduction to Numerical Methods	3
PHYS:2704	Physics IV (with or without lab)	3-4
STAT:3210	Experimental Design and Analysis	3

Human Factors and Ergonomics

Students in the human factors and ergonomics focus area complete three required courses (10 s.h.), one math or science elective (3 s.h.), one engineering elective (at least 3 s.h.), and two general electives (at least 6 s.h.).

Required Human Factors and Ergonomics Courses

Course #	Title	Hours
All of these:		
PSY:2601	Introduction to Cognitive Psychology	3
PSY:2701	Introduction to Behavioral Neuroscience	4
PSY:2811	Research Methods and Data Analysis in Psychology I	3

Math or Science Elective–Human Factors and Ergonomics

Course #	Title	Hours
One of these:		
ISE:3760/ DATA:3200/ IGPI:3200/ STAT:3200	Applied Linear Regression	3
STAT:3210	Experimental Design and Analysis	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Engineering Elective

Course #	Title	Hours
One of these:		
ISE:4175	Safety Engineering	3
ISE:5420	Automated Vehicle Systems	3
ISE:5460	User Experience Design	3
ISE:6220	Cognitive Engineering	3
ISE:6410	Research Methods in Human Factors Engineering	3
ISE:6420	Human/Computer Interaction	3
ISE:6450	Human Factors in Aviation	3
ISE:6480	Unmanned Aircraft Systems	3
BME:2500	Biomaterials and Biomechanics	4
BME:5640	Ergonomics of Occupational Injuries	3

General Electives

Course #	Title	Hours
Two of these:		
PSY:3040	Psychology of Learning	3
PSY:3620	Human Memory	3
PSY:4020	Laboratory in Psychology	4
OEH:4310	Occupational Ergonomics: Principles	3

Management

Students in the management focus area complete five required courses (15 s.h.), one math or science elective (at least 3 s.h.), and one advanced engineering elective (3 s.h.).

Required Management Courses

Course #	Title	Hours
All of these:		
ACCT:2100	Introduction to Financial Accounting	3
ACCT:2200	Managerial Accounting Analytics and Data Visualization	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
MKTG:3000	Introduction to Marketing Strategy	3

Math or Science Elective–Management

Course #	Title	Hours
One of these:		
BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
MATH:3550	Engineering Vector Calculus	3
MATH:3800/ CS:3700	Introduction to Numerical Methods	3
PHYS:2704	Physics IV (with or without lab)	3-4
STAT:3210	Experimental Design and Analysis	3

Advanced Engineering Elective–Management

Students select one course numbered 3000 or above with at least 3 s.h. from any department in the College of Engineering (prefix BME, CBE, CEE, ECE, ISE, or ME), excluding department seminars.

Tailored

Students work with their advisor to tailor a program that is specific to their individual needs.

Combined Programs

BSE/MS in Industrial Engineering

The College of Engineering offers a combined Bachelor of Science in Engineering/Master of Science program for industrial engineering undergraduate students who intend to earn an MS in industrial engineering.

Undergraduate students at the University of Iowa who have completed more than 80 s.h. and have a grade-point average higher than 3.25 may apply for admission to the Undergraduate to Graduate (U2G) program designed to accelerate the attainment of an MS in industrial engineering degree. Students typically complete their MS within one year of their BSE degree.

Students meet with their academic advisor, complete a plan, and submit an application for the MS program of study to the Graduate College. Graduate Record Examination (GRE) General Test scores are not required for University of Iowa students. Students continue to follow the industrial and systems engineering curriculum as planned with their advisor.

Students may take up to 12 s.h. of graduate coursework in the last year of undergraduate studies to be counted toward both degrees, attend the program's graduate seminar, and optionally work with a faculty member on a master's thesis project while they are still undergraduates.

Interested students should discuss the Undergraduate to Graduate (U2G) program with their advisor during their third year of study. Applications should be submitted to the department before the start of their fourth year.

Career Advancement

Industrial and systems engineers have many opportunities for employment and service in industrial, government, research, and public service organizations. Employment opportunities are among the most varied in the engineering field. Industrial and systems engineers hold positions as advisors to management or may participate directly in

management decisions. Representative job titles include industrial engineer, manufacturing engineer, systems analyst, quality specialist, operations research analyst, internal consultant, human factors specialist, supervisor, and manager. Industrial and systems engineers are employed by manufacturing and energy firms, wind turbine manufacturers, government agencies, and service organizations such as airlines, banks, hospitals, health care groups, and consulting companies.

People are often surprised to learn the impact and breadth of the industrial engineering profession, which is one of the fastest-growing occupations. According to the Bureau of Labor Statistics, employment of industrial engineers is projected to grow 12% over the next 10 years, compared to 3% for all occupations and 7% for all engineers. It is one of the more gender-diverse engineering degrees: 34.1% of industrial engineering bachelor's degrees are awarded to women, compared to 22.1% of all engineering bachelor's degrees, according to the Society of Women Engineers (SWE).

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including engineering career fairs and other programs related to career development.

Engineering Career Services offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, job offer evaluation, and much more. Engineering Career Services partners with the Pomerantz Career Center to facilitate on-campus interviewing, postgraduate outcome collection, and the university's online recruiting system, Handshake.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Industrial Engineering, BSE

Course	Title	Hours
First Year		
Fall		
RHET:1030	Rhetoric: Writing and Communication [a]	4
MATH:1550	Engineering Calculus I [b, c]	4
CHEM:1110	Principles of Chemistry I [b, d]	4
ENGR:1100	Introduction to Engineering Problem Solving [e]	3
CSI:1600	Success at Iowa	0
	Hours	**15**
Spring		
GE: Approved Course Subjects [f]		3
MATH:1560	Engineering Calculus II [b]	4
MATH:2550	Engineering Matrix Algebra [b]	2
PHYS:1611	Introductory Physics I [b]	4
ENGR:1300	Introduction to Engineering Computing [b]	3
	Hours	**16**
Second Year		
Fall		
MATH:2560	Engineering Differential Equations [b]	3
PHYS:1612	Introductory Physics II [b]	4
Major: engineering fundamentals elective [g]		2 - 3
Major: engineering fundamentals elective [g]		3
ISE:2000	Industrial Engineering Sophomore Seminar [e]	0
PSY:1001	Elementary Psychology [b]	3
Students are required to submit their focus area form (https://workflow.uiowa.edu/entry/new/2662) by the end of the second year. Students can request necessary advisor and departmental approvals for alternative courses by selecting Other on the form and entering an unlisted course.		
	Hours	**15-16**
Spring		
Major: engineering Fundamental Elective [g]		3
STAT:2020	Probability and Statistics for the Engineering and Physical Sciences [b]	3
Major: engineering fundamentals elective [g]		3
ISE:2500	Engineering Economy [h]	3
ISE:3500	Information Systems Design [h]	3
Focus Area: required course [i]		3
	Hours	**18**
Third Year		
Fall		
GE: Engineering Be Creative [j]		3
ISE:2360	Design for Manufacturing [e]	3
ISE:3400	Human Factors [e]	3
ISE:3610	Stochastic Modeling [e]	3
ISE:3700	Operations Research [e]	3
	Hours	**15**
Spring		
GE: Cultural Perspectives, Values, and Society [k]		3
ISE:3300	Manufacturing Systems [h]	3
ISE:3450	Ergonomics [h]	3
ISE:3660	Data Analytics With R [h]	3
ISE:3750	Digital Systems Simulation [h]	3
Focus Area: required or elective course [i]		3
ISE:3000	Professional Seminar: Industrial Engineering [h]	0
	Hours	**18**
Fourth Year		
Fall		
GE: Approved Course Subjects [f]		3
ISE:3350	Process Engineering [e]	3
ISE:3600	Quality Control [e]	3
Focus Area: required course [i]		3
Focus Area: required or elective course [i]		3
	Hours	**15**

Spring

ISE:4600	Industrial Engineering Design Project [b]	4
Focus Area: systems elective [l]		3
Focus Area: required or elective course [i]		3
Focus Area: required or elective course [i]		3
Focus Area: elective course [i]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [m]		
	Hours	**16**
	Total Hours	**128-129**

a Typically this course is offered in fall, spring, and summer sessions. Check MyUI for course availability since offerings are subject to change.

b Typically this course is offered in fall and spring semesters. Check MyUI for course availability since offerings are subject to change.

c Enrollment in math courses requires completion of a placement exam.

d Enrollment in chemistry courses requires completion of a placement exam.

e Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

f See General Catalog for list of approved course subjects.

g Students complete at least 11 s.h. in engineering fundamentals courses, selected from the following: BME:2710, CBE:2040, ECE:2400, ECE:2410, ENGR:2110, ENGR:2120, ENGR:2130, ENGR:2710, ENGR:2720, ENGR:2730, ENGR:2750, and ENGR:3110. Students who are required to complete ENGR:2730 as part of their focus area must select a different course to fulfill the engineering fundamentals requirement. See General Catalog or consult an advisor for more information.

h Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

i Students select one of several standard focus areas or tailor a focus area to individual interests. Focus areas require at least 21 s.h. and consist of content area courses and electives. Carefully selected elective courses may contribute to earning a minor and/or certificate. See General Catalog or consult an advisor for more information.

j See General Catalog for list of approved courses. Students who intend to enroll in a Be Creative course with prerequisites must request a waiver by completing the Request Prerequisite Special Permission form on MyUI.

k Students select a course from one of two GE CLAS Core areas: Understanding Cultural Perspectives or Values and Society.

l Students complete one systems elective (3 s.h.), selected from the following: ISE:4172, ISE:4175, ISE:4900, ENGR:2730, or a course with prefix ISE numbered 5000 or above. Students who are required to complete ENGR:2730 or ISE:4900 as part of their focus area must select a different course to fulfill the systems elective requirement. See General Catalog or consult an advisor for more information.

m Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Industrial Engineering, MS

The MS in industrial engineering program supports two major paths: one focusing on courses and one on research and a thesis. The first path is intended primarily for students who wish to advance their technical knowledge and move toward a career in industry. The second path is also a good choice for students interested in industry, but it is targeted more toward developing independent research skills and writing, and it also can support future graduate work.

Both paths expect some diversity of technical skills in three major areas: systems, human factors, and analytics. The systems area emphasizes the design, construction, and analysis of complex systems with interdependent parts that include people and machines. The human factors area emphasizes the interaction of people with systems and includes the study and analysis of people's cognitive and physical limitations. The analytics area emphasizes the application of mathematical formulas, including statistical approaches, as well as algorithmic and computational approaches to deriving knowledge from data. Each area is supported by several faculty members and many faculty members support multiple areas; see Facilities [p. 1635] in the Department of Industrial and Systems Engineering section of the catalog to learn more about each research lab and its activities.

Learning Outcomes

Without Thesis

Students will:

- demonstrate a broad knowledge of the field of industrial and systems engineering and deep knowledge in their specific area of study;
- identify and analyze problems of value to industry and society;
- apply contemporary methodologies for solving problems valued by industry and society;
- demonstrate project and team management skills and initiative; and
- demonstrate ethical and professional behavior.

With Thesis

Students will:

- demonstrate a broad knowledge of the field of industrial and systems engineering and deep knowledge in their specific area of study;
- identify and analyze problems of value to industry and society;
- transform knowledge into applications valued by industry and society;
- demonstrate collaborative and communication skills;
- demonstrate project and team management skills; and
- demonstrate ethical and professional behavior.

Requirements

The Master of Science program in industrial engineering requires a minimum of 30 s.h. of graduate credit. Students must maintain a UI cumulative grade-point average higher than 3.25 to earn the degree.

In addition, students must enroll in ENGR:7270 Engineering Ethics, typically in the first fall semester of enrollment. ISE:5000 Graduate Seminar: Industrial Engineering must be taken in the first two consecutive semesters of enrollment and one semester (fall or spring) in subsequent academic years. More information about graduate seminar requirements can be found in the Graduate Student Handbook on the Department of Industrial and Systems Engineering Graduate Program website. Credit in ISE:5000 and ENGR:7270 may not be applied toward the 30 s.h. of required coursework.

Breadth Requirement

All students must successfully complete at least one approved graduate-level course in each of three focus areas—analytics, human factors, and systems. Those with a relevant academic background in these areas may be excused from this requirement by the director of graduate studies.

For more detailed information about program requirements and focus area courses, see the Graduate Student Handbook on the Department of Industrial and Systems Engineering website.

Analytics

Course #	Title	Hours
One of these:		
ISE:3610	Stochastic Modeling	3
ISE:3660	Data Analytics With R	3
ISE:3700	Operations Research	3
ISE:4172	Big Data Analytics	3
ISE:5730	Digital Industry	3
ISE:5740	Design and Analysis of Computer Experiments	3
ISE:6300	Innovation Science and Studies	3
ISE:6380	Deep Learning	3
ISE:6650	Human Analytics and Behavioral Operations	3
ISE:6760	Pattern Recognition for Financial Data	3
ISE:6780	Financial Engineering and Optimization	3
ISE:6790	Advanced Data Analytics and Informatics	3

Human Factors

Course #	Title	Hours
One of these:		
ISE:3400	Human Factors	3
ISE:3450	Ergonomics	3
ISE:4175	Safety Engineering	3
ISE:5420	Automated Vehicle Systems	3
ISE:5460	User Experience Design	3
ISE:6211	Human Factors in Healthcare Systems	3
ISE:6220	Cognitive Engineering	3
ISE:6410	Research Methods in Human Factors Engineering	3

ISE:6420	Human/Computer Interaction	3
ISE:6450	Human Factors in Aviation	3
ISE:6460	The Design of Virtual Environments	3
ISE:6480	Unmanned Aircraft Systems	3

Systems

Course #	Title	Hours
One of these:		
ISE:3300	Manufacturing Systems	3
ISE:3350	Process Engineering	3
ISE:3500	Information Systems Design	3
ISE:3600	Quality Control	3
ISE:3750	Digital Systems Simulation	3
ISE:4620	Design of Experiments for Quality Improvement	3
ISE:4900	Introduction to Six Sigma	3
ISE:5310	Advanced Computational Design and Manufacturing	3
ISE:5520	Renewable Energy	3
ISE:5620	Design of Experiments	3
ISE:5650	Mechatronics Engineering for Smart Device Design	3
ISE:6350	Computational Intelligence	3
ISE:6810	Advanced Topics on Additive Manufacturing	3

Master of Science Degree Without Thesis

The MS in industrial engineering without thesis requires at least 21 s.h. in Department of Industrial and Systems Engineering courses (prefix ISE), including the 9 s.h. breadth requirement and at least 12 s.h. of graduate-level courses at the 5000 level or above. Courses offered by other College of Engineering departments or courses from other colleges may be selected with the consent of the academic advisor to fulfill some or all of the remaining 9 s.h.

Master of Science With Thesis

Nonthesis students may petition for entry into the MS thesis program or the PhD program by requesting a change of status through the department. Typically, students make this request at the invitation of a faculty member who is ready to serve as a student's research advisor. The request is then reviewed by the Graduate Admissions Committee. The committee forwards approved requests to the department chair, who may authorize a change of status petition from the department to the Graduate College.

Students are encouraged to write their thesis as a publishable journal article and submit the article for publication. The thesis option consists of a minimum of 21 s.h. of coursework, including the 9 s.h. breadth requirement and up to 9 s.h. of research. Students pursuing the thesis option are permitted to enroll in ISE:5999 Research: Industrial Engineering MS Thesis. Up to 9 s.h. in the thesis course may count toward the graduate-level course requirement. In addition, students must submit the Final Examination: Advanced Degree form, complete a Report of Thesis Approval, and submit a copy of their thesis to the Graduate College by following the published guidelines and deadlines.

Admission

Applicants must meet the admission requirements of the Graduate College; for detailed information about Graduate College policies, see the Manual of Rules and Regulations on the Graduate College website.

Admission to the graduate program is competitive and based on an applicant's previous coursework, research, and industrial experience. The general admission standards are intended to maintain the quality of the graduate program and to ensure the sufficient preparation required for timely degree completion. Specific admission standards may be waived by the Graduate Admissions Committee when other evidence of competence is compelling. These standards are minimum standards, and meeting these standards does not ensure admission to the program; admitted students typically exceed these standards.

Applicants are expected to have a minimum cumulative grade-point average of 3.00 on a 4.00 scale and have earned a BSE in industrial engineering degree or in a related science or engineering discipline. Applicants are not required to submit the results of their Graduate Record Examination (GRE) General Test.

Applicants must arrange to have three letters of recommendation sent to the department online through the University of Iowa Admissions website. The letters should be completed by persons who are well acquainted with the applicant and the ability of the applicant to undertake graduate work in industrial or systems engineering.

While the department considers applications at any time, first consideration is given to students who have their application materials, including their application, transcripts, English language test scores (DET, IELTS, or TOEFL), and the required letters of recommendation, completed by the admission priority deadline as found on the Graduate Admissions website. The director of graduate admissions is responsible for overseeing the graduate recruiting activities and the admissions procedures in the department. The director serves as the point of initial contact between prospective graduate students and the department and maintains a record of each qualified applicant in the departmental office. The director, in consultation with the Graduate Admissions Committee and the department chair, screens applicants and ultimately determines which applicants are extended offers of admission.

Applicants With Degrees Not in Industrial or Systems Engineering

The department encourages students with degrees in other scientific disciplines, such as computer science, mathematics, physics, or other engineering disciplines, to apply for admission. Some students may have already completed MS degrees; however, these students are expected to attain proficiency in specified core areas of industrial and systems engineering equivalent to entering graduate students who hold a BSE degree in industrial engineering. The background of each student admitted to the program with a degree other than in industrial or systems engineering is reviewed by the faculty members. These proficiencies are intended to ensure that each admitted graduate student is able to fully participate in all industrial and systems engineering discipline areas at some level, even while advanced courses in certain areas may not be immediately accessible to all graduate

students. The director of graduate studies specifies in writing any remedial courses required of a student.

Degree Program Selection

Unless otherwise specified, graduate students in the Department of Industrial and Systems Engineering are enrolled in the MS nonthesis program. If a student and faculty member have jointly agreed a student may pursue the MS with thesis option, the student may be admitted into the thesis track.

Career Advancement

Industrial and systems engineers have many opportunities for employment and service in industrial, government, research, and public service organizations such as airlines, banks, hospitals, health care groups, and consulting companies. Employment opportunities are among the most varied in the engineering field. Industrial and systems engineers hold positions as advisors to management or may participate directly in management decisions. Representative job titles include industrial engineer, manufacturing engineer, systems analyst, quality specialist, operations research analyst, internal consultant, human factors specialist, supervisor, and manager.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Industrial Engineering, MS

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.25 is required. [c]		
	Hours	**0**
First Year		
Fall		
ENGR:7270	Engineering Ethics [d]	1
ISE:5000	Graduate Seminar: Industrial Engineering [e]	1
Analytics focus area course [f]		3
Human factors focus area course [f]		3
Elective course [g]		3
Elective course [g]		3
	Hours	**14**
Spring		
ISE:5000	Graduate Seminar: Industrial Engineering [e]	1
Systems focus area course [f]		3
Elective course [g]		3
Elective course [g]		3
Elective course [g]		3
	Hours	**13**
Second Year		
Fall		
ISE:5000	Graduate Seminar: Industrial Engineering [e]	1
Elective course [g]		3
Elective course [g]		3
	Hours	**7**
	Total Hours	**34**

a Must include at least 12 s.h. of graduate-level courses at the 5000 level or above. All students must also select one graduate-level ISE course from each of three focus areas: analytics, human factors, and systems.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Students must enroll in ENGR:7270, typically in the first semester of enrollment; does not count towards total semester hours for the degree.

e ISE:5000 must be taken in the first two consecutive semesters of enrollment, and one semester (fall or spring) in subsequent academic years; does not count towards total semester hours for the degree.

f See General Catalog for list of approved courses.

g Work with faculty advisor to determine appropriate graduate elective coursework and sequence.

Industrial Engineering, PhD

The PhD in industrial engineering program is intended for students who wish to prepare themselves for a career creating and cultivating new knowledge. In addition to a broad selection of technical research courses, the program emphasizes original research under the close supervision of a faculty member. Students develop an individualized research project that typically includes the design and analysis of experimental or theoretical work or the invention of new processes, techniques, or devices, which ultimately leads to original publications in the academic literature. The training is appropriate for people seeking a career in academia or in research and development in industry.

The coursework requires some diversity of technical skills in three major areas: systems, human factors, and analytics. The systems area emphasizes the design, construction, and analysis of complex systems with interdependent parts that include people and machines. The human factors area emphasizes the interaction of people with systems and includes the study and analysis of people's cognitive and physical limitations. The analytics area emphasizes the application of mathematical formulas, including statistical approaches, as well as algorithmic and computational approaches to deriving knowledge from data. Each area is supported by several faculty members, and many faculty members support multiple areas; see Facilities [p. 1635] in the Department of Industrial and Systems Engineering section of the catalog to learn more about each research lab and its activities.

Learning Outcomes

Students will:

- demonstrate a broad knowledge of the field of industrial and systems engineering and deep knowledge in their specific area of study;
- identify and solve problems of value to industry and society;
- demonstrate independent thinking and forge new paths to discovery;
- make meaningful and novel contributions to knowledge in a single or multiple domains;
- disseminate research results to the research and application community;
- demonstrate the ability to lead interdisciplinary teams in pursuit of research; and
- demonstrate ethical and professional behavior.

Requirements

The Doctor of Philosophy program in industrial engineering requires a minimum of 72 s.h. of graduate credit. Students must maintain a UI cumulative grade-point average of at least 3.50 to earn the degree. At least 36 s.h. must be taken in Department of Industrial and Systems Engineering courses (prefix ISE), including at least 24 s.h. in graduate-level courses numbered ISE:5000 and above.

Students must enroll in ENGR:7270 Engineering Ethics, typically in the first or second fall semester of enrollment. ISE:5000 Graduate Seminar: Industrial Engineering must be taken in the first two consecutive semesters of enrollment and one semester (fall or spring) in subsequent academic years. More information about Graduate Seminar requirements can be found in the Graduate Student Handbook on the Department of Industrial and Systems Engineering Graduate Program website. Credit in ISE:5000 and ENGR:7270 may be applied toward the 72 s.h. of required coursework.

Students must successfully complete coursework in each of three focus areas: see the section titled "Breadth Requirement." The academic advisor and/or examining committee may decide that a student must complete other requirements such as additional coursework or the acquisition of specific skills. The actual amount of coursework required is determined with the advice and consent of the academic advisor. Students who earned an MS at the University of Iowa may have satisfied this requirement.

Students are typically expected to have completed three academic years of residence at the University of Iowa, or two years if they already hold a recognized Master of Science. For students who earned an MS at the University of Iowa, no more than 36 s.h. from the MS may be counted toward the PhD. For students who earned an MS from another institution, a maximum of 30 s.h. may be transferred toward the doctoral program. The director of graduate studies reviews the transcripts of new students to determine which requirements have been met from previous coursework.

Excellence in research is the principal requirement for the degree. It is expected that the PhD dissertation research project represents an original and significant contribution to the body of knowledge in the field. At least one accepted research article in a peer-reviewed journal as first author with the research advisor as a co-author, in addition to the presentation of the research in a departmental seminar, are requirements. Submission of three first-authored papers and at least one research presentation at a national conference is typical. In addition, students must fulfill the qualifying requirement, pass the comprehensive examination, submit the Final Examination: Advanced Degree form, complete a Report of Thesis Approval, and submit a copy of their thesis to the Graduate College by following the published guidelines and deadlines.

Breadth Requirement

Students must successfully complete at least 6 s.h. in approved courses numbered 5000 or above offered by the Department of Industrial and Systems Engineering in each of the three focus areas—analytics, human factors, and systems. Students with a relevant academic background in these areas may be excused from the breadth requirement with the approval of the director of graduate studies. Approved courses are listed as follows.

Analytics

Course #	Title	Hours
Two of these:		
ISE:5730	Digital Industry	3
ISE:5740	Design and Analysis of Computer Experiments	3
ISE:6300	Innovation Science and Studies	3
ISE:6380	Deep Learning	3
ISE:6650	Human Analytics and Behavioral Operations	3

ISE:6760	Pattern Recognition for Financial Data	3
ISE:6780	Financial Engineering and Optimization	3
ISE:6790	Advanced Data Analytics and Informatics	3

Human Factors

Course #	Title	Hours
Two of these:		
ISE:5420	Automated Vehicle Systems	3
ISE:5460	User Experience Design	3
ISE:6211	Human Factors in Healthcare Systems	3
ISE:6220	Cognitive Engineering	3
ISE:6410	Research Methods in Human Factors Engineering	3
ISE:6420	Human/Computer Interaction	3
ISE:6450	Human Factors in Aviation	3
ISE:6460	The Design of Virtual Environments	3
ISE:6480	Unmanned Aircraft Systems	3

Systems

Course #	Title	Hours
Two of these:		
ISE:5310	Advanced Computational Design and Manufacturing	3
ISE:5520	Renewable Energy	3
ISE:5620	Design of Experiments	3
ISE:5650	Mechatronics Engineering for Smart Device Design	3
ISE:6350	Computational Intelligence	3
ISE:6810	Advanced Topics on Additive Manufacturing	3

Qualifying Exam

Students interested in pursuing a PhD are initially admitted as MS nonthesis students until they have completed the qualifying examination. This is typically achieved within their first three semesters if beginning the program without an MS, or within the first two semesters if beginning the program with an MS. Once the exam is passed, students are formally admitted to the PhD program. The purpose of this qualifier is to determine a student's proficiency in research and scholarship.

Comprehensive Examination

The general rules for the administration of the PhD comprehensive examination are contained in the policies and procedures of the Graduate College. The tradition in the department is for the comprehensive examination to consist of a written and oral component. Students write and submit a comprehensive examination document, usually called the dissertation research proposal, to each member of the examination committee two weeks before the examination date. During the examination, students make a roughly 30-minute presentation on the content of the research proposal. Committee members may ask questions regarding the proposal before, during, or after the oral presentation. Having satisfactorily completed the comprehensive examination, students are accepted as candidates for the PhD.

Final Examination (Dissertation Defense)

Each student must defend the completed dissertation in the final examination, which is conducted by the examining committee.

En Passant Option

Students admitted to the PhD program may elect to earn their MS through the *en passant* option, with the permission of their PhD committee. This option allows students to write an English-language manuscript as the first author and submit it to a peer-reviewed research journal in lieu of writing the MS thesis. With this option, students, in conjunction with their academic advisor, author a paper that serves as the foundation for the PhD research. The decision to select this option must be made before the qualifying examination. The committee may determine, based on the published or submitted scholarship to peer-reviewed journals, that the presentation of a separate research thesis is not necessary. In this case, up to 9 s.h. in ISE:5999 Research: Industrial Engineering MS Thesis may be counted toward the nonthesis option. Students choosing the *en passant* option generally receive an MS without the thesis designation.

For more detailed information about program requirements, see Graduate Student Handbook on the Department of Industrial and Systems Engineering Graduate Program website.

Admission

Applicants must meet the admission requirements of the Graduate College; for detailed information about Graduate College policies, see the Manual of Rules and Regulations on the Graduate College website.

Admission to the graduate program is competitive and based on an applicant's previous coursework, research, and industrial experience. The general admission standards are intended to maintain the quality of the graduate program and to ensure the sufficient preparation required for timely degree completion. Specific admission standards may be waived by the Graduate Admissions Committee when other evidence of competence is compelling. These standards are minimum standards, and meeting these standards does not ensure admission to the program; admitted students typically exceed these standards.

Applicants are expected to have a minimum cumulative grade-point average of at least 3.00 on a 4.00 scale and have earned a BSE in industrial engineering degree or in a related science or engineering discipline. Applicants are not required to submit the results of the Graduate Record Examination (GRE) General Test.

Applicants must arrange to have three letters of recommendation sent to the department online through the University of Iowa Admissions website. The letters should be completed by persons who are well acquainted with the applicant and the ability of the applicant to undertake graduate work in industrial or systems engineering.

While the department considers applications at any time, first consideration is given to students who have their application materials, including their application, transcripts, English language test scores (DET, IELTS, or TOEFL), and the required

letters of recommendation, completed by the admission priority deadline as found on the Graduate Admissions website. The director of graduate admissions is responsible for overseeing the graduate recruiting activities and the admissions procedures in the department. The director serves as the point of initial contact between prospective graduate students and the department and maintains a record of each qualified applicant in the departmental office. The director, in consultation with the Graduate Admissions Committee and the department chair, screens applicants and ultimately determines which applicants are extended offers of admission.

Applicants With Degrees Not in Industrial or Systems Engineering

The department encourages students with degrees in other scientific disciplines, such as computer science, mathematics, physics, or other engineering disciplines, to apply for admission. Some students may have already completed MS degrees; however, these students are expected to attain proficiency in specified core areas of industrial and systems engineering equivalent to entering graduate students who hold a BSE degree in industrial engineering. The background of each student admitted to the program with a degree other than in industrial or systems engineering is reviewed by the faculty members. These proficiencies are intended to ensure that each admitted graduate student is able to fully participate in all industrial and systems engineering discipline areas at some level, even while advanced courses in certain areas may not be immediately accessible to all graduate students.

Career Advancement

Industrial and systems engineers have many opportunities for employment and service in industrial, government, research, and public service organizations. Employment opportunities are among the most varied in the engineering field. Industrial and systems engineers are employed by manufacturing and energy firms, government agencies, and service organizations such as airlines, banks, hospitals, health care groups, and consulting companies.

The PhD is a gateway toward careers of learning and creation. Employers typically hire people with doctorates to run laboratories, create research directions, and supervise other engineers at the boundaries of knowledge. PhD-level researchers generally enjoy great freedom and tailored work environments as they explore and learn to help create new visions of tomorrow. A PhD opens up academic, research, and entrepreneurial possibilities limited only by one's drive and creativity. Positions are often found through announcements in trade journals, international conferences, and specialized job-posting services. Students often work with faculty to identify and apply for appropriate positions. It is rare that students do not find an appropriate position before completing their thesis.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Industrial Engineering, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.50 is required. [b]		
	Hours	**0**
First Year		
Fall		
ENGR:7270	Engineering Ethics [c]	1
ISE:5000	Graduate Seminar: Industrial Engineering [d]	1
ISE:7999	Research: Industrial Engineering PhD Dissertation	3
Analytics focus area course [e]		3
Human factors focus area course [e]		3
	Hours	**11**
Spring		
Exam: Doctoral Qualifying Exam [f]		
ISE:5000	Graduate Seminar: Industrial Engineering [d]	1
ISE:7999	Research: Industrial Engineering PhD Dissertation	3
Analytics focus area course [e]		3
Systems focus area course [e]		3
	Hours	**10**
Second Year		
Fall		
ISE:5000	Graduate Seminar: Industrial Engineering [d]	1
ISE:7999	Research: Industrial Engineering PhD Dissertation	3
Human factors focus area course [e]		3
Systems focus area course [e]		3
	Hours	**10**
Spring		
ISE:7999	Research: Industrial Engineering PhD Dissertation	3
Elective course [g]		3
Elective course [g]		3
	Hours	**9**
Third Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [h]		
	Hours	**0**
Fall		
ISE:5000	Graduate Seminar: Industrial Engineering [d]	1
ISE:7999	Research: Industrial Engineering PhD Dissertation	8
	Hours	**9**

Spring		
ISE:7999	Research: Industrial Engineering PhD Dissertation	9
	Hours	**9**
Fourth Year		
Fall		
ISE:5000	Graduate Seminar: Industrial Engineering [d]	1
ISE:7999	Research: Industrial Engineering PhD Dissertation	8
	Hours	**9**
Spring		
ISE:7999	Research: Industrial Engineering PhD Dissertation	5
Exam: Doctoral Final Exam [i]		
	Hours	**5**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Students must enroll in ENGR:7270, typically in the first or second semester of enrollment; may count towards total semester hours for the degree.

d ISE:5000 must be taken in the first two consecutive semesters of enrollment, and one semester (fall or spring) in subsequent academic years; may count towards total semester hours for the degree.

e Students must complete at least 6 s.h. in approved ISE courses numbered 5000 or above in each of the three focus areas: analytics, human factors, and systems. See the General Catalog for list of approved courses.

f Typically taken during the second semester of enrollment; more information is found in the General Catalog and on department website.

g Work with faculty advisor to determine appropriate graduate elective coursework and sequence.

h Written and oral exam to be completed after passing the qualifying exam and upon completion of required coursework; typically done by the end of third year.

i Dissertation defense.

Mechanical Engineering

Chair

- Ching-Long Lin

Undergraduate major: mechanical engineering (BSE)

Graduate degrees: MS in mechanical engineering; PhD in mechanical engineering

Faculty: https://engineering.uiowa.edu/me-people

Website: https://engineering.uiowa.edu/me

The Department of Mechanical Engineering offers distinct undergraduate and graduate degrees and research programs in mechanical engineering. It also is the administrative home of the undergraduate Certificate in Naval Science and Technology and the undergraduate and graduate Certificates in Artificial Intelligence, Modeling and Simulation in Engineering.

Mechanical engineering is broadly concerned with the energy, manufacturing, and design of machines. Mechanical engineers conceive, plan, design, and direct the manufacture, distribution, and operation of a wide variety of devices, machines, and systems—including complex human-machine systems—for energy conversion, biofuel production, environmental control, materials processing, transportation, materials handling, and other purposes. Major subspecialties of mechanical engineering include thermal-fluids engineering and mechanical systems engineering.

Thermal-fluid phenomena occur in many engineering systems and devices such as aircraft; automobiles; off-road vehicles; ships; gas turbines; heat exchangers; material processes; heating, ventilating, air-conditioning, and refrigerating systems; hydraulic and wind turbines; airbag inflators; fuel cells; biofuel processes; environmental control devices; and biomedical systems.

Machines and mechanical systems are the foundations of human technology. Mechanical systems are found in mechanical engineering systems and devices such as manufacturing equipment, medical equipment, ground vehicles, heavy equipment, farm equipment, aircraft, ships, home appliances, packaging machinery, wind turbine blades and gearboxes, robots, and biomedical systems.

Mechanical engineers find a wide variety of career opportunities in industry, government, and education. Mechanical engineers form an integral part of most industries, including aerospace firms, energy companies, automobile manufacturers, health care providers, food- and metal-processing industries, petroleum refineries, electronic and computer manufacturers, heavy construction and agricultural vehicle manufacturers, wind turbine manufacturers, thermal comfort equipment firms, farm equipment firms, and consulting companies.

Certificates

Artificial Intelligence, Modeling and Simulation in Engineering

The Department of Mechanical Engineering offers the undergraduate and graduate certificate programs in Artificial Intelligence, Modeling and Simulation in Engineering; see Artificial Intelligence, Modeling and Simulation in Engineering [p. 1523] in the catalog.

Naval Science and Technology

The Department of Mechanical Engineering offers the undergraduate certificate program in Naval Science and Technology; see the Certificate in Naval Science and Technology [p. 1676] in the catalog.

Related Certificate: Transportation Planning

The graduate Certificate in Transportation Planning focuses on the varied and complex problems of transportation and on interdisciplinary approaches to addressing them. The departments of Civil and Environmental Engineering, Industrial and Systems Engineering, Mechanical Engineering (College of Engineering), and Economics (Tippie College of Business); and the School of Planning and Public Affairs (Graduate College) participate in the program.

The certificate is coordinated by the School of Planning and Public Affairs; see the Certificate in Transportation Planning [p. 1814] in the catalog.

Programs

Undergraduate Program of Study

Major

- Major in Mechanical Engineering (Bachelor of Science in Engineering) [p. 1663]

Graduate Programs of Study

- Master of Science in Mechanical Engineering [p. 1669]
- Doctor of Philosophy in Mechanical Engineering [p. 1672]

Facilities

Undergraduate Instruction

Departmental Instructional Facilities

The Department of Mechanical Engineering maintains six laboratories for undergraduate student learning, which consist of the Advanced Manufacturing Laboratory; the Control, Automation, and Robotics Laboratory; the Engineering Manufacturing Laboratory; the Ralph and Barbara Stephens Experimental Engineering Laboratory; the Laboratory for Machine Intelligence (under development); and two design project laboratories developed to facilitate collaboration on senior design projects and communication with project sponsors.

Advanced Manufacturing Laboratory

The Advanced Manufacturing (AM) Laboratory supports the elective mechanical engineering undergraduate course ME:4116 Manufacturing Processes Simulations and Automation. The laboratory includes a variety of machine tools and instruments for students to practice nontraditional material processes and controls. Facilities and instrumentation include a three-axis CNC laser cutter (Bodor laser), an ultrasonic metal seam welder (Branson), an ultrasonic metal spot welder (Branson), and a 25-programmable logic controller (Divelbiss). The facility uses the latest software technology, such as Abaqus, MATLAB, and EZ Ladder.

Control, Automation, and Robotics Laboratory

The Control, Automation, and Robotics (CAR) Laboratory is located in the Seamans Center for the Engineering Arts and Sciences and is managed by the Department of Mechanical Engineering. It provides students with experience in advanced control, robotics, and autonomous systems. The lab is equipped with one industrial 6-axis robotic arm, two Kuka mobile robots (KMR iiwa and KMP) with collaborative robotic arms, a desktop computer, two Roboception cameras, one co-act and one suction gripper, and four Quanser rotary servo base units. The facility has the latest software technology, such as LabVIEW and KUKA.Sim. The Quanser units are used in the laboratory assignments in ME:3600 Control of Mechanical Engineering Systems, while the robotic systems are used in ME:4140 Modern Robotics and Automation. In fall 2019, two control laboratories were developed based on two Quanser base units. The control laboratories were developed and tested in CAR and set up to accommodate a large class size. Later, two additional base units and three accessory modules were purchased to expand the control laboratories. In addition, the robotics systems are used in ME:4111 Scientific Computing and Machine Learning and ME:4150 Artificial Intelligence in Engineering to assist in the instruction of relevant course materials. The CAR laboratory is also used by students who have permission to work in the lab on honors and research projects.

Design Project Laboratories

The department also maintains two design project laboratories to support student teamwork on capstone design projects: the Design Lab and the MEDP/PEDE room. The Design Lab supports students taking the ME:4086 Mechanical Engineering Design Project and ME:4186 Enhanced Design Experience sequence in the Program for Enhanced Design Experience (PEDE) and Virtual International Project Teams (VIPT), whereas the MEDP/PEDE room is occupied by students completing the single-semester ME:4086 Mechanical Engineering Design Project (MEDP) course, as well as for PEDE and VIPT students. The Design Lab contains four workstations with large monitors for collaborative design and analysis activities, as well as tables and chairs for group discussions. An integrated teleconferencing room is enclosed with glass windows so students can communicate with project sponsors. The teleconferencing room contains a 4K LED smart TV connected to a desktop computer, as well as a video camera, microphone, speaker, and speakerphone for video conferencing and phone calls. The MEDP/PEDE room contains six computer workstations with four large computer monitors and two large TV monitors. There are four additional tables without workstations, two mobile whiteboards, and a sofa and mobile chairs for project design and collaborative activities.

Engineering Manufacturing Laboratory

The Engineering Manufacturing Laboratory is located in the Seamans Center for the Engineering Arts and Sciences. The laboratory provides students with experience in advanced CAD/CAM systems. It is managed by the Department of Mechanical Engineering and the Department of Industrial and Systems Engineering. The lab is equipped with three-axis CNC mills (Haas and Tormach), a CNC router (Techno-CNC), a CNC lathe (Haas), a drill press, a plastic injection molder, thermoforming machine, a band saw, a disc sander, a bench grinder, polishing wheel, hand drill, sandblasting cabinet, a press, and a three-in-one shear/break/roll machine. The facility has the latest software technology, such as Creo Parametric and Rhinoceros 4.0. The machinery is used in laboratory assignments in ME:2300 Manufacturing Processes. The room is extensively used near the end of each semester for the course project. It is also used by students who have permission to work in the lab on their honors and research projects.

Ralph and Barbara Stephens Experimental Engineering Laboratory

The Ralph and Barbara Stephens Experimental Engineering Laboratory supports required mechanical engineering undergraduate courses ME:3351 Engineering Instrumentation and ME:4080 Experimental Engineering.

Laboratory for Machine Intelligence

The Laboratory for Machine Intelligence provides an interactive environment for students to develop knowledge and skills in the design and use of smart and autonomous systems. Data analysis, control, and artificial intelligence concepts are integrated with innovative mechatronic systems through hands-on active learning. The lab is designed to empower students with the skills and theoretical tools needed to design, develop, and optimize intelligent machines capable of engaging in a broad range of tasks and complex environments. Systems to be studied in this lab include legged robots as well as land, air, and marine vehicles, non-locomotor machines, and medical assistive devices.

Collegiate Instructional Facilities

Fluid Mechanics Laboratories

The College of Engineering and IIHR—Hydroscience and Engineering have a long history of excellence in fluid mechanics education dating back to the 1920s, when IIHR developed the fluids laboratory as a hands-on learning environment for fluids-related disciplines within the College of Engineering. The long success of the institute's education program is due in large part to a new curriculum emphasizing scientific principles rather than merely practice in manipulating equipment.

IIHR is now modernized, expanded, and was relocated to the laboratory facilities, which were distributed throughout IIHR research facilities at the south end of the campus to the new Seamans Center Annex, where it occupies a 3,300 square foot laboratory suite. The laboratory suite comprises three distinct but connected laboratory spaces. The Fluids Fundamentals Laboratory houses experiments that directly support formal laboratory instruction in College of Engineering courses. Through the lab-development project, existing experimental facilities were modernized, refurbished, and installed, and additional experiments were developed. The laboratory has a large, reconfigurable open space in which different experiments and furnishings can be set up to support a variety of instructional activities.

The Fluids Workshop is the venue through which students can advance to independent and inquiry-driven, course-related, and extracurricular projects. The lab also supports the activities of College of Engineering student organizations. Advanced measurement instrumentation, computational hardware, and resources for developing experiments are available to students in the lab. Tables around the perimeter of the room contain additional PCs and Linux workstations for numerical computations, data analysis, and visualization.

The Advanced Measurements Laboratory houses major facilities supporting both instructional and inquiry-driven student activities. It contains three facilities that have been upgraded and relocated through this project: the vertical wind

tunnel, the visualization water channel, and a towing tank whose functionality has been expanded to also serve as an open channel flume. The laboratory, which is also designed to facilitate the safe use of laser-based instrumentation, is located behind the two front laboratories and is accessible from both rooms.

The fluids laboratories support formal laboratory activities for several courses taken by students in the biomedical, civil and environmental, and mechanical engineering departments, including ENGR:2510 Fluid Mechanics, CEE:3371 Principles of Hydraulics and Hydrology, CEE:5380 Fluid Flows in Environmental Systems, ME:4125 Biomimetic Fluid Dynamics, and ME:4176 Experimental Naval Hydrodynamics.

Additionally, it has been used as a resource in many other courses, including BME:4920 Biomedical Engineering Senior Design II, ECE:4890 Electrical and Computer Engineering Senior Design 2, ME:4080 Experimental Engineering, ME:4086 Mechanical Engineering Design Project, ME:4098 Individual Investigations: Mechanical Engineering, and ME:4186 Enhanced Design Experience.

Graduate Facilities

Fluid Mechanics

The program in fluid mechanics is conducted in close collaboration with IIHR—Hydroscience and Engineering. The equipment available to graduate students includes several wind tunnels and hydraulic flumes, an environmental flow facility, a towing tank, two special low-temperature flow facilities for the investigation of ice phenomena, hot-wire and laser anemometer systems, particle-image velocimetry systems, and computer-based data acquisition systems. Facilities available in the department include a flow visualization and imaging system with a charge-coupled devices (CCD) camera and a low-speed wind tunnel. IIHR and College of Engineering shops provide the necessary support. In addition to using in-house workstations and computers, the department's faculty members and students make extensive use of supercomputers at national centers.

Mechanical Systems

Computer-based simulation research activities in the mechanical systems area are carried out mainly in the Iowa Technology Institute. It maintains a variety of high-performance computer systems in support of its technology research and development efforts. General computing services are supported by a number of Linux and Windows application servers connected to centralized file servers. Computer-aided design/computer-aided engineering (CAD/CAE), software development, virtual prototyping, and virtual environment development applications are hosted on numerous high-performance workstations. Standard desktop, multimedia, and office productivity applications are hosted on a network of more than 40 workstations.

Thermal Sciences

Facilities for research in the thermal sciences and systems consist of a low-pressure combustion chamber, a high-pressure continuous flow combustion chamber, a high-pressure chamber for atomization study, a test rig for heat transfer to near supercritical fluids, a diffusion flame test rig, an enclosed laminar flame test rig, air atomization spray apparatus, test stands for melting and solidification studies, various optical measurement systems, and two fuel cell test rigs. Laser-based diagnostics (e.g., laser-induced fluorescence, imaging, and laser Doppler anemometry) are available for solidification, turbulent flow, heat transfer, and combustion studies. Flow visualization and imaging by CCD camera are available for the study of complex fluid motion, heat convection, and combustion flows.

Courses

Mechanical Engineering Courses

ME:1000 First-Year Seminar **0-1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

ME:2020 Mechanical Engineering Program Seminar **0 s.h.**
Introduction to the mechanical engineering profession and curriculum; ethics and professionalism in classroom and workplace; mentorship program and professional societies; visits to laboratories and local companies.

ME:2200 Introduction to Mechanical Engineering Design **2 s.h.**
Solid modeling, assemblies, drawings, and Geometric Dimensioning and Tolerancing (GD&T); basic engineering design process; introduction to engineering standards, product liability, and ethics. Prerequisites: ENGR:1100.

ME:2300 Manufacturing Processes **3 s.h.**
Study of fundamental manufacturing processes used in engineering practice. Topics include machining, casting, forming, joining, additive manufacturing, and more. Emphasis on the relationships between material properties, manufacturing process selection, and product quality. Introduction to process planning, metrology, and basic computer-aided manufacturing (CAM) concepts. Corequisites: ENGR:2720 and (ME:2200 or BME:2710).

ME:3045 Heat Transfer **3 s.h.**
Principles of heat transfer by conduction, convection, radiation; analytical and numerical methods of solution; applications to engineering problems. Prerequisites: MATH:3550 and ENGR:2510 and ENGR:1300.

ME:3052 Mechanical Systems **4 s.h.**
Topics in mechanical behavior and failure of materials; materials selection in design; stress and deflection analysis; static failure theories; fatigue and durability in design; fracture, statistical, and reliability considerations; introduction to finite element analysis using commercial software packages; standards, product liability, engineering ethics. Prerequisites: ENGR:2750. Corequisites: ENGR:2720 and ME:2300 and STAT:2020.

ME:3091 Professional Seminar: Mechanical Engineering **0 s.h.**
Professional aspects of mechanical engineering: presentations, student/faculty interaction, professional society involvement, panel discussions, plant trip. Prerequisites: ME:2020.

ME:3351 Engineering Instrumentation **2 s.h.**
Basic elements of measuring circuits (bridges, voltage dividers, shunts, transformers); laboratory instrumentation (oscilloscopes, multimeters, power supplies, signal generators); amplifiers; frequency response principles; sensors; data acquisition, signal processing, filtering using Labview. Prerequisites: PHYS:1612 and ENGR:2120.

ME:3600 Control of Mechanical Engineering Systems **3 s.h.**
Introduction to fundamental control theory and robot manipulators. Prerequisites: MATH:2560 and ENGR:2710.

ME:4024 Product Design and Realization **3 s.h.**
Design principles and methods to develop 3D part models and assemblies; emphasis on use of mechanical engineering design principles and functional requirements through the complete design process using PTC Creo Parametric; for students with a basic knowledge of computer-aided design (CAD). Prerequisites: ME:2200 or ME:2300. Corequisites: ENGR:2750.

ME:4048 Energy Systems Design **4 s.h.**
Principles and design of energy conversion systems, including solar, wind, and geothermal power systems; design of thermal-fluid system components, modeling and simulation of systems, optimization techniques; design projects. Prerequisites: ME:3045.

ME:4055 Mechanical Systems Design **3 s.h.**
Kinematics of mechanisms, dynamics and vibration of machines, cam and gear, machine elements, computer-aided analysis of machines. Prerequisites: ENGR:2710 and ME:3052.

ME:4080 Experimental Engineering **4 s.h.**
Principles of physical measurements; standards calibration, estimation of error; static and dynamic performance of measuring systems; laboratory experience, experiment planning, report writing. Prerequisites: ME:3351 and ME:3045 and ME:3052.

ME:4086 Mechanical Engineering Design Project **3 s.h.**
Application of mechanical, thermal, fluid systems design; student or team design projects initiated at various levels in the design process and carried through to higher levels; emphasis on synthesis, written and oral communication. Corequisites: ME:4048 or ME:4055.

ME:4098 Individual Investigations: Mechanical Engineering **arr.**
Individual projects for mechanical engineering undergraduate students; laboratory study; engineering design project; analysis, synthesis, simulation of an engineering system; computer software development, research.

ME:4110 Computer-Aided Engineering **3 s.h.**
Computational engineering modeling and simulation, geometric modeling, grid generation, finite-element and finite-volume methods, uncertainty analysis, optimization, engineering applications. Prerequisites: ENGR:2750. Corequisites: ME:3052. Same as CEE:4515.

ME:4111 Scientific Computing and Machine Learning **3 s.h.**
Numerical methods in scientific computing; root problems and optimization; linear algebraic equations; eigenvalue problems; numerical differentiation and integration; interpolation and curve-fitting; initial value and boundary value problems; machine learning in regression, classification, and clustering problems; Python programming and packages. Prerequisites: MATH:2560. Same as CEE:4511.

ME:4112 Engineering Design Optimization **3 s.h.**
Engineering design projects involving modeling, formulation, and analysis using optimization concepts and principles; linear and nonlinear models, optimality conditions, numerical methods. Prerequisites: ENGR:2110 and MATH:2550. Requirements: junior standing. Same as CEE:4512.

ME:4116 Manufacturing Processes Simulations and Automation **3 s.h.**
Material processing, metal cutting theories, forming, micro/nano fabrication, programmable logic controller, computer numerical controllers, discrete control system, DC and AC servo motors, Command generation. Prerequisites: ME:2300 or ISE:2360. Same as ISE:4116.

ME:4117 Finite Element Analysis **3 s.h.**
Trusses and frames; Rayleigh-Ritz methods; 2D and 3D elasticity problems; heat transfer, thermo-mechanical coupling; transient problems; use of commercial software for applications in analysis and design of mechanical engineering systems. Prerequisites: ENGR:2750.

ME:4120 Advanced Linear Control Systems **3 s.h.**
Overview of system modelling and classical control design tools and methods, and bridges those with state-space approach for analysis and control of linear systems in the time domain; topics include linearization, root locus, Bode diagrams, Nyquist criteria, robustness margins, lead-lag compensators, observability and controllability, state-space realizations, internal stability and input-output stability, pole-placement, observers and reduced order observers, separation principle, performance limitations, linear quadratic regulator and its guaranteed margins, and optimal estimation. Prerequisites: ME:3600.

ME:4125 Biomimetic Fluid Dynamics **3 s.h.**
Study and development of engineered systems that mimic the structure and function of biological systems; overview of the fluid dynamic principles that govern locomotion by swimming or flapping flight; equations of motion, fundamentals of aerodynamics; analytical models of force generation for swimming and flight; parameters governing effective locomotion; experimental and numerical studies to understand the present state of the art, challenges, and important questions. Prerequisites: ENGR:2510.

ME:4140 Modern Robotics and Automation **3 s.h.**
Introduction to basics of robotics and automation; mechanical design development and manufacturing of smart and automated devices, components, and systems; principles of robotic motion and kinematics; introduction to process automation through system requirement identification, equipment integration, sensors, actuation, and logical control; fundamentals of design, analysis, and manufacturing to meet functionality requirements of products, devices, and systems using the principles of mechatronics to develop smart and automated products. Prerequisites: ENGR:2710.

ME:4145 Industrial Internet of Things (IIoT) **3 s.h.**
Introduction to process automation through system requirement identification, equipment integration, sensors, actuation, and logical control; fundamentals of design, analysis, and manufacturing to meet functionality requirements of products, devices, and systems using principles of mechatronics to develop smart and automated products; integration of advanced networking and monitoring into device control and automaton. Corequisites: ME:3351.

ME:4150 Artificial Intelligence in Engineering **3 s.h.**
Artificial intelligence, computational intelligence, data science and engineering, machine intelligence, digital manufacturing and design, intelligent machining, fault diagnosis, autonomy, robotics; applications in mechanical engineering. Prerequisites: ME:4111.

ME:4153 Fundamentals of Vibrations 3 s.h.
Vibration of linear discrete and continuous mechanical and structural systems; harmonic, periodic, and arbitrary excitation; modal analysis; applications. Prerequisites: ENGR:2750. Same as CEE:4532.

ME:4160 Engines and Power Plants 3 s.h.
Fundamental principles of thermodynamics applied to areas of particular interest in mechanical engineering; power plants and refrigeration cycles, internal combustion engine cycles, gas mixtures and combustion, mixing processes and pollutant formation, and hybrid power systems. Prerequisites: ENGR:2130.

ME:4175 Computational Naval Hydrodynamics 3 s.h.
Simulations based on relevant vessels and propellers will be used to introduce the use of computational fluid dynamics for the analysis of surface and underwater marine craft performance, while also introducing naval hydrodynamics concepts related to resistance, propulsion, maneuvering, and seakeeping; an educational version of the naval hydrodynamics code REX will be freely distributed and used in the class. Prerequisites: ENGR:2510.

ME:4176 Experimental Naval Hydrodynamics 3 s.h.
Introduction to experimental methods for measurement of propeller thrust performance and resistance of surface vessels and underwater marine craft; present and expand on fundamental concepts related to fluid mechanics, measurement methods, and uncertainty analysis in a context that focuses on naval science and technology challenges; students work with models of relevant vessels and propellers in a dedicated towing tank facility. Prerequisites: ENGR:2510.

ME:4186 Enhanced Design Experience 2-3 s.h.
Experience working in teams on industry-sponsored design and product development projects scheduled for production; emphasis on practical experience with the complete design process, from conceptualization through prototyping, evaluation, testing, and production; written and oral communication. Prerequisites: ME:4086.

ME:4200 Modern Engineering Materials for Mechanical Design 3 s.h.
Overview of design approaches for different engineering materials (i.e., metals, polymers, ceramics); topics include manufacturing processes, smart and advanced functionalities for applications in emerging engineering fields, theoretical models describing mechanical behavior, failure mechanisms, and design criteria; introduction to composite materials; computer lab activities focus on finite element method (FEM) simulations of materials with different mechanical properties. Prerequisites: ME:3052.

ME:4235 Health Monitoring of Structural and Mechanical Systems 3 s.h.
Measurements, structural modeling, structural analysis, stiffness method, trusses and frames, structural testing, modal analysis. Prerequisites: ENGR:2750. Same as BME:4135, CEE:4135.

ME:5113 Mathematical Methods in Engineering 3 s.h.
Linear ordinary differential equations, series solutions of differential equations, special functions, Laplace transforms, Fourier series, matrices, linear systems, eigenvalue problems, second-order partial differential equations. Prerequisites: MATH:2550 and MATH:2560. Same as CBE:5140, CEE:5513.

ME:5114 Nonlinear Control in Robotic Systems 3 s.h.
Nonlinear analysis and control systems theory; focus on Lyapunov-based analysis methods and associated design techniques; introduction to definitions of stability for autonomous and nonautonomous systems leading to a Lyapunov framework, and based on the developed Lyapunov-based analysis tools, basic and advanced design tools for contemporary engineering problems are presented, including state-of-the-art techniques. Prerequisites: ME:3600 or ME:4120 or CBE:4105 or ECE:3600.

ME:5120 Vehicle System Dynamics 3 s.h.
Introduction to principles and basic procedures used in analysis of vehicle system dynamics and design; topics include tire mechanics, longitudinal and cornering tire force characteristics, steady-state and transient vehicle cornering responses, vehicle stability control, ride comfort, suspension design, off-road vehicle mobility, tire-soil interaction, and vehicle performance evaluations. Prerequisites: ENGR:2710.

ME:5143 Computational Fluid and Thermal Engineering 3 s.h.
Governing equations of fluid flow and heat transfer; basic numerical techniques for solution of the governing equations; estimation of accuracy and stability of the approximations; boundary conditions; grid generation; applications to flows and heat transfer in engineering systems; familiarity with software for analysis and design of thermo-fluids systems. Prerequisites: ME:3045.

ME:5145 Intermediate Heat Transfer 3 s.h.
Steady and unsteady conduction; forced and natural convection; surface and gaseous radiation; condensation and evaporation; analytical and numerical methods and applications. Prerequisites: ME:3045.

ME:5146 Modeling of Materials Processing 3 s.h.
Manufacturing processes for metals, polymers, semiconductors; processing by casting, solidification, crystal growth, polymer molding and extrusion, welding, heat treating, application of optical (laser) and electromagnetic energy; processes that use momentum, heat, mass transfer principles; measurement and instrumentation for materials processing; current topics in materials processing. Corequisites: ME:3045.

ME:5149 Propulsion Engineering 3 s.h.
Opportunity to develop basic understanding and knowledge of rocket and airbreathing propulsion systems; relevant terminology and analysis techniques, parameteric cycle analysis for ideal engines, off-design analysis methods, problem-solving methodology. Prerequisites: ENGR:2130. Requirements: graduate standing.

ME:5150 Intermediate Mechanics of Deformable Bodies 3 s.h.
Application of equilibrium analyses, strain-displacement relations, and constitutive relationships to practical structural systems and elementary plane elasticity problems. Prerequisites: ENGR:2750. Same as CEE:5540.

ME:5154 Intermediate Kinematics and Dynamics 3 s.h.
Kinematic and dynamic analysis of mechanical systems; computational kinematics, Lagrangian dynamics, principle of virtual work in dynamics, constrained dynamics, spatial dynamics. Prerequisites: ENGR:2710.

ME:5159 Fracture Mechanics 3 s.h.
Three-dimensional stress states, definition and criteria for failure, nominal and local yield phenomena, linear elastic and elastic plastic fracture mechanics, plane stress and plane strain fracture toughness, J-Integral, crack opening displacement, environmental assisted cracking, fatigue crack growth, fail safe, and damage tolerant design. Prerequisites: ENGR:2750. Corequisites: ME:3052. Same as CEE:5549.

ME:5160 Intermediate Mechanics of Fluids 3 s.h.
Basic concepts and definitions; pressure distribution in a fluid; governing equations and boundary conditions; integral and differential analysis; dimensional analysis and similarity; experimental analysis; laminar and turbulent internal and external flows; potential flows; engineering applications. Prerequisites: ENGR:2510. Same as CEE:5369.

ME:5162 Experimental Methods in Fluid Mechanics and Heat Transfer 3 s.h.
Hands-on experience in methodology of conducting experiments in fluid mechanics and heat transfer from design to data acquisition and processing; essential theoretical elements, experimental methodologies, data acquisition systems, uncertainty analysis; wide variety of instruments for fundamental and applied experimentation; work in small groups; design, implement, test, and report an experiment in area of interest. Same as CEE:5372.

ME:5167 Composite Materials 3 s.h.
Mechanical behavior of composite materials and their engineering applications; composite constituents (fibers, particles, matrices) and their properties and behavior; macromechanical behavior of composite laminae; micromechanical predictions of composite overall properties; classical lamination theory; composite beams and plates. Prerequisites: ENGR:2750. Same as CEE:5137.

ME:5170 Data-Driven Analysis in Engineering Mechanics 3 s.h.
Exposure to machine learning approach of problem solving; modular course structure containing four or five modules, each concentrating on a particular class of problem; theories and techniques relevant to a class of problems taught in corresponding module. Prerequisites: ENGR:2750 and ME:4111.

ME:5179 Continuum Mechanics arr.
Mechanics of continuous media; kinematics of deformation, concepts of stress and strain; conservation laws of mass, momentum and energy; constitutive theories; boundary and initial value problems. Prerequisites: ENGR:2750 or ENGR:2510. Same as CEE:5179.

ME:5195 Contemporary Topics in Mechanical Engineering arr.
New topics in fluid and thermal sciences and mechanical systems not covered in other courses; topic and coverage determined by student/faculty interest. Requirements: junior standing.

ME:5210 Intermediate Thermodynamics 3 s.h.
Fundamental principles of thermodynamics as applied to phase equilibrium; properties of fluids, first and second law, variable composition systems, behavior of real fluids, mathematical techniques for solution thermodynamics. Requirements: CBE:3105 or ME:4160 or graduate standing. Same as CBE:5110.

ME:5300 Uncertainty Quantification and Design Optimization 3 s.h.
Analytical and computational methods for uncertainty quantification for a design optimization of mechanical and structural systems; brief review of probability theory, second-moment analysis, reliability analysis, robust design optimization, and reliability-based design optimization; use of commercially available software suites. Prerequisites: ENGR:2750 and STAT:2020. Corequisites: ME:3052.

ME:6115 Cooperative Autonomous Systems 3 s.h.
How to enable ground, marine, and aerial robotic platforms to perform cooperative tasks autonomously in complex real-world environments; theoretical topics include numerical approximation, optimal control, nonlinear analysis and control, game theory, and graph theory; project-based activities in a laboratory environment; focus on design and implementation of motion planning, tracking, collision avoidance, and cooperative control algorithms for autonomous vehicles. Prerequisites: ME:3600 or ME:4120 or CBE:4105 or ECE:3600.

ME:6120 Mechatronics, Measurement, and Wearable Robotics 3 s.h.
From accelerometers in phones, heart rate monitors in watches, fitness trackers, and smart clothing to robotic surgery and assistive devices, wearable sensors and robotics are increasingly all around us; introduction to different sensors, signals, and processing techniques needed to study movement; practical applications and scientific principles of sensors and actuators; work with real-world data; development of key research skills in literature review and experiment design through theoretical, programming, and hands-on coursework, presentations, and projects. Prerequisites: ME:3351 and ME:3600 and ME:5154.

ME:6130 Novel Artificial Muscles and Sensors for Evolving Robotics 3 s.h.
Overview of novel smart materials-based actuators (i.e., artificial muscles) and sensors used in modern robotics (i.e., soft robotics, bio-inspired robotics, assistive robotics); evolution from conventional actuators/sensors to novel actuators/sensors based on smart, flexible, and compliant materials; working mechanism, theoretical models, manufacturing, and applications for each type of artificial muscle/sensor; lab demonstrations and activities involve manufacturing and testing of some artificial muscles and smart sensors.

ME:6191 Graduate Seminar: Mechanical Engineering 1 s.h.
Presentation and discussion of recent advances and research in mechanical engineering by guest lecturers, faculty, students.

ME:6198 Individual Investigations: Mechanical Engineering arr.
Individual project in mechanical engineering, for department graduate students; laboratory study, engineering design project, analysis and simulation of an engineering system, computer software development, research.

ME:6199 Research: Mechanical Engineering MS Thesis arr.
Experimental and/or analytical investigation of an approved topic for partial fulfillment of requirements for MS with thesis in mechanical engineering.

ME:6214 Analytical Methods in Mechanical Systems 3 s.h.
Vector and function spaces; functionals and operators in Hilbert spaces; calculus of variations and functional analysis with application to mechanics; Ritz and Galerkin methods. Prerequisites: ME:5113. Same as CEE:6310.

ME:6215 Finite Element II 3 s.h.
Computer implementation; plate and shell elements; mixed and hybrid formulations; nonlinear analysis; recent development; introduction to boundary element method. Prerequisites: CEE:4533. Same as CEE:6532, IGPI:6216.

ME:6216 Laser Materials Processing 3 s.h.
Proficient engineering background involved in laser processing and manufacturing; fundamentals and operation principles for various types of laser systems, laser optics, principles of laser-matter interactions, laser-induced thermal and thermo-mechanical effects; emerging areas of laser applications (e.g., microscale and nanoscale laser processing, ultrafast laser processing) and related energy transport analyses; video demonstrations. Prerequisites: ME:3045 and MATH:3550.

ME:6217 Advanced Modeling and Simulation for Manufacturing 3 s.h.
How materials often behave in a complicated manner involving deeply coupled effects among stress/stain, temperature, and microstructure during a manufacturing process; modeling and prediction of material processes based on a metallo-thermomechanical coupled analysis; focus on heat transfer modeling in material processes, fundamental mechanics aspects required for material processing analysis, and microstructural evolution modeling in material processes. Prerequisites: CEE:4533 and ME:3045.

ME:6240 Probabilistic Inference and Estimation for Mechanical Systems 3 s.h.
Theory and application of common techniques for probabilistic inference and estimation including types of estimators; Bayesian, Kalman, and Particle filtering; various motion and measurement models; and algorithms for simultaneous localization and mapping (SLAM). Prerequisites: ME:4120. Requirements: some level of exposure to probability and statistics, linear algebra, and 3D rigid body dynamics.

ME:6245 Diffusive Transport 3 s.h.
Diffusive transport of heat, mass, and momentum; phenomenological laws and analogies; analytical and numerical solution techniques; inverse heat conduction; multiphase and multicomponent systems. Prerequisites: ME:5145. Same as CBE:6145.

ME:6255 Multiscale Computational Science and Engineering 3 s.h.
Computational science and engineering methods at different spatial and temporal scales; molecular methods, including quantum mechanical calculation, molecular dynamics, and Monte Carlo methods; continuum methods, including finite element, peridynamics, and mesh-free particle methods; hierarchical and concurrent multiscale modeling; reinforcement learning methods and their applications; agent-based modeling; quantum computing and quantum algorithms; and artificial intelligence-assisted modeling and simulations. Prerequisites: ME:4117.

ME:6260 Viscous Flow 3 s.h.
Equations of viscous flow; classical analytical and numerical solutions; flow regimes and approximations; laminar boundary layers—equations, solution methods, applications; stability theory and transition; incompressible turbulent flow—mean-flow and Reynolds-stress equations, modeling, turbulent boundary layers and free shear flows. Requirements: for ME:6260—ME:5160; for CEE:6376—CEE:5369. Same as CEE:6376.

ME:6261 Multibody System Dynamics 3 s.h.
Introduction to principles of analytical and computational dynamics for rigid and flexible multibody systems; spatial kinematics and dynamics of rigid body systems, numerical solution procedures for multibody dynamics analysis, and flexible multibody dynamics. Prerequisites: ME:5154.

ME:6262 Inviscid Flow 3 s.h.
Derivation of governing equations for fluid flow; general theorems for motion of inviscid, incompressible flows; solution techniques for two- and three-dimensional irrotational flows; forces and moments acting on immersed bodies; vortex kinematics and dynamics; steady and unsteady aerodynamic theory. Prerequisites: ME:5160.

ME:6263 Compressible Flow arr.
Compressible flow behavior; 1D unsteady flow and appropriate use of x-t diagrams; 2D flows and use of the method of characteristics; Burgers' Equation and its properties.

ME:6278 Nonlinear Elasticity 3 s.h.
Nonlinear elasticity theory; modern applications in biomechanics; vectors and tensors, constitutive theory of elastic material, some exact solutions of boundary value problems, inverse deformation relations, stability of elastic material, theories of tissue adaptive response. Prerequisites: ME:5150. Requirements: elementary linear elasticity.

ME:6280 Optical Measurement Techniques in Experimental Fluid Dynamics 3 s.h.
Fundamental principles and applications for fluid dynamics; designing and performing measurements like particle image velocimetry (PIV), addressing challenges such as in vivo measurements and turbulent wall-shear stress, and discussing dvanced 3D techniques (e.g., Tomo-PIV, 4D-PTV). Prerequisites: ME:4080 and ME:5160.

ME:6320 Fluid-Structure Interactions 3 s.h.
Foundations of fluid-structure interactions (FSI) with focus on hydro-electric responses of flexible structures in dense fluids; structural dynamics and fluid dynamics are too often characterized as distinct disciples and this dichotomous mindset fails to recognize the important effects that dynamics fluid loads exert upon structural vibrations and vice-versa; students are equipped with knowledge to approach modern FSI problems; foundations of theoretical FSI, experimental methods, and computational approaches. Prerequisites: (ME:5160 or ME:4125) and (ME:4153 or ME:5154).

ME:6725 Microfabrication and Thin Film Materials 3 s.h.
Microfabrication and nanofabrication techniques and thin film materials growth used to create micro-, nano-, and opto-electronic devices that underlie modern technology; introduction to microfabrication techniques, physics, and chemistry; growth and properties of thin film materials upon which fabrication is performed; review of materials science; introduction to vacuum science and technology; survey of micro- and nano-devices; examination of thin film growth and deposition science, plasma etching and sputtering, micro- and nano-patterning and characterization, and film nucleation, growth, structure, and properties. Prerequisites: (PHYS:2704 or ENGR:2130 or CHEM:1120) and (MATH:1560 or MATH:1860) and (PHYS:1612 or PHYS:2703) and CHEM:1110. Recommendations: background in thermal and statistical physics, introductory quantum mechanics, and introductory chemistry. Same as ECE:6725, PHYS:6725.

ME:7248 Combustion Theory 3 s.h.
Laminar flame theory; turbulent combustion; spray combustion; thermal ignition; pollutant formation, oxidation; combustion diagnostics. Prerequisites: ME:5145 and ME:5160.

ME:7250 Advanced Fracture Mechanics 3 s.h.
Fracture of modern engineering materials; linear-elastic fracture; computational methods; functionally graded materials; elastic-plastic fracture; multiscale fracture and fatigue crack initiation. Prerequisites: ME:5113 and (ME:5159 or CEE:4533). Same as CEE:7250.

ME:7256 Computational Solid Mechanics 3 s.h.
Advanced computational methods for nonlinear and dynamic analysis of solids, structures; new space- and time-discretization methods for problems, including highly nonlinearities, large deformation, contact/impact conditions. Prerequisites: ME:5113 and CEE:4533.

ME:7257 Probabilistic Mechanics and Reliability 3 s.h.
Stochastic and reliability analysis of mechanical systems; computational methods for structural reliability; random eigenvalue problem; random field and stochastic finite element methods. Prerequisites: CEE:4533 and ME:5113.

ME:7266 Interfacial Flows and Transport Processes 3 s.h.
Physics of fluid interfaces and numerical techniques to simulate interface dynamics; interfacial flow coupled with thermal-fluid transport, from molecular interactions to continuum approximations; development of computer code segments to track and represent interface-flow interactions. Prerequisites: ME:5145 and ME:5160.

ME:7267 Multiphase Flow and Transport 3 s.h.
Thermodynamic and mechanical aspects of interfacial phenomena and phase transitions; nucleation, phase-change, species transport, particulate flows, liquid-vapor systems, solidification, porous media. Prerequisites: ME:5145 and ME:5160.

ME:7268 Turbulent Flows 3 s.h.
Origin; need for modeling, averages, Reynolds equations, statistical description; experimental methods and analysis; turbulence modeling; free shear layers and boundary layers; complex shearflows; development of computational strategies; recent literature on theory and applications, chaos phenomena. Prerequisites: ME:5160.

ME:7269 Computational Fluid Dynamics and Heat Transfer 3 s.h.
Development of numerical and algebraic approximations for elliptic, parabolic, hyperbolic partial differential equations; finite-volume, spectral, pseudo-spectral, Galerkin techniques; stability of numerical methods; CFL condition; stiff problems; adaptive grid generation and boundary-fitted coordinates; numerical solutions for one- and two-dimensional compressible and incompressible fluid flow and heat transfer problems. Prerequisites: ME:4111 and ME:5160.

ME:7299 Research: Mechanical Engineering PhD Dissertation arr.
Experimental and/or analytical investigation of an approved topic for partial fulfillment of requirements for PhD in mechanical engineering.

Mechanical Engineering, BSE

The major in mechanical engineering lays a foundation in the basic disciplines of mathematics, physics, and chemistry and in the engineering sciences of statics, dynamics, thermodynamics, mechanics of deformable bodies, mechanics of fluids and transfer processes, materials science, and electrical sciences. An understanding of these sciences enables mechanical engineers to design parts of systems and understand whole systems, plan the production and use of energy, plan and operate industrial manufacturing facilities, and design automatic control systems for machines and other mechanical systems.

Mechanical engineering students develop an awareness of social and humanistic issues relating to business, environment, government, history, language, religion, and international relations. They also acquire an appreciation of professional and ethical responsibilities.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Educational Objectives

Within a few years of graduation, graduates of the mechanical engineering program will:

- have successful careers in engineering and beyond and will have assumed professional roles of increasing responsibility and impact;
- have acquired new knowledge and expertise through professional development opportunities or advanced education; and
- be engaged in workplace, professional, or civic communities.

Graduates from the Department of Mechanical Engineering BSE program will be prepared to contribute effectively as engineers in a diverse and multidisciplinary work environment. They will have the ability to:

- identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics;
- apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare as well as global, cultural, social, environmental, and economic factors;
- communicate effectively with a range of audiences;
- recognize ethical and professional responsibilities in engineering situations and make informed judgments that consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
- function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
- develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions; and
- acquire and apply new knowledge as needed, using appropriate learning strategies.

Requirements

The Bachelor of Science in Engineering (BSE) with a major in mechanical engineering requires a minimum of 129 s.h. of credit, including two 0 s.h. department seminars. At the time of graduation, students must have a cumulative grade-point average of at least 2.00 in all college work used to complete degree requirements and in all UI coursework in order to be awarded the BSE.

All BSE students are required to take the same collegiate curriculum. For information about these collegiate requirements, see the Bachelor of Science in Engineering, BSE [p. 1529] in the catalog. 6 s.h. of a student's major courses fulfill the basic science or college-level math collegiate requirement. Students completing the major in mechanical engineering also fulfill the collegiate statistics requirement by completing STAT:2020 Probability and Statistics for the Engineering and Physical Sciences.

The BSE with a major in mechanical engineering requires the following coursework.

Requirements	Hours
Collegiate Curriculum	49
Basic Science and College-Level Math, from Major Requirements or Focus Area	6
Major Requirements (includes two 0 s.h. seminars)	53
Focus Area	21

Major Requirements

Major requirements include a set of common courses (56 s.h.), two departmental seminars (0 s.h.), and one capstone design course (3 s.h.).

Course #	Title	Hours
All of these:		
ME:2200	Introduction to Mechanical Engineering Design	2
ME:2300	Manufacturing Processes	3
ME:3045	Heat Transfer	3
ME:3052	Mechanical Systems	4
ME:3351	Engineering Instrumentation	2
ME:3600	Control of Mechanical Engineering Systems	3
ME:4048	Energy Systems Design	4
ME:4055	Mechanical Systems Design	3
ME:4080	Experimental Engineering	4
ENGR:2110	Statics	2
ENGR:2120	Electrical Circuits	3
ENGR:2130	Thermodynamics	3
ENGR:2510	Fluid Mechanics	4
ENGR:2710	Dynamics	3
ENGR:2720	Materials Science	3
ENGR:2750	Mechanics of Deformable Bodies	3
MATH:3550	Engineering Vector Calculus	3
PHYS:1612	Introductory Physics II (with lab)	4

Departmental Seminars

Course #	Title	Hours
Both of these:		
ME:2020	Mechanical Engineering Program Seminar	0
ME:3091	Professional Seminar: Mechanical Engineering	0

Capstone Design Course

Course #	Title	Hours
This course:		
ME:4086	Mechanical Engineering Design Project	3

Focus Area

Students must select focus area courses according to guidelines established by the Department of Mechanical Engineering. The mechanical engineering program offers a variety of focus area options, including standard focus areas developed and maintained by the program and flexible focus areas tailored to individual student interests. The focus area is a set of 21 s.h. of elective courses taken during the second through fourth years that provide mechanical engineering undergraduate students with a unique opportunity to acquire advanced education in an area of their choice.

Standard focus areas are offered in energy and environment [p. 1664], manufacturing [p. 1664], mechanical engineering design [p. 1665], and robotics and autonomous systems [p. 1666]. For guidelines regarding tailored focus areas, see ME Focus Areas on the Department of Mechanical Engineering website.

Focus areas in mechanical engineering consist of required courses, focus area electives, and additional electives; carefully selected elective courses may contribute to earning a minor and/or certificate.

Energy and Environment

Students in the energy and environment focus area complete one required course (3 s.h.), at least two focus area electives (6 s.h.), and up to four additional electives to total 21 s.h.

Required Energy and Environment Course

Course #	Title	Hours
At least one of these:		
ME:5145	Intermediate Heat Transfer	3
ME:5160/CEE:5369	Intermediate Mechanics of Fluids	3

Energy and Environment Electives

Course #	Title	Hours
At least two of these:		
ME:4111/CEE:4511	Scientific Computing and Machine Learning	3
ME:4160	Engines and Power Plants	3
ME:5145	Intermediate Heat Transfer (if not taken as a required course)	3
ME:5149	Propulsion Engineering	3
ME:5160/CEE:5369	Intermediate Mechanics of Fluids (if not taken as a required course)	3
CEE:4107/CBE:4410	Sustainable Systems	3

Additional Electives, Energy and Environment

The remainder of the 21 s.h. must be fulfilled by electives. In addition to the following courses, students may also select courses not already taken from the lists of required energy and environment courses and approved energy and environment electives. See "Flexible Electives" in this section of the catalog for more information.

Course #	Title	Hours
ME:4024	Product Design and Realization	3
ME:4125	Biomimetic Fluid Dynamics	3
ME:4175	Computational Naval Hydrodynamics	3
ME:4186	Enhanced Design Experience	3
ME:5143	Computational Fluid and Thermal Engineering	3
ME:5210/CBE:5110	Intermediate Thermodynamics	3
CBE:3405	Green Chemical and Energy Technologies	3
CBE:5415/IGPI:5415	Satellite Image Processing and Remote Sensing of Atmosphere	3
CBE:5417/ CEE:5417/IGPI:5417	Physical Meteorology and Atmospheric Radiative Transfer	3
CEE:3371	Principles of Hydraulics and Hydrology	3
CEE:4102	Groundwater	3
CEE:4159/ CBE:4459/IGPI:4159	Air Pollution Control Technology	3
CEE:5380	Fluid Flows in Environmental Systems	3
ECE:5620	Electric Power Systems and Renewable Energy	3
ISE:2500	Engineering Economy	3
May include one of these:		
SEES:1080	Introduction to Environmental Science	3-4
SEES:1290	Energy and the Environment	3

Manufacturing

Students in the manufacturing focus area complete two required courses (6 s.h.), at least two focus area electives (6 s.h.), and up to three additional electives (9 s.h.) to total 21 s.h.

Required Manufacturing Courses

Course #	Title	Hours
This course:		
ME:4111/CEE:4511	Scientific Computing and Machine Learning	3
And at least one of these:		
ME:4116/ISE:4116	Manufacturing Processes Simulations and Automation	3

ME:4140	Modern Robotics and Automation	3
ME:5146	Modeling of Materials Processing	3

Manufacturing Electives

Course #	Title	Hours
At least two of these:		
ME:4024	Product Design and Realization	3
ME:4116/ISE:4116	Manufacturing Processes Simulations and Automation (if not taken as a required course)	3
ME:4140	Modern Robotics and Automation (if not taken as a required course)	3
ME:4145	Industrial Internet of Things (IIoT)	3
ME:4200	Modern Engineering Materials for Mechanical Design	3
ME:5146	Modeling of Materials Processing (if not taken as a required course)	3
ME:5167/CEE:5137	Composite Materials	3
ME:5170	Data-Driven Analysis in Engineering Mechanics	3

Additional Electives, Manufacturing

The remainder of the 21 s.h. must be fulfilled by electives. In addition to the following courses, students may also select courses not already taken from the lists of required manufacturing courses and approved manufacturing electives. See "Flexible Electives" in this section of the catalog for more information.

Course #	Title	Hours
ME:4110/CEE:4515	Computer-Aided Engineering	3
ME:4112/CEE:4512	Engineering Design Optimization	3
ME:4117	Finite Element Analysis	3
ME:4150	Artificial Intelligence in Engineering	3
ME:4153/CEE:4532	Fundamentals of Vibrations	3
ME:4186	Enhanced Design Experience	3
ME:5114	Nonlinear Control in Robotic Systems	3
ME:5143	Computational Fluid and Thermal Engineering	3
ME:5145	Intermediate Heat Transfer	3
ME:5159/CEE:5549	Fracture Mechanics	3
ME:5300	Uncertainty Quantification and Design Optimization	3
BME:5620	Introduction to Applied Biomedical Finite Element Modeling	3
ECE:5550	Internet of Things	3
ISE:3300	Manufacturing Systems	3
ISE:3600/CEE:3142/ STAT:3620	Quality Control	3
ISE:3700	Operations Research	3
ISE:4620	Design of Experiments for Quality Improvement	3
ISE:4900	Introduction to Six Sigma	3

Mechanical Engineering Design

Students in the mechanical engineering design focus area complete two required courses (6 s.h.), at least two focus area electives (6 s.h.), and up to three additional electives (9 s.h.) to total 21 s.h.

Required Design Courses

Course #	Title	Hours
Both of these:		
ME:4111/CEE:4511	Scientific Computing and Machine Learning	3
ME:4186	Enhanced Design Experience	3

Students in the mechanical engineering design focus area are required to apply for a yearlong design experience comprised of ME:4086 Mechanical Engineering Design Project (see "Capstone Design Course") in the fall and ME:4186 Enhanced Design Experience in the spring (see Policy on Participation in PEDE or VIPT Programs). Students who are not accepted or who are unable to take the yearlong set of courses are required to replace ME:4186 with a course from the section titled "Design Electives" or " Additional Electives–Mechanical Engineering Design."

Design Electives

Course #	Title	Hours
At least two of these:		
ME:4024	Product Design and Realization	3
ME:4110/CEE:4515	Computer-Aided Engineering	3
ME:4112/CEE:4512	Engineering Design Optimization	3
ME:4117	Finite Element Analysis	3
ME:5143	Computational Fluid and Thermal Engineering	3
ME:5170	Data-Driven Analysis in Engineering Mechanics	3
ME:5300	Uncertainty Quantification and Design Optimization	3

Additional Electives, Mechanical Engineering Design

The remainder of the 21 s.h. must be fulfilled by electives. In addition to the following courses, students may also select courses not already taken from the list of approved design electives. See "Flexible Electives" in this section of the catalog for more information.

Course #	Title	Hours
ME:4116/ISE:4116	Manufacturing Processes Simulations and Automation	3
ME:4120	Advanced Linear Control Systems	3
ME:4125	Biomimetic Fluid Dynamics	3
ME:4140	Modern Robotics and Automation	3
ME:4145	Industrial Internet of Things (IIoT)	3

ME:4150	Artificial Intelligence in Engineering	3
ME:4153/CEE:4532	Fundamentals of Vibrations	3
ME:4175	Computational Naval Hydrodynamics	3
ME:4200	Modern Engineering Materials for Mechanical Design	3
ME:5114	Nonlinear Control in Robotic Systems	3
ME:5120	Vehicle System Dynamics	3
ME:5145	Intermediate Heat Transfer	3
ME:5149	Propulsion Engineering	3
ME:5150/CEE:5540	Intermediate Mechanics of Deformable Bodies	3
ME:5154	Intermediate Kinematics and Dynamics	3
ME:5159/CEE:5549	Fracture Mechanics	3
ME:5160/CEE:5369	Intermediate Mechanics of Fluids	3
ME:5167/CEE:5137	Composite Materials	3
ME:5179/CEE:5179	Continuum Mechanics	3

Robotics and Autonomous Systems

Students in the robotics and autonomous systems focus area complete two required courses (6 s.h.), at least two focus area electives (6 s.h.), and up to three additional electives (9 s.h.) to total 21 s.h.

Required Robotics and Autonomous Systems Courses

Course #	Title	Hours
Both of these:		
ME:4111/CEE:4511	Scientific Computing and Machine Learning	3
ME:4120	Advanced Linear Control Systems	3

Robotics and Autonomous Systems Electives

Course #	Title	Hours
At least two of these:		
ME:4116/ISE:4116	Manufacturing Processes Simulations and Automation	3
ME:4140	Modern Robotics and Automation	3
ME:4145	Industrial Internet of Things (IIoT)	3
ME:4150	Artificial Intelligence in Engineering	3
ME:4175	Computational Naval Hydrodynamics	3
ME:4176	Experimental Naval Hydrodynamics	3
ME:5114	Nonlinear Control in Robotic Systems	3
ME:5120	Vehicle System Dynamics	3
ME:5170	Data-Driven Analysis in Engineering Mechanics	3
ME:6115	Cooperative Autonomous Systems	3

Additional Electives, Robotics and Autonomous Systems

The remainder of the 21 s.h. must be fulfilled by electives. In addition to the following courses, students may also select courses not already taken from the list of approved robotics and autonomous systems electives. See "Flexible Electives" in this section of the catalog for more information.

Course #	Title	Hours
ME:4024	Product Design and Realization	3
ME:4110/CEE:4515	Computer-Aided Engineering	3
ME:4125	Biomimetic Fluid Dynamics	3
ME:4153/CEE:4532	Fundamentals of Vibrations	3
ME:4186	Enhanced Design Experience	3
ME:5150/CEE:5540	Intermediate Mechanics of Deformable Bodies	3
ME:5154	Intermediate Kinematics and Dynamics	3
ME:5300	Uncertainty Quantification and Design Optimization	3
ECE:5550	Internet of Things	3
ENGR:2730	Computers in Engineering	3

Flexible Electives

Students in all mechanical engineering focus areas may apply up to 3 s.h. of flexible elective courses to the additional elective requirement. Flexible elective courses include the following.

- A College of Engineering course that is required for another BSE major, excluding department seminars.
- A mechanical engineering course (prefix ME) numbered 4100 or above.
- A chemistry course (prefix CHEM) numbered above 1110, a mathematics course (prefix MATH) numbered above 3350, or a physics course (prefix PHYS) numbered above 1612. Students who have completed ME:4111 Scientific Computing and Machine Learning cannot use MATH:3800 Introduction to Numerical Methods as a flexible elective.
- An independent study (ME:4098) in a mechanical engineering subject area.

Combined Programs

BSE/MS in Mechanical Engineering

A Bachelor of Science/Master of Science combined degree program is available for qualified University of Iowa undergraduate students. This allows students to complete an MS in two or three semesters after completion of their BSE degree. Those in the combined degree program receive a BSE when all requirements have been completed, and then become MS students in the Department of Mechanical Engineering (ME).

The Undergraduate to Graduate (U2G) combined degree program is primarily intended for students interested in pursuing the MS without thesis. However, the MS thesis option can be pursued in instances where students have been conducting research under the supervision of an ME faculty member since at least the summer following their junior year,

and an ME faculty member is willing to advise them and serve as committee chair for their final exam.

Interested students should discuss the combined degree program with their advisor during their third year. Applications should be submitted during the second semester of their third year and before the start of their fourth year (two-semester blended model); see the U2G Program on the Department of Mechanical Engineering website. However, single-semester admits are allowed and must adhere to the application deadlines and other program requirements.

Accepted students are expected to have a minimum University of Iowa cumulative grade-point average (GPA) of at least 3.25 and maintain this GPA throughout their time in the program. Undergraduate students whose UI cumulative GPA falls below this minimum are removed from the combined program.

Students may contact any ME faculty member to inquire about participation in the U2G combined degree program, research opportunities, and financial support.

Program Benefits

Students may apply up to 12 s.h. of graduate-level coursework toward both their BSE and MS degrees. However, credit may not be applied to courses taken prior to admission to the combined degree program. Mechanical engineering courses eligible for graduate credit have a prefix of ME and be numbered 4100 or above, except for ME:4186 Enhanced Design Experience. The courses selected must fulfill MS coursework requirements and apply to BSE electives.

Students who select the thesis option can begin work on their MS thesis research with a faculty advisor during their fourth year of undergraduate studies.

Graduate Record Examination (GRE) General Test scores are not required for admission to the combined degree program. Students are assessed undergraduate tuition and fees until their BSE has been conferred; then, students are assessed graduate tuition and fees, and they may be eligible for graduate assistantships.

BSE/MS in Civil and Environmental Engineering

The combined BSE in mechanical engineering/MS in civil and environmental engineering enables undergraduate students majoring in mechanical engineering to begin work toward the MS in civil and environmental engineering while completing the bachelor's degree. Students admitted to the program may count 9 s.h. of coursework toward both the BSE and MS degree requirements. They may also count an additional 3 s.h. toward the MS degree requirements before they have been awarded the BSE. See the MS in civil and environmental engineering [p. 1599] in the catalog.

Career Advancement

Engineering is a well-respected profession that is used as a foundation for a variety of careers in industry, medicine, law, government, and consulting. Engineering majors consistently claim several of the top ten spots on the list of top-paid majors for bachelor's degree graduates, according to the National Association of Colleges and Employers (NACE). On average, 93–98% of graduates are employed in their field of study or pursuing advanced education within seven months of graduation.

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including an engineering career fair each semester and other programming related to career development.

Engineering Career Services offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, job offer evaluation, and much more. Engineering Career Services partners with the Pomerantz Career Center to facilitate on-campus interviewing, postgraduate outcome collection, and the university's online recruiting system, Handshake.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Mechanical Engineering, BSE

Course	Title	Hours
First Year		
Fall		
RHET:1030	Rhetoric: Writing and Communication [a]	4
CHEM:1110	Principles of Chemistry I [a, b]	4
MATH:1550	Engineering Calculus I [c, d]	4
ENGR:1100	Introduction to Engineering Problem Solving [e]	3
CSI:1600	Success at Iowa	0
	Hours	**15**
Spring		
GE: Approved Course Subjects [f]		3
MATH:1560	Engineering Calculus II [c]	4
MATH:2550	Engineering Matrix Algebra [c]	2
PHYS:1611	Introductory Physics I [c]	4
ENGR:1300	Introduction to Engineering Computing [c]	3
	Hours	**16**
Second Year		
Fall		
GE: Approved Course Subjects [f]		4
MATH:2560	Engineering Differential Equations [c]	3
PHYS:1612	Introductory Physics II [a]	4
ENGR:2110	Statics [a]	2
ENGR:2120 or ME:2200	Electrical Circuits [g] or Introduction to Mechanical Engineering Design	2 - 3
ENGR:2130	Thermodynamics [a]	3
ME:2020	Mechanical Engineering Program Seminar [e]	0

Focus Area Form: Students should fill out a focus area selection form by the end of their Fall semester. Focus area forms can be updated/ changed at anytime. Please see the Mechanical Engineering - Undergraduate Focus Areas webpage for the link.		
	Hours	**18-19**
Spring		
ENGR:2710	Dynamics [a]	3
ENGR:2720	Materials Science [a]	3
ENGR:2750	Mechanics of Deformable Bodies [a]	3
ME:2200 or ENGR:2120	Introduction to Mechanical Engineering Design [g] or Electrical Circuits	2 - 3
STAT:2020 or ME:2300	Probability and Statistics for the Engineering and Physical Sciences [c] or Manufacturing Processes	3
Focus Area: required course [h]		3
	Hours	**17-18**
Third Year		
Fall		
MATH:3550	Engineering Vector Calculus [c]	3
ME:2300 or STAT:2020	Manufacturing Processes [c] or Probability and Statistics for the Engineering and Physical Sciences	3
ENGR:2510	Fluid Mechanics [c]	4
ME:3351	Engineering Instrumentation [e]	2
ME:3600	Control of Mechanical Engineering Systems [e]	3
ME:3091	Professional Seminar: Mechanical Engineering [e]	0
	Hours	**15**
Spring		
GE: Engineering Be Creative [i]		3
ME:3045	Heat Transfer [j]	3
ME:3052	Mechanical Systems [j]	4
Focus Area: required or elective course [h]		3
Focus Area: elective course [h]		3
	Hours	**16**
Fourth Year		
Fall		
GE: Cultural Perspectives, Values, and Society [k]		3
ME:4048	Energy Systems Design [e]	4
ME:4055	Mechanical Systems Design [e]	3
Focus Area: elective course or ME:4080 Experimental Engineering [c, h]		3
Focus Area: elective course or ME:4086 Mechanical Engineering Design Project [c, h]		3
	Hours	**16**
Spring		
GE: Approved Course Subjects [f]		3
ME:4080	Experimental Engineering [c, h]	4
ME:4086	Mechanical Engineering Design Project [c, h]	3
Focus Area: elective course [h]		3
Focus Area: elective course [h]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**16**
	Total Hours	**129-131**

a Typically this course is offered in fall, spring, and summer sessions. Check MyUI for course availability since offerings are subject to change.

b Enrollment in chemistry courses requires completion of a placement exam.

c Typically this course is offered in fall and spring semesters. Check MyUI for course availability since offerings are subject to change.

d Enrollment in math courses requires completion of a placement exam.

e Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.

f See General Catalog for list of approved course subjects.

g ENGR:2120 is typically taught fall, spring, and summer. ME:2200 is typically taught in the fall and spring. Check MyUI for course availability since offerings are subject to change.

h Students select one of the preapproved standard focus areas or create a tailored focus area. Focus areas require at least 21 s.h. of coursework and consist of required course and electives. See General Catalog or consult an advisor for more information.

i See General Catalog for list of approved courses. Students who intend to enroll in a Be Creative course with prerequisites must request a waiver by completing the Request Prerequisite Special Permission form on MyUI.

j Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

k Students select a course from one of two GE CLAS Core areas: Understanding Cultural Perspectives or Values and Society.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Mechanical Engineering, MS

The mechanical engineering graduate program in the College of Engineering emphasizes in-depth learning and research. In collaboration with faculty across campus, the mechanical engineering faculty currently research a diverse range of topics within the field. For more information, see the Department of Mechanical Engineering website.

Design and Uncertainty Quantification

The Design and Uncertainty Quantification focus area is concerned with the design optimization of complex mechanical systems in the presence of uncertainty. The focus area emphasizes the development of sound theoretical foundations, novel computational methods and algorithms, and modern software tools aimed at creating state-of-the-art engineering designs of automotive, aerospace, naval, nuclear, and biomedical systems. Current areas of excellence include artificial muscles and smart materials design, ship hydrodynamics, design sensitivity analysis, uncertainty quantification, and reliability-based design optimization.

Fluid Dynamics

The Fluid Dynamics focus area covers a wide variety of topics with the flow of liquids and gases as the common denominator. The graduate program in fluid dynamics emphasizes fundamental principles and applications, and the numerical and experimental techniques used to obtain and analyze fluid flows. Areas of concentration include computational fluid dynamics, experimental fluid dynamics, medical flows, naval hydrodynamics, biologically inspired air and underwater vehicles, multiphase flows, cavitation and ventilation, and fluid-structure interaction and turbulence, among others.

Heat Transfer and Combustion

The Heat Transfer and Combustion focus area applies to real-world systems in manufacturing and materials processing, propulsion, energy production, and other areas. The graduate program emphasizes the fundamental principles and techniques required for experimental and theoretical research. Current areas of research include solidification of materials, metal casting, 3D printing, laser-materials interaction, power plants and propulsion devices such as automobile and aircraft engines, energy conservation and production, energy storage, complex reactive materials, and machine learning in computational modeling and simulation.

Manufacturing and Materials

The Manufacturing and Materials focus area involves fundamental materials processing science, technological advancement in manufacturing applications, and the development of new manufacturing processes and new material functions. Current and emerging thrust areas include solidification, metal casting, laser materials processing, micro- and nanofabrication, joining, ultrasonic welding, machining, microstructure evolution, manufacturing process modeling and simulation, artificial muscles, artificial camouflage, smart materials, and material characterizations. These research activities are well supported by federal and state agencies and the manufacturing industry.

Robotics, Controls, and Autonomous Systems

Robotics, Controls, and Autonomous Systems (RCAS) are concerned with the modeling, analysis, design, and control of dynamic systems. The graduate program in RCAS emphasizes the fundamental principles and techniques of robotics, control theory, and artificial intelligence. Areas of concentration include computational intelligence, dynamic autonomous systems, cyber-physical systems, and networked robotic systems with potential applications in self-driving cars; medical and assistive robots for surgery and rehabilitation; industrial co-robots for human-robot collaboration; and uncrewed aerial, ground, and underwater vehicles.

Solid Mechanics and Multibody Dynamics

Solid Mechanics and Multibody Dynamics are concerned with the behavior of solid materials and flexible bodies, especially their deformation, motion, and stress responses under the action of applied loads. The graduate program in solid mechanics and multibody dynamics emphasizes the theoretical foundations and problem-solving techniques for engineering applications. Current research focuses of the faculty include multiscale mechanics of materials, biomechanics, vehicle dynamics, computational mechanics, multibody dynamics, and optimization.

Learning Outcomes

Graduates will:

- have a broad knowledge of mechanical engineering topics and advanced knowledge in their specific area of study;
- be able to analyze engineering problems and apply their knowledge to solve them, and thesis option graduates able to solve research-oriented problems; and
- develop professional skills that include effective communication, leadership, and ethical conduct in professional, social, and scholarly activities.

Requirements

The Master of Science program in mechanical engineering requires a minimum of 30 s.h. of coursework and research, including a minimum of 12 s.h. in mechanical engineering courses (prefix ME) numbered 5000 or above. Students must maintain a UI cumulative grade-point average of at least 3.00 in graduate work used to satisfy their requirements to earn the degree. The course plan should be approved by their advisor prior to registration each semester. All students choose either a thesis or nonthesis program.

The requirements for the MS may be completed within one calendar year. However, students with assistantship duties or other constraints may take up to two calendar years to complete their degree. Students must complete ENGR:7270 Engineering Ethics during their first fall semester in the program. They must register for ME:6191 Graduate Seminar: Mechanical Engineering each fall and spring semester until the successful completion of their final examination or thesis defense; credit in these courses does not substitute for regular coursework or research credit hours. For students who select the thesis option, normally 6 s.h., and no more than 9 s.h. of credit for thesis research is counted toward degree

requirements in ME:6199 Research: Mechanical Engineering MS Thesis.

Thesis students must be successful in their final examination. The exam is administered by a student's committee, which consists of at least three faculty members, including at least one with a primary appointment in the Department of Mechanical Engineering. The nonthesis option does not include a final exam.

Admission

Applicants must meet the admission requirements of the Graduate College; for detailed information about Graduate College policies, see the Manual of Rules and Regulations on the Graduate College website.

Applicants who have earned a baccalaureate or master's degree in engineering curriculum or in the mathematical or physical sciences are eligible to be considered for admission to graduate study in mechanical engineering. To be considered for regular admission, applicants must have a grade-point average (GPA) of at least 3.00 on a 4.00 scale in all previous college-level work.

Application Deadlines

Applications for fall: Jan. 15 (application deadline), March 1 (admission decision).

Applications for spring: Sept. 1 (application deadline), Oct. 1 (admission decision).

All requirements must be fulfilled by the respective deadlines. Applicants who apply after the deadline must be sponsored by a mechanical engineering faculty member for a deadline waiver.

Career Advancement

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including an engineering career fair each semester and other programming related to career development.

Engineering Career Services offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, job offer evaluation, and much more. Engineering Career Services partners with the Pomerantz Career Center to facilitate on-campus interviewing, postgraduation outcome collection, and the university's online recruiting system, Handshake.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Mechanical Engineering, MS

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
	Hours	**0**
First Year		
Fall		
ENGR:7270	Engineering Ethics [c, d]	1
ME required course [e]		3
ME required course [e]		3
ME required course or elective [e, f]		3
ME:6191	Graduate Seminar: Mechanical Engineering [c, g]	1
	Hours	**11**
Spring		
ME required course [e]		3
ME required course [e]		3
Elective course [f]		3
ME:6191	Graduate Seminar: Mechanical Engineering [c, g]	1
	Hours	**10**
Second Year		
Fall		
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
ME:6191	Graduate Seminar: Mechanical Engineering [c, g]	1
	Hours	**10**
Spring		
Elective course [f]		3
ME:6191	Graduate Seminar: Mechanical Engineering [c, g]	1
Final Exam [h]		
	Hours	**4**
	Total Hours	**35**

a Students may design their program around a particular research and study area; see General Catalog and ME website for specifics. Work with faculty advisor to determine appropriate graduate level coursework and sequence.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Credit for this course does not substitute for regular coursework or research credit hours.

d Must be completed during first semester.

e Minimum of 12 s.h. must be from Mechanical Engineering courses numbered 5000 or higher. Students may also select Mechanical Engineering courses numbered 4100 or higher except for ME:4186 which is not eligible for graduate credit.

f Work with academic advisor to determine appropriate elective coursework and sequence.

g Attendance required every fall and spring semester until degree completion.

h Completion of degree requirements.

Mechanical Engineering, PhD

The mechanical engineering graduate program in the College of Engineering emphasizes in-depth learning and research. In collaboration with faculty across campus, the mechanical engineering faculty currently research a diverse range of topics within the field. For more information, see the Department of Mechanical Engineering website.

Design and Uncertainty Quantification

The Design and Uncertainty Quantification focus area is concerned with the design optimization of complex mechanical systems in the presence of uncertainty. The focus area emphasizes the development of sound theoretical foundations, novel computational methods and algorithms, and modern software tools aimed at creating state-of-the-art engineering designs of automotive, aerospace, naval, nuclear, and biomedical systems. Current areas of excellence include artificial muscles and smart materials design, ship hydrodynamics, design sensitivity analysis, uncertainty quantification, and reliability-based design optimization.

Fluid Dynamics

The Fluid Dynamics focus area covers a wide variety of topics with the flow of liquids and gases as the common denominator. The graduate program in fluid dynamics emphasizes fundamental principles and applications and the numerical and experimental techniques used to obtain and analyze fluid flows. Areas of concentration include computational fluid dynamics, experimental fluid dynamics, medical flows, naval hydrodynamics, biologically inspired air and underwater vehicles, multiphase flows, cavitation and ventilation, and fluid-structure interaction and turbulence, among others.

Heat Transfer and Combustion

The Heat Transfer and Combustion focus area applies to real-world systems in manufacturing and materials processing, propulsion, energy production, and other areas. The graduate program emphasizes the fundamental principles and techniques required for experimental and theoretical research. Current areas of research include the solidification of materials, metal casting, 3D printing, laser-materials interaction, power plants and propulsion devices such as automobile and aircraft engines, energy conservation and production, energy storage, complex reactive materials, and machine learning in computational modeling and simulation.

Manufacturing and Materials

The Manufacturing and Materials focus area involves fundamental materials processing science, technological advancement in manufacturing applications, and the development of new manufacturing processes and new material functions. Current and emerging thrust areas include solidification, metal casting, laser materials processing, micro- and nanofabrication, joining, ultrasonic welding, machining, microstructure evolution, manufacturing process modeling and simulation, artificial muscles, artificial camouflage, smart materials, and material characterizations. These research activities are well supported by federal and state agencies and the manufacturing industry.

Robotics, Controls, and Autonomous Systems

Robotics, Controls, and Autonomous Systems (RCAS) are concerned with the modeling, analysis, design, and control of dynamic systems. The graduate program in RCAS emphasizes the fundamental principles and techniques of robotics, control theory, and artificial intelligence. Areas of concentration include computational intelligence, dynamic autonomous systems, cyber-physical systems, and networked robotic systems with potential applications in self-driving cars; medical and assistive robots for surgery and rehabilitation; industrial co-robots for human-robot collaboration; and uncrewed aerial, ground, and underwater vehicles.

Solid Mechanics and Multibody Dynamics

Solid Mechanics and Multibody Dynamics are concerned with the behavior of solid materials and flexible bodies, especially their deformation, motion, and stress responses under the action of applied loads. The graduate program in solid mechanics and multibody dynamics emphasizes the theoretical foundations and problem-solving techniques for engineering applications. Current research focuses of the faculty include multiscale mechanics of materials, biomechanics, vehicle dynamics, computational mechanics, multibody dynamics, and optimization.

Learning Outcomes

Graduates will:

- have extensive knowledge of mechanical engineering topics and mastery of advanced concepts in their specific area of study;
- be able to identify, formulate, analyze, and solve research problems, thereby advancing knowledge through creative scholarship; and
- develop professional skills that include effective communication, leadership, and ethical conduct in professional, social, and scholarly activities.

Requirements

The Doctor of Philosophy program in mechanical engineering requires 72 s.h. of graduate credit, including a minimum of 42 s.h. in mechanical engineering courses (prefix ME) with at least 12 s.h. selected from courses numbered 6000 or above. Students also must complete a minimum of 12 s.h. in thesis research in ME:7299 Research: Mechanical Engineering PhD Dissertation. A maximum of 30 credits of transfer credit may be applied toward the degree and coursework requirements. Students must maintain a UI cumulative grade-point average higher than 3.25 to earn the degree.

To be formally admitted to the PhD program, students must pass the qualifying examination. Information regarding the details of the qualifying exam procedure can be obtained from the Department of Mechanical Engineering website.

Students must complete ENGR:7270 Engineering Ethics during their first fall semester of enrollment. They must register for ME:6191 Graduate Seminar: Mechanical Engineering each fall and spring semester until the successful completion of their final examination or thesis defense; credit in these courses

does not substitute for regular coursework or research credit hours. They must have their course plan approved by their advisor prior to registration each semester.

Admission

Applicants must meet the admission requirements of the Graduate College; for detailed information about Graduate College policies, see the Manual of Rules and Regulations on the Graduate College website.

Students must have earned a minimum GPA of at least 3.00 on a 4.00 scale, submit three letters of recommendation, unofficial transcripts (with official transcripts submitted if accepted), and a statement of purpose.

Applying for Admission

Applications for fall: Jan. 15 (application deadline), March 1 (admission decision).

Applications for spring: Sept. 1 (application deadline), Oct. 1 (admission decision).

All requirements must be fulfilled by the respective deadlines. Applicants who apply after the deadline must be sponsored by a mechanical engineering faculty member for a deadline waiver.

Career Advancement

Engineering Career Services develops and promotes experiential education and professional opportunities for students in the College of Engineering. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including an engineering career fair each semester and other programming related to career development.

Engineering Career Services offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, job offer evaluation, and much more. Engineering Career Services partners with the Pomerantz Career Center to facilitate on-campus interviewing, postgraduation outcome collection, and the university's online recruiting system, Handshake.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Mechanical Engineering, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; a maximum of 30 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
	Hours	**0**
First Year		
Any Semester		
Qualifying Exam [d]		
	Hours	**0**
Fall		
ENGR:7270	Engineering Ethics [e, f]	1
ME required course		3
ME required course		3
ME required course		3
ME:6191	Graduate Seminar: Mechanical Engineering [e, g]	1
	Hours	**11**
Spring		
ME required course		3
ME required course		3
Elective course [h]		3
ME:6191	Graduate Seminar: Mechanical Engineering [e, g]	1
	Hours	**10**
Second Year		
Fall		
ME required course		3
ME required course		3
Elective course [h]		3
ME:6191	Graduate Seminar: Mechanical Engineering [e, g]	1
	Hours	**10**
Spring		
ME required course		3
ME required course		3
Elective course [h]		3
ME:6191	Graduate Seminar: Mechanical Engineering [e, g]	1
	Hours	**10**
Third Year		
Any Semester		
Dissertation Prospectus [i]		
Comprehensive Exam [j]		
	Hours	**0**
Fall		
ME required course		3
Elective course [h]		3
ME:7299	Research: Mechanical Engineering PhD Dissertation [k]	3
ME:6191	Graduate Seminar: Mechanical Engineering [e, g]	1
	Hours	**10**
Spring		
ME required course		3
Elective course [h]		3
ME:7299	Research: Mechanical Engineering PhD Dissertation [k]	3
ME:6191	Graduate Seminar: Mechanical Engineering [e, g]	1
	Hours	**10**
Fourth Year		
Fall		
Elective course [h]		3

Elective course [h]		3
ME:7299	Research: Mechanical Engineering PhD Dissertation [k]	3
ME:6191	Graduate Seminar: Mechanical Engineering [e, g]	1
	Hours	**10**
Spring		
Elective course [h]		3
Elective course [h]		3
ME:7299	Research: Mechanical Engineering PhD Dissertation [k]	3
ME:6191	Graduate Seminar: Mechanical Engineering [e, g]	1
Final Exam [l]		
	Hours	**10**
	Total Hours	**81**

a Students may design their program around a particular research and study area; see General Catalog and ME website for specifics. Work with faculty advisor to determine appropriate graduate level coursework and sequence.

b A minimum of 42 s.h. (not including thesis research) must be from courses taken beyond the BS degree. Of these a minimum of 12 s.h. must be from Mechanical Engineering courses numbered 6000 or higher. Students may also select Mechanical Engineering courses numbered 4100 or higher except for ME:4186 which is not eligible for graduate credit.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d Complete two qualifying exam courses during first two semesters in the program; must take ME:5113 plus one graduate level course in a focus area with a grade of A-minus or higher in each. Focus area courses are chosen in consultation with the faculty advisor from a specified list. More information is found in the General Catalog and on department website.

e Credit for this course does not substitute for regular coursework or research credit hours.

f Must be completed during first semester.

g Attendance required every fall and spring semester until degree completion.

h Work with academic advisor to determine elective graduate coursework and sequence.

i Submit dissertation prospectus to the exam committee not later than two weeks before the comprehensive exam.

j Oral exam to be completed after passing the qualifying exam and upon completion of coursework in the specified area of study no later than 28 months after entering the doctoral program. The exam will focus on the dissertation prospectus and related areas.

k Complete a minimum 12 s.h. of credit in thesis research.

l Dissertation defense.

Naval Science and Technology

Chair, Department of Mechanical Engineering

- Ching-Long Lin

Undergraduate certificate: naval science and technology

Website: https://engineering.uiowa.edu/mechanical-engineering-undergraduate-program/me-certificates/naval-science-and-technology

Naval science and technology has a tremendous impact upon defense, world commerce, and energy production. The U.S. Navy is expanding its fleet to the largest size in nearly 20 years. Approximately 90% of world trade is carried by sea. The number of offshore solar, wind, and wave energy installations continues to increase.

The underlying science and technology challenges demand a workforce with a strong foundation in the engineering sciences related to fluid flow, computational and experimental methods, autonomous systems, and control. The Certificate in Naval Science and Technology introduces students to the principles of naval hydrodynamics, including propulsion, resistance, maneuvering, and seakeeping, as well as the fundamentals of autonomous systems, including control systems, robotics, and artificial intelligence.

Students who complete the certificate will work in a unique learning community where they will have an opportunity to contribute to projects of interest to the Navy and its supporting industry, and learn about potential career paths.

The Certificate in Naval Science and Technology is administered by the Department of Mechanical Engineering [p. 1655].

Learning Objectives

The Certificate in Naval Science and Technology is built on eight learning objectives. The first six learning objectives are focused on providing students with strong technical and leadership skills and an understanding of marine systems, enabling them to work effectively in naval science and technology and other technology-intensive fields. Specifically, students will achieve the following.

- Demonstrate a foundation in the fundamentals of fluid mechanics and naval hydrodynamics.
- Use advanced numerical methods and/or measurement techniques to solve fluid-flow problems and design systems involving naval hydrodynamics.
- Demonstrate a foundation in the fundamentals of control theory and artificial intelligence, including optimal control, tracking, planning, machine learning, and reinforcement learning.
- Use simulators and experiments to evaluate, simulate, and design autonomous naval systems.
- Develop potential for continued growth and leadership in a complex and multidisciplinary technical environment.
- Demonstrate the organization and communication skills needed to manage open-ended projects.

The final two learning objectives focus on understanding the challenges faced by the Navy and helping students to identify related career paths.

- Recognize and address current science and technology challenges faced by the Navy.
- Be able to make decisions about career paths in the Navy, its contractors, and supporting industry.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Naval Science and Technology [p. 1676]

Naval Science and Technology, Certificate

Requirements

The undergraduate Certificate in Naval Science and Technology requires 18 s.h. of credit. Students must maintain a grade-point average of at least 2.00 in work for the certificate. The certificate may be earned by any student admitted to the University of Iowa who is not concurrently enrolled in a UI graduate or professional degree program.

All of the certificate courses have prerequisites; students must complete all of a course's prerequisites before they may register for the course. Prerequisites do not count toward the 18 s.h. required for the certificate.

Mechanical engineering students may use the certificate as a tailored engineering focus area by adding an eligible course. In addition, mechanical engineering students may earn the Certificate in Naval Science and Technology while they complete either the design or the robotics and autonomous systems focus area for their major. For examples of combined plans of study, visit Naval Science and Technology Certificate on the Department of Mechanical Engineering website. College of Engineering students earning the certificate are advised by the Department of Mechanical Engineering.

The Certificate in Naval Science and Technology requires the following coursework.

Naval Hydrodynamics Courses

In certain circumstances, if it is not possible for students to complete two of these courses, they may request permission to take ME:5143 Computational Fluid and Thermal Engineering instead of ME:4175 Computational Naval Hydrodynamics.

Course #	Title	Hours
At least two of these:		
ME:4125	Biomimetic Fluid Dynamics	3
ME:4175	Computational Naval Hydrodynamics	3
ME:4176	Experimental Naval Hydrodynamics	3

Autonomous Systems and Machine Learning Courses

Course #	Title	Hours
At least two of these:		
ME:4111/CEE:4511	Scientific Computing and Machine Learning	3
ME:5114	Nonlinear Control in Robotic Systems	3
ME:6115	Cooperative Autonomous Systems	3

Capstone Course

Students must complete either a capstone design project on an approved naval science and technology topic or an independent investigation involving research or testing of a system related to naval hydrodynamics. If a student chooses, both courses may be completed for credit toward the certificate.

Course #	Title	Hours
One or both of these:		
ME:4098	Individual Investigations: Mechanical Engineering (students must register for at least 3 s.h.)	arr.
ME:4186	Enhanced Design Experience (subject to approval of application for capstone design path; ME:4086 is a prerequisite course)	3

Electives

Students select the remainder of the 18 s.h. required for the certificate from the following.

Course #	Title	Hours
ME:4116/ISE:4116	Manufacturing Processes Simulations and Automation	3
ME:4120	Advanced Linear Control Systems	3
ME:4140	Modern Robotics and Automation	3
ME:4150	Artificial Intelligence in Engineering	3
ME:4200	Modern Engineering Materials for Mechanical Design	3
ME:5143	Computational Fluid and Thermal Engineering	3
ME:5160/CEE:5369	Intermediate Mechanics of Fluids	3

Sustainable Water Development

Chair, Department of Civil and Environmental Engineering

- A. Allen Bradley Jr.

Graduate certificate: sustainable water development

Website: https://engineering.uiowa.edu/cee

The Certificate in Sustainable Water Development trains science, technology, engineering, and mathematics (STEM) graduate students to address future challenges of water scarcity and variability while also meeting the food and energy demands of Earth's growing population. The certificate leverages a unique learning environment focused on water sustainability that extends beyond any one discipline, department, or college.

The Certificate in Sustainable Water Development is administered by the Department of Civil and Environmental Engineering [p. 1576].

Programs

Graduate Program of Study

- Certificate in Sustainable Water Development [p. 1678]

Sustainable Water Development, Graduate Certificate

Requirements

The graduate Certificate in Sustainable Water Development requires 15 s.h. of credit, including at least 9 s.h. earned at the University of Iowa. The courses numbered 5000 and above required for the certificate must be taken at the University of Iowa. Students must maintain a Graduate College major program grade-point average of at least 2.50. The certificate is open to graduate students currently enrolled at the University of Iowa who are completing a degree program.

The Certificate in Sustainable Water Development requires the following coursework.

Required Courses

Course #	Title	Hours
All of these:		
CEE:5096	Water, Energy, and Food Nexus Seminar (taken for two semesters)	0
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
URP:6209/ SDG:6000	Sustainable Communities Lab I	3

Electives

Students take two elective courses selected from the following list. For more information about approved certificate electives, contact the Sustainable Water Development Program coordinator.

Course #	Title	Hours
At least two of these for at least 6 s.h.:		
CEE:4102	Groundwater	3
CEE:4104/ SEES:4660	Groundwater Modeling	3
CEE:4107/CBE:4410	Sustainable Systems	3
CEE:4118	Statistical Methods in Water and the Environment	3
CEE:4158/ OEH:4920	Solid and Hazardous Wastes	3
CEE:4370	Open Channel Flow and Sediment Transport	3
CEE:4385	Water Scarcity in Rural India	3
CEE:5156	Physical and Chemical Environmental Processes	3
CEE:6253	Environmental Organic Chemistry	3
CEE:6255	Environmental Biotechnology and Bioremediation	3
ABRD:3445	India Winterim	arr.
ACCT:4300	Accounting Ethics and Law	3
ANTH:3110/ CBH:4200/ GHS:3110/ NAIS:3110	Colonialism and Indigenous Health Equity	3
BIOL:3663	Plant Response to the Environment	3
CBE:5140/ CEE:5513/ME:5113	Mathematical Methods in Engineering	3
CBE:5415/IGPI:5415	Satellite Image Processing and Remote Sensing of Atmosphere	3
CBE:5425/CEE:5115	Atmospheric Chemistry and Physics	3
CBH:5305	Evaluation: Approaches and Applications	3
CBH:6205	Designing and Implementing Interventions	3
CHEM:4760	Radiochemistry: Energy, Medicine, and the Environment	3
CHEM:4873	Atmospheric and Environmental Chemistry	3
CPH:3500/ GHS:3500	Global Public Health	3
ECE:5630	Sustainable Energy Conversion	3
ECON:3345	Global Economics and Business	3
ECON:3625/ URP:3135	Environmental and Natural Resource Economics	3
ECON:3800	Law and Economics	3
ECON:4090	Natural Resource Economics	3
ECON:4140	Labor Economics	3
LAW:8433	Environmental Law	2-3
LAW:8622	International Environmental Law	3
LAW:8992	Water Law	arr.
MATH:4740/ CS:4740/IGPI:4740/ STAT:4740	Large Data Analysis	3
ME:4048	Energy Systems Design	4
OEH:4240	Global Environmental Health	3
OEH:4260/ GHS:4260	Global Water and Health	3
OEH:5620	Occupational Health	3
OEH:6460	Quantitative Exposure Assessment: Study Design and Evaluation	3
OEH:6710	Human Toxicology and Risk Assessment	3
PHYS:5811	Classical Electrodynamics I	3
PHYS:5812	Classical Electrodynamics II	3
SEES:3090/ GHS:3070	Hungry Planet: Global Geographies of Food	3
SEES:3390	Integrated Watershed Analysis	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3

SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3
SEES:4500/ IGPI:4500	Advanced Remote Sensing	4
SEES:4520/ IGPI:4520	GIS for Environmental Studies: Applications	3
SEES:4580/ IGPI:4581	Introduction to Geographic Databases	3
SEES:4750/ URP:4750	Environmental Impact Analysis	3
URP:6205/ PBAF:6205	Economics for Policy Analysis	1,3
URP:6225/ PBAF:6225	Applied GIS for Planning and Policy Making	3
URP:6233/ PBAF:6233	Public Finance and Budgeting	3
URP:6253/ PBAF:6253	Designing Sustainable and Healthy Cities	1-3
URP:6256/ PBAF:6256	Environmental Policy	3
URP:6258/ PBAF:6258	Systems and Scenario Thinking	3
URP:6273/ PBAF:6273	Community Development Through Creative Placemaking	3
URP:6295/ PBAF:6295	Economic Development Policy	3

Admission

Students must:

- be in a relevant science, technology, engineering, or mathematics (STEM) field;
- submit their University of Iowa transcript;
- have a graduate grade-point average (GPA) higher than 3.00 if in a doctoral program or a GPA higher than 2.75 if in a master's program;
- submit their résumé or curriculum vitae;
- provide a statement of purpose of 500 words or less about their core research and training program and why the certificate program will benefit their training and goals for career placement; and
- provide a letter of endorsement from their advisor.

Admission to the certificate program is competitive. Applications are accepted on a rolling basis and are reviewed by the Sustainable Water Development Program; applications can be submitted online along with pertinent materials. Students receive an email after an admission decision has been made.

Technological Entrepreneurship

Undergraduate certificate: technological entrepreneurship

Website: https://engineering.uiowa.edu/future-students/future-undergraduate-students/majors-minors-and-certificates/technological

The College of Engineering partners with the John Pappajohn Entrepreneurial Center in the Tippie College of Business to offer the Certificate in Technological Entrepreneurship.

The program is intended for students who would like to develop an understanding of how to manage innovation in business environments, as well as those who plan to start and operate their own businesses.

Students who complete the certificate program are able to:

- gain exposure to understanding sound business thinking;
- employ a more innovative and creative mindset in problem solving;
- learn how to create a business plan as skillfully as solving difficult engineering equations;
- understand the entrepreneurial approach to acquiring and managing resources;
- acquire team-building skills critical in both small and large companies;
- get insights into how to bridge engineering and business problems; and
- obtain valuable contacts and network opportunities with successful, thriving businesses and industries.

The Certificate in Technological Entrepreneurship is administered by the College of Engineering [p. 1514].

Programs

Undergraduate Program of Study

Certificate

- Certificate in Technological Entrepreneurship [p. 1681]

Technological Entrepreneurship, Certificate

Requirements

The undergraduate Certificate in Technological Entrepreneurship requires a minimum of 18 s.h. of credit. Students must complete at least 12 s.h. of the 18 s.h. required for the certificate at the University of Iowa or in approved study abroad courses. They must maintain a grade-point average (GPA) of at least 2.00 in coursework for the certificate.

The certificate program is open to Bachelor of Science in Engineering students who have earned at least 45 s.h. of credit toward the BSE and have a University of Iowa GPA of at least 2.75. Students must be granted the BSE and complete all certificate requirements in order to receive the certificate.

Students must declare their intention to pursue the certificate on MyUI and must apply for admission; visit Technological Entrepreneurship Certificate on the College of Engineering website for more information.

Certificate students study how the entrepreneurial process relates to technology-based businesses. The program is intended for students who would like to develop an understanding of how to manage innovation in business environments, as well as those who plan to start and operate their own businesses.

The Certificate in Technological Entrepreneurship requires the following coursework.

Foundation Course

Course #	Title	Hours
This course:		
ISE:2500	Engineering Economy	3

Entrepreneurship Core

Course #	Title	Hours
Both of these:		
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3100	Entrepreneurial Finance	3

Entrepreneurship Course in the Major

Course #	Title	Hours
One of these, depending on a student's engineering major:		
BME:4910	Biomedical Engineering Senior Design I (biomedical engineering majors)	4
CBE:4109	Chemical Engineering Process Design I (chemical engineering majors)	2
CEE:4850	Project Design and Management in Civil Engineering (civil and environmental engineering majors)	3
ECE:4890	Electrical and Computer Engineering Senior Design 2 (electrical and computer science engineering majors)	3
ISE:4600	Industrial Engineering Design Project (industrial engineering majors)	4
ME:4086	Mechanical Engineering Design Project (mechanical engineering majors)	3

Entrepreneurship Electives

Students customize their programs with their choice of electives. They must earn sufficient elective credit to complete the 18 s.h. required for the certificate.

Course #	Title	Hours
BME:4920	Biomedical Engineering Senior Design II	4
ENTR:3200	Entrepreneurial Marketing	3
ENTR:3350	Entrepreneurial Strategy	3
ENTR:3400	Strategic Management of Technology and Innovation	3
ENTR:3500	Social Entrepreneurship	3
ENTR:3550	Commercializing New Technology I	3
ENTR:3575	Commercializing New Technology II	3
ENTR:3595	Nonprofit Organizational Effectiveness I	3
ENTR:3600	Social Media Strategies for Entrepreneurial Ventures	3
ENTR:3700	Sustainable Innovation and Management	3
ENTR:4000	Topics in Entrepreneurship	3
ENTR:4100	International Entrepreneurship, Culture, and Social Impact	1-3
ENTR:4200	Entrepreneurship: Business Consulting	3
ENTR:4300	Launching an Entrepreneurial Venture	3
ENTR:4400	Managing the Growth Business	3
ENTR:4460	Entrepreneurship and Global Trade	3
ENTR:4510	Arts Leadership Seminar	3
ENTR:4900	Academic Internship	1-9
Any entrepreneurship course (prefix ENTR), with certificate advisor's approval		

Graduate College

Interim Dean

- Saba R. Ali

Associate Deans

- Michelle L. Campo, Ana M. Rodríguez-Rodríguez

Assistant Deans

- Heidi Arbisi-Kelm, Jennifer R. Teitle

Website: https://grad.uiowa.edu

The University of Iowa has been a leading center of advanced study for more than a century. Presently, the Graduate College accounts for nearly one-fifth of the university's total enrollment. This high ratio reflects the breadth of the university's graduate programs and resources, the strength of a graduate faculty with a long tradition of personal and professional concern for students, and the opportunities afforded graduate students for involvement, recognition, and support.

The Graduate College is responsible for the review and approval of proposals for new graduate programs and for the periodic survey and evaluation of existing programs. Through its administration of scholarship, fellowship, and research assistantship funds, the college encourages research and strengthening of departments. Additionally, the college works with the other colleges and departments of the university to formulate policies concerning the selection, supervision, and support of graduate students.

The faculty of the Graduate College is made up of all university tenure-track faculty members at the ranks of assistant professor, associate professor, and professor. The Graduate Council, elected from and by the graduate faculty, is the executive committee of the graduate faculty and is advisory to the dean of the Graduate College.

Manual of Rules and Regulations

The current edition of the Manual of Rules and Regulations is available on the college's website.

Academic Affairs Office

The Academic Affairs Office (AAO) is responsible for supporting graduate student academic progress and success. Have a question? AAO can help. AAO oversees graduate student degree progress and completion, assists with student academic concerns, and provides support for graduate students' completion of their thesis or dissertation. AAO works broadly across campus by coordinating with graduate programs and campus partners to manage and uphold the rules and standards of graduate education with a focus on academic excellence, student success, and evidence-based initiatives to shape and improve students' experiences.

Graduate Student Success

Graduate Student Success means fostering a sense of belonging and creating community, engagement, and a supportive environment for all graduate students. The Graduate College is committed to enhancing community, promoting well-being, and offering opportunities for personal, academic, and professional growth through events, safe spaces, and welcoming initiatives.

The Graduate College takes a holistic approach to graduate student and postdoctoral scholar preparation. Whether a student's goal is a career in academia, industry, government, or elsewhere, professional development can expand one's options and make a student more marketable to employers. The Graduate Student Success Office can help graduate students in the realms of communication, research and publication, diversity, funding, teaching, leadership, careers, and wellness.

Research Resources

Many of the university's diverse research activities are centrally administered by the Office of the Vice President for Research, which has a cooperative relationship with the Graduate College.

Graduate Student Senate

The Graduate Student Senate is the university's graduate student body representative organization. Representatives are elected annually from each university department that has a graduate degree program. The senate's primary purpose is to serve the interests of the graduate student body in matters affecting its welfare. The senate advises the dean of the Graduate College on matters pertaining to the college.

Programs

Degrees Offered

The Graduate College confers the Master of Arts (MA), Master of Science (MS), Master of Accountancy (MAc), Master of Arts in Teaching (MAT), Master of Computer Science (MCS), Master of Fine Arts (MFA), Master of Health Administration (MHA), Master of Public Affairs (MPAff), Master of Public Health (MPH), Specialist in Education (EdS), Master of Science in Nursing (MSN), Master of Social Work (MSW), Doctor of Philosophy (PhD), Doctor of Education (EdD), Doctor of Musical Arts (DMA), Doctor of Nursing Practice (DNP), Doctor of Physical Therapy (DPT), and Doctor of Audiology (AuD) degrees.

The college currently confers degrees in the following major fields.

Accounting: MAc[2]
Actuarial Science: MS[2]
African American World Studies: MA[3]
American Studies: MA[1], PhD
Anthropology: MA[1], PhD
Applied Mathematical and Computational Sciences: PhD
Art: MA[1], MFA
Art History: MA[1], PhD
Astronomy: MS[1]
Athletic Training: MS[1]
Audiology: AuD
Biochemistry and Molecular Biology: MS[1], PhD
Biomedical Engineering: MS[1], PhD
Biomedical Science: MS[1], PhD
Biostatistics: MS[1], PhD
Book Arts: MFA
Business Administration: MA[1], PhD
Business Analytics: MS
Chemical and Biochemical Engineering: MS[1], PhD
Chemistry: MS[1], PhD
Civil and Environmental Engineering: MS[1], PhD
Classics: MA[1], PhD
Clinical Investigation: MS[1]
Communication Studies: MA[1], PhD
Community and Behavioral Health: PhD

Computer Science: MS[1], MCS[2], PhD
Counselor Education, MA[1], PhD
Criminology: PhD
Dance: MFA
Data Science: MS
Dental Public Health: MS
Economics: MA[1], PhD
Educational Policy and Leadership Studies: MA[2], EdD[2], EdS[2], PhD
Electrical and Computer Engineering: MS[1], PhD
Elementary Education: MA[1], PhD
Engineering and Information Technology, MS[2]
English: MA[1], MFA, PhD
Epidemiology: MS[1], PhD
Film and Video Production: MA[1], MFA
Film Studies: MA[1], PhD
Finance: MS[1]
French and Francophone World Studies: MA[1], PhD
Genetics: PhD
Geography: MA[1], PhD
Geoscience: MS[1], PhD
Greek: MA[1]
Health and Human Physiology: MS[1], PhD
Health Management and Policy: MHA[2]
Health Services and Policy Research: MS[2]
Health Services and Policy: PhD
History: MA[1], PhD
Human Toxicology: MS, PhD
Immunology: PhD
Industrial Engineering: MS[1], PhD
Informatics: MS[1], PhD
Integrated Biology: MS[1], PhD
Interdisciplinary Studies: MA[1], MFA, MS[1], PhD (see Interdisciplinary Studies Program on the Graduate College website)
Latin: MA[1]
Library and Information Science: MA[1]
Linguistics: MA[1], PhD
Literary Translation: MFA
Mass Communication: MA[1], PhD
Mathematics: MS[1], PhD
Mechanical Engineering: MS[1], PhD
Microbiology: MS, PhD
Music: MA[1], DMA, PhD
Neuroscience: PhD
Nursing: MSN[1], DNP[2], PhD
Occupational and Environmental Health: MS[1], PhD
Oral Science: MS, PhD
Orthodontics: MS
Pathology: MS
Pharmacy: MS[1], PhD
Philosophy: MA[1], PhD
Physical Rehabilitation Science: MA[1], PhD
Physical Therapy: DPT[2]
Physics: MS[1], PhD
Political Science: MA[1], PhD
Psychological and Quantitative Foundations: MA[1], EdS[2], PhD
Psychology: MA[2], PhD
Public Affairs: MPAff[2]
Public Health: MPH[2]
Religious Studies: MA[1], PhD
Science Education: MS[1], MAT[2], PhD
Secondary Education: MA[1], MAT, PhD
Social Work: MSW[1], PhD
Sociology: MA[1], PhD
Spanish: MA[1], PhD
Spanish Creative Writing: MFA
Special Education: MA[1], PhD
Speech and Hearing Science: PhD
Speech Language Pathology: MS[1]
Sport and Recreation Management: MA[2]
Statistics: MS[1], PhD
Strategic Communication: MA[2]
Sustainable Development: MS
Teaching and Learning: MA[1], MAT[2], PhD
Theatre Arts: MFA
Translational Biomedicine: MS[2]
Urban and Regional Planning: MS[1]

[1] Degree offered with or without thesis
[2] Nonthesis degree
[3] Student entry suspended

Interdisciplinary Degree Programs

The Graduate College participates in a number of University of Iowa interdisciplinary degree programs. Detailed information about the following master's and doctoral degree programs is provided later in these Graduate College sections of the catalog: Applied Mathematical and Computational Sciences [p. 1695], Genetics [p. 1733], Human Toxicology [p. 1737], Immunology [p. 1742], Informatics [p. 1747], Molecular Medicine [p. 1779], Neuroscience [p. 1781], Sustainable Development [p. 1805], and Translational Biomedicine [p. 1809].

In addition to the degree programs listed, the graduate faculty has authorized the awarding of interdisciplinary master's and doctoral degrees. Students seeking approval for interdisciplinary master's and doctoral programs must previously have been admitted to and enrolled in a departmental program in the Graduate College. See sections X.A. and XII.D. in the Manual of Rules and Regulations on the college's website.

Combined Programs

Combined Programs Offered Through the Graduate College

Various combined programs have been developed whereby students work simultaneously toward two degrees. There are three types of combinations: undergraduate and graduate degree combinations (U2G programs), combinations between graduate programs, and graduate and professional degree combinations. Consult the appropriate catalog sections for more information. Established combined graduate programs include, but may not be limited to, the following.

- Undergraduate to Graduate Degree Programs (U2G), Any Bachelor's Degree [p. 1684]
- Undergraduate to Graduate Degree Programs (U2G), Specific Bachelor's Degree [p. 1686]
- Non-UI Undergraduate to Graduate Degree Programs (U2G) [p. 1687]
- Combined Graduate Degree Programs [p. 1687]
- Combined Graduate and Professional Degree Programs [p. 1688]

Undergraduate to Graduate Degree Programs (U2G), Any Bachelor's Degree

The following graduate degrees offer U2G programs, which are open to any University of Iowa bachelor's degree or major.

MA in Library and Information Science

The combined program enables undergraduate students to begin work toward the MA in library and information science while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the bachelor's degree and MA degree requirements. Offered by the Graduate College; see the MA in library and information science [p. 1773] in the catalog.

MA in Psychological and Quantitative Foundations (Learning Sciences and Educational Psychology Subprogram)

The combined program enables undergraduate students to begin work toward the MA in psychological and quantitative foundations with a learning sciences and educational psychology subprogram while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the bachelor's degree and MA degree requirements. Offered by the Graduate College and the College of Education; see the MA in psychological and quantitative foundations in the catalog.

Master of Arts in Teaching (Mathematics Education Subprogram)

The combined program enables undergraduate students to begin work toward the Master of Arts in Teaching (MAT) with a mathematics education subprogram while completing the bachelor's degree. Students admitted to the program may count 18 s.h. of credit toward both the bachelor's degree and MAT degree requirements. Offered by the Graduate College and the College of Education; see the Master of Arts in Teaching, MAT [p. 1493] (mathematics education subprogram) in the catalog.

Master of Arts in Teaching (Science Education Subprogram)

The combined program enables undergraduate students to begin work toward the Master of Arts in Teaching (MAT) with a science education subprogram while completing the bachelor's degree. Students admitted to the program may count 19 s.h. of credit toward both the bachelor's degree and MAT degree requirements. Offered by the Graduate College and the College of Education; see the Master of Arts in Teaching, MAT [p. 1497] (science education subprogram) in the catalog.

Master of Computer Science (MCS)

The combined program enables undergraduate students to begin work toward the MCS while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of coursework toward both the bachelor's degree and MCS degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Master of Computer Science, MCS in the catalog.

Master of Public Affairs (MPAff)

The combined program enables undergraduate students to begin work toward the MPAff while completing the bachelor's degree. Students admitted to the program may count 16 s.h. of credit toward both the bachelor's degree and MPAff degree requirements. Offered by the Graduate College; see the Master of Public Affairs, MPAff in the catalog.

Master of Public Health (Biostatistics, Community and Behavioral Health, Occupational and Environmental Health, Policy Subprograms)

The combined program enables undergraduate students to begin work toward the Master of Public Health (MPH) while completing the bachelor's degree. Students admitted to the MPH (biostatistics, community and behavioral health, occupational and environmental health, and policy subprograms) may count 15 s.h. of credit toward both the bachelor's degree and the MPH degree requirements. Offered by the Graduate College and the College of Public Health; see the Master of Public Health, MPH [p. 2092] in the catalog.

Master of Public Health (Epidemiology Subprogram)

The combined program enables undergraduate students to begin work toward the Master of Public Health (MPH) while completing the bachelor's degree. Students admitted to the MPH (epidemiology subprogram) may count 17 s.h. of credit toward both the bachelor's degree and MPH degree requirements. Offered by the Graduate College and the College of Public Health; see the Master of Public Health, MPH [p. 2092] (epidemiology subprogram) in the catalog.

MS in Biomedical Engineering

The combined program enables undergraduate students to begin work toward the MS in biomedical engineering while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the bachelor's degree and MS degree requirements. Offered by the Graduate College and the College of Engineering; see the Roy J. Carver Department of Biomedical Engineering [p. 1535] in the catalog.

MS in Biostatistics

The combined program enables undergraduate students to begin work toward the MS in biostatistics while completing the bachelor's degree. Students admitted to the program may count 15 s.h. of credit toward both the bachelor's degree and MS degree requirements. Offered by the Graduate College and the College of Public Health; see MS in biostatistics [p. 2111] in the catalog.

MS in Business Analytics

The combined program enables undergraduate students to begin work toward the MS in business analytics with a full-time subprogram while completing the undergraduate degree. Students admitted to the program may count 14 s.h. of credit toward both the bachelor's degree and MS degree requirements. Offered by the Graduate College and the Tippie College of Business; see the MS in business analytics [p. 1169] in the catalog.

MS in Civil and Environmental Engineering

The combined program enables undergraduate students to begin work toward the MS in civil and environmental engineering while completing the bachelor's degree. Students admitted to the program may count 9 s.h. of coursework toward both the bachelor’s degree and MS degree requirements. They may also count an additional 3 s.h. toward the MS degree requirements before they have been awarded the bachelor’s degree. Offered by the Graduate College and the College of Engineering; see the MS in civil and environmental engineering [p. 1599] in the catalog.

MS in Data Science

The combined program enables undergraduate students to begin work toward the MS in data science while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the bachelor’s degree and MS degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see the MS in data science [p. 354] in the catalog.

MS in Electrical and Computer Engineering

The combined program enables undergraduate students to begin work toward the MS in electrical and computer engineering while completing the bachelor's degree. Students admitted to the program may count 9 s.h. toward both the bachelor’s degree and MS degree requirements. They may also count an additional 3 s.h. toward the MS degree requirements before they have been awarded the bachelor’s degree. Offered by the Graduate College and the College of Engineering; see Electrical and Computer Engineering [p. 1613] in the catalog.

MS in Epidemiology

The combined program enables undergraduate students to begin work toward the MS in epidemiology while completing the bachelor's degree. Students admitted to the MS program may count 15 s.h. of credit toward both the bachelor’s degree and MS degree requirements. Offered by the Graduate College and the College of Public Health; see the MS in epidemiology [p. 2131] in the catalog.

MS in Finance

The combined program enables undergraduate students to begin work toward the MS in finance while completing the undergraduate degree. Students admitted to the program may count 16 s.h. of credit toward both the bachelor’s degree and MS degree requirements. Offered by the Graduate College and the Tippie College of Business; see the MS in finance [p. 1226] in the catalog.

MS in Health and Human Physiology (Child Life Subprogram)

The combined program enables undergraduate students to begin work toward the MS in health and human physiology with a child life subprogram while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the bachelor’s degree and MS degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Health, Sport, and Human Physiology [p. 505] in the catalog.

MS in Industrial Engineering

The combined program enables undergraduate students to begin work toward the MS in industrial engineering while completing the bachelor's degree. Students admitted to the program may count 9 s.h. toward both the bachelor’s degree and MS degree requirements. They may also count an additional 3 s.h. toward the MS degree requirements before they have been awarded the bachelor’s degree. Offered by the Graduate College and the College of Engineering; see Industrial and Systems Engineering [p. 1635] in the catalog.

MS in Mechanical Engineering

The combined program enables undergraduate students to begin work toward the MS in mechanical engineering while completing the bachelor's degree. Students admitted to the program may count 12 s.h. toward both the bachelor’s degree and MS degree requirements. Offered by the Graduate College and the College of Engineering; see Mechanical Engineering [p. 1655] in the catalog.

MS in Occupational and Environmental Health (Industrial Hygiene Subprogram)

The combined program enables undergraduate students to begin work toward the MS in occupational and environmental health while completing the bachelor's degree. Students admitted to the MS program may count 15 s.h. of credit toward both the bachelor’s degree and MS degree requirements. Offered by the Graduate College and the College of Public Health; see the MS in occupational and environmental health [p. 2157] (industrial hygiene subprogram) in the catalog.

MS in Statistics

The combined program enables undergraduate students to begin work toward the MS in statistics while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the bachelor’s degree and MS degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Statistics and Actuarial Science [p. 1075] in the catalog.

MS in Sustainable Development

The combined program enables undergraduate students to begin work toward the MS in sustainable development while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the bachelor’s degree and MS degree requirements. Offered by the Graduate College and the College of Engineering; see the MS in sustainable development [p. 1806] in the catalog.

MS in Urban and Regional Planning

The combined program enables undergraduate students to begin work toward the MS in urban and regional planning while completing the bachelor's degree. Students admitted to the program may count 18 s.h. of credit toward both the bachelor’s degree and MS degree requirements. Offered by the Graduate College; see the MS in urban and regional planning [p. 1797] in the catalog.

PhD in Biochemistry

The combined program enables undergraduate students to begin work toward the PhD in biochemistry while completing the bachelor's degree. Students admitted to the program may

count 12 s.h. of credit toward both the bachelor's degree and PhD degree requirements. Offered by the Graduate College and the Carver College of Medicine; see the Department of Biochemistry and Molecular Biology [p. 1859] in the catalog.

Undergraduate to Graduate Degree Programs (U2G), Specific Bachelor's Degrees

The following graduate degrees offer U2G programs that are paired with a specific University of Iowa bachelor's degree or major.

BA in Elementary Education (Special Education Subprogram)/MA in Teaching and Learning (Special Education Subprogram)

The combined BA/MA program with a special education subprogram enables students to begin work toward the MA in teaching and learning while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the BA and MA degree requirements. Offered by the Graduate College and the College of Education; see the MA in teaching and learning [p. 1486] (special education subprogram) in the catalog.

BA in English or BA in English and Creative Writing/MA in English (Literary Studies Subprogram)

The combined BA/MA program with a literary studies subprogram enables students to begin work toward the MA in English while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the BA and MA degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see the MA in English (literary studies subprogram) in the catalog.

BS in Geographical and Sustainability Sciences (Geographic Information Science Subprogram)/MS in Informatics (Geoinformatics Subprogram)

The combined BS in geographical and sustainability sciences with a geographic information science subprogram/MS in informatics with a geoinformatics subprogram enables undergraduate students majoring in geographical and information sciences to begin work toward the MS while completing the bachelor's degree. Students admitted to the program may count 12 s.h. toward both the BS and MS degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see BS in Geographical and Sustainability Sciences [p. 392] and the MS in informatics [p. 1753] (geoinformatics subprogram) in the catalog.

BA in Journalism and Mass Communication/MA in Strategic Communication

The combined BA/MA program enables students to begin work toward the MA in strategic communication while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the BA and MA degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see the MA in strategic communication in the catalog.

BA in Linguistics/MA in Linguistics (TESL Subprogram)

The combined BA/MA program in linguistics with a TESL subprogram enables students majoring in linguistics to begin work toward the MA while completing the bachelor's degree. Students admitted to the program may count 13 s.h. of advanced coursework toward both the BA and MA degree requirements and may take selected graduate-level courses before they have been awarded the BA degree. They may also gain experience teaching English as a second language (ESL) at the college level early in their graduate careers. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Linguistics, BA [p. 718] in the catalog.

BA or BS in Informatics/MS in Informatics (Health Informatics, Human-Computer Interaction Subprograms)

The combined BA or BS in informatics/MS in informatics with a health informatics or human-computer interaction subprogram enables students majoring in informatics to begin work toward the MS while completing the bachelor's degree. Students admitted to the program may count 12 s.h. toward both the BA or BS and MS degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see the MS in informatics [p. 1753] in the catalog.

BS in Exercise Science/MS in Athletic Training

The combined BS in exercise science/MS in athletic training program enables students majoring in exercise science to begin work toward the MS while completing the bachelor's degree. Students admitted to the program may count 22 s.h. of credit toward both the BS and MS degree requirements. Offered by the Graduate College, the College of Liberal Arts and Sciences, and the Carver College of Medicine; see the MS in athletic training [p. 1938] in the catalog.

BSE in Chemical Engineering/MS in Chemical and Biochemical Engineering

The combined BSE in chemical engineering/MS in chemical and biochemical engineering program enables undergraduate students majoring in chemical engineering to begin work toward the MS while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of coursework toward both the BSE and MS degree requirements. Offered by the Graduate College and the College of Engineering; see Chemical and Biochemical Engineering [p. 1554] in the catalog.

BSE in Any Engineering Major or CLAS Bachelor's Degree/PhD in Electrical and Computer Engineering

The combined BSE or CLAS bachelor's degree/PhD in electrical and computer engineering enables undergraduate students in any College of Engineering BSE or in any CLAS bachelor's program to begin work toward the PhD while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of coursework toward both the bachelor's degree

and PhD degree requirements. They may also count an additional 6 s.h. toward the PhD degree requirements before they have been awarded the bachelor's degree. Offered by the Graduate College and the College of Engineering; see Electrical and Computer Engineering [p. 1613] in the catalog.

BSN in Nursing (RN Subprogram)/DNP in Nursing

The combined BSN in nursing (RN subprogram)/DNP in nursing program enables students to begin work toward the DNP while completing the bachelor's degree. Students admitted to the program may count 9 s.h. of credit toward both the BSN and DNP degree requirements. Offered by the Graduate College and the College of Nursing, see the Bachelor of Science in Nursing, BSN [p. 2018] (nursing—RN subprogram) and the Doctor of Nursing Practice, DNP [p. 2029] in the catalog.

Non-UI Undergraduate to Graduate Degree Programs (U2G)

The following graduate degrees offer U2G programs that are paired with bachelor's degree programs at other colleges and universities.

Coe College, Cornell College, Grinnell College, or Luther College Bachelor's Degree/MPH (Biostatistics, Community and Behavioral Health, Epidemiology, Occupational and Environmental Health, Policy Subprograms)

The combined program enables undergraduate students at Coe College, Cornell College, Grinnell College, and Luther College to begin work toward the MPH while completing the bachelor's degree. Students admitted to the program may enroll in University of Iowa graduate-level courses to count toward the MPH degree while they are simultaneously completing the bachelor's degree. Offered by the Graduate College and the College of Public Health; see the Master of Public Health, MPH [p. 2092] in the catalog.

Grinnell College BA in Computer Science/MCS

The combined program enables undergraduate students majoring in computer science at Grinnell College to begin work toward the MCS while completing the bachelor's degree. Students admitted to the program may transfer Grinnell College coursework that articulates to 6 s.h. of graduate-level credit toward University of Iowa MCS degree requirements. Students admitted to the program may enroll in University of Iowa graduate-level courses to count toward the MCS degree while they are simultaneously completing the bachelor's degree. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Master of Computer Science, MCS [p. 316] in the catalog.

Nankai University Bachelor's Degree/ MS in Actuarial Science

The combined program enables undergraduate students at Nankai University in Tianjin, China to begin work toward the MS while completing the bachelor's degree. Students admitted to the program may enroll in University of Iowa graduate-level courses to count toward the MS degree while they are simultaneously completing the bachelor's degree. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Statistics and Actuarial Science [p. 1075] in the catalog.

Nankai University Bachelor's Degree/ MS in Statistics

The combined program enables undergraduate students at Nankai University in Tianjin, China to begin work toward the MS while completing the bachelor's degree. Students admitted to the program may enroll in University of Iowa graduate-level courses to count toward the MS degree while they are simultaneously completing the bachelor's degree. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Statistics and Actuarial Science [p. 1075] in the catalog.

Wartburg College Bachelor's Degree/ MA in Library and Information Science

The combined program enables undergraduate students at Wartburg College to begin work toward the MA while completing the bachelor's degree. Students admitted to the program may enroll in University of Iowa graduate-level courses to count toward the MA degree while they are simultaneously completing the bachelor's degree. Offered by the Graduate College; see Library and Information Science, MA in the catalog.

Combined Graduate Degree Programs

AuD/PhD in Speech and Hearing Science

The combined AuD/PhD in speech and hearing science program is designed for students who would like to practice audiology and hold a faculty position at a university. Students admitted to the program work concurrently toward the Doctor of Audiology and the Doctor of Philosophy; they may count 30 s.h. toward the requirements of both degrees. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Communication Sciences and Disorders [p. 245] in the catalog.

MA in French and Francophone World Studies/MFA in Literary Translation

The Department of Languages, Linguistics, Literatures, and Cultures offers a combined Master of Arts in French and Francophone world studies and a Master of Fine Arts in literary translation. Students interested in writing in its different forms—creative, academic, and translation—will find the University of Iowa to be the ideal place to develop their talents and an attractive option for more diversified career preparation. A separate application and admission to each degree program is required. For more information, review the admissions requirements for French and Francophone world studies and literary translation. Students in the combined program earn both degrees by completing a minimum of 60 s.h. of coursework, fewer semester hours than if each degree was completed separately. Qualified students may be eligible for up to three years of full funding for a teaching assistant (TA) position.

MA in Library and Information Science/ Certificate in Book Arts and Book Studies

The combined MA in library and information science and Certificate in Book Arts and Book Studies prepares students for careers in special collections librarianship. Students admitted to the program receive training in the management of varied types of special collections, such as rare books, manuscripts, archives, graphics, music, and ephemera. Offered by the Graduate College; see the MA in library and information science [p. 1773] and the Certificate in Book Arts and Book Studies [p. 1727] in the catalog.

MA in Library and Information Science/ MFA in Book Arts

The combined MA in library and information science/MFA in book arts program allows graduate students with strong interests in the physical book to acquire training in the book arts, book history, and material book studies. The earned expertise in the production and legacy of the book as a physical artifact combined with expertise in library and information science can be an asset for those focused on careers in special collections libraries and archives. Students in the combined program earn both degrees by completing fewer semester hours than if each degree was completed separately. Offered by the Graduate College; see the MA in library and information science [p. 1773] and the MFA in book arts [p. 1724] in the catalog.

MA in Library and Information Science/ PhD in English

The combined MA in library and information science/PhD in English program prepares students for careers in academic libraries as humanities subject specialists, reference and instruction librarians, first-year experience librarians, special collections librarians and curators, and archivists. It also enhances the research profiles and methodological toolboxes of digital humanists as well as archival historicists, in addition to improving pedagogical skills. Offered by the Graduate College and the College of Liberal Arts and Sciences; see the MA in library and information science [p. 1773] and the PhD in English [p. 449] in the catalog.

MS in Urban and Regional Planning/ MSW in Social Work

The combined MS in urban and regional planning/MSW in social work program is designed for students who would like to pursue a career in social work and urban planning. Offered by the Graduate College and the College of Liberal Arts and Sciences; see the MS in urban and regional planning and the MSW in social work in the catalog.

Combined Graduate and Professional Degree Programs

Graduate Degrees/Certificates in Business Fundamentals, Finance, Leadership, Marketing

Students can pursue a professional Certificate in Business Fundamentals, Finance, Leadership, or Marketing concurrently with their graduate degree. With graduate program approval, students may count up to 9 s.h. from a professional certificate toward their graduate degree. With approval from the professional certificate program, students may count up to 3 s.h. from any graduate degree program toward their certificate. Offered by the Graduate College and Tippie Professional Programs (Tippie College of Business), see the professional Certificates in Business Fundamentals [p. 1280], Finance [p. 1282], Leadership [p. 1286], or Marketing [p. 1287] in the catalog.

JD/Graduate Degrees

The College of Law and several Graduate College programs and schools have developed combined programs in which students pursue the Juris Doctor (JD) degree and a graduate degree concurrently. Offered by the Graduate College and the College of Law; see the Manual of Rules and Regulations on the Graduate College website and the Juris Doctor, JD [p. 1833] in the catalog.

MBA/MA in Strategic Communication

The combined Master of Business Administration/MA in strategic communication program aims to meet the evolving needs of the market by producing graduates with a unique skill set that integrates advanced communication strategies with robust business acumen for the digital world. Offered by Tippie Professional Programs (Tippie College of Business) and the College of Liberal Arts and Sciences; see the Master of Business Administration, MBA and the MA in strategic communication in the catalog.

MBA/Master of Health Administration (MHA)

The combined Master of Business Administration/Master of Health Administration serves students interested in combining health management and policy with greater exposure to advanced management techniques. The combined degree program prepares students to work within or consult for a greater variety of organizations, including but not limited to healthcare organizations and consulting firms. Offered by the Tippie Professional Programs (Tippie College of Business) and the College of Public Health; see the Master of Business Administration, MBA and the Master of Health Administration, MHA [p. 2142] in the catalog.

MBA/MS in Business Analytics (Professional Subprogram)

The combined Master of Business Administration/MS program in business analytics with a professional subprogram prepares students to manage organizations and analyze data available to support business decision-making. Offered by Tippie Professional Programs (Tippie College of Business); see the Master of Business Administration, MBA and the MS in business analytics [p. 1169] in the catalog.

MBA/MSW in Social Work

The combined Master of Business Administration/Master of Social Work program prepares students for careers in human services and nonprofit agency administration. Offered by Tippie Professional Programs (Tippie College of Business) and the College of Liberal Arts and Sciences; see the Master of Business Administration, MBA and the MSW in social work in the catalog.

MD/PhD (Medical Scientist Training Program)

The combined Doctor of Medicine/Doctor of Philosophy program prepares students for careers in academic medicine, with emphasis on basic and clinical research. Offered by the Graduate College and the Carver College of Medicine; see Medical Scientist Training Program [p. 1901] in the catalog.

Certificates

The Graduate College also participates with other University of Iowa colleges in offering the following graduate certificates.

Adult Gerontology Acute Care Nurse Practitioner

The Certificate in Adult Gerontology Acute Care Nurse Practitioner is a program for post-master's Advanced Practice Registered Nurse degree students who would like to pursue a second specialty. See the Certificate in Adult Gerontology Acute Care Nurse Practitioner [p. 2045] in the catalog.

Adult Gerontology Primary Care Nurse Practitioner

The Certificate in Adult Gerontology Primary Care Nurse Practitioner is a program for post-master's Advanced Practice Registered Nurse degree students who would like to pursue a second specialty. See the Certificate in Adult Gerontology Primary Care Nurse Practitioner [p. 2046] in the catalog.

African American Studies

The Certificate in African American Studies is a program that increases intellectual knowledge and understanding of African American culture and experience. See the Certificate in African American Studies [p. 46] in the catalog.

Aging and Longevity Studies

The Aging and Longevity Studies Program is a multidisciplinary certificate program administered by the College of Liberal Arts and Sciences in cooperation with other University of Iowa colleges. The program is designed to complement graduate degree programs or to serve as a stand-alone nondegree program for students with academic, professional, research, or service career interests in aging. See the Certificate in Aging and Longevity Studies [p. 50] in the catalog.

Agricultural Safety and Health

The Certificate in Agricultural Safety and Health is a postbaccalaureate program for practicing health care professionals serving rural areas and for health professions students who intend to practice in rural areas. The program is designed to help rural health professionals address safety and health issues in farm settings. See the Certificate in Agricultural Safety and Health [p. 2107] in the catalog.

Applied Behavior Analysis

The Certificate in Applied Behavior Analysis develops skills in behavioral intervention and intensive instruction. The course sequence contributes to eligibility for certification as a board-certified behavior analyst (BCBA). See the Certificate in Applied Behavior Analysis [p. 1352] in the catalog.

Artificial Intelligence and Machine Learning

The Certificate in Artificial Intelligence and Machine Learning serves as an enhancement for current online part-time business analytics students who want to focus their courses in AI and machine learning, a skillset in high demand. Students develop cutting-edge knowledge of emerging technologies that impact businesses today and in the future. See Certificate in Artificial Intelligence and Machine Learning [p. 1176] in the catalog.

Artificial Intelligence, Modeling and Simulation in Engineering

The Certificate in Artificial Intelligence, Modeling and Simulation (AIMS) in Engineering offers graduate students enrolled in the College of Engineering an opportunity to specialize in artificial intelligence, machine learning, deep learning, modeling and simulation, and uncertainty quantification. UI graduate students from other disciplines also may apply. See the Certificate in Artificial Intelligence, Modeling and Simulation in Engineering [p. 1526] in the catalog.

Biostatistics

The Certificate in Biostatistics is open to students in University of Iowa graduate degree programs outside biostatistics and to individuals admitted to the Graduate College as nondegree students. The certificate program enables students to add a formal biostatistics emphasis to their degree programs. Students who complete the certificate in conjunction with a graduate degree may count a maximum of 6 s.h. of certificate credit toward their graduate degree. See the Certificate in Biostatistics [p. 2116] in the catalog.

Book Arts and Book Studies

The Certificate in Book Arts and Book Studies is designed to be completed in one year. The program is open to students who are enrolled in a graduate degree program at the University of Iowa as well as to students enrolled in the Graduate College with nondegree status. See the Certificate in Book Arts and Book Studies [p. 1727] in the catalog.

Business Analytics

The Certificate in Business Analytics is open to students in University of Iowa graduate degree programs and to individuals admitted to the Graduate College as nondegree students. The certificate program is designed for working professionals and addresses a growing need to manage and analyze the rapidly increasing amount of data that is available to support business decision-making. See the Certificate in Business Analytics [p. 1177] in the catalog.

Cognitive Science of Language

The Certificate in Cognitive Science of Language is designed to complement doctoral study. The certificate program is open to University of Iowa PhD students in linguistics, neuroscience, psychology, and speech and hearing science. PhD students in other disciplines may petition to be permitted to earn the certificate. Students must complete a formal application to enter the certificate program; they should contact the program's coordinator before they apply. See the Certificate in Cognitive Science of Language [p. 1730] in the catalog.

College Teaching

The Certificate in College Teaching complements discipline-oriented graduate programs and prepares students for careers in postsecondary education. The certificate program is open to all University of Iowa doctoral and master's degree-seeking students.See the Certificate in College Teaching [p. 1732] in the catalog.

Emerging Infectious Disease Epidemiology

The Certificate in Emerging Infectious Disease Epidemiology is a postbaccalaureate program designed to meet the training needs in emerging infectious diseases of international public health professionals as well as University of Iowa graduate students. Applicants to the program must hold a bachelor's degree. See the Certificate in Emerging Infectious Disease Epidemiology [p. 2123] in the catalog.

Family Nurse Practitioner

The Certificate in Family Nurse Practitioner is a program for post-master's Advanced Practice Registered Nurse degree students who would like to pursue a second specialty. See the Certificate in Family Nurse Practitioner [p. 2047] in the catalog.

Gender, Women's, and Sexuality Studies

The Certificate in Gender, Women's, and Sexuality Studies is open to students enrolled in graduate degree programs. See the Certificate in Gender, Women's, and Sexuality Studies [p. 486] in the catalog.

Global Health Studies

The Certificate in Global Health Studies is open to graduate and professional students, except for those in the College of Pharmacy who have earned the PharmD degree—they are awarded the undergraduate certificate. Students must maintain a grade-point average of at least 3.00 in work for the certificate. See the Certificate in Global Health Studies [p. 503] in the catalog.

Health Systems

The Certificate in Health Systems is built on the foundational courses from the Doctor of Nursing Practice (DNP) with a health systems subprogram. The certificate is available to post-master's degree students seeking additional preparation in the area of health systems/administration. See the Certificate in Health Systems [p. 2048] in the catalog.

Healthcare Management

The Certificate in Healthcare Management provides foundational business and leadership skills to physicians, nurses, and other clinicians, and managers. See the Certificate in Healthcare Management [p. 2152] in the catalog.

Informatics

The Certificate in Informatics requires a variable amount of graduate credit, depending on the student's choice of subprogram. The certificate program is designed for students enrolled in University of Iowa graduate degree programs who wish to study informatics as a complement to their degree program and for nondegree students who are interested in increasing their knowledge of informatics. See the Certificate in Informatics [p. 1760] in the catalog.

Institutional Research and Effectiveness

The Certificate in Institutional Research and Effectiveness (IRE) is offered with hybrid and conventional courses. The certificate program prepares professionals to use data for institutional decision-making, reporting, and accountability in higher education and K–12 contexts. This certificate amends and complements students' competence in other areas (business affairs, information technology, student affairs, and development, among other areas) to prepare them with the skills and capabilities to use data for educational improvement, accountability, quality, and equity. See the Certificate in Institutional Research and Effectiveness [p. 1393] in the catalog.

K–12 Equity and Inclusion

The Certificate in K–12 Equity and Inclusion is offered with hybrid and conventional courses. The certificate program offers educational professionals or nondegree-seeking students currently working in K–12 schools, districts, and area education agencies expertise in equity and inclusion to better support the needs and interests of a diversifying K–12 student population. See the Certificate in K–12 Equity and Inclusion [p. 1395] in the catalog.

Literary Translation

The Certificate in Literary Translation includes coursework in translation practice and techniques. Translation workshops and coursework in translation theory are also central to the certificate program as they are essential to the training of literary translators. See the Certificate in Literary Translation [p. 761] in the catalog.

Multilingualism and Culturally Responsive Practice

The Certificate in Multilingualism and Culturally Responsive Practice is open to graduate students currently enrolled and in good standing in the Master of Science in Speech Language Pathology [p. 258] and is completed concurrently with the MS coursework. See the Certificate in Multilingualism and Culturally Responsive Practice [p. 265] in the catalog.

Native American and Indigenous Studies

The Native American and Indigenous Studies Program offers an interdisciplinary certificate program focusing on the histories, cultures, languages, arts, religious traditions, political and social organizations, economies, geographies, literatures, and contemporary legal and political concerns of Native Americans of the United States as well as other Indigenous peoples of the Western Hemisphere. See the Certificate in Native American and Indigenous Studies [p. 874] in the catalog.

Online Teaching

The Certificate in Online Teaching is designed to prepare students for the realities of online teaching and to help them expand their career options. The certificate is open to students in University of Iowa graduate degree programs and

to individuals admitted to the Graduate College as nondegree students. See the Certificate in Online Teaching [p. 1397] in the catalog.

Pediatric Nurse Practitioner—Acute Care

The Certificate in Pediatric Nurse Practitioner—Acute Care is available for post-master's Advanced Practice Registered Nurse (APRN) degree students who would like to pursue a second specialty. See the Certificate in Pediatric Nurse Practitioner—Acute Care [p. 2049] in the catalog.

Pediatric Nurse Practitioner—Primary Care

The Certificate in Pediatric Nurse Practitioner—Primary Care is available for post-master's Advanced Practice Registered Nurse (APRN) degree students who would like to pursue a second specialty. See the Certificate in Pediatric Nurse Practitioner—Primary Care [p. 2050] in the catalog.

Psychiatric/Mental Health Nurse Practitioner

The Certificate in Psychiatric/Mental Health Nurse Practitioner is available for post-master's Advanced Practice Registered Nurse (APRN) degree students who would like to pursue a second specialty. See the Certificate in Psychiatric/Mental Health Nurse Practitioner [p. 2051] in the catalog.

Public Digital Humanities

The Certificate in Public Digital Humanities is open to all University of Iowa graduate students in good academic standing. Students take a theory and practice course and select elective coursework to suit their disciplinary or technical needs. See the Certificate in Public Digital Humanities [p. 1803] in the catalog.

Public Health

The Certificate in Public Health is designed to improve public health practice and public health workforce capacity in Iowa and the upper Midwest. It is intended primarily for individuals in public health practice, those in the workforce, and those interested in strengthening their knowledge and skills in basic public health competencies. See the Certificate in Public Health [p. 2105] in the catalog.

Special Collections Librarianship and Archives

The Certificate in Special Collections Librarianship and Archives includes coursework that introduces students to the core theories supporting the collection and management of rare books, archival records, and manuscript collections. See the Certificate in Special Collections Librarianship and Archives [p. 1778] in the catalog.

Sustainable Water Development

The Certificate in Sustainable Water Development trains science, technology, engineering, and mathematics (STEM) graduate students to address future challenges of water scarcity and variability while also meeting the food and energy demands of Earth's growing population. See the Certificate in Sustainable Water Development [p. 1677] in the catalog.

Talent Development

The Certificate in Talent Development requires 14 s.h. of graduate credit. The certificate is open to students in University of Iowa graduate degree programs and to individuals admitted to the Graduate College as nondegree students. The purpose of the certificate is to increase understanding of talented individuals, the process of talent development and creativity, and to prepare advocates for talented individuals. In addition to coursework, students design a culminating original project aligned with a career objective or personal interest. Students may use the coursework embedded in the certificate to apply to the State of Iowa Gifted and Talented teaching endorsement. To learn more or apply, see the Certificate in Talent Development [p. 1429] in the catalog.

Translational and Clinical Investigation

The Certificate in Translational and Clinical Investigation is designed for clinicians who seek advanced training in clinical methodology and applied patient-oriented research skills. Students in the certificate program must be practicing academic clinicians who have completed doctoral training. See the Certificate in Translational and Clinical Investigation [p. 2166] in the catalog.

Transportation Planning

The Certificate in Transportation Planning includes a choice of coursework in traffic engineering, transportation and land use planning, design of transportation systems, transportation demand analysis, transportation policy and planning, as well as other transportation areas. Students may earn the certificate in conjunction with an MS or PhD in civil and environmental engineering or with an MS in urban and regional planning.

Individuals working toward degrees in other transportation-related disciplines are encouraged to apply to the Transportation Planning Program. Depending on a student's background, additional coursework in statistics, computer programming, simulation, mathematics, and operations research may be required for the certificate. Credit earned in these courses may not be applicable to the student's degree program. See the Certificate in Transportation Planning [p. 1814] in the catalog.

Financial Support

Approximately half of the university's graduate students receive some form of university-administered financial assistance. For eligibility requirements and application procedures, see "Section VII. Graduate Appointments" in the Manual of Rules and Regulations on the college's website. The following are the primary sources of assistance. For a more complete description of funding available to graduate students, see the Graduate College website.

Teaching and Research Assistantships

Teaching and research assistantships are available in most departments, but they prioritize doctoral students. Assistantship stipends are awarded for quarter-time, one-

third-time, and half-time academic-year appointments and quarter-time, one-third-time, and half-time fiscal-year appointments; assistantships of 25% or higher are also eligible for tuition scholarships. Assistants (one-quarter-time or more) pay resident tuition rates for fee purposes. See the Graduate College website for a more complete description of graduate assistantship benefits.

Iowa Arts Fellowships

Iowa Arts Fellowships are for University of Iowa graduate students entering MFA programs. Typical stipends are for the academic year, with all tuition and a percentage of mandatory fees paid, plus a health insurance allowance, for one academic year (the remaining years of support must be provided by the appointing program). There are no departmental service obligations while holding the first-year fellowship.

Iowa Performance Fellowships

Iowa Performance Fellowships are for first-year DMA candidates in a performance area of music. Recipients are nominated by the School of Music. Awards include academic-year fellowships, summer fellowships, and tuition and a percentage of mandatory fees paid (the fellow is responsible for the remainder of fees). The School of Music provides a one-quarter-time research assistantship in years two and three.

Graduate College Iowa Recruitment Fellowships

The Iowa Recruitment Fellowships program enhances departmental recruitment packages by offering the most accomplished new doctoral students a stipend supplement for up to five years and stipend support for up to four summer sessions (academic year graduate assistants) or a stipend supplement for the entire fiscal year (fiscal year graduate assistants). Tuition scholarships are to be paid during the academic years (fall, spring) by the appointing unit, while the Graduate College provides up to 1 s.h. of tuition and benefits for the summer sessions. Recipients are nominated by their department.

Graduate College Summer Fellowships

Graduate College Summer Fellowships are for advanced doctoral students who have completed their comprehensive exams, are working to complete their dissertations, and do not otherwise have funding for the summer session. Awards provide a summer stipend and up to 1 s.h. of tuition. Awardees must enroll in a summer session.

T. Anne Cleary International Research Fellowships

The T. Anne Cleary International Research Fellowships are for doctoral students who have completed all pre-dissertation requirements, including the comprehensive examination, and who will use the fellowship for international dissertation research. The monetary amounts may vary and are meant to supplement other research funds. PhD students in any discipline may apply.

Ballard and Seashore Dissertation Fellowships

Ballard and Seashore Dissertation Fellowships are one-semester fellowships for PhD candidates who have completed all doctoral degree requirements except their dissertation. Recipients are nominated by their departments. Fellowships provide monetary amounts for the semester plus tuition and a percentage of mandatory fees paid for up to 2 s.h. and a health insurance allowance.

Post-Comprehensive Research Fellowships

The post-comprehensive research awards program provides an opportunity for advanced PhD students to benefit from protected and supported time to pursue their scholarly research activities. The one-semester award is intended to recognize students with distinguished academic achievement during their early graduate training. These achievements should be evident from a combination of outstanding academic performance in coursework, as well as early scholarly research activities. Students who have held teaching assistantships in the previous two semesters or do not have other sources of assistantship/fellowship funds will have priority. Awardees will receive a stipend. The Graduate College also supports up to 2 s.h. of tuition, a percentage of the mandatory fees, and a health insurance allowance. Recipients are nominated by their department.

Scholarships

Scholarships typically provide partial tuition.

Graduate Student Travel Awards

Graduate student travel awards provide reimbursement for travel by students who present research and scholarship results at professional conferences. Awards are competitive across disciplines and vary. Funds are administered by the Graduate Student Senate and the Graduate College.

Other Sources

For other sources of financial support, contact the Office of Student Financial Aid.

Many departments offer additional support through traineeships, part-time employment in research, or part-time teaching appointments. The Office of the Vice President for Research maintains a library of information on public and private agencies that provide funds for research and graduate study. Much material has been collected concerning awards for overseas study.

Courses

Most Graduate College courses are offered by the college's programs and schools. They are listed and described in the corresponding catalog sections.

The college also offers the following nondepartmental courses.

Graduate College Courses

GRAD:3020 SROP Scholars Program **0 s.h.**

GRAD:5091 Statistics Career Seminar 1 s.h.
Practical, hands-on approach to demystify the job search process and build essential career-readiness skills for roles in statistics, actuarial science, and data science across academia, industry, government, and non-profit sectors. Same as STAT:5091.

GRAD:5225 Communicating Data Through Stories 3 s.h.
How to communicate science effectively and responsively with multiple audiences from peers and professors to potential employers, policymakers, and the lay public; focus on speaking about science clearly and vividly in ways that can engage varied audiences, especially those outside the student's own field; connecting and finding common ground with an audience, defining goals, identifying main points, speaking without jargon, explaining meaning and context, using storytelling techniques and multimedia elements. Same as CEE:5225, SDG:5225.

GRAD:5800 Writing for National Fellowships arr.
Process of writing applications for nationally competitive fellowship opportunities; completion of a fellowship application portfolio for a specific fellowship opportunity.

GRAD:5999 Graduate Final Registration 1 s.h.
Certificate students and non-thesis doctoral students.

GRAD:6000 PhD Postcomprehensive Registration 1 s.h.

GRAD:6001 Master's Final Registration 1 s.h.
Requirements: master's degree candidate.

GRAD:6002 Doctoral Continuous Registration 1 s.h.
Requirements: doctoral degree candidate who has passed comprehensive examinations.

GRAD:6003 Doctoral Final Registration 1 s.h.
Requirements: doctoral degree candidate in final session of enrollment.

GRAD:6217 Seminar in College Teaching 1-3 s.h.
Preparation for college teaching; for graduate students planning to teach. Same as PSQF:6217.

GRAD:6300 Writing for Learned Journals 1-4 s.h.
Seminar that supports graduate students in bringing written work to publishable form; analysis of target journals' audiences, interests, and citation politics; submission and the publication process; response to reader reports and criticism; best writing and research practices; discussion of knowledge cultures and discourses in disciplines and the contemporary academy. Same as AMST:6300, GWSS:6300, RHET:6330.

GRAD:6313 Studio Summer Fellowship 1 s.h.
Investigation of and reflection on digital scholarly collaboration, production, and promotion. Same as ULIB:6313.

GRAD:6510 Introduction to Programming 1 s.h.
How computer programming has quickly become a valuable skill across a diverse range of professions and academic disciplines; programming impacts on an increasingly large segment of professional activity—from analyzing text, visualizing data, creating maps, or developing web applications; knowledge of how to read and write code as a valuable literacy in modern mediated life; introduction to computer programming; students write simple programs of their own design (e.g., automate repetitive tasks, perform calculations on data, accept and process user input).

GRAD:6515 Basic Data Handling in Microsoft Excel 1 s.h.
Introduction to managing and examining spreadsheet data for humanities and social sciences; basic data types, organizing data records, creating summary reports and simple charts, tips and tricks for letting Microsoft Excel do the tedious parts; prior experience working with data or Microsoft Excel not required.

GRAD:6520 Data Visualization Basics 1 s.h.
Hands-on introduction to basics of data visualization—working with data, analyzing and designing clear and functional visualizations, and developing simple data visualizations in Excel and Python or R; basic static plots (e.g., scatterplots, histograms, line graphs); brief introduction to geographic maps and network graphs.

GRAD:6521 Scholarly Communication and Journal Publishing 1 s.h.
Process of publishing a scholarly journal. Several scholarly journals are published locally with the support of the University of Iowa Libraries. For graduate students interested in academic journal publishing, as well as scholarly communications more broadly.

GRAD:6522 Digital Exhibits: Effective Design and Development 1 s.h.
Practical technical skills for building digital exhibits; theoretical concepts; how digital exhibits are distinct from physical exhibits; values included in digital storytelling; management of digital exhibit life cycle; main concepts and topics of effective digital exhibit development including storytelling, structuring materials, digitization, metadata application, copyright, and fair use; students gain experience using digital exhibit software, Omeka, for importing and managing content and creating collections and exhibits.

GRAD:6530 Open Source Web Mapping for Beginners 1 s.h.
Maps are high-impact visual representations that can make complex ideas more comprehensible and enhance persuasive power of academic arguments; wide range of open source data and scripting libraries that are increasingly available to scholars who wish to present their data in interactive online maps; introduction to basic workflows and scripting for open web mapping with JavaScript, HTML, and CSS.

GRAD:6535 Data Visualization and Mapping 1 s.h.
Introduction to data visualization techniques for descriptive data analysis and geospatial visualization; introduction to Excel; basic editing and implementation of JavaScript; for graduate students interested in learning how to find, clean, manage, and analyze data for visual presentation in graphs, charts, or interactive digital maps. No prior experience necessary.

GRAD:6540 Careers Beyond Academia 1 s.h.
Preparation to search for and apply to a variety of careers outside of academia that allow students to use their digital scholarship and digital skills training; opportunities and challenges faced when transitioning to careers adjacent to and beyond academic environments in which students have become familiar with in their graduate training.

GRAD:6541 The Future of Knowledge 1 s.h.
Explores speculative research practices that reimagine how knowledge is created, shared, and understood; students will experiment with reading books with computers, using text mining and digital analysis, while also working with data and artifacts as creative materials for discovery; engage AI agents as collaborators, testing their potential and limits in research and use speculative methods such as world-building and counterfactuals to imagine new futures of scholarship; students will have prototyped bold hybrid works that blur the lines between research, design, and creative expression.

GRAD:6545 Introduction to Podcasting 1 s.h.
Introduction to podcasting basics including interview techniques, speaking and writing for podcast audiences, digital productions, and promotion. For graduate students interested in using digital techniques to share their creative works, research, or scholarship.

GRAD:6550 Design Fundamentals in Digital Scholarship 1 s.h.
Exploration of the role of design in communication while empowering students to grow more comfortable verbalizing the visual; students more accurately describe design elements, produce basic promotional assets, and assess legibility, navigability, and accessibility.

GRAD:6551 Promoting Your Scholarship 1 s.h.
Exploration of ways to communicate research clearly and effectively; investigation of social media platforms as a means of promoting research; promotional material design basics; online portfolio design and differences between curriculum vitae and résumé; experimentation with scholarship presentation; introduction to a variety of forms from press releases and pitches to interdisciplinary conferences and social media.

GRAD:6590 Digital Humanities Capstone arr.
Application and practice of classroom experience to a specific project under guidance from a faculty member and project team leader. Prerequisites: CLAS:7290. Requirements: admission to public digital humanities certificate program, an approved certificate plan of study on file, completion of 12 s.h. of approved coursework, and good standing in all required certificate coursework.

GRAD:6800 CIC Scholar arr.

GRAD:6801 Regents Exchange Program arr.

GRAD:6995 Interdisciplinary Studies Capstone arr.
Development of a project applying research and expertise acquired through completed coursework to an area of interest fitting student's academic and/or career ambitions; may include final presentation, portfolio, and/or written paper.

GRAD:6997 Graduate/Professional Transfer arr.

GRAD:6998 Undergraduate Transfer arr.

GRAD:6999 Resident/Fellow/Post-Doctoral 0 s.h.

GRAD:7280 Obermann Center for Advanced Studies Special Topics Seminars 1-3 s.h.
Active participation and engagement in a major program, such as the annual Humanities Symposium; readings on interdisciplinary histories, contexts, and theoretical perspectives that frame featured events; work of artists, scholars, and researchers participating in the program. Requirements: admission to Graduate College.

GRAD:7385 Teaching and Learning in Higher Education 3 s.h.
Current theoretical and empirical literature on teaching and learning in higher education; focus on development of effective teaching practice. Same as CSED:7385, EDTL:7385, EPLS:7385, PSQF:7385.

GRAD:7400 Practicum in College Teaching arr.
Supervised college teaching experience; teaching in collaboration with faculty, observation and critiques of teaching, participation in course planning and evaluation procedures; ethical and multicultural considerations. Requirements: admission to the graduate certificate in college teaching program.

GRAD:7601 Postdoctoral Research Scholar 0 s.h.
Requirements: postdoctoral standing.

GRAD:7602 Postdoctoral Research Fellow 0 s.h.
Requirements: postdoctoral standing.

Applied Mathematical and Computational Sciences

Chair

- Laurent O. Jay (Mathematics)

Graduate degree: PhD in applied mathematical and computational sciences

Faculty: https://amcs.uiowa.edu/faculty-research

Website: https://amcs.uiowa.edu/

Applied mathematical scientists consider problems in science and engineering formulated in mathematical terms. They solve those problems using analytical techniques, numerical methods, and computational tools. They discuss, interpret, and evaluate the results. They explore various areas of mathematical application and develop new models and methods when needed.

Programs

Graduate Program of Study

- Doctor of Philosophy in Applied Mathematical and Computational Sciences [p. 1696]

Courses

Applied Mathematical and Computational Sciences Courses

AMCS:5900 Seminar: Applied Mathematical and Computational Sciences **arr.**
Current research by faculty, students, guests.

AMCS:7990 Reading and Research **arr.**

Applied Mathematical and Computational Sciences, PhD

The PhD program in applied mathematical and computational sciences is broadly based and interdisciplinary. It is designed to help students achieve a command of applied mathematical techniques and computational tools and obtain basic knowledge in another area (e.g., in physics, engineering, operations research, chemistry, computer science, economics, statistics, geography, or in the biological, medical, or social sciences). The program is flexible; students can concentrate on applied mathematics areas, such as differential equations and numerical analysis, or on other applicable techniques in mathematics. Scientific computing is an important part of applied mathematics, so it is often a part of student training and dissertation research. Prospective students should have a desire to apply mathematical techniques or theory to relevant problems in an outside area.

Learning Outcomes

Students will gain:

- proficiency in core applied mathematics subjects and broad knowledge in mathematics;
- proficiency in computer programming/scientific computing;
- excellent knowledge in at least one application area outside mathematics;
- ability to communicate knowledge and research work to various audiences; and
- ability to carry out research and work independently at a professional level.

Requirements

The Doctor of Philosophy program in applied mathematical and computational sciences (AMCS) requires a minimum of 72 s.h. of graduate credit.

Course of Study

Faculty members can help each student plan a course of study that is consistent with the student's background, interests, and goals. Individual plans are designed to help students develop expertise in methods of applied mathematics and build a strong foundation in related topics. They also provide sufficient knowledge in an outside area to enable students to use mathematical techniques in that area. Students may also arrange their study plan to earn a master's degree from another department after they complete part of their plan. Students find suitable thesis problems and supervisors with the help of the faculty.

Required Courses in Core Areas

Students must successfully complete these three core course sequences in the first two years of graduate study.

Course #	Title	Hours
All of these:		
MATH:5200 & MATH:5210	Introduction to Analysis I and Introduction to Analysis II	6
MATH:5600 & MATH:5700	Nonlinear Dynamics With Numerical Methods and Introduction to Partial Differential Equations	6
MATH:5800 & MATH:5810	Numerical Methods I and Numerical Methods II	6

Outside Area Courses

Students must take and pass PhD-level courses in areas in which mathematics is applied: one preparation course in the first two years of study and then two advanced courses outside of mathematics numbered 6000 or above.

Advanced Mathematics Course Requirement

In order to establish a solid foundation in mathematics, students must successfully pass two more mathematics courses (prefix MATH) numbered 5000–5999 and complete at least 12 s.h. of graduate mathematics courses numbered 6000–7999, with the exception of seminar courses. The courses should be chosen to obtain mathematical breadth and must be approved by the AMCS chair.

Comprehensive Examination

Students complete a comprehensive examination that covers their research area within three and a half years after beginning their graduate study. The examination is typically based on outside area courses and/or directed readings.

Admission

Applicants must carefully follow the applied mathematical and computational sciences (AMCS) application procedures and they must meet the Graduate College Admission Requirements on the Graduate Admissions website. Those interested in applying may also view Admissions on the Graduate College website.

To be prepared for graduate-level coursework in applied mathematics, applicants should have a bachelor's or master's degree with a strong mathematics or computational component.

Applications for fall admission are due on Jan. 15. For more information about the academic program, contact the chair of the Applied Mathematical and Computational Sciences Program. The Manual of Rules and Regulations on the Graduate College website can also provide additional information.

Career Advancement

Career opportunities for applied mathematicians include positions in teaching and research institutions, national laboratories, the technology industry, business companies, and consulting firms.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Applied Mathematical and Computational Sciences, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
MATH:5200	Introduction to Analysis I [b]	3
MATH:5600	Nonlinear Dynamics With Numerical Methods [b]	3
MATH:5800	Numerical Methods I [b]	3
MATH:5900	First-Year Graduate Seminar	1
	Hours	**10**
Spring		
AMCS:5900	Seminar: Applied Mathematical and Computational Sciences	1
MATH:5210	Introduction to Analysis II [b]	3
MATH:5700	Introduction to Partial Differential Equations [b]	3
MATH:5810	Numerical Methods II [b]	3
AMCS Lectures on Programming		
	Hours	**10**
Summer		
MATH:5950	Qualifying Exam Preparation Seminars	0
Exam: PhD Qualifying Exams [c]		
	Hours	**0**
Second Year		
Fall		
MATH:6600	Ordinary Differential Equations I [d]	3
MATH:6850	Advanced Numerical Methods I [d]	3
Outside Area Preparation course [e, f]		3
	Hours	**9**
Spring		
MATH:4820	Optimization Techniques	3
MATH:6610	Ordinary Differential Equations II [d]	3
MATH:6860	Advanced Numerical Methods II [d]	3
AMCS Lectures on Programming		
	Hours	**9**
Third Year		
Fall		
AMCS:7990	Reading and Research	2
MATH:5750 or MATH:5000 or MATH:5400	Mathematical Biology I [d] or Abstract Algebra I or Fundamental Groups and Covering Spaces	3
Outside Area course (numbered 6000 or above) [e, f]		3
	Hours	**8**
Spring		
Exam: PhD Comprehensive Exam		
AMCS:7990	Reading and Research	2
MATH:5010 or MATH:5410 or MATH:5760	Abstract Algebra II [d] or Introduction to Smooth Manifolds or Mathematical Biology II	3
Outside Area course (numbered 6000 or above) [e, f]		3
	Hours	**8**
Fourth Year		
Fall		
MATH:4700	Partial Differential Equations and Applications	3
AMCS:7990	Reading and Research	3
	Hours	**6**
Spring		
MATH:4060	Discrete Mathematical Models	3
AMCS:7990	Reading and Research	3
	Hours	**6**
Fifth Year		
Fall		
MATH:4840	Mathematics of Machine Learning	3
AMCS:7990	Reading and Research	2
	Hours	**5**
Spring		
GRAD:6003	Doctoral Final Registration	1
Exam: PhD Final Exam [g]		
	Hours	**1**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Students must pass (grade of B-minus or higher in each course) all three core course sequences (or be exempted) in the first two years of graduate study.

c Taken in August.

d Students must take and successfully pass two MATH courses numbered 5000-5999, and complete at least 12 s.h. of MATH courses numbered 6000-7799 with the exception of the seminars. Work with faculty advisor to determine appropriate graduate coursework and receive departmental approval.

e Students must take and pass PhD level courses in areas in which mathematics is applied: one preparation course in the first two years and then two advanced courses outside of mathematics at the 6000 level or above.

f Work with faculty advisor to determine appropriate graduate coursework and sequence.

g Dissertation defense.

Biomedical Science

Director

- Prabhat Goswami

Graduate degrees: MS in biomedical science; PhD in biomedical science

Website: https://biomed.medicine.uiowa.edu/

The University of Iowa Biomedical Science Program is a first-year umbrella program that provides students the opportunity to explore multiple disciplines prior to affiliating with one of seven PhD programs.

The first year curriculum is tailored to enhance a student's education goals for the PhD program(s) in which they are most interested. Students choose from more than 280 laboratories for three different research rotations. At the end of the first year, students select their thesis laboratory and graduate program. Successful completion culminates with a PhD in biomedical science and affiliation with a respective subprogram.

Students select from one of seven subprograms: cancer biology [p. 1702]; cell and developmental biology [p. 1704]; experimental pathology [p. 1706]; free radical and radiation biology [p. 1708]; molecular medicine [p. 1710]; molecular physiology and biophysics [p. 1711]; or pharmacology [p. 1713].

Visit the Biomedical Science Program website for more information.

Programs

Graduate Programs of Study

- Master of Science in Biomedical Science [p. 1700]
- Doctor of Philosophy in Biomedical Science [p. 1701]

Admission

The Biomedical Science Program is sufficiently flexible to accommodate students with a relatively wide range of backgrounds. Students with a bachelor's degree in any of the biological, biochemical, engineering, or physical sciences who have a strong desire to pursue a research-oriented career are encouraged to apply. Students must have:

- a bachelor's degree from a regionally accredited American college or university or an equivalent degree from another country as determined by Admissions; and
- a minimum grade-point average of 3.00 or higher or the equivalent from another country as determined by Admissions.

Facilities

Biomedical science researchers benefit from state-of-the-art core research facilities and research support facilities. Much of the research is interdisciplinary, with collaborations coordinated through major research centers, institutes, and programs. The main biomedical research campus consists of over half a million square feet in seven buildings that connect directly with University of Iowa Health Care through tunnels and skywalks. The interconnectedness of the campus facilitates basic and translational collaboration across the entire college.

Financial Support

Students receive stipend and tuition support contingent on the continued availability of that funding. While the university makes every reasonable effort to ensure ongoing financial support, unforeseen changes in funding could affect continued support. Sources of support include departmental funds, training grants, research grants, and individual fellowships. Several offices on campus provide support for graduate trainees seeking to obtain prestigious fellowship awards to support their training. Continued financial support beyond the first year is also contingent on satisfactory academic performance and progress toward degree completion.

Career Advancement

The Biomedical Science Program prepares students for successful careers as researchers, educators, and future leaders in the international biomedical workforce. The core biomedical science curriculum has elements that highlight career diversity for PhD students and professional development for scientific careers. In addition, the Grad Success Center in the Graduate College provides opportunities for further development and one-on-one guidance for those searching for jobs and navigating pathways into scientific careers.

Courses

- Biomedical Science Courses [p. 1698]
- Cancer Biology Courses [p. 1699]

Biomedical Science Courses

BMED:5207 Principles of Molecular and Cellular Biology **3 s.h.**
Structure of DNA, RNA, and Protein; DNA replication, genetic and epigenetic regulation; RNA production and processing; protein production and post-translation modification; cellular membranes and trafficking; cytoskeleton and regulation of cell junctions and migration; signal transduction and regulation of cell cycle and apoptosis; didactic lectures and group discussion of primary research publications.

BMED:5208 Topics in Principles of Molecular and Cellular Biology **1 s.h.**
Research literature discussion that parallels subjects discussed in BMED:5207. Corequisites: BMED:5207.

BMED:7270 Scholarly Integrity/Responsible Conduct of Research I 0 s.h.
Training in principles of scholarly integrity and the responsible conduct of research; facilitated discussions of case studies; student/mentor responsibilities in pursuit of scholarly work (ownership, authorship, plagiarism/falsification/fabrication of data); student/mentor relationships and intellectual dialogues (communication, collaboration, grievance management); student responsibilities to institution/ scholarly community/society (intellectual property, conflict of interest, fiscal responsibilities, protection of human/animal subjects). Requirements: successful completion of CITI online training (greater than 80% score for each module) and enrollment in Graduate College degree-seeking program. Recommendations: minimum first-year graduate standing (PhD, MS/MA), and involvement in mentored research activities (extramurally or intramurally funded).

BMED:7271 Scholarly Integrity/Responsible Conduct of Research II 0 s.h.
Training in principles of scholarly integrity and the responsible conduct of research; facilitated discussions of case studies; student/mentor responsibilities in pursuit of scholarly work (ownership, authorship, plagiarism/falsification/fabrication of data); student/mentor relationships and intellectual dialogues (communication, collaboration, grievance management); student responsibilities to institution/ scholarly community/society (intellectual property, conflict of interest, fiscal responsibilities, protection of human/animal subjects). Requirements: successful completion of CITI online training (greater than 80% score for each module) and enrollment in Graduate College degree-seeking program. Recommendations: minimum of first-year graduate standing (PhD, MS/MA) and involvement in mentored research activities (extramurally or intramurally funded).

BMED:7604 Scholarly Integrity/Responsible Conduct of Research I 0 s.h.
Training in principles of scholarly integrity and the responsible conduct of research; facilitated discussions of case studies; student/mentor responsibilities in pursuit of scholarly work (ownership, authorship, plagiarism/falsification/fabrication of data); student/mentor relationships and intellectual dialogues (communication, collaboration, grievance management); student responsibilities to institution/scholarly community/ society (intellectual property, conflict of interest, fiscal responsibilities, protection of human/animal subjects); meets responsible conduct of research training obligation for postdocs and faculty holding an NIH K award. Requirements: successful completion of CITI online training (greater than 80% score for each module).

BMED:7605 Scholarly Integrity/Responsible Conduct of Research II 0 s.h.
Training in principles of scholarly integrity and the responsible conduct of research; facilitated discussions of case studies; student/mentor responsibilities in pursuit of scholarly work (ownership, authorship, plagiarism/falsification/fabrication of data); student/mentor relationships and intellectual dialogues (communication, collaboration, grievance management); student responsibilities to institution/scholarly community/ society (intellectual property, conflict of interest, fiscal responsibilities, protection of human/animal subjects); meets responsible conduct of research training obligation for postdocs and faculty holding an NIH K award. Requirements: successful completion of CITI online training (greater than 80% score for each module).

BMED:7777 Biomedical Science Seminar 1 s.h.
Foundational professional development in writing and oral presentation skills; presentations from local and visiting professors focusing on career pathways for biomedical scientists; students practice presenting their research in rotation presentations with detailed feedback.

BMED:7888 Biomedical Science Research arr.
Research experience in biomedical science graduate program faculty member's lab; students rotate in three labs during their first year to provide a range of biomedical research experience before choosing a dissertation research mentor.

Cancer Biology Courses

CBIO:3310 Practical Data Science and Bioinformatics 3 s.h.
Understanding how to access large biological data sets and use them to answer biological questions is an important skill for researchers; immersive introduction to computational handling of data; how to access and analyze publicly available data; critically evaluate data quality and analysis in context of measuring gene expression; basic coding in R/RStudio, plotting and data display, fitting and regression, statistical inference, statistical models, downloading and data wrangling; basic introduction to machine learning (clustering); for students with no computational background. Prerequisites: BIOL:1411 with a minimum grade of C- and BIOL:1412 with a minimum grade of C-. Requirements: college algebra. Recommendations: BMB:3110, or BMB:3120 and BMB:3130, or other upper-level life sciences courses. Same as BMB:3310, MMED:3310.

CBIO:5500 Topics in Cancer Biology 1 s.h.
Discussion and presentation of new scientific literature in cancer biology fields; how to evaluate and critically interpret scientific literature, data, and conclusions; journal club format. Requirements: admission to cancer biology graduate program.

CBIO:6000 Seminar: Cancer Research 1 s.h.
Attendance at seminar presentations of cutting-edge science in the field of cancer biology; presentations by experts in the field and trainees. Requirements: admission to cancer biology graduate program.

CBIO:6500 Research in Cancer Biology arr.
Research experience through research rotations and conduction of dissertation research in cancer research laboratories. Requirements: admission to cancer biology graduate program.

CBIO:7000 Clinical Connections 1 s.h.
Shadowing experiences arranged with clinicians who are treating cancer patients at University of Iowa Health Care. Requirements: admission to cancer biology graduate program.

CBIO:7001 Molecular and Cellular Biology of Cancer 3 s.h.
Fundamental aspects of oncology at cellular and molecular levels; mechanisms of cancer initiation and progression, oncogene action, DNA damage and repair, carcinogenesis by radiation, chemicals, viruses; tumor immunology, anticancer therapies. Offered spring semesters. Prerequisites: BMED:5207. Requirements: strong basic science background. Same as FRRB:7001, PATH:7001.

CBIO:7500 Crafting a Scientific Proposal 1 s.h.
Training in areas of scientific writing and development of a scientific proposal; students develop a proposal related to, but not identical to, the proposal for the comprehensive exam. Requirements: admission to cancer biology program.

Biomedical Science, MS

There is no direct admission to the MS program in biomedical science. Students interested in biomedical science are considered for PhD admission only. Visit the PhD in biomedical science [p. 1701] in this section of the catalog for information about the PhD degree program.

Biomedical Science, PhD

The Biomedical Science Graduate Program optimizes students' mobility and their ability to explore several graduate programs during their first academic year before affiliating with a specific biomedical science subprogram—cancer biology, cell and developmental biology, experimental pathology, free radical and radiation biology, molecular medicine, molecular physiology and biophysics, or pharmacology.

Students thrive in a collaborative environment in which they explore subprograms by performing three research rotations in the laboratories of any of the biomedical science faculty, regardless of their departmental or program affiliation. Biomedical science students are advised regarding course selections, research rotations, and registration by a designated faculty academic advisor. Students can tailor their choice of electives based on their interests.

Following completion of the first year, it is expected that students will be able to select a research laboratory and subprogram affiliation. The specific subprogram students choose for thesis training determines their curriculum for subsequent years.

Core Curriculum

First Year, Fall

Course #	Title	Hours
One of these:		
BIOS:4120	Introduction to Biostatistics	3
PCOL:5204	Basic Biostatistics and Experimental Design	1
All of these:		
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	arr.
Elective course(s)		

First Year, Spring

Course #	Title	Hours
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	arr.
MMED:6260	Methods for Molecular and Translational Medicine	1
PHAR:6504	Mastering Reproducible Science	1
One of these:		
FRRB:7000	Redox Biology and Medicine	4
FRRB:7001	Molecular and Cellular Biology of Cancer	3
PATH:5270	Pathogenesis of Major Human Diseases	3
PCOL:5130	Basic Concepts in Pharmacology	3

Admission

Applicants must have a baccalaureate degree from a regionally accredited U.S. college or university, or an equivalent degree from another country as determined by University of Iowa Admissions. They must also have an undergraduate grade-point average of at least 3.00. Applicants must meet the admission requirements of the Graduate College.

Appropriate preparation includes a one-year, college-level course in biology, chemistry (inorganic and organic), and mathematics through calculus.

Learning Outcomes

Core Learning Outcomes

Students will:

- demonstrate expertise in foundational aspects of molecular and cellular biology, particularly in a human biomedical context;
- develop hypotheses and experimental methods that can be used to explore questions in molecular biology;
- apply knowledge of biomedical science to human disease through translational research paradigms;
- describe fundamental techniques, statistical methods, and core principles of rigor and reproducibility in biomedical science;
- describe the range of career pathways in the sciences for the biomedical PhD;
- develop proficiency in reading and interpreting scientific literature; and
- develop skills in written and oral communication of scientific work.

Cancer Biology

Students will:

- master foundational knowledge in cancer biology and demonstrate in-depth knowledge in their area of emphasis;
- understand and apply the scientific method, design experiments, and conduct research utilizing team-based collaboration, knowledge of current literature, and current laboratory methods;
- gain an appreciation of clinical management and therapeutic approaches to treat cancer;
- develop advanced skills in scientific writing and oral presentations in order to effectively communicate research progress and goals;
- exhibit and foster the highest ethical standards in the areas of education, publication, and scientific inquiry; and
- publish at least one first-author paper and write a grant application.

Cell and Developmental Biology

Students will:

- master foundational knowledge in cellular and developmental biology;
- engage in designing and executing experiments to test scientific hypotheses;
- critically evaluate scientific findings;
- communicate scientific findings effectively to diverse audiences;

- exhibit and foster ethics in the areas of education, publication, and scientific inquiry; and
- become an effective teacher of the biological sciences.

Experimental Pathology

Students will:

- demonstrate subject matter expertise in basic cell and molecular biology, biostatistics/bioinformatics, and pathobiology/mechanisms of human disease;
- understand and apply scientific methods allowing for the appropriate development and testing of hypotheses, problem-solving, and utilization of current literature and contemporary laboratory approaches;
- understand and apply the need to conduct research using a team-based approach, including ongoing input from the thesis mentor/committee as well as peers within the laboratory and graduate program environment;
- understand and apply the key principles of carrying out research and interpreting results using the highest ethical standards; and
- acquire the ability to effectively communicate research goals, approaches, and results using both written and oral means.

Free Radical and Radiation Biology

Students will:

- demonstrate comprehensive knowledge of foundational principals in free radical and radiation biology, a clear understanding of all free radical and radiation biology course material, and a thorough knowledge of the literature in their area of major emphasis;
- demonstrate a functional comprehension of scientific research, such as the use of relevant literature, the formulation of a hypothesis, hypothesis testing, data interpretation, and the lucid presentation of the research in both written and oral form;
- acquire and develop classroom and laboratory teaching skills;
- acquire advanced scientific writing and communication skills competing at the national level for visibility in scholarly activities and funding opportunities;
- produce research results worthy of publication in high-impact peer-reviewed journals relevant to the field of study; and
- participate in career development and networking activities at the local, regional, and national levels.

Molecular Medicine

Students will gain knowledge in:

- tracks for specialized coursework—demonstrate broad-based understanding of one of three tracks selected by students in their second year of studies (metabolic disorders, cardiovascular biology, or molecular and cellular medicine);
- oral and written presentation of scientific data—demonstrate proficiency in scientific writing as evidenced by external fellowship application requirement; organize, defend, and communicate ideas effectively in scientific oral presentations and settings; opportunities to present posters, full-length seminar presentations, short-form data blitzes, lay audience elevator pitches; comprehensive exam; on-topic or off-topic NRSA-style research proposal that is orally defended to a comprehensive exam committee comprised of subject-matter experts; scientific editing and research communication core; and service promoted to students to get one-on-one instruction in scientific editing, focused especially on grant writing;
- experimental design—instruction on experiment design provided by their mentor, experiences in the critical thinking course, and in the basic biostatistics and experimental design course;
- proficiency in research—three laboratory rotations before affiliating to a lab, conduct research in a responsible and ethical manner, carry out an in-depth research project, and contribute intellectually and technically to all parts of its development, execution, and analysis; and
- professional skills development—journal clubs, a course in critical thinking, and career development series.

Molecular Physiology and Biophysics

Students will:

- demonstrate a basic knowledge of physiology and biophysics that will serve as the foundation for the student's academic, scholarly, and research endeavors;
- exhibit the necessary practical, methodological, and technical expertise to perform original experimental work in an area of physiological research;
- gain professional skills required for successful academic or research-based careers, including skills in publishing, grant writing, presentation, and teaching; and
- acquire knowledge and respect for principles of biomedical research ethics.

Pharmacology

Students will:

- identify important research problems through the development of subject matter expertise related to pharmacology, and critical evaluation of the current state of knowledge in that area of expertise;
- formulate valid and testable hypotheses and/or research questions, and then plan feasible experiments to address them;
- conduct, analyze, and interpret independent original research that contributes new knowledge to the field of pharmacology;
- effectively communicate research results to a range of audiences in both written and oral formats; and
- conduct all aspects of research and communication of results with the highest ethical standards.

Cancer Biology

The Doctor of Philosophy in biomedical science with a cancer biology subprogram requires a minimum of 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average of at least 3.00 to earn the degree.

Students enter the molecular medicine subprogram through the Biomedical Science Program. The Biomedical Science Program is designed to provide students maximum flexibility during the first year of graduate studies to take a course of study compatible with several programs while completing research rotations. At the end of the first year, students choose a subprogram affiliation. The cancer biology subprogram provides training in many areas of research—cell biology, genetics, immunology, and cell metabolism, among

others—that are necessary to understand the complexities of cancer etiology and treatment.

The subprogram does not offer a master's degree. Cancer biology is affiliated with the Holden Comprehensive Cancer Center, which was founded in 1980 and has been designed as a National Cancer Institute NCI-Designated Cancer Center since 2000.

The curriculum is a sequence of required and elective courses that provide students with advanced knowledge in current concepts related to molecular, cellular, and genetic processes that contribute to the development and treatment of cancer. It also provides specialized training in experimental methodology used to study cancer in a laboratory setting. Cancer biology prepares students for a variety of career paths in academic, clinical, and industry environments that deal with the study and/or treatment of cancer.

Students gain clinical exposure by shadowing oncologists. They are expected to have a solid background in chemistry, mathematics, and the biological sciences. They should have completed undergraduate coursework in introductory biology and chemistry, biochemistry, genetics, organic chemistry, physical chemistry, and calculus, and previous coursework in cancer biology is desirable. Deficiencies in a particular area, as determined by the Graduate Studies Committee, can be remedied by the completion of appropriate courses.

Selection of a PhD mentor (thesis advisor) is normally finalized near the end of the spring semester of a student's first year of study. The deadline for selection is determined by the Biomedical Science Program.

Students are required to complete the following core courses prior to their comprehensive examination. Students who wish to take the comprehensive examination should first make arrangements in consultation with their mentor, the program director, and the Student Advisory Committee. The exam is typically completed during the second summer of study.

The PhD in biomedical science with a cancer biology subprogram requires the following coursework.

Core Cancer Biology Curriculum

Course #	Title	Hours
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
CBIO:5500	Topics in Cancer Biology	1
CBIO:6000	Seminar: Cancer Research	1
CBIO:6500	Research in Cancer Biology	arr.
CBIO:7000	Clinical Connections	1
CBIO:7001/ FRRB:7001/ PATH:7001	Molecular and Cellular Biology of Cancer	3
CBIO:7500	Crafting a Scientific Proposal	1
Elective		

Typical Curriculum

First Year, Fall

Course #	Title	Hours
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	6
PCOL:5204	Basic Biostatistics and Experimental Design	1
Elective		3

First Year, Spring

Course #	Title	Hours
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	6
CBIO:7001/ FRRB:7001/ PATH:7001	Molecular and Cellular Biology of Cancer	3
MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270/ IGPI:5270/ MMED:5270	Pathogenesis of Major Human Diseases	3
PHAR:6504	Mastering Reproducible Science	1

Second Year, Fall

Course #	Title	Hours
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
CBIO:5500	Topics in Cancer Biology	1
CBIO:6000	Seminar: Cancer Research	1
CBIO:6500	Research in Cancer Biology	6
CBIO:7000	Clinical Connections	1
CBIO:7500	Crafting a Scientific Proposal	1
Elective		3

Second Year, Spring

Course #	Title	Hours
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
CBIO:5500	Topics in Cancer Biology	1
CBIO:6000	Seminar: Cancer Research	1
CBIO:6500	Research in Cancer Biology	6
Elective		1

Additional Requirements

Laboratory Rotations

In order to gain more widespread experience in cancer biology research and to aid in selecting a laboratory home and thesis project, students perform three laboratory rotations prior to the selection of a thesis advisor. Laboratory rotations are normally carried out in research laboratories of the cancer biology faculty. A rotation can be completed with a faculty member outside the cancer biology program with the permission of the program director.

Three rotations, 12 weeks in length, begin in the fall semester of the first year. The goal of the rotations is to gain a

comprehensive view of the mentor's research program, to gain exposure to experimental methods used in the mentor's lab, and to learn about the mentoring styles of faculty members.

Teaching

The cancer biology program does not require teaching. Students with an interest in teaching experience are encouraged to discuss their career plans with their mentor and/or the program director.

Publication Requirements

Students are required to have a minimum of one first-author publication in a peer-reviewed journal prior to graduation. The article must be formally accepted and be in-press status or published prior to graduation. A co-first-authored, peer-reviewed publication will count toward this requirement.

Comprehensive Examination

Students are eligible to take the comprehensive examination when they are in good academic standing as defined by the Graduate College—the student has completed all program core courses with a grade of at least B or has a non-letter grade of pass.

Written Examination

The comprehensive exam is on-topic, meaning the subject should be a student's current research being conducted in the mentor's lab. Students normally take the comprehensive exam during the second spring or summer of their enrollment in the program. They submit a written exam, if that is acceptable to the comprehensive examination committee, and then prepare for an oral examination.

Oral Examination

The purpose of the oral examination is to determine whether the student's written submission adequately represents the student's knowledge. A student may be queried on issues beyond the scope of the written proposal to allow the committee to determine the student's general depth of knowledge.

Final Examination

The thesis committee is selected by each student after the successful completion of the comprehensive examination. Students are eligible for their oral thesis defense after completing 72 s.h. of coursework, publication of at least one primary author manuscript or having one in press status, and with consent of the thesis committee. The procedures are the same as for the comprehensive examination.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in biomedical science (cancer biology subprogram) in a combined degree program offered by the Graduate College and the Carver College of Medicine. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Cell and Developmental Biology

The Doctor of Philosophy in biomedical science with a cell and developmental biology subprogram requires 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average of at least 3.00 to earn the degree. They gain admission to graduate training laboratories in the Department of Anatomy and Cell Biology, Interdisciplinary Graduate Programs, or through direct admission into a specific laboratory.

The PhD in biomedical science with a cell and developmental biology subprogram requires the following coursework.

Core Cell and Developmental Biology Curriculum

Course #	Title	Hours
All of these:		
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
ACB:6220/ MMED:6220/ MPB:6220	Mechanisms of Cellular Organization	3
ACB:6237	Critical Thinking in Biochemistry and Molecular Biology	1
ACB:6238	Critical Thinking in Genetics	1
ACB:6239	Critical Thinking in Cell Biology	1
ACB:6248	Critical Thinking in Development	1
ACB:6249	Critical Thinking in Cellular Physiology	1
ACB:6250	Critical Thinking in Scientific Writing and Presentations	1
PCOL:5204	Basic Biostatistics and Experimental Design	1

Typical Curriculum

First Year, Fall

Course #	Title	Hours
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	arr.
PCOL:5204	Basic Biostatistics and Experimental Design	1
Elective course(s)		

First Year, Spring

Course #	Title	Hours
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	arr.
MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270/ IGPI:5270/ MMED:5270	Pathogenesis of Major Human Diseases	3
Elective course(s)		

Second Year, Fall

Course #	Title	Hours
All of these:		
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
ACB:5206	Graduate Research in Cell and Developmental Biology	arr.
ACB:5224	Graduate Seminar in Cell and Developmental Biology	0-1
ACB:6220/ MMED:6220/ MPB:6220	Mechanisms of Cellular Organization	3
ACB:6237	Critical Thinking in Biochemistry and Molecular Biology	1
ACB:6239	Critical Thinking in Cell Biology	1
ACB:6248	Critical Thinking in Development	1
Elective (optional)		

Second Year, Spring

Course #	Title	Hours
All of these:		
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
ACB:5206	Graduate Research in Cell and Developmental Biology	arr.
ACB:5224	Graduate Seminar in Cell and Developmental Biology	0-1
ACB:6238	Critical Thinking in Genetics	1
ACB:6249	Critical Thinking in Cellular Physiology	1
ACB:6250	Critical Thinking in Scientific Writing and Presentations	1
Elective (optional)		

Electives

Elective course offerings change each year and are determined shortly before the semester begins. Examples of elective courses offered in the past five years that would be acceptable for students in the cell and developmental biology subprogram follow.

Course #	Title	Hours
BIOL:4333	Genes and Development	3
GENE:6150	Genetic Analysis of Biological Systems	3
MMED:6226/ ACB:6226/ MPB:6226	Cell Cycle Control	1
MMED:6227/ ACB:6227/ MPB:6227	Cell Fate Decisions	1
PCOL:6225	Growth Factor Receptor Signaling	1

Additional Requirements

Laboratory Rotations

The faculty advisor, along with the biomedical sciences program director, assists students in the process of selecting their initial laboratory rotation during the first year. The first of three 10-week rotations begins the first week of the fall semester. Students may choose any biomedical science program faculty member laboratory for the remaining two laboratory rotations, depending upon the availability of positions and the mutual interest of students and host faculty. Students have the option of joining the cell and developmental biology subprogram after their three rotations.

Teaching

Students are required to complete a teaching requirement (3 s.h.). They may teach in a combination of 1 or 2 s.h. courses, or one 3 s.h. course. Teaching requirements must be met prior to the final thesis defense and graduation. Most students meet the requirement in the third year after completion of the comprehensive exam. A student must earn a satisfactory report from the course director in order to receive credit for the teaching requirement.

Publication Requirements

It is expected that a student will have contributed as an author to at least one research publication. The publication must demonstrate primary authorship and be at the accepted phase of the publication process. The number of publications and their quality, content, and impact is established by the thesis committee.

Seminar Presentations

Students present their thesis research annually in the cell and developmental biology seminar series in a 30-minute presentation. Evaluation critique by faculty and students is provided.

Comprehensive Examination

The comprehensive examination must be taken before the fall semester of a student's third year.

Written Examination

A written proposal follows the form of a standard National Institutes of Health (NIH) R01 research grant and covers the area of the research proposed for the student's anticipated thesis dissertation. One aim area should be completely of the student's own design, with no input from the thesis advisor.

Oral Examination

The oral examination of the student's research proposal lasts approximately two to three hours. The exam begins

with a brief student presentation on the proposed research project. Questions during the examination may come from the proposal, the thesis research, or other general areas of cell and developmental biology.

Thesis Defense

The five-member thesis committee serves as an advisory body for the preparation of the thesis. The candidate and the committee should meet yearly; however, the candidate, the thesis advisor, or the committee can request a meeting at any time. In the subultimate committee meeting, committee members review the material that is expected to be incorporated into the thesis. The final draft of the thesis is due to the committee two weeks before the final examination. The final examination takes the form of a seminar presented to the program, with questions, comments, and discussion following. After the seminar, the candidate meets with the committee for the final thesis defense.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in biomedical science (cell and developmental biology subprogram) in a combined degree program offered by the Graduate College and the Carver College of Medicine. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Experimental Pathology

The Doctor of Philosophy in biomedical science with an experimental pathology subprogram requires a minimum of 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average of at least 3.00 to earn the degree. The subprogram provides students with advanced knowledge of disease pathogenesis at the genetic, molecular, cellular, and systems levels. It also teaches cutting-edge research skills enabling graduates to investigate the basis of disease and lay the foundation for novel and improved therapies.

The curriculum is a sequence of required and elective courses with the goal of providing students with a foundation in current cellular and molecular biology, in-depth knowledge of disease pathogenesis, and specialty content in the area of their thesis work.

Students enter the experimental pathology subprogram through the Biomedical Science Program. These students will perform laboratory rotations. The experimental pathology subprogram may also accept direct admits at this time. These direct admit students will have already identified a faculty mentor and laboratory upon entering the subprogram. Accordingly, these students in experimental pathology do not perform rotations, but begin developing a thesis project with their mentor at the onset of their PhD training. Consistent with the direct admission policy, Medical Scientist Training Program (MSTP or MD/PhD) students may join the experimental pathology PhD subprogram. Admission also is considered off-cycle or for the spring semester.

The PhD in biomedical science with an experimental pathology subprogram requires the following coursework.

Core Experimental Pathology Curriculum

Course #	Title	Hours
All of these:		
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
BMED:7777	Biomedical Science Seminar	1
BIOS:4120	Introduction to Biostatistics	3
MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270/ IGPI:5270/ MMED:5270	Pathogenesis of Major Human Diseases	3
PATH:6220	Seminar in Pathology	1
PATH:7211	Research in Pathology	arr.
PCOL:5204	Basic Biostatistics and Experimental Design	1

Typical Curriculum

First Year, Fall

Course #	Title	Hours
All of these:		
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7888	Biomedical Science Research	arr.
BMED:7777	Biomedical Science Seminar	1
PCOL:5204	Basic Biostatistics and Experimental Design	1

First Year, Spring

Course #	Title	Hours
All of these:		
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	arr.
MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270/ IGPI:5270/ MMED:5270	Pathogenesis of Major Human Diseases	3
PHAR:6504	Mastering Reproducible Science	1

Second Year, Fall

Course #	Title	Hours
All of these:		
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
BIOS:4120	Introduction to Biostatistics	3
PATH:7211	Research in Pathology	arr.
Elective		3

Second Year, Spring

Course #	Title	Hours
All of these:		
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
PATH:6220	Seminar in Pathology	1
PATH:7211	Research in Pathology	arr.
Elective		3

Electives

The following are possible elective choices. Electives are determined by the area of thesis research.

Course #	Title	Hours
CBIO:7001/ FRRB:7001/ PATH:7001	Molecular and Cellular Biology of Cancer	3
GENE:6150	Genetic Analysis of Biological Systems	3
GENE:7191	Human Molecular Genetics	3
IMMU:6201/ MICR:6201	Graduate Immunology	3
MICR:6247/ IMMU:6247	Graduate Immunology and Human Disease	4
MICR:6267	Graduate Viruses and Human Disease	3
MMED:6220/ ACB:6220/ MPB:6220	Mechanisms of Cellular Organization	3
MMED:6227/ ACB:6227/ MPB:6227	Cell Fate Decisions	1
MMED:8115	Molecular Physiology	4
NSCI:5653/ BIOL:5653/ PSY:5203	Fundamental Neurobiology I	3
NSCI:7235/ NEUR:7235	Neurobiology of Disease	3
PCOL:6225	Growth Factor Receptor Signaling	1

Additional Requirements

Laboratory Rotations

Rotations are not required for students entering the experimental pathology subprogram as direct admits, as a faculty mentor will already be identified. All other students will rotate through at least three different pathology labs during their first academic year in the program. This allows students to gain more experience in pathology research and to aid in selecting a laboratory home and thesis advisor.

Teaching

The experimental pathology subprogram does not have a teaching requirement. However, there are opportunities to teach if students desire this experience.

Publication Requirements

Students must have one first-author, peer-reviewed paper published or in press, as well as a co-authored, peer-reviewed paper or review article published or in press prior to being allowed to schedule their dissertation defense.

Comprehensive Examination

The comprehensive examination is generally taken in the spring semester of the second year of study. Students with advanced standing (medical scientist training program students or those with an MS) may choose to take the examination in the fall semester of their second year.

The comprehensive examination is off-topic. The focus of the proposal is on the field of a student's research. To determine the topic, each of the five comprehensive exam committee members choose a recent high-profile paper in the area of the student's research interests, but not directly related to the dissertation project. After examining the papers, the student chooses one and makes it the subject of the comprehensive exam.

The student then prepares and submits a two-page, single-spaced abstract to the committee. The abstract should include the background/rationale, the significance of the question being asked, and an outline of the specific aims. Upon approval of the abstract, the student is given permission to prepare a full proposal based on the NIH R21 format. Specifically, the proposal should be seven single-spaced pages and must include significance, innovation, rationale, and experimental approach. The proposal is then defended orally in front of the entire committee.

Final Examination

The dissertation committee consists of the mentor and four additional faculty. Students are required to select and meet with their committee by the end of the first fall semester of their second year, and at least yearly thereafter.

Upon meeting all requirements, students may then defend their dissertation/final exam. Two weeks prior to the defense, students must provide the entire committee with a completed draft of their dissertation. On the day of the defense, students present a public seminar on their dissertation work. This is then followed by a defense of the dissertation before the entire dissertation committee. A final version of the dissertation is prepared based on suggested edits provided by the committee. After final approval by the research advisor and committee, the dissertation is submitted to the Graduate College.

For more information, see the Experimental Pathology PhD Graduate Program on the Department of Pathology website.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in biomedical science (experimental pathology subprogram) in a combined degree program offered by

the Graduate College and the Carver College of Medicine. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Free Radical and Radiation Biology

The Doctor of Philosophy in biomedical science with a free radical and radiation biology subprogram is interdisciplinary and requires 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average of at least 3.00 to earn the degree. The possibility exists for a major emphasis in radiation biology or redox biology with a focus on cancer or degenerative diseases associated with aging. Although students with diverse academic backgrounds may enter the program, each student should have a science background which includes at least two years of chemistry, including organic chemistry and biochemistry; one year of physics; two years of biology; and mathematics, including at least one semester of calculus.

FRRB:5000 Radiation Biology and FRRB:7000 Redox Biology and Medicine each only need to be taken one time. They may be taken either in the first or second year of the program.

The PhD in biomedical science with a free radical and radiation biology subprogram requires the following coursework.

Typical Curriculum

First Year, Fall

Course #	Title	Hours
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	arr.
FRRB:5000	Radiation Biology	4
PCOL:5204	Basic Biostatistics and Experimental Design	1

First Year, Spring

Course #	Title	Hours
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	arr.
FRRB:7000	Redox Biology and Medicine	4
MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270/ IGPI:5270/ MMED:5270	Pathogenesis of Major Human Diseases	3
PHAR:6504	Mastering Reproducible Science	1

Second Year, Fall

Course #	Title	Hours
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
FRRB:5000	Radiation Biology	4
FRRB:6000	Seminar: Free Radical and Radiation Biology	1
FRRB:6004	Research: Free Radical and Radiation Biology	arr.
FRRB:6006	Topics in Free Radical Biology and Medicine	1
FRRB:6008	Topics in Radiation and Cancer Biology	1
Electives (as appropriate)		

Second Year, Spring

Course #	Title	Hours
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
FRRB:6000	Seminar: Free Radical and Radiation Biology	1
FRRB:6004	Research: Free Radical and Radiation Biology	arr.
FRRB:6006	Topics in Free Radical Biology and Medicine	1
FRRB:6008	Topics in Radiation and Cancer Biology	1
FRRB:7000	Redox Biology and Medicine	4
Electives (as appropriate)		

Elective Courses

Elective courses can be tailored to the student's area of interest.

Course #	Title	Hours
ACB:5203	Gross Human Anatomy for Graduate Students	5-6
ACB:6237	Critical Thinking in Biochemistry and Molecular Biology	1
ACB:6238	Critical Thinking in Genetics	1
ACB:6239	Critical Thinking in Cell Biology	1
ACB:6252/ PTRS:6253	Functional Neuroanatomy	arr.
BIOL:3172	Evolution	4
BIOL:3713	Molecular Genetics (fall)	4
BIOL:4333	Genes and Development	3
BIOL:5412	Fundamental Genetics: Graduate Lecture	3
BIOL:5512	Readings in Genetics	2
BIOS:4120	Introduction to Biostatistics	3
BMB:3140	Experimental Biochemistry (spring)	3
BMB:5244/ PHAR:5542	Molecular Recognition	1
BMB:7251	Introduction to Protein Structures (fall)	1
BMB:7252	Enzymes, Carbohydrates, Nucleic Acids, Lipids, and Membranes (fall)	1
BMB:7253	Introduction to Metabolism (fall)	1
BMB:7254	Metabolism I (spring)	1

BMB:7255	Metabolism II (spring)	1
BMB:7256	Molecular Biology (spring)	1
CS:5110/IGPI:5110	Introduction to Informatics	3
CBIO:7001/ FRRB:7001/ PATH:7001	Molecular and Cellular Biology of Cancer	3
GENE:6150	Genetic Analysis of Biological Systems	3
GENE:7191	Human Molecular Genetics	3
IMMU:6241	Writing a Scientific Proposal	2
IMMU:7221/ MICR:7207	Advanced Topics in Immunology	3
MICR:2157	General Microbiology (fall and spring)	3
MICR:3147	Immunology and Human Disease (fall)	3
MICR:6201/ IMMU:6201	Graduate Immunology (spring)	3
MICR:6247/ IMMU:6247	Graduate Immunology and Human Disease	4
MICR:6259	Graduate Bacteria and Human Disease	3-4
MICR:6267	Graduate Viruses and Human Disease	3
MICR:6268	Biology and Pathogenesis of Viruses	2
MICR:6270	Graduate Bacterial Genetics	3
MMED:6220/ ACB:6220/ MPB:6220	Mechanisms of Cellular Organization (fall)	3
MMED:6226/ ACB:6226/ MPB:6226	Cell Cycle Control	1
MMED:6227/ ACB:6227/ MPB:6227	Cell Fate Decisions (spring)	1
MPB:5153	Graduate Physiology	4
NEUR:7235/ NSCI:7235	Neurobiology of Disease	3
NSCI:5653/ BIOL:5653/ PSY:5203	Fundamental Neurobiology I	3
OEH:6710	Human Toxicology and Risk Assessment (spring)	3
PATH:5270/ IGPI:5270/ MMED:5270	Pathogenesis of Major Human Diseases	3
PATH:8133	Introduction to Human Pathology for Graduate Students (fall)	2-4
PCOL:5135	Principles of Pharmacology	1
PCOL:5136	Pharmacogenetics and Pharmacogenomics	1
PCOL:5137	Neurotransmitters	1
PCOL:6207	Ion Channel Pharmacology	1
PCOL:6225	Growth Factor Receptor Signaling	1
PSQF:6217/ GRAD:6217	Seminar in College Teaching (fall and spring)	1-3
PTRS:6224	Activity-Based Neural and Musculoskeletal Plasticity in Health Care	4

Additional Requirements

Laboratory Rotations

Graduate students rotate through at least three different free radical and radiation biology laboratories during their first academic year with primary and secondary faculty.

Seminar and Journal Clubs

Students must enroll in one seminar for credit once a year for three years as well as a thesis defense seminar. Students should not register for the seminar during their first academic year.

Students enrolled for research credit are required to submit a research report to their advisor on the last day of class each semester. The report is evaluated and graded by the advisor. The report, written in a form that is appropriate for a peer-reviewed publication, should define the goals, aims, and objectives for the specific semester, and describe the progress made by the student toward completion of the research objectives.

Topics in Free Radical Biology and Medicine (FRRB:6006) and Topics in Radiation and Cancer Biology (FRRB:6008) must each be taken at least two times.

Publication Requirements

Students must submit at least one first-author manuscript prior to the thesis defense. All PhD students are expected to have co-author publications prior to graduation and these publications should include first authorship.

Grant Writing Opportunities

National Institutes of Health (NIH) research grant proposals (i.e., F30, F31) and/or equivalent grant submissions are encouraged based on a student's work. The free radical and radiation biology program will provide resources and critiques of the application prior to submission. Students should review the instructions provided in the NIH publication, PHS-398, available from the National Institutes of Health website.

Comprehensive Examination

Students who have successfully completed four semesters since enrollment must take their comprehensive exam no later than February of their third year in the program. Students need to maintain full-time status (minimum of 9 s.h. per semester) prior to their comprehensive examination. The comprehensive examination includes both a written and an oral presentation on the topic of the student’s dissertation research. The written proposal needs to be organized following the National Institutes of Health guidelines for an R01 application. Students are encouraged to consult with their mentors and members of their PhD advisory/examination committee as they develop their research hypothesis and specific aims; this should be limited to one page. Once the hypothesis and aims page has been approved by the committee, the mentor and committee members will not have any input into the development and writing of the rest of the proposal. If appropriate, students are allowed a second attempt at the comprehensive examination. A second attempt needs to be completed no later than August of the same year as the first attempt of the comprehensive examination.

The written proposal is typically 14 pages, which includes an abstract (half-page summary, as a separate page), the hypothesis and aims (one page), the body of the proposal (12 pages), and references not included in the page count. A title page (not included in the page count) with only administrative information, such as the title of the proposal, name of the student, date of examination, and other such information is encouraged. The proposal should be prepared as single-spaced text, in 11-point Arial font.

Final Examination

The final examination is a defense of the thesis and explanation of the scientific principles involved, given in a public seminar and closed-door oral exam, with committee members. The student's research must be summarized in the format required by the Graduate College.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in biomedical science (free radical and radiation biology subprogram) in a combined degree program offered by the Graduate College and the Carver College of Medicine. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Molecular Medicine

The Doctor of Philosophy in biomedical science with a molecular medicine subprogram provides interdisciplinary training in the concepts and methodologies fundamental to the investigation of biological processes and molecular mechanisms that relate to human disease. The PhD requires a minimum of 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average of at least 3.00 to earn the degree.

Students enter the molecular medicine subprogram through the Biomedical Science Program. The Biomedical Science Program is designed to provide students maximum flexibility during the first year of graduate studies to take a course of study compatible with several programs while completing research rotations. At the end of the first year, students choose a subprogram affiliation.

The curriculum is a sequence of required and elective courses, which provides students with broad exposure to areas including molecular biology, cell biology, biochemistry, and integrative sciences. It ensures a comprehensive exposure to conceptual and experimental aspects of molecular and cellular biology and translational studies. Sufficient flexibility is provided so that students can adapt the program to permit specialization in their own area of interest. Faculty members are involved in a variety of research projects involving molecular and cellular biology and molecular medicine.

The PhD in biomedical science with a molecular medicine subprogram requires the following coursework.

Typical Curriculum

First Year

See the Core Curriculum [p. 1701] at the beginning of the PhD in biomedical science section of the catalog for a typical first-year schedule.

Second Year

Students select coursework from the following three track areas: metabolic disorders, cardiovascular biology, and molecular and cellular medicine (general).

Course #	Title	Hours
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
MMED:6280	Critical Thinking in Molecular Medicine	1
MMED:7290	Seminars in Molecular Medicine	1
Electives		1-3

Students select coursework from the following three track areas: metabolic disorders, cardiovascular biology, and molecular and cellular medicine (general).

Metabolic Disorders

Course #	Title	Hours
BMB:7253	Introduction to Metabolism	1
BMB:7255	Metabolism II	1
MMED:6230	Pathogenesis of Metabolic and Cardiovascular Disorders	3
MMED:6280	Critical Thinking in Molecular Medicine	1
MMED:7310	Translational Medicine Education Rounds (taken fall and spring semesters)	1

Cardiovascular Biology

Course #	Title	Hours
MMED:6230	Pathogenesis of Metabolic and Cardiovascular Disorders	3
MMED:6280	Critical Thinking in Molecular Medicine	1
MMED:7310	Translational Medicine Education Rounds (taken fall and spring semesters)	1
Elective		3

Molecular and Cellular Medicine (General)

Course #	Title	Hours
MMED:6220/ ACB:6220/ MPB:6220	Mechanisms of Cellular Organization	3
MMED:6280	Critical Thinking in Molecular Medicine	1
MMED:7310	Translational Medicine Education Rounds (taken fall and spring semesters)	1
Related coursework from list in the molecular medicine Graduate Student Guidelines		2
3 s.h. from these:		
MMED:3310/ BMB:3310/ CBIO:3310	Practical Data Science and Bioinformatics	3
MMED:6226/ ACB:6226/ MPB:6226	Cell Cycle Control	1

MMED:6227/ ACB:6227/ MPB:6227	Cell Fate Decisions (elective, 1s.h. maximum)	1
PCOL:6225	Growth Factor Receptor Signaling	1
Elective		1

Additional Requirements

Laboratory Rotations

To ensure that students obtain early involvement in laboratory research, they are required to register for research credits and complete three laboratory rotations during their first year of graduate study. In general, these rotations are in the laboratories of three different molecular medicine faculty members. In some cases, if approved by the molecular medicine program, students may be allowed to complete two of their rotations in the same laboratory.

Teaching

Students are required to complete a teaching requirement (3 s.h.). They may teach in a combination of 1 or 2 s.h. courses, or one 3 s.h. course. This teaching requirement must be met prior to the final dissertation defense and graduation. It is recommended that teaching occurs in the third year following the completion of the comprehensive examination.

Publication Requirements

Students are required to have a minimum of one first-author publication in a peer-reviewed journal. The article must be formally accepted and be in-press status or be published prior to graduation. A co-first-authored, peer-reviewed publication will count toward this requirement.

External Fellowship Application Requirement

Students are required to submit a fellowship to an external funding agency (i.e., National Institutes of Health, American Heart Association) within one year of completing their comprehensive examination or by a date that is mutually agreed upon by the student, the dissertation advisor, and the molecular medicine program.

Comprehensive Examination

Students are expected to complete the comprehensive examination, both written and oral components, before the beginning of their third year. The preliminary specific aims document can be submitted to the comprehensive examination committee any time after approval of the dissertation plan, but must be submitted before April 1. The committee evaluation of the specific aims will be returned to the student within one week. A rejected specific aims document must be revised and resubmitted within three weeks. The committee then has one week to evaluate the resubmitted specific aims. The specific aims must be accepted by a majority vote of the committee before a student can proceed with the development of a full proposal. Only two rounds of submission are allowed.

Following acceptance of the specific aims, a student must submit the written proposal within six weeks. The committee has two weeks to review the written document. The oral presentation to defend the written proposal should be scheduled as soon after the two weeks as possible or at the convenience of the committee. It is expected that all examinations will be completed by July 15, in advance of the end of the student's second year.

The detailed Molecular Medicine Graduate Student Guidelines are located under Program Information on the Molecular Medicine Program website.

Final Examination

The five-member thesis committee serves as an advisory body for the preparation of the thesis. It is expected that a student meets with the committee annually, although the candidate, thesis advisor, or the committee can request a meeting at any time. The final examination takes the form of a seminar presented to the program followed by a final thesis defense with committee members. The student is required to present a complete copy of the thesis to the thesis committee members at least two weeks prior to the final defense date.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in biomedical science (molecular medicine subprogram) in a combined degree program offered by the Graduate College and the Carver College of Medicine. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Molecular Physiology and Biophysics

The Doctor of Philosophy in biomedical science with a molecular physiology and biophysics subprogram offers opportunities for training and research. The degree requires a minimum of 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average (GPA) of at least 3.00 to earn the degree.

Students enter the molecular physiology and biophysics subprogram through the Biomedical Science Program. The Biomedical Science Program is designed to provide students maximum flexibility during the first year of graduate studies to take a course of study compatible with several programs while completing research rotations. At the end of the first year, students choose a subprogram affiliation.

Students join an active group of faculty members and advanced students at a time of expanding interdisciplinary biomedical research at the University of Iowa. Faculty in the Department of Molecular Physiology and Biophysics have a strong research focus on the cellular, molecular, and physical mechanisms of physiological processes.

The PhD in biomedical science with a molecular physiology and biophysics subprogram requires the following coursework.

Typical Curriculum

First Year, Fall

Course #	Title	Hours
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1

BMED:7888	Biomedical Science Research	arr.
PCOL:5204	Basic Biostatistics and Experimental Design	1
Elective course(s)		

First Year, Spring

Course #	Title	Hours
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	arr.
MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270/ IGPI:5270/ MMED:5270	Pathogenesis of Major Human Diseases	3
Elective course(s)		

Second Year, Fall

Course #	Title	Hours
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
MPB:5153	Graduate Physiology	4
MPB:6302	Research Physiology and Biophysics	6

Second Year, Spring

Course #	Title	Hours
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
MMED:6226/ ACB:6226/ MPB:6226	Cell Cycle Control (elective)	1
MMED:6227/ ACB:6227/ MPB:6227	Cell Fate Decisions (elective)	1
MPB:6302	Research Physiology and Biophysics	2
PCOL:6225	Growth Factor Receptor Signaling	1

Elective Coursework Options

Any elective preapproved by the director of graduate studies can be used to meet the elective requirement. A total of 9 s.h. of elective coursework is required.

The most common elective options are the following.

Course #	Title	Hours
GENE:6150	Genetic Analysis of Biological Systems	3
IGPI:5270/ MMED:5270/ PATH:5270	Pathogenesis of Major Human Diseases	3
MPB:6220/ ACB:6220/ MMED:6220	Mechanisms of Cellular Organization	3
NSCI:5653/ BIOL:5653/ PSY:5203	Fundamental Neurobiology I	3

Additional Requirements

Plan of Study

In consultation with the director of graduate studies, each newly admitted student formulates a plan of study to be completed before the comprehensive examination. This plan should include projected dates for completion of the comprehensive examination as well as provision for removal of deficiencies. Before completing the comprehensive exams, the normal course load is 15 s.h. each semester.

Required Courses

It is the intention of the department to have a curriculum that allows coursework to be mostly completed within the first year, though in some instances additional coursework in subsequent years is required. The core curriculum represents a minimum of required classes; although with the advice of the director of graduate studies and thesis advisor, some students may benefit from completing additional coursework.

Requests for waiver of required courses or change of course registration must be approved by the director of graduate studies after consultation with the faculty and the chair of the department.

Evaluation of Progress

Students must meet the progress requirements of the Department of Molecular Physiology and Biophysics and the Graduate College. To meet departmental requirements, students must earn a grade of B or higher in MPB:5153 Graduate Physiology and BMED:5207 Principles of Molecular and Cellular Biology (B-minus or lower constitutes a non-passing grade), a grade of satisfactory (S) for BMED:7270 Scholarly Integrity/Responsible Conduct of Research I, and a GPA of at least 3.00 in all elective coursework (a grade below B, but above D-minus, is permissible for individual electives, so long as the GPA of all combined electives taken during the graduate program remains higher than 3.00).

All core curriculum courses receiving a letter grade must be satisfactorily completed prior to taking the comprehensive exam. According to Graduate College regulations, students cannot take a comprehensive exam in a semester in which they are on academic probation.

Comprehensive Examination

Students admitted directly to the doctoral program are required to complete the comprehensive examination by June 30 of the second year in the program.

Workshop

All postcomprehensive students are required to present a workshop on the progress of their thesis research once per year. Students should consult with the workshop coordinator to arrange presentation dates. Precomprehensive students also are encouraged to present workshops, though it is not required. Students have the option to present a full or half workshop (typically 45 or 20 minutes, respectively).

Research Publication

It is expected that thesis research will result in findings that are of sufficient quality and completeness to warrant publication in good-quality peer-reviewed journals. At least

one first-author peer-reviewed research paper should be accepted for publication prior to the PhD thesis defense. The published paper or a letter from an editor indicating acceptance should be provided to the director of graduate studies before scheduling a final exam date. In certain cases, a first-author research manuscript might be written, but not yet accepted by a journal at the time a final PhD thesis exam is scheduled. In this case, the first-author requirement may be satisfied if trainees submit their manuscript to the preprint server for biology, bioRxiv.

Thesis Defense and Presentation

Students complete a thesis defense with their committee. Once this test is completed they must schedule a public thesis presentation.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in biomedical science (molecular physiology and biophysics subprogram) in a combined degree program offered by the Graduate College and the Carver College of Medicine. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Pharmacology

The Doctor of Philosophy in biomedical science with a pharmacology subprogram requires a minimum of 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average of at least 3.00 to earn the degree.

Qualified students who are interested in earning the Doctor of Medicine along with the PhD may apply to the Medical Scientist Training Program [p. 1901] in a combined MD/PhD program. Students have the opportunity to tailor their curriculum with courses that enhance their educational goals. They take a combination of graduate courses that include seminar courses.

The PhD in biomedical science with a pharmacology subprogram requires the following coursework.

Core Pharmacology Curriculum

Course #	Title	Hours
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
MPB:5153	Graduate Physiology	4
PCOL:5130	Basic Concepts in Pharmacology	3
PCOL:5204	Basic Biostatistics and Experimental Design	1
PCOL:6203	Pharmacology for Graduate Students	5
PCOL:6250	Advanced Problem Solving in Pharmacological Sciences	1

Typical Curriculum

First Year, Fall

Course #	Title	Hours
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	arr.
MPB:5153	Graduate Physiology	4
PCOL:5204	Basic Biostatistics and Experimental Design	1

First Year, Spring

Course #	Title	Hours
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	arr.
MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270/ IGPI:5270/ MMED:5270	Pathogenesis of Major Human Diseases	3
PCOL:5130	Basic Concepts in Pharmacology	3
PCOL:6250	Advanced Problem Solving in Pharmacological Sciences	1
PHAR:6504	Mastering Reproducible Science	1

Second Year, Fall

Course #	Title	Hours
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
PCOL:6015	Topics in Pharmacology and Neuroscience	1
PCOL:6080	Pharmacology Seminar	1
PCOL:6090	Graduate Research in Pharmacology	arr.
PCOL:6203	Pharmacology for Graduate Students	5

Second Year, Spring

Course #	Title	Hours
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
PCOL:6015	Topics in Pharmacology and Neuroscience	1
PCOL:6080	Pharmacology Seminar	1
PCOL:6090	Graduate Research in Pharmacology	arr.

Additional Requirements

Laboratory Rotations

Newly admitted students complete three 12-week laboratory rotations by the end of the second semester.

Seminar and Journal Clubs

In subsequent semesters, students enroll in PCOL:6015 Topics in Pharmacology and Neuroscience and PCOL:6080 Pharmacology Seminar.

Comprehensive Examination

The comprehensive examination process normally begins during the spring of the student's second year in the program and is completed during the subsequent summer.

The exam consists of writing and defending a related-but-distinct proposal or if desired, an off-topic proposal. A related but distinct proposal is one based on the research program of the student's mentor(s) that is not the student's dissertation project or any other project being conducted in the laboratory. An off-topic proposal is one based on a subject completely unrelated to the student's dissertation research.

During the oral defense, the comprehensive exam committee may pose questions related to the written proposal and may also ask questions to determine whether the student has broad knowledge of the pharmacological sciences.

Publication

A first-authored manuscript derived from a student's thesis research must be accepted for publication before the PhD is granted.

Final Examination

The final oral examination is a defense of the thesis and is conducted by the thesis committee, typically immediately after a thesis seminar.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in biomedical science (pharmacology subprogram) in a combined degree program offered by the Graduate College and the Carver College of Medicine. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biomedical Science, PhD

- Cancer Biology Subprogram [p. 1714]
- Cell and Developmental Biology Subprogram [p. 1715]
- Experimental Pathology Subprogram [p. 1716]
- Free Radical and Radiation Biology Subprogram [p. 1717]
- Molecular Medicine Subprogram [p. 1718]
- Molecular Physiology and Biophysics Subprogram [p. 1719]
- Pharmacology Subprogram [p. 1719]

Cancer Biology Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Any Semester		
Select PhD Mentor		
	Hours	**0**
Fall		
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	6
PCOL:5204	Basic Biostatistics and Experimental Design	1
Elective course [c]		3
	Hours	**15**
Spring		
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	6
FRRB:7001	Molecular and Cellular Biology of Cancer	3
MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270	Pathogenesis of Major Human Diseases	3
PHAR:6504	Mastering Reproducible Science	1
	Hours	**15**
Second Year		
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
CBIO:5500	Topics in Cancer Biology	1
CBIO:6000	Seminar: Cancer Research	1
CBIO:6500	Research in Cancer Biology	6
CBIO:7000	Clinical Connections	1
CBIO:7500	Crafting a Scientific Proposal	1
Elective course [c]		3
	Hours	**13**
Spring		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
CBIO:5500	Topics in Cancer Biology	1
CBIO:6000	Seminar: Cancer Research	1
CBIO:6500	Research in Cancer Biology	6

Elective course [c]		1
	Hours	**9**
Summer		
Comprehensive Exam		
CBIO:6500	Research in Cancer Biology	1
	Hours	**1**
Third Year		
Fall		
CBIO:5500	Topics in Cancer Biology	1
CBIO:6000	Seminar: Cancer Research	1
CBIO:6500	Research in Cancer Biology	5
	Hours	**7**
Spring		
CBIO:5500	Topics in Cancer Biology	1
CBIO:6000	Seminar: Cancer Research	1
CBIO:6500	Research in Cancer Biology	4
	Hours	**6**
Fourth Year		
Fall		
CBIO:5500	Topics in Cancer Biology	1
CBIO:6000	Seminar: Cancer Research	1
CBIO:6500	Research in Cancer Biology	1
	Hours	**3**
Spring		
CBIO:5500	Topics in Cancer Biology	1
CBIO:6000	Seminar: Cancer Research	1
CBIO:6500	Research in Cancer Biology	1
Final Exam [d]		
	Hours	**3**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Work with faculty advisor to determine appropriate graduate elective coursework and sequence.

d Dissertation defense.

Cell and Developmental Biology Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	1
PCOL:5204	Basic Biostatistics and Experimental Design	1
Elective course [c]		3
	Hours	**10**
Spring		
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	1
MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270	Pathogenesis of Major Human Diseases	3
Elective course [c]		3
	Hours	**9**
Second Year		
Any Semester		
Comprehensive Exam		
	Hours	**0**
Fall		
ACB:5206	Graduate Research in Cell and Developmental Biology [d]	8
ACB:5224	Graduate Seminar in Cell and Developmental Biology	1
ACB:6220	Mechanisms of Cellular Organization	3
ACB:6237	Critical Thinking in Biochemistry and Molecular Biology	1
ACB:6239	Critical Thinking in Cell Biology	1
ACB:6248	Critical Thinking in Development	1
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
	Hours	**15**
Spring		
ACB:5206	Graduate Research in Cell and Developmental Biology [d]	11
ACB:5224	Graduate Seminar in Cell and Developmental Biology	1
ACB:6238	Critical Thinking in Genetics	1
ACB:6249	Critical Thinking in Cellular Physiology	1
ACB:6250	Critical Thinking in Scientific Writing and Presentations	1
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
	Hours	**15**
Summer		
ACB:5206	Graduate Research in Cell and Developmental Biology [e]	arr.
	Hours	**0**
Third Year		
Fall		
Complete Teaching Requirement [f]		

ACB:5206	Graduate Research in Cell and Developmental Biology [g]	8
ACB:5224	Graduate Seminar in Cell and Developmental Biology	1
	Hours	**9**
Spring		
ACB:5206	Graduate Research in Cell and Developmental Biology [g]	8
ACB:5224	Graduate Seminar in Cell and Developmental Biology	1
	Hours	**9**
Fourth Year		
Fall		
ACB:5206	Graduate Research in Cell and Developmental Biology	1
ACB:5224	Graduate Seminar in Cell and Developmental Biology	1
	Hours	**2**
Spring		
ACB:5206	Graduate Research in Cell and Developmental Biology	1
ACB:5224	Graduate Seminar in Cell and Developmental Biology	1
GRAD:6003	Doctoral Final Registration	1
Final Exam [h]		
	Hours	**3**
	Total Hours	**72**

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b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.
c Work with faculty advisor to determine appropriate graduate elective coursework and sequence.
d Take enough credit hours of ACB:5206 to bring semester total up to 15 s.h.
e Register for 1 s.h. of ACB:5206 if Comprehensive Exam is scheduled over the summer.
f Can be done during any one semester before thesis defense and graduation.
g Take enough credit hours of ACB:5206 to satisfy degree requirements.
h Dissertation defense.

Experimental Pathology Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	9
PCOL:5204	Basic Biostatistics and Experimental Design	1
	Hours	**15**
Spring		
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	9
MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270	Pathogenesis of Major Human Diseases	3
PHAR:6504	Mastering Reproducible Science	1
	Hours	**15**
Second Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
PATH:7211	Research in Pathology [c]	9
Elective relevant to Experimental Pathology [d]		3 - 4
	Hours	**15-16**
Spring		
Exam: Doctoral Comprehensive Exam [e]		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
PATH:6220	Seminar in Pathology	1
PATH:7211	Research in Pathology [c]	11
Elective relevant to Experimental Pathology [d]		3 - 4
	Hours	**15-16**
Third Year		
Fall		
PATH:7211	Research in Pathology	3
	Hours	**3**
Spring		
PATH:7211	Research in Pathology	3
	Hours	**3**
Fourth Year		
Fall		
PATH:7211	Research in Pathology	3
	Hours	**3**
Spring		
PATH:7211	Research in Pathology	3
Exam: Doctoral Final Exam [f]		
	Hours	**3**
	Total Hours	**72-74**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.
c Adjust research credit hours depending on whether the elective course is 3 or 4 s.h.
d Only one elective is required, and it can be taken either in the fall or spring semester of second year. Adjust research hours during non-elective semester so that total hours equals 15 s.h.
e Completed during second year spring semester; exam includes oral defense of comp exam proposal.
f Dissertation defense.

Free Radical and Radiation Biology Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research [c]	5
FRRB:5000	Radiation Biology [d]	4
PCOL:5204	Basic Biostatistics and Experimental Design	1
	Hours	**15**
Spring		
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research [c]	5
FRRB:7000	Redox Biology and Medicine [d]	4
MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270	Pathogenesis of Major Human Diseases	3
PHAR:6504	Mastering Reproducible Science	1
	Hours	**15**
Second Year		
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
FRRB:5000	Radiation Biology [d]	4
FRRB:6000	Seminar: Free Radical and Radiation Biology [e]	1
FRRB:6004	Research: Free Radical and Radiation Biology [f]	5
FRRB:6006	Topics in Free Radical Biology and Medicine [g]	1
FRRB:6008	Topics in Radiation and Cancer Biology [g]	1
Elective course		3
	Hours	**15**
Spring		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
FRRB:6000	Seminar: Free Radical and Radiation Biology [e]	1
FRRB:6004	Research: Free Radical and Radiation Biology [f]	5
FRRB:6006	Topics in Free Radical Biology and Medicine [g]	1
FRRB:6008	Topics in Radiation and Cancer Biology [g]	1
FRRB:7000	Redox Biology and Medicine [d]	4
Elective course		3
	Hours	**15**
Third Year		
Fall		
FRRB:6000	Seminar: Free Radical and Radiation Biology [e]	1
FRRB:6004	Research: Free Radical and Radiation Biology [f]	5
	Hours	**6**
Spring		
Exam: Doctoral Comprehensive Exam [h]		
FRRB:6004	Research: Free Radical and Radiation Biology [f]	4
	Hours	**4**
Fourth Year		
Fall		
FRRB:6004	Research: Free Radical and Radiation Biology [f]	1
	Hours	**1**
Spring		
FRRB:6004	Research: Free Radical and Radiation Biology [f]	1
Exam: Doctoral Final Exam [i]		
	Hours	**1**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.
c If only taking the courses described here, register for the indicated credit hours of BMED:7888; if taking additional courses, register for enough credit hours to bring total up to 15 s.h.
d Students must take this course just once, either during their first or second year.
e Take three times.

f On average, FRRB students complete a total of 30 s.h. of research credit for their PhD degree; no more than 6 s.h. of research credit per semester allowed without prior approval of FRRB faculty.
g Note: Students who are on the T32 Training Grant are required to give a seminar once a year.
h Take by third year spring semester.
i Dissertation defense.

Molecular Medicine Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
BIOS:4120 or PCOL:5204	Introduction to Biostatistics or Basic Biostatistics and Experimental Design	1, 3
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	1
MMED:6280	Critical Thinking in Molecular Medicine	1
MMED:8115	Molecular Physiology	4
	Hours	**12-14**
Spring		
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	3
MMED:5270	Pathogenesis of Major Human Diseases	3
MMED:6260	Methods for Molecular and Translational Medicine	1
MMED:6280	Critical Thinking in Molecular Medicine	1
PHAR:6504	Mastering Reproducible Science	1
Relevant elective course [c]		3
	Hours	**13**
Second Year		
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
BMED:7888	Biomedical Science Research	5
MMED:6230	Pathogenesis of Metabolic and Cardiovascular Disorders	3
MMED:6280	Critical Thinking in Molecular Medicine	1
MMED:7290	Seminars in Molecular Medicine	1
MMED:7310	Translational Medicine Education Rounds	1
Relevant elective course [c]		3
	Hours	**14**
Spring		
Exam: Doctoral Comprehensive Exam [d]		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
BMED:7888	Biomedical Science Research	11
MMED:6280	Critical Thinking in Molecular Medicine	1
MMED:7290	Seminars in Molecular Medicine	1
MMED:7310	Translational Medicine Education Rounds	1
	Hours	**14**
Summer		
MMED:7305	Molecular Medicine Research	1
	Hours	**1**
Third Year		
Fall		
MMED:7290	Seminars in Molecular Medicine	1
MMED:7305	Molecular Medicine Research	6
	Hours	**7**
Spring		
MMED:7290	Seminars in Molecular Medicine	1
MMED:7305	Molecular Medicine Research	6
	Hours	**7**
Fourth Year		
Fall		
MMED:7290	Seminars in Molecular Medicine	1
MMED:7305	Molecular Medicine Research	1
	Hours	**2**
Spring		
MMED:7290	Seminars in Molecular Medicine	1
MMED:7305	Molecular Medicine Research	1
Exam: Doctoral Final Exam [e]		
	Hours	**2**
	Total Hours	**72-74**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.
c Work with faculty advisor to choose appropriate graduate coursework from an approved list.
d Typically taken no later than the end of summer before third year.
e Dissertation defense.

Molecular Physiology and Biophysics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	6
PCOL:5204	Basic Biostatistics and Experimental Design	1
Elective course [c]		3
	Hours	**15**
Spring		
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research	4
MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270	Pathogenesis of Major Human Diseases	3
Elective course [c]		3
Elective course [c]		3
	Hours	**15**
Second Year		
Fall		
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
MPB:5153	Graduate Physiology	4
MPB:6302	Research Physiology and Biophysics	8
	Hours	**15**
Spring		
Exam: Doctoral Comprehensive Exam		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
MMED:6226	Cell Cycle Control	1
MMED:6227	Cell Fate Decisions	1
MPB:6302	Research Physiology and Biophysics	12
PCOL:6225	Growth Factor Receptor Signaling	1
	Hours	**15**
Third Year		
Fall		
MPB:6302	Research Physiology and Biophysics	9
	Hours	**9**
Spring		
MPB:6302	Research Physiology and Biophysics	1
	Hours	**1**
Fourth Year		
Fall		
GRAD:6002	Doctoral Continuous Registration	1
	Hours	**1**
Spring		
GRAD:6002	Doctoral Continuous Registration	1
Exam: Doctoral Final Exam [d]		
	Hours	**1**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Work with faculty advisor to choose from an approved list of electives.

d Dissertation defense.

Pharmacology Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
Graduate College program GPA of at least 3.00 is required. [d]		
	Hours	**0**
First Year		
Fall		
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:5208	Topics in Principles of Molecular and Cellular Biology	1
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research [e]	5
MPB:5153	Graduate Physiology [f]	4
PCOL:5204	Basic Biostatistics and Experimental Design	1
	Hours	**15**
Spring		
BMED:7777	Biomedical Science Seminar	1
BMED:7888	Biomedical Science Research [e]	5

MMED:6260	Methods for Molecular and Translational Medicine	1
PATH:5270	Pathogenesis of Major Human Diseases	3
PCOL:5130	Basic Concepts in Pharmacology [f]	3
PCOL:6250	Advanced Problem Solving in Pharmacological Sciences [f]	1
PHAR:6504	Mastering Reproducible Science	1
	Hours	**15**
Second Year		
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
PCOL:6015	Topics in Pharmacology and Neuroscience	1
PCOL:6080	Pharmacology Seminar	1
PCOL:6090	Graduate Research in Pharmacology [g]	8
PCOL:6203	Pharmacology for Graduate Students	5
	Hours	**15**
Spring		
Exam: Doctoral Comprehensive Exam [h]		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
PCOL:6015	Topics in Pharmacology and Neuroscience	1
PCOL:6080	Pharmacology Seminar	1
PCOL:6090	Graduate Research in Pharmacology [g]	13
	Hours	**15**
Third Year		
Fall		
PCOL:6015	Topics in Pharmacology and Neuroscience	1
PCOL:6080	Pharmacology Seminar	1
	Hours	**2**
Spring		
PCOL:6015	Topics in Pharmacology and Neuroscience	1
PCOL:6080	Pharmacology Seminar	1
	Hours	**2**
Fourth Year		
Fall		
PCOL:6015	Topics in Pharmacology and Neuroscience	1
PCOL:6080	Pharmacology Seminar	1
	Hours	**2**
Spring		
PCOL:6015	Topics in Pharmacology and Neuroscience	1
PCOL:6080	Pharmacology Seminar	1
	Hours	**2**
Fifth Year		
Fall		
PCOL:6015	Topics in Pharmacology and Neuroscience	1
PCOL:6080	Pharmacology Seminar	1
	Hours	**2**
Spring		
PCOL:6015	Topics in Pharmacology and Neuroscience	1
PCOL:6080	Pharmacology Seminar	1
Exam: Doctoral Final Exam [i]		
	Hours	**2**
	Total Hours	**72**

a Students complete three 12-week laboratory rotations by the end of the second semester.

b During the first two semesters, all registered students enroll in BMED:5208 and BMED:7777. In subsequent semesters, students enroll in PCOL:6015 and PCOL:6080.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

e Register for the indicated credit hours of BMED:7888 if taking the courses exactly as listed on the plan for this semester. If enrolling for additional courses, adjust BMED:7888 credit hours to bring total up to 15 s.h.

f Taking this course now allows for coursework completion in an optimal timeframe.

g Register for the indicated credit hours of PCOL:6090 if taking the courses exactly as listed on the plan for this semester. If enrolling for additional courses, adjust PCOL:6090 credit hours to bring total up to 15 s.h.

h The comprehensive examination process normally begins during the fourth semester and is completed during the fifth semester in the program.

i Dissertation defense.

Center for the Book

Director

- Sara A. Langworthy (Library and Information Sciences)

Assistant Director

- Kathleen Tandy

Graduate degree: MFA in book arts

Graduate certificate: book arts and book studies

Faculty: https://uicb.uiowa.edu/faculty-and-staff-0

Website: https://uicb.uiowa.edu/

The University of Iowa Center for the Book represents a community of faculty, staff, students, and local book specialists with interests in all facets of book production, distribution, and use. Some members of the center actively research the history and circulation of the book, examining the role of books in cultural and historical processes. They also look at how changes in book production affect the way books are viewed as artifacts. Specialists in book arts and technologies study the history and technique of book crafts, including letterpress printing, typography, calligraphy, papermaking, and bookbinding. Others engage in the conservation or production of books, including artists' books and literary fine press publications.

The center offers classes; sponsors lectures, seminars, and workshops; and encourages the exchange of ideas among individuals with interests in the book. A wide range of perspectives on the book as an aesthetic, cultural, and historical artifact is provided by associated faculty, staff, and graduate students in the schools of Art, Art History, and Design, and Library and Information Science; the departments of History and English; the University of Iowa Libraries; the Creative Writing Program (Iowa Writers' Workshop); and other areas. This interdisciplinary membership and the center's facilities combine to provide an exceptional environment for studying the history of the book, its evolution, and its future.

Graduate students may earn a master's degree or a graduate certificate through the Center for the Book. Undergraduate students may add dimension to their majors in English, art, journalism, history, and other disciplines by taking Center for the Book courses in book arts and book studies. They also may include an emphasis on book arts or on cultural and historical aspects of the book in the interdepartmental studies major.

Programs

Graduate Programs of Study

- Master of Fine Arts in Book Arts [p. 1724]
- Certificate in Book Arts and Book Studies [p. 1727]

Courses

Center for the Book Courses

UICB:2100 Creative Writing for Book Arts 3 s.h.
Creative writing in context of book arts; text and image, typography, visual sequence, graphic narrative; zines, chapbooks, broadsides, and artist's books.

UICB:2110 Introduction to Book Arts 3 s.h.
Topics related to artist books, hand bookbinding, letterpress printing, papermaking, and lettering arts. GE: Engineering Be Creative; Literary, Visual, and Performing Arts. Same as BKAT:2110.

UICB:2190 The Book in Global History 3 s.h.
Introduction to history of the book and book arts in diverse global contexts; histories of visual and verbal media, cross-cultural exchange, and the book's impact across time and space; hands-on work with historical books and book arts including papermaking, woodblock and letterpress printing, and binding. GE: Historical Perspectives. Same as ENGL:2901, HIST:2190.

UICB:2600 Graphic Design II 3 s.h.
Fundamentals of typography as a core element in visual communication; introduction to historical typographic practices as well as modern modes of designing with type. Prerequisites: ARTS:1510 and ARTS:1520. Corequisites: DSGN:2500. Same as DSGN:2600.

UICB:2900 Book Design for Publishing 3 s.h.
Introduction to the major aspects of book design, including typography, layout, standard industry software, discussion of trends in the field. Same as ARTS:2900, ENGL:2900, WRIT:2900.

UICB:3140 Literature and the Book 3 s.h.
The relationship between literature and the book as a medium. Same as ENGL:3140.

UICB:3142 Topics in Book History 3 s.h.
Authorship, publishing, etc. within specific historical and cultural contexts. Same as ENGL:3142.

UICB:3280 Elements of Book Art 3 s.h.
Overview of book art process and techniques for nonmajors; introduction to traditional bookbinding skills, nontraditional book structures, and content development for artist books. GE: Engineering Be Creative. Same as BKAT:3280.

UICB:3380 Letterpress 3 s.h.
Introduction to letterpress printing; metal type, relief printing, page layout, and basic typography; basic use of Vandercook Proof Press; experimentation with diverse letterpress techniques. GE: Engineering Be Creative. Same as BKAT:3380.

UICB:3401 Literature and Book History 3 s.h.
Same as ENGL:3401.

UICB:3900 Special Project for Undergraduates arr.
Independent study.

UICB:3980 American Print Culture 3 s.h.
Exploration of a wide range of imagery printed and published in the United States during 19th century (1776-1900); fine art original prints, popular imagery in periodicals and illustrated books, scholarly literature, history of evolving technologies, variety of printed work; shifting reputation of printed art and its makers. Same as ARTH:3980.

UICB:4100 Paperworks 3 s.h.
Conceptual and methodological approaches to 2D and 3D paper works; creation of works that couple unique properties of paper-pulp medium with personal visual ideas and clarity of intent; contemporary issues in paper pulp, medium's relationship to larger art and craft contexts. GE: Engineering Be Creative. Same as BKAT:4100.

UICB:4150 Introduction to Book Studies 3 s.h.
Theory and practice of book studies; meanings of word and image in the book format; comparative study of other media, applied study of the codex as a physical artifact. Same as ENGL:4150, SLIS:4150.

UICB:4205 Bookbinding I: Materials and Techniques 3 s.h.
Hands-on introduction to materials and techniques commonly used in bookbinding. Same as BKAT:4205.

UICB:4210 Boxes and Enclosures 3 s.h.
Hands-on techniques for a variety of book enclosures; appropriateness, aesthetic issues concerning box design; Japanese wraparound case, drop-spine box, hinged and lidded boxes, slipcase; technical skill development. Prerequisites: UICB:4205. Same as BKAT:4210.

UICB:4270 Bookbinding II 3 s.h.
Builds on skills acquired in UICB:4205; projects to complete six bindings based on historical and contemporary models; sewing styles, board attachments, endband types; nonadhesive and case-bound structures, varied materials and binding styles, their effects on structure, aesthetic considerations, further development of solid binding skills; historical development of particular binding practices. Prerequisites: UICB:4205. Same as BKAT:4270.

UICB:4280 Artists' Books 3 s.h.
Exploration of the book as a form for artistic expression; emphasis on conceptual development; relationship between content, form, and structure; how a book's structure and design can enhance and integrate part of the work's meaning. Prerequisites: UICB:4205 or BKAT:4205. Same as BKAT:4280.

UICB:4290 Historical Book Structures 3 s.h.
Historical development of book structures examined through surviving examples, construction of historical models. Prerequisites: UICB:4205.

UICB:4300 Letterpress I 3 s.h.
Mechanics of letterpress printing, typography, and design as applied to hand set metal type and edition printing; printing on a Vandercook proof press; introduction to photopolymer plates and methods of illustration related to edition printing, historical aspects of printing technology, typecasting, type classification; role of letterpress in modern private press and contemporary artist books. Same as ARTS:4300.

UICB:4370 Topics in Letterpress arr.
Rotating topics in intermediate letterpress printing; image-making, relief printing, typesetting, edition printing, print, and book production. Prerequisites: UICB:3380 or BKAT:3380 or UICB:4300 or ARTS:4300.

UICB:4380 Letterpress II 3 s.h.
Builds on skills acquired in UICB:4300; students produce an editioned letterpress printed chapbook or artist book, a poster for a public event, and an image built from metal type; exploration of hand-set metal, digital typesetting, printing from photopolymer plates, and pressure printing; press mechanics and operation; publication philosophies, manuscript acquisition, and topics specific to literary fine press and artist books; historical and contemporary context for literary fine press publications and artist book work. Prerequisites: UICB:4300. Same as ARTS:4380.

UICB:4390 Book and Publication Design 3 s.h.
Students plan, design, and produce a book using Adobe Creative Suite; page layout software, typography, page layout and design, book formatting, handling of image files, preparation of materials for print and other contemporary book media; history of book design, book design in contemporary publishing; visit to University of Iowa Libraries Special Collections. Prerequisites: DSGN:2600 or UICB:4300. Same as ARTS:4390.

UICB:4400 History of Western Letterforms 3 s.h.
History of Western letterforms, with focus on tools, materials, techniques; the major hands, their place in history, their influence on modern times; creation of letterforms using appropriate tools; hands-on approach with emphasis on understanding rather than mastery. Same as ARTS:4400.

UICB:4405 Introduction to Calligraphy Intensive 3 s.h.
Intensive, basic broad pen calligraphy; Roman capitals, lowercase Roman and italic lettering.

UICB:4415 Introduction to Classical Calligraphy 3 s.h.
Basic calligraphy with focus on the hands modern classic typefaces are inspired by (e.g., Roman capitals, lowercase Roman, italic). GE: Engineering Be Creative. Same as ARTS:4415.

UICB:4420 Introduction to Medieval Calligraphy 3 s.h.
Basic calligraphy covering several medieval hands collectively known as blackletter, from heavily vertical Textura to florid Gothic Cursive.

UICB:4490 Advanced Studies in Letter Arts 3 s.h.
Special topics and advanced projects in calligraphy and letter arts. Prerequisites: UICB:4400 or UICB:4415 or UICB:4420. Same as ARTS:4490.

UICB:4910 The Book in the Middle Ages 3 s.h.
Relation of text, decoration, function, creators, and audience in different genres of medieval manuscript books 400-1500 A.D. Same as HIST:4422, SLIS:4910.

UICB:4920 The Book in Early Modern Europe 3 s.h.
History of the book and communication in Europe 1400-1800; production, distribution, and use of texts in cultural context. Same as HIST:4429, SLIS:4920.

UICB:5110 Papermaking I: East Asia, Nepal, and Contemporary Practice 3 s.h.
History, technique, and aesthetics of East Asian and Nepalese papermaking, along with their respective contemporary practices. Same as BKAT:5110.

UICB:5130 Papermaking I: Central Asia, Europe, and Contemporary Practice 3 s.h.
Foundational papermaking; history, technique, and aesthetics of Central Asian, Islamicate, and European papermaking; respective contemporary practices. Same as BKAT:5120.

UICB:5140 Papermaking II: Contemporary Papermaking 3 s.h.
Contemporary papermaking studio practice and conceptual considerations; focus on nontraditional techniques and cross-disciplinary use of paper fibers and handmade paper; handmade paper as a form of artistic expression. Prerequisites: UICB:4100 or BKAT:4100 or UICB:5110 or BKAT:5110 or UICB:5130 or BKAT:5120. Same as BKAT:5140.

UICB:5170 Papermaking III: The Papermakers 3 s.h.
Students hone skills, drawing inspiration from papermaking societies, and conduct hands-on production and research. Prerequisites: UICB:4100 or UICB:5110 or UICB:5130 or UICB:5140 or BKAT:4100 or BKAT:5110 or BKAT:5120. Same as BKAT:5170.

UICB:5180 Advanced Projects in Paper 1-3 s.h.
Advanced independent projects undertaken in a classroom setting; collaborative group discussions to plan, implement, troubleshoot, and evaluate student projects. Prerequisites: UICB:5110 or UICB:5130 or BKAT:5110 or BKAT:5120. Same as BKAT:5180.

UICB:5210 Bookbinding III 3 s.h.
Bookbinding structures based on historical and contemporary models; differences in various binding practices, how these differences affect function, why the styles developed; experience choosing appropriate structures for particular uses; emphasis on fine tuning skills and techniques required for advanced binding practices; sewn endbands, rounding and backing, sewing on varied supports, board attachments, and covering methods. Prerequisites: (UICB:4205 or BKAT:4205) and (UICB:4270 or BKAT:4270). Requirements: for UICB:5210—UICB:4205 and UICB:4270; for BKAT:5210—BKAT:4205 or BKAT:4270 or UICB:4205 or UICB:4270. Same as BKAT:5210.

UICB:5220 Book Conservation 3 s.h.
Practical methods, materials assessment, conservation history and evolution. Prerequisites: UICB:4270. Same as SLIS:5535.

UICB:5280 Advanced Projects in Bookbinding 3 s.h.
Advanced studies in bookbinding; fine binding styles, leather paring and tooling, advanced finishing techniques, refining skills; continued look at differences in regional binding practices, how these differences affect function, and why particular styles developed. Prerequisites: UICB:4270.

UICB:5330 Letterpress III: Imagemaking arr.
Advanced work in alternative and innovative letterpress technologies as they apply to imagemaking processes for fine press printing; topics include pressure printing, photopolymer from nondigital negatives, explorations of type-high surfaces, monoprints on the Vandercook, and applying hand work to editioned prints; students complete a series of print exercises for each process, a small printed book sketch, and a longer format editioned artist book. Prerequisites: UICB:4380. Same as ARTS:5330.

UICB:5340 Letterpress III: The Handprinted Book 3 s.h.
Advanced work in fine press book design; exploration of problems in hand-printing books, choice of manuscript, editing, design, typesetting, proofreading, printing and binding; histories of printing and of the book, emphasis on 20th- and 21st-century book design and literature; issues of book design and production related to letterpress printing. Prerequisites: UICB:4380. Same as ARTS:5340.

UICB:5380 Advanced Projects in Letterpress 3 s.h.
Development and/or production of one substantial project; focus on acquiring or creating a text and/or other content; project development; range of print techniques available in letterpress printing; issues involved in producing editioned artist books or fine press work; opportunity to expand existing printing; classroom setting augments work sessions with in-progress critiques, readings, and visits to special collections. Prerequisites: UICB:4380.

UICB:5520 Studies in Book History and Technologies 0-3 s.h.
Topics related to production, distribution, and consumption of books through history and into the future. Same as SLIS:5520.

UICB:5530 Preservation Management 3 s.h.
Responsible stewardship of collections, integration of preservation into libraries and archives systems, maximizing limited resources, establishing preservation priorities, and advocacy; appropriate care of books, paper, photographs, time-based media (e.g., audio, video, film), and born-digital objects; lectures, discussions, student presentations, and hands-on activities; for students who will be responsible for managing collections. Same as SLIS:5530.

UICB:5540 Topics in Book Arts 1-3 s.h.
Focus on particular techniques and concepts in the book arts and related fields.

UICB:5550 Special Project for Graduate Students arr.
Independent study.

UICB:5600 Reading Culture: History and Research in Print and Digital Media 3 s.h.
What reading means, and what it means to read, have changed with time and place; cultural study of books and reading to evaluate strategies and resources involved in crafting historical interpretations of books and their readers; consideration of ways that reading has always been interdependent with other media, from needlework to social media; how researchers locate and interpret primary source material to study reading culture, and how cultural heritage organizations promote their holdings to researchers. Same as SLIS:5600.

UICB:5930 Topics in Material Analysis 3 s.h.
Analysis and description of physical book artifacts and their component parts (parchment, paper, bookbinding) and allied specialties (the lettering arts, printing and illustration techniques); reading, writing, presentations.

UICB:6100 Book Studies Proseminar 1-3 s.h.

UICB:6370 Topics in Book Studies 3 s.h.
Topics relevant to book studies and special collections. Same as SLIS:6370.

UICB:6510 Book Art Seminar: History, Practice, and Critique 3 s.h.
Art-historical introduction to book arts (printing, bookbinding, papermaking and paperworks, artist bookwork, lettering arts, literary fine press and fine press artist books); influences and origins, contemporary practice, critical considerations; locating field through lenses of fine art, craft, and book history; weekly readings, observational analyses, hands-on exercises; archival research in the University of Iowa Libraries Special Collections; final research, analytical, and/or critical project.

UICB:6520 Graduate Book Arts Workshop 3 s.h.
Development of artwork and studio practice; readings and research in contemporary theory and practice; analysis of visual language; integration of creative activities and critical thinking in student's own art practice and analysis of contemporary work in book arts; group and individual critiques, studio assignments, presentations, discussions.

UICB:6530 Book History Seminar 3 s.h.
Topics, theories, and methods in book history, material textual studies, material culture studies, and critical bibliography. Integration of historical questions, sources, and methods into student's scholarly and creative work. Same as HIST:6130.

UICB:6540 MFA Thesis Hours arr.

Book Arts, MFA

The MFA degree focuses on book arts as a hands-on practice, a creative medium, and a historical and cultural phenomenon. Its principal objectives are to provide aesthetic and scholarly contexts for the making of creative work and the study of book history, arts, and technologies. It also offers a structured program in book-related disciplines for graduate students interested in studio arts, librarianship, and literary and cultural history.

Learning Outcomes

Students will:

- have a breadth of hands-on and contextual (studio, art historical, cultural) experience with art, craft, and design disciplines within the book arts;
- deeply study one or more craft disciplines within the book arts;
- demonstrate sustained, project-based problem-solving accomplished through art-making;
- show proficiency in hand skills (scale: competence, proficiency, excellence/mastery);
- experience an interdisciplinary synthesis of studio art, scholarly practice, and material analysis;
- practice critical thinking within and across these book-based disciplines; and
- gain professional development experience and exposure to career tracks.

Requirements

The Master of Fine Arts in book arts requires a minimum of 60 s.h. of graduate credit, including a thesis. Students complete core courses and work with a faculty advisor to design an individualized curriculum spanning several studio practice disciplines: artist bookwork, bookbinding, lettering arts, digital bookwork, papermaking, or letterpress printing. The degree culminates with the successful completion of a thesis. A Graduate College program grade-point average of 3.00 is required.

All courses must be taken on an A–F basis. A maximum of 12 s.h. of transfer coursework is permitted and requires program approval.

Courses should be selected in consultation with an advisor.

The MFA in book arts requires the following coursework.

Requirements	Hours
Core Requirements	21
Studio Practice Courses	15
Scholarly Inquiry and Material Analysis Courses	6
Additional Electives	18

Core Requirements

With the permission of the advisor, students may be permitted to replace UICB:6520 Graduate Book Arts Workshop with a workshop taught outside of the Center for the Book.

Course #	Title	Hours
These courses:		
UICB:6510	Book Art Seminar: History, Practice, and Critique	3
UICB:6520	Graduate Book Arts Workshop (taken three times for 3 s.h. each)	9
Three of these (9 s.h.):		
UICB:4205/ BKAT:4205	Bookbinding I: Materials and Techniques	3
UICB:4300/ ARTS:4300	Letterpress I	3
UICB:4400/ ARTS:4400	History of Western Letterforms	3
UICB:4415/ ARTS:4415	Introduction to Classical Calligraphy	3
UICB:4420	Introduction to Medieval Calligraphy	3
UICB:5110/ BKAT:5110	Papermaking I: East Asia, Nepal, and Contemporary Practice	3
UICB:5130/ BKAT:5120	Papermaking I: Central Asia, Europe, and Contemporary Practice	3

Studio Practice Courses

Course #	Title	Hours
15 s.h. from these:		
UICB:3280/ BKAT:3280	Elements of Book Art	3
UICB:3380/ BKAT:3380	Letterpress	3
UICB:4100/ BKAT:4100	Paperworks	3
UICB:4205/ BKAT:4205	Bookbinding I: Materials and Techniques	3
UICB:4210/ BKAT:4210	Boxes and Enclosures	3
UICB:4270/ BKAT:4270	Bookbinding II	3
UICB:4280/ BKAT:4280	Artists' Books	3
UICB:4290	Historical Book Structures	3
UICB:4300/ ARTS:4300	Letterpress I	3
UICB:4370	Topics in Letterpress	arr.
UICB:4380/ ARTS:4380	Letterpress II	3
UICB:4390/ ARTS:4390	Book and Publication Design	3
UICB:4400/ ARTS:4400	History of Western Letterforms	3
UICB:4405	Introduction to Calligraphy Intensive	3
UICB:4415/ ARTS:4415	Introduction to Classical Calligraphy	3
UICB:4420	Introduction to Medieval Calligraphy	3
UICB:4490/ ARTS:4490	Advanced Studies in Letter Arts	3
UICB:5110/ BKAT:5110	Papermaking I: East Asia, Nepal, and Contemporary Practice	3

UICB:5130/ BKAT:5120	Papermaking I: Central Asia, Europe, and Contemporary Practice	3
UICB:5140/ BKAT:5140	Papermaking II: Contemporary Papermaking	3
UICB:5170/ BKAT:5170	Papermaking III: The Papermakers	3
UICB:5180/ BKAT:5180	Advanced Projects in Paper	1-3
UICB:5210/ BKAT:5210	Bookbinding III	3
UICB:5220/ SLIS:5535	Book Conservation	3
UICB:5280	Advanced Projects in Bookbinding	3
UICB:5330/ ARTS:5330	Letterpress III: Imagemaking	arr.
UICB:5340/ ARTS:5340	Letterpress III: The Handprinted Book	3
UICB:5380	Advanced Projects in Letterpress	3
UICB:5520/ SLIS:5520	Studies in Book History and Technologies	0-3

Scholarly Inquiry and Material Analysis Courses

Additional courses may apply to this area with departmental approval.

Course #	Title	Hours
Two of these for a total of 6 s.h.:		
UICB:3140/ ENGL:3140	Literature and the Book	3
UICB:3142/ ENGL:3142	Topics in Book History	3
UICB:3401/ ENGL:3401	Literature and Book History	3
UICB:3980/ ARTH:3980	American Print Culture	3
UICB:4150/ ENGL:4150/ SLIS:4150	Introduction to Book Studies	3
UICB:4910/ HIST:4422/ SLIS:4910	The Book in the Middle Ages	3
UICB:4920/ HIST:4429/ SLIS:4920	The Book in Early Modern Europe	3
UICB:4390/ ARTS:4390	Book and Publication Design	3
UICB:5600/ SLIS:5600	Reading Culture: History and Research in Print and Digital Media	3
UICB:5930	Topics in Material Analysis	3
UICB:6100	Book Studies Proseminar	3
UICB:6370/ SLIS:6370	Topics in Book Studies	3
UICB:6530/ HIST:6130	Book History Seminar	3
ARTH:3870	History of Photography	3

Additional Electives

Students complete 18 s.h. in additional electives from Center for the Book courses (prefix UICB) numbered 3000 or above, excluding UICB:3900. A maximum of 6 s.h. in UICB:6540 MFA Thesis Hours may be applied to this requirement.

With the permission of an advisor, students may be able to apply a maximum of 6 s.h. of coursework outside of the Center for the Book toward this requirement.

Combined Programs

MFA/MA in Library and Information Science

The Center for the Book and the School of Library and Information Science offer a combined Master of Fine Arts in book arts/Master of Arts in library and information science. The combined degree program allows students with strong interests in the book arts, book history, and material book studies to also gain expertise in library and information science. The degrees provide book artists and librarians with credentials reflecting a depth of skills and knowledge that have been used to secure positions in special collections libraries and archives. Students in the combined program earn both degrees by completing fewer semester hours than if each degree was completed separately.

Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. For more information, see the MA in library and information science [p. 1773] in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Visit Admissions on the Center for the Book website for more information.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Book Arts, MFA

Course	Title	Hours
Academic Career		
Any Semester		
60 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
Work with academic advisor to determine appropriate graduate coursework and sequence.		
	Hours	**0**

First Year		
Any Semester		
Core course [c]		3
Core course [c]		3
Core course [c]		3
Studio Practice course [d]		3
Studio Practice course [d]		3
Studio Practice course [d]		3
Scholarly Inquiry/Material Analysis course [e]		3
	Hours	**21**
Fall		
UICB:6510	Book Art Seminar: History, Practice, and Critique	3
	Hours	**3**
Second Year		
Any Semester		
Studio Practice course [d]		3
Studio Practice course [d]		3
Studio Practice course (if needed) [d]		3
Scholarly Inquiry/Material Analysis course [e]		3
	Hours	**12**
Fall		
UICB:6520	Graduate Book Arts Workshop [f, g]	3
	Hours	**3**
Spring		
Participate in third semester review, usually at the beginning of the fourth semester. Refer to UICB Student Handbook and academic advisor for more details.		
UICB:6520	Graduate Book Arts Workshop [f, g]	3
	Hours	**3**
Third Year		
Any Semester		
Additional elective course [h]		3
Additional elective course [h]		3
Additional elective course [h]		3
Additional elective course (if needed) [h, i]		3
Additional elective course (if needed) [h, i]		3
	Hours	**15**
Fall		
UICB:6520	Graduate Book Arts Workshop [f, g]	3
	Hours	**3**
Spring		
UICB:6540	MFA Thesis Hours [j]	0 - 6
Exam: Master's Final Exam [k]		
	Hours	**0-6**
	Total Hours	**60-66**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Choose three courses for a total of 9 s.h. See the General Catalog for list of approved courses.

d Complete a total of 15 s.h. of studio practice courses. See the General Catalog for list of approved courses.

e Choose two courses for a total of 6 s.h. See the General Catalog for list of approved courses.

f With the permission of the advisor, students may be permitted to replace UICB:6520 with a workshop taught outside of the Center for the Book.

g Must be taken three times for a total of 9 s.h.

h Complete 18 s.h. of additional electives from Center for the Book courses (prefix UICB) numbered 3000 or above, excluding UICB:3900. A maximum of 6 s.h. in UICB:6540 may be applied to this requirement. With the permission of an advisor, students may be able to apply a maximum of 6 s.h. of coursework outside of the Center for the Book toward this requirement.

i Hours may be required for this additional elective if fewer than 6 s.h. of thesis credits are completed.

j Maximum of 6 s.h. of thesis credit allowed.

k Thesis defense.

Book Arts and Book Studies, Graduate Certificate

Requirements

The graduate Certificate in Book Arts and Book Studies requires 18 s.h. of graduate credit. Students must earn a UI cumulative grade-point average of at least 2.75 in certificate coursework. The certificate is open to students enrolled in a graduate degree program and nondegree students.

Courses should be selected in consultation with an advisor.

The program requires the following coursework.

Studio Practice

Course #	Title	Hours
One of these (3 s.h.):		
UICB:3280	Elements of Book Art	3
UICB:3380	Letterpress	3
UICB:4100	Paperworks	3
UICB:4205	Bookbinding I: Materials and Techniques	3
UICB:4210	Boxes and Enclosures	3
UICB:4270	Bookbinding II	3
UICB:4280	Artists' Books	3
UICB:4290	Historical Book Structures	3
UICB:4300	Letterpress I	3
UICB:4370	Topics in Letterpress	3
UICB:4380	Letterpress II	3
UICB:4390	Book and Publication Design	3
UICB:4400	History of Western Letterforms	3
UICB:4405	Introduction to Calligraphy Intensive	3
UICB:4415	Introduction to Classical Calligraphy	3
UICB:4420	Introduction to Medieval Calligraphy	3
UICB:4490	Advanced Studies in Letter Arts	3
UICB:5110	Papermaking I: East Asia, Nepal, and Contemporary Practice	3
UICB:5130	Papermaking I: Central Asia, Europe, and Contemporary Practice	3
UICB:5140	Papermaking II: Contemporary Papermaking	3
UICB:5170	Papermaking III: The Papermakers	3
UICB:5180	Advanced Projects in Paper	3
UICB:5210	Bookbinding III	3
UICB:5220	Book Conservation	3
UICB:5280	Advanced Projects in Bookbinding	3
UICB:5330	Letterpress III: Imagemaking	3
UICB:5340	Letterpress III: The Handprinted Book	3
UICB:5380	Advanced Projects in Letterpress	3

A related course with advisor approval

Scholarly Inquiry and Material Analysis

Course #	Title	Hours
One of these (3 s.h.):		
UICB:3140	Literature and the Book	3
UICB:3142	Topics in Book History	3
UICB:3401	Literature and Book History	3
UICB:3980	American Print Culture	3
UICB:4150	Introduction to Book Studies	3
UICB:4910	The Book in the Middle Ages	3
UICB:4920	The Book in Early Modern Europe	3
UICB:5600	Reading Culture: History and Research in Print and Digital Media	3
UICB:5930	Topics in Material Analysis	3
UICB:6100	Book Studies Proseminar	3
UICB:6530	Book History Seminar	3
ARTH:3870	History of Photography	3

A related course with departmental approval

Center for the Book Electives

Course #	Title	Hours
12 s.h. from these:		
UICB:3140	Literature and the Book	3
UICB:3142	Topics in Book History	3
UICB:3280	Elements of Book Art	3
UICB:3380	Letterpress	3
UICB:3401	Literature and Book History	3
UICB:3980	American Print Culture	3
UICB:4100	Paperworks	3
UICB:4150	Introduction to Book Studies	3
UICB:4205	Bookbinding I: Materials and Techniques	3
UICB:4210	Boxes and Enclosures	3
UICB:4270	Bookbinding II	3
UICB:4280	Artists' Books	3
UICB:4290	Historical Book Structures	3
UICB:4300	Letterpress I	3
UICB:4370	Topics in Letterpress	arr.
UICB:4380	Letterpress II	3
UICB:4390	Book and Publication Design	3
UICB:4400	History of Western Letterforms	3
UICB:4405	Introduction to Calligraphy Intensive	3
UICB:4415	Introduction to Classical Calligraphy	3
UICB:4420	Introduction to Medieval Calligraphy	3
UICB:4490	Advanced Studies in Letter Arts	3

UICB:4910	The Book in the Middle Ages	3
UICB:4920	The Book in Early Modern Europe	3
UICB:5110	Papermaking I: East Asia, Nepal, and Contemporary Practice	3
UICB:5130	Papermaking I: Central Asia, Europe, and Contemporary Practice	3
UICB:5140	Papermaking II: Contemporary Papermaking	3
UICB:5170	Papermaking III: The Papermakers	3
UICB:5180	Advanced Projects in Paper	1-3
UICB:5210	Bookbinding III	3
UICB:5220	Book Conservation	3
UICB:5280	Advanced Projects in Bookbinding	3
UICB:5330	Letterpress III: Imagemaking	arr.
UICB:5340	Letterpress III: The Handprinted Book	3
UICB:5380	Advanced Projects in Letterpress	3
UICB:5520	Studies in Book History and Technologies	0-3
UICB:5530	Preservation Management	3
UICB:5540	Topics in Book Arts	1-3
UICB:5550	Special Project for Graduate Students	arr.
UICB:5600	Reading Culture: History and Research in Print and Digital Media	3
UICB:5930	Topics in Material Analysis	3
UICB:6100	Book Studies Proseminar	1-3
UICB:6370	Topics in Book Studies	3
UICB:6510	Book Art Seminar: History, Practice, and Critique	3
UICB:6520	Graduate Book Arts Workshop	3
UICB:6530	Book History Seminar	3

Related Center for the Book courses (prefix UICB) numbered 3000 and above, except UICB:3900 and UICB:6540, with advisor approval

Combined Programs

Certificate/MA in Library and Information Science

The Center for the Book and the School of Library and Information Science collaborate to offer the Certificate in Book Arts and Book Studies/MA in library and information science. It requires admission to the School of Library and Information Science MA program and the Center for the Book certificate program.

The certificate/MA in Library and Information Science offers multiple pathways into professional engagement with artifacts available in archives and libraries, such as rare and artist books. Students select courses that enable them to gain skills and knowledge in areas of service such as conservation, cataloging, instruction, and outreach. The combined program requires 51 s.h. of coursework. Students take 27 s.h. of library and information science courses (prefix SLIS) and 15 s.h. of book arts and studies courses (prefix UICB). The remaining 9 s.h. may be taken in either School of Library and Information Science or Center for the Book coursework, or from another unit with approval of the School of Library and Information Science.

Admission deadline is Feb. 1 for fall entry. For more information, see Library and Information Science, MA [p. 1773] in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. Visit Admissions on the Center for the Book website for more information.

Cognitive Science of Language

Chair, Psychological and Brain Sciences

- Mark S. Blumberg

Coordinator, Cognitive Science of Language

- Robert M. McMurray (Psychological and Brain Sciences)

Graduate certificate: cognitive science of language

Faculty: https://cogscilang.grad.uiowa.edu/people

Website: https://cogscilang.grad.uiowa.edu

The scientific study of language is larger than any one field, due in part to the broad diversity in forms and uses of language. The Cognitive Science of Language Program uses an interdisciplinary approach to the study of language, helping to prepare language scientists who are conversant in multiple domains.

Programs

Graduate Program of Study

- Certificate in Cognitive Science of Language [p. 1730]

Cognitive Science of Language, Graduate Certificate

Requirements

The graduate Certificate in Cognitive Science of Language requires a minimum of 12–15 s.h. of graduate credit. Designed to complement doctoral study, the certificate program is open to University of Iowa PhD students in linguistics, neuroscience, psychology, and speech and hearing science. PhD students in other disciplines may petition to be permitted to earn the certificate. Students must complete a formal application to enter the certificate program; they should contact the program's coordinator before they apply.

The certificate program ensures that students have training in interdisciplinary approaches to the study of language along with a strong theoretical grounding in their PhD discipline. Certificate students work with their PhD advisor and the certificate program's coordinator to develop an individual plan of study that complements their degree program and career interests. In order to be granted the Certificate in Cognitive Science of Language, students must complete all of the requirements of their PhD program as well as all of the certificate requirements.

Certificate students must participate in the cognitive science of language proseminar, a two-semester (6 s.h.) survey course on the five major disciplines within the language sciences—psychology, formal linguistics, neuroscience, communication disorders, and computational approaches. They must also complete three courses on cognitive science or language outside their field of study. Students can choose from the approved courses in the following lists, or they can petition the program for other courses. Students may enroll in the proseminar and three additional courses before or concurrently with other courses in their programs.

Students must include a faculty member from the Cognitive Sciences of Language Program on their PhD comprehensive and dissertation exam committees.

The Certificate in Cognitive Science of Language requires the following coursework.

Requirements	Hours
Proseminar	6
Disciplinary Courses	6-9

Proseminar

Course #	Title	Hours
Both of these:		
PSY:6101/ CSD:6101/ LING:6101	Cognitive Science of Language Proseminar I	3
PSY:6102/ CSD:6102/ LING:6102	Cognitive Science of Language Proseminar II	3

Disciplinary Courses

Students take at least 6–9 s.h. from the following lists (typically three courses).

Communication Sciences and Disorders

Course #	Title	Hours
CSD:3116/ LING:3116	Basic Neuroscience for Speech and Hearing	3
CSD:3118/ LING:3118	Language Acquisition	1-3
CSD:4145	Developmental Language Disorders	3
CSD:5146	Neurogenic Disorders of Language	3
CSD:5233	Aphasia	2
CSD:5256	Anatomy and Physiology of Hearing	3-4
CSD:5282	Clinical Phonology and Speech Sound Disorders	2
CSD:6230	Psychoacoustics	2-3
CSD:6538	Advanced Topics in Speech, Language, and Hearing Research	1

Linguistics

Course #	Title	Hours
LING:3030	Child Language-Linguistic Perspectives	3
LING:4090	Practical Phonetics	3
LING:5010	Introduction to Syntax (requires a corequisite course which does not count toward the certificate)	3
LING:5020	Introduction to Phonology	3
LING:6050	Language Universals Linguistic Typology	3
LING:6080	Topics in Second Language Acquisition	3
LING:7090	Seminar: Problems in Linguistics	2-3

Psychological and Brain Sciences

Course #	Title	Hours
PSY:3670/ LING:3670	Language Processes	3
PSY:7610	Seminar: Cognitive Psychology	2-3

Spanish and Portuguese

Course #	Title	Hours
SPAN:4100	Introduction to Spanish Phonology	3
SPAN:4150	Introduction to Spanish Syntax	3
SPAN:6110	Spanish Phonology	3
SPAN:6120	Spanish Syntax	3
SPAN:6150	Topics in Spanish Language Acquisition	3

College Teaching

Director

- Mitchell J. Kelly (Psychological and Quantitative Foundations)

Graduate certificate: college teaching

Website: https://education.uiowa.edu/areas-study/graduate-and-continuing-education/certificates-and-endorsements/certificate-college

The certificate program in college teaching provides coursework and supervised experiences that prepare graduate students for careers in postsecondary education.

The Certificate in College Teaching is administered by the Graduate College.

Programs

Graduate Program of Study

- Certificate in College Teaching [p. 1732]

College Teaching, Graduate Certificate

Requirements

The graduate Certificate in College Teaching requires a minimum of 12 s.h. of graduate credit. Previous teaching experience does not count toward certificate requirements.

The certificate program is available to all University of Iowa doctoral and master's degree-seeking students and to non-degree seeking students.

Students apply to the certificate program on the Office of Graduate Teaching Excellence (OGTE) website.

The Certificate in College Teaching requires the following coursework. Courses selected from the following categories can be completed in any order at any time.

Category 1

Category 1 coursework provides an overview of basic instructional issues and methods in college teaching. The work requires students to engage in discipline-specific thinking as they consider their own teaching situations.

Students choose two courses (minimum of 6 s.h. required) from the following.

Course #	Title	Hours
At least one of these:		
EPID:7200	Teaching in Epidemiology	3
GRAD:6217/ PSQF:6217	Seminar in College Teaching	3
GRAD:7385/ CSED:7385/ EDTL:7385/ EPLS:7385/ PSQF:7385	Teaching and Learning in Higher Education	3
PSQF:6205	Design of Instruction	3
PSQF:6417	Introduction to Postsecondary STEM Teaching (taken once for 3 s.h.)	3
RHET:5352	Seminar: Topics in Teaching and Professional Development	3
SOC:7010	Teaching Sociology	3
May take one of these:		
JMC:5600	Teaching Media Writing, Production, and Design (must complete the series of three, 5-week, 1 s.h. sections)	3
MUS:6215	Music Theory Pedagogy (music students only)	3
PSQF:6203	Tools and External Representations in Individual and Social Learning	3
PSQF:6211	Universal Design and Accessibility for Online Instruction	3
PSQF:6214	Design of Learning Environments: Theory, Practice, and Method	3
PSQF:6215	Online Instruction: Design and Facilitation	3
PSQF:6216	Tools and Utilities for Online Teaching	3
RHET:7940	Public Speaking for Academics	3

Category 2

Category 2 requires students to complete two practicum courses under the guidance of two different professors. Prior or current experience as a teaching assistant does not count toward this requirement.

Students enroll in one of the following courses twice or two courses from the following list, with each enrollment supervised by a different faculty member. Students earn a total of 3 s.h. for the two enrollments. They can enroll in two practicums with two different professors in the same semester or they can complete practicum experiences in separate semesters.

Course #	Title	Hours
CSED:7380	Internship in Teaching (counseling students only)	1-3
CSED:7470	Counselor Education and Supervision Doctoral Integrated Professional Internships (counseling students only)	3
EDTL:7380	Practicum in College Teaching	1-3
EPLS:7380	Practicum in College Teaching	1-3
GRAD:7400	Practicum in College Teaching (faculty member must be outside the College of Education)	1-3
PSQF:7380	Practicum in College Teaching	1-3

Category 3

For Category 3, students develop a full portfolio that demonstrates their skills and competencies in teaching, research, and service. The portfolio requires sample syllabi, a statement of teaching philosophy, samples of assignments and student work, and reflective essays on critical issues in teaching in higher education. The portfolio artifacts are reviewed and evaluated by the course instructor.

Category 3 requires the following course.

Course #	Title	Hours
EALL:7475	ePortfolio in College Teaching	3

Genetics

Chair

- Lori L. Wallrath (Biochemistry and Molecular Biology)

Graduate degree: PhD in genetics

Faculty: https://genetics.grad.uiowa.edu/people/faculty

Website: https://genetics.grad.uiowa.edu

Prospective doctoral students in genetics should have a strong undergraduate background in science, including courses in general genetics, organic chemistry, biochemistry and molecular biology, introductory physics, and mathematics, as well as a strong commitment to genetic research and teaching. Students are able to make up deficiencies in a particular area during their first year of graduate study.

Programs

Graduate Program of Study

- Doctor of Philosophy in Genetics [p. 1734]

Courses

Genetics Courses

GENE:4213 Bioinformatics 2,4 s.h.
Overview of bioinformatics topics, including access to sequence data, pairwise and multiple sequence alignment algorithms, molecular phylogeny, microarray data analysis, protein analysis, proteomics and protein structure analysis; emphasis on each topic includes biological motivation, computational approach (practical and theoretical), and interpretation of output. Prerequisites: BMB:3120 or MICR:3170 or BIOL:2512 or BMB:3110. Recommendations: grade of B-plus or higher in BIOL:2512 or graduate standing. Same as BIOL:4213, IGPI:4213.

GENE:6150 Genetic Analysis of Biological Systems 3 s.h.
Genetic techniques and approaches for analysis of biological processes; comparison of strengths, weaknesses of a variety of experimental systems.

GENE:6200 Current Topics in Genetics 1 s.h.
Focus is on a broad topic of central importance to genetics and biology as a whole; invited speakers are distinguished researchers from institutions across the country and within the University of Iowa, their work grounded in genetics, and cover diverse topics using a wide range of genetic model systems and approaches; seminar series. Same as ACB:6200.

GENE:6210 Seminars in Genetics 1 s.h.
Attendance at weekly forum and presentation of research data to foster oral communication, presentation skills, and collaboration.

GENE:6234 Basic Biostatistical Methods With Genetics Applications 1 s.h.
Introduction to terminology, fundamental concepts, and methods of biostatistics as applied to genetic research; genetic investigation examples used to illustrate statistical approaches. Same as BIOS:6234.

GENE:6280 Directed Study in Genetics arr.

GENE:7191 Human Molecular Genetics 3 s.h.
Molecular genetic approaches to human disease; the human genome project, linkage analysis, candidate gene screening, special features of inbred populations, triplet repeat expansions, mitochondrial genetics, genetics of complex traits. Requirements: fundamental genetics and molecular biology.

GENE:7301 Graduate Research in Genetics arr.

Genetics, PhD

Learning Outcomes

The PhD in genetics will:

- develop students' ability to learn relevant literature, and to design and complete successful experiments with rigor and reproducibility;
- develop students' ability to communicate concepts, present and publish scientific data, and interact with diverse audiences;
- facilitate students as they acquire teaching skills and develop teaching effectiveness in the classroom and in the laboratory; and
- prepare students for diverse careers in the discipline.

Requirements

The Doctor of Philosophy program in genetics requires a minimum of 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average of 3.00. The program is designed to promote collaborative investigation and intellectual interaction among students and faculty participants affiliated with several different departments.

Students who enroll in the PhD program are encouraged to obtain a broad background in genetics, including molecular, population, and human genetics. Within this context, course requirements are flexible enough to permit students to tailor their formal coursework to their individual needs. All students are required to do some teaching as part of their development as future scientists and faculty members.

Students have the option to declare a PhD emphasis in computational genetics.

All students enrolled in the program are required to take the following courses.

Course #	Title	Hours
All of these:		
GENE:6150	Genetic Analysis of Biological Systems	3
GENE:6200	Current Topics in Genetics (seminar)	1
GENE:6210	Seminars in Genetics	1
GENE:6234	Basic Biostatistical Methods With Genetics Applications	1
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
One of these:		
GENE:7191	Human Molecular Genetics	3
BIOL:3172	Evolution	4
BIOL:3713	Molecular Genetics	4
BIOL:4333	Genes and Development	3
And these:		
Elective coursework in molecular and microbial genetics, cell and development genetics, human genetics, or computational genetics		8
Seminar courses approved by the program		5
Total Hours		**36**

Even more important than formal coursework is the opportunity to do significant research in genetics. Research interests of the participating faculty include virtually all areas of genetics, ranging from bacteriophage genetics to human medical genetics. In each area of genetics, there is a group of faculty members who have closely related interests.

The university is strong in several related disciplines, including microbial physiology, enzymology, virology, protein biochemistry and molecular biology, computational genetics, and developmental and cell biology, all of which contribute significantly to the overall training program.

In addition to completing research and coursework, students must pass a comprehensive examination, usually at the end of their second year in the program.

Associated Courses

Credit earned in the following courses may be counted toward the PhD in genetics. Not all courses are offered every year.

Course #	Title	Hours
GENE:4213	Bioinformatics	4
BIOL:4386	Introduction to Scientific Computing for Biologists	3
BIOS:7330	Advanced Biostatistical Computing	3
BIOS:7700	Problems/Special Topics in Biostatistics	arr.
BMB:4310	Computational Biochemistry	3
BME:5335	Computational Bioinformatics	3
CS:5430	Machine Learning	3
EPID:5241	Statistical Methods in Epidemiology	4
FRRB:7001	Molecular and Cellular Biology of Cancer	3
IGPI:6480	Knowledge Discovery	3
MICR:6268	Biology and Pathogenesis of Viruses	2
MMED:6220	Mechanisms of Cellular Organization	3
MMED:6226	Cell Cycle Control	1
MMED:6227	Cell Fate Decisions	1
NSCI:7235	Neurobiology of Disease	3
PCOL:6225	Growth Factor Receptor Signaling	1
STAT:4580	Data Visualization and Data Technologies	3
Total Hours		**43**

PhD and Dental Scientist Training Program

PhD students in genetics who have earned a DDS degree may be candidates for advanced training programs in dentistry. For information, contact the College of Dentistry.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in genetics in a combined degree program offered by the Carver College of Medicine and the Graduate College. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

Prospective students should have a strong undergraduate science background and a strong commitment to research in genetics. Previous coursework should include general genetics, biochemistry, organic chemistry, and introductory physics and mathematics. However, deficiencies can be rectified during the first year as a graduate student.

Students who want to apply online should view the Interdisciplinary Graduate Program in Genetics website. For additional information, see the program website.

Students generally begin graduate work in the fall semester.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Genetics, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
BMED:5207	Principles of Molecular and Cellular Biology	3
GENE:6150	Genetic Analysis of Biological Systems	3
GENE:6210	Seminars in Genetics	1
GENE:7301	Graduate Research in Genetics [c]	8
	Hours	**15**
Spring		
GENE:6200	Current Topics in Genetics [d]	1
GENE:6210	Seminars in Genetics	1
GENE:7301	Graduate Research in Genetics [c]	6
GENE:6234	Basic Biostatistical Methods With Genetics Applications	1
Core Genetics course [e]		3 - 4
Elective course [f]		3
	Hours	**15-16**
Second Year		
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
GENE:6210	Seminars in Genetics	1
GENE:7301	Graduate Research in Genetics [c]	11
Elective course [f]		3
	Hours	**15**
Spring		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
GENE:6200	Current Topics in Genetics [d]	1
GENE:6210	Seminars in Genetics	1
GENE:7301	Graduate Research in Genetics [c]	11
Elective course [f]		2
	Hours	**15**
Third Year		
Fall		
Exam: Doctoral Comprehensive Exam		
GENE:6210	Seminars in Genetics	1
GENE:7301	Graduate Research in Genetics	1
	Hours	**2**
Spring		
GENE:6200	Current Topics in Genetics [d]	1
GENE:6210	Seminars in Genetics	1
	Hours	**2**
Fourth Year		
Fall		
GENE:6210	Seminars in Genetics	1
GENE:7301	Graduate Research in Genetics	1
	Hours	**2**
Spring		
GENE:6200	Current Topics in Genetics [d]	1
GENE:6210	Seminars in Genetics	1
	Hours	**2**
Fifth Year		
Fall		
GENE:6210	Seminars in Genetics	1
GENE:7301	Graduate Research in Genetics	1
	Hours	**2**
Spring		
GENE:6200	Current Topics in Genetics [d]	1
GENE:6210	Seminars in Genetics	1
Exam: Doctoral Final Exam [g]		
	Hours	**2**
	Total Hours	**72-73**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes

more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c If needed, adjust the number of semester hours for GENE:7301 so total enrollment equals 15 s.h.

d Counts toward the 5 s.h. seminar degree requirement.

e Choose from: BIOL:3172, BIOL:3713, BIOL:4333, GENE:7191, or take an equivalent course with advisor approval.

f Take 8 s.h. from coursework in molecular and microbial genetics, cell and development genetics, human genetics, or computational genetics. Work with faculty advisor to select appropriate courses from approved list.

g Program seminar followed by the dissertation defense.

Human Toxicology

Director

- Peter S. Thorne (Occupational and Environmental Health/ Civil and Environmental Engineering)

Director, Graduate Studies

- Jong Sung Kim (Occupational and Environmental Health)

Graduate degrees: MS in human toxicology; PhD in human toxicology

Faculty: https://toxicology.grad.uiowa.edu/faculty

Website: https://toxicology.grad.uiowa.edu

Toxicology is the study of how biological, chemical, physical, and radiological agents affect living organisms and the ecosystem, and how to prevent or lessen the adverse effects of those agents. The Human Toxicology Program prepares toxicologists to identify and assess environmental exposures, identify mechanisms by which toxicants affect homeostasis or induce disease, identify interventions to prevent adverse effects and estimate acceptable levels of exposure to protect public health.

The program is interdisciplinary, involving the Graduate College, the College of Public Health, the Carver College of Medicine, and the colleges of Engineering, Liberal Arts and Sciences, and Pharmacy.

The Graduate College supports the Human Toxicology Program. Students receive support from the Iowa Superfund Research Program, the Environmental Health Sciences Research Center, and other faculty research grants.

Programs

Graduate Programs of Study

- Master of Science in Human Toxicology [p. 1738]
- Doctor of Philosophy in Human Toxicology [p. 1740]

Facilities

Training is conducted primarily in laboratories and teaching facilities of the departments and colleges of Human Toxicology Program faculty members. These are among the best-equipped laboratories on campus. Together with the university's central research facilities, they provide access to the most up-to-date research equipment and expertise.

Courses

Human Toxicology Courses

TOX:7173 Professional Development in Toxicology arr.
Presentations and discussion on professional development topics including toxicology research methods and analysis, grant writing, proposal development, oral presentation skills, networking, and creating a portfolio framework that can be used after graduation.

TOX:7180 Toxicology Research Seminar 0-1 s.h.
Contemporary research topics.

TOX:7201 Toxicology Research arr.
Research that constitutes part of the thesis.

TOX:7300 Thesis/Dissertation arr.
Thesis or dissertation research; seminar preparation.

Human Toxicology, MS

Learning Outcomes

Students will be able to:

- demonstrate an in-depth knowledge of the principles of toxicology, including metabolism, toxicity, risk assessment, and specific expertise related to the area of their thesis (molecular biology, in vitro and/or in vivo techniques, analytical methods);
- apply the knowledge and skills of toxicology to conduct independent and innovative research;
- demonstrate high ethical and professional standards and responsible conduct in research; and
- synthesize the knowledge and skills of toxicology to succeed as a professional in diverse toxicology careers.

Requirements

The Master of Science program in human toxicology requires a minimum of 39 s.h. of graduate credit and a thesis. Students must maintain a cumulative grade-point average of at least 3.00.

The program is designed for students who wish to pursue a master's degree as a second degree or through part-time study, particularly those who perform toxicologists' functions in their jobs and who need additional training.

Entering students should have backgrounds in the biological, engineering, and physical sciences and should have completed courses in introductory chemistry, introductory biology, and organic chemistry.

After entering the program, students work with their mentor to choose an advisory committee, which meets at least once a semester to help them explore their research interests. The committee also provides consultation on coursework and research activities and serves as the committee for the final examination (thesis defense).

The Human Toxicology Program is flexible. Students work with their advisory committees to plan a course of study tailored to their individual interests and goals within the field of toxicology.

Required Courses

MS students in human toxicology must successfully complete the following coursework as part of their course of study.

Course #	Title	Hours
One of these:		
OEH:6710	Human Toxicology and Risk Assessment	3
PHAR:6501	Principles and Mechanisms of Chemical Toxicology	3
And all of these:		
TOX:7173	Professional Development in Toxicology	2
TOX:7180	Toxicology Research Seminar (enrollment is required each semester)	0-1
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
OEH:6720	Advanced Toxicology	4

Upon successful completion of all requirements, including the thesis and its oral defense, students are awarded the Master of Science degree.

Admission

Prospective students may apply to the program via a centralized application system; see Admission Information on the Human Toxicology Program website.

Completed applications should be submitted by Jan. 1; applications submitted after that date are reviewed as they are received and are considered for any remaining openings.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Human Toxicology, MS

Course	Title	Hours
Academic Career		
Any Semester		
39 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
OEH:6710 or PHAR:6501	Human Toxicology and Risk Assessment or Principles and Mechanisms of Chemical Toxicology	3
TOX:7173	Professional Development in Toxicology	2
TOX:7180	Toxicology Research Seminar [c]	0
TOX:7201	Toxicology Research	3
	Hours	**11**
Spring		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
OEH:6710 or PHAR:6501	Human Toxicology and Risk Assessment or Principles and Mechanisms of Chemical Toxicology	3
TOX:7180	Toxicology Research Seminar [c]	0
TOX:7201	Toxicology Research	3

Elective course [d]		3
	Hours	**12**
Second Year		
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
OEH:6720	Advanced Toxicology	4
TOX:7180	Toxicology Research Seminar	0
TOX:7201	Toxicology Research	4
Elective course [d]		3
	Hours	**11**
Spring		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
TOX:7180	Toxicology Research Seminar	1
TOX:7201	Toxicology Research	6
TOX:7300	Thesis/Dissertation	1
Final Exam [e]		
	Hours	**8**
	Total Hours	**42**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Students register for 0 s.h. until they present their thesis defense, and then should register for 1 s.h.

d Choose from interdisciplinary coursework with advisor approval.

e Thesis defense.

Human Toxicology, PhD

Learning Outcomes

Students will be able to:

- demonstrate an in-depth knowledge of the principles of toxicology, including metabolism, toxicity, risk assessment, and specific expertise related to the area of their dissertation (molecular biology, in vitro and/or in vivo techniques, analytical methods);
- apply the knowledge and skills of toxicology to conduct independent and innovative research;
- demonstrate high ethical and professional standards and responsible conduct in research; and
- synthesize the knowledge and skills of toxicology to succeed as a professional in diverse toxicology careers.

Requirements

The Doctor of Philosophy program in human toxicology requires a minimum of 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average of at least 3.00.

The program is designed for students with backgrounds in the biological, engineering, and physical sciences. Entering students should have solid training in science, including courses in introductory chemistry and biology, and organic chemistry; knowledge of biochemistry and molecular biology also is useful. Students may remedy deficiencies by taking appropriate courses during their first year of graduate study.

Students begin the program with three two-month rotations in the laboratories of participating faculty members in order to identify a mentor. After the first year, the mentor assumes financial responsibility for the student. With advice from the mentor, each student chooses an advisory committee, which meets at least once a semester to help the student explore the student's research interests. The committee also provides consultation on coursework and research activities and serves as the committee for the comprehensive examination and the final examination (dissertation defense).

The Human Toxicology Program is flexible. Students work with their advisory committees to plan a course of study tailored to their individual interests and goals within the field of toxicology.

PhD students in human toxicology must successfully complete the following coursework as part of their course of study.

Course #	Title	Hours
One of these:		
OEH:6710	Human Toxicology and Risk Assessment	3
PHAR:6501	Principles and Mechanisms of Chemical Toxicology	3
And all of these:		
TOX:7173	Professional Development in Toxicology	2
TOX:7180	Toxicology Research Seminar (enrollment is required each semester)	0-1
BIOS:4120	Introduction to Biostatistics	3
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I (must be completed within first two years of graduate study)	0
OEH:6720	Advanced Toxicology	4

After successfully completing the comprehensive examination, usually at the end of the second year of graduate study, the student advances to PhD candidacy. Students devote all of their time to dissertation research and writing. Upon successful completion of all requirements, including the dissertation and its oral defense, students are awarded the Doctor of Philosophy degree.

Combined Programs

PhD/MD

Students may work toward the PhD and the Doctor of Medicine in a combined degree program offered by the Graduate College and the Carver College of Medicine. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

Prospective students may apply to the program via a centralized application system; see Admission Information on the Human Toxicology Program website.

Completed applications are encouraged to be submitted by Dec. 1, but applications after that date are given full consideration. Applications submitted after March 1 are reviewed when received and are considered for any remaining openings.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Human Toxicology, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**

First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
OEH:6710 or PHAR:6501	Human Toxicology and Risk Assessment or Principles and Mechanisms of Chemical Toxicology	3
TOX:7173	Professional Development in Toxicology	2
TOX:7180	Toxicology Research Seminar [c]	0
TOX:7201	Toxicology Research	7
	Hours	**15**
Spring		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
OEH:6710 or PHAR:6501	Human Toxicology and Risk Assessment or Principles and Mechanisms of Chemical Toxicology	3
TOX:7180	Toxicology Research Seminar [c]	0
TOX:7201	Toxicology Research	6
Elective course [d]		3
	Hours	**15**
Second Year		
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
OEH:6720	Advanced Toxicology	4
TOX:7180	Toxicology Research Seminar [c]	0
TOX:7201	Toxicology Research	5
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
OEH:7060	Research Design in Occupational and Environmental Health	3
TOX:7180	Toxicology Research Seminar [c]	0
TOX:7201	Toxicology Research	6
Elective course [d]		3
Elective course [d]		3
Exam: Doctoral Comprehensive Exam		
	Hours	**15**
Third Year		
Fall		
TOX:7180	Toxicology Research Seminar [c]	0
TOX:7201	Toxicology Research	4
	Hours	**4**
Spring		
TOX:7180	Toxicology Research Seminar [c]	0
TOX:7201	Toxicology Research	4
	Hours	**4**
Fourth Year		
Fall		
TOX:7180	Toxicology Research Seminar [c]	0
TOX:7201	Toxicology Research	2
	Hours	**2**
Spring		
TOX:7180	Toxicology Research Seminar [c]	0
TOX:7201	Toxicology Research	2
	Hours	**2**
Fifth Year		
Fall		
TOX:7180	Toxicology Research Seminar [c]	0
TOX:7201	Toxicology Research	1
	Hours	**1**
Spring		
TOX:7180	Toxicology Research Seminar [c, e]	1
TOX:7300	Thesis/Dissertation	1
Exam: Doctoral Final Exam [f]		
	Hours	**2**
	Total Hours	**75**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Students register for 0 s.h. until they present their thesis defense, and then should register for 1 s.h.

d Work with faculty advisor to select graduate level coursework to meet research interests and goals within the field of toxicology.

e Students present their dissertation research.

f Dissertation defense.

Immunology

Director

- Kevin L. Legge (Pathology)

Graduate degree: PhD in immunology

Faculty: https://immuno.grad.uiowa.edu/people/faculty

Website: https://immuno.grad.uiowa.edu/

The Immunology Program provides interdisciplinary training in the concepts and methodologies of basic and applied immunology. Faculty members are involved in a variety of research projects dealing with the immune system at all levels—structural, functional, cellular, biochemical, and molecular. Students take coursework in immunology and related disciplines and are directly involved in laboratory research throughout their study.

Programs

Graduate Program of Study

- Doctor of Philosophy in Immunology [p. 1743]

Facilities

Training is conducted in laboratories and teaching facilities of the Carver College of Medicine departments of Internal Medicine, Microbiology and Immunology, Otolaryngology–Head and Neck Surgery, Pathology, Pharmacology, Urology, and the Stead Family Department of Pediatrics, and the College of Public Health Department of Epidemiology. Faculty laboratories and central research core facilities provide students with access to state-of-the-art research equipment.

Courses

Immunology Courses

IMMU:2040 Summer Undergraduate IDGP Research **0 s.h.**

IMMU:6201 Graduate Immunology **3 s.h.**
Immune cell ontogeny, activation, and function of T lymphocytes and B lymphocytes; innate immune effector mechanisms; major histocompatibility complex; antigen presentation; thymocyte positive and negative selection; signaling of T lymphocytes and B lymphocytes; emphasis on experimental methods for analysis of these processes and how they have led to current advanced concepts in immunology. Prerequisites: MICR:3147 or MICR:6247. Requirements: for IMMU:6201—college biology, general chemistry, and introductory immunology courses; for MICR:6201—courses in college biology, genetics, general chemistry, and introductory immunology. Recommendations: for IMMU:6201—courses in biochemistry and genetics; for MICR:6201—biochemistry course. Same as MICR:6201.

IMMU:6211 Immunology Graduate Student Seminar **1 s.h.**
Requirements: immunology graduate standing.

IMMU:6221 Rigor and Reproducibility in Immunology **1 s.h.**
Principles and concepts in rigor and reproducibility; rigorous experimental practices in immunology and study design including concepts in redundancy (e.g., replication, validation, generalization, perturbation, consistency), controls, authentication of key reagents and resources, biological variables, recognition of error, avoidance of logical traps, and intellectual honesty. Prerequisites: IMMU:6201.

IMMU:6231 Research in Immunology **arr.**
Laboratory research. Requirements: immunology graduate standing.

IMMU:6241 Writing a Scientific Proposal **2 s.h.**
How to write a scientific proposal. Prerequisites: IMMU:6201. Requirements: enrollment in immunology graduate program.

IMMU:6247 Graduate Immunology and Human Disease **4 s.h.**
Important principles and key concepts in immunology with a focus on the involvement of the immune system in disease pathogenesis; overview of innate and adaptive immune systems and their functions at cellular and molecular levels; learning enhanced by case-based, small-group discussion and writing exercises. Same as MICR:6247.

IMMU:7221 Advanced Topics in Immunology **3 s.h.**
In-depth analysis of selected areas. Prerequisites: IMMU:6201 or MICR:6201. Same as MICR:7207.

Immunology, PhD

Learning Outcomes

Students will:

- develop the ability to think critically and work collaboratively;
- develop the ability to evaluate data and scientific literature;
- develop the ability to problem solve, expand technical skills, and design rigorous and reproducible experiments;
- develop the ability to communicate their scientific findings and knowledge via both written and oral methods to a variety of audiences; and
- prepare for independent careers as leaders, investigators, and educators in cutting-edge research, teaching, and service in basic and applied immunology.

Requirements

The Doctor of Philosophy in immunology requires 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average of at least 3.00 to earn the degree. The program provides interdisciplinary training in the concepts and methodologies of basic and applied immunology.

Students complete coursework in immunology and related disciplines, and are directly involved in laboratory research throughout their study. Immunology graduate courses are offered not only to teach students the current concepts and paradigms within the field, but to emphasize the scientific approaches and methods used to attain this understanding.

The PhD in immunology requires the following coursework.

Core Curriculum

Course #	Title	Hours
IMMU:6201/ MICR:6201	Graduate Immunology	3
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6221	Rigor and Reproducibility in Immunology	1
IMMU:6231	Research in Immunology	arr.
IMMU:6241	Writing a Scientific Proposal	2
IMMU:6247/ MICR:6247	Graduate Immunology and Human Disease	4
IMMU:7221/ MICR:7207	Advanced Topics in Immunology	3
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
PCOL:5204	Basic Biostatistics and Experimental Design	1
Elective		3

Typical Curriculum

First Year, Fall

Course #	Title	Hours
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6231	Research in Immunology	arr.
IMMU:6247/ MICR:6247	Graduate Immunology and Human Disease	4
BMED:5207	Principles of Molecular and Cellular Biology	3
PCOL:5204	Basic Biostatistics and Experimental Design	1

First Year, Spring

Course #	Title	Hours
IMMU:6201/ MICR:6201	Graduate Immunology	3
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6231	Research in Immunology	arr.
Elective (optional)		1-3

Second Year, Fall

Course #	Title	Hours
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6221	Rigor and Reproducibility in Immunology	1
IMMU:6231	Research in Immunology	arr.
IMMU:6241	Writing a Scientific Proposal	2
IMMU:7221/ MICR:7207	Advanced Topics in Immunology	3
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
Elective (optional)		1-3

Second Year, Spring

Course #	Title	Hours
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6231	Research in Immunology	arr.
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
Elective (optional)		1-3

Electives

The following are possible elective choices.

Course #	Title	Hours
ACB:5218/ BIOL:5218/ MICR:5218	Microscopy for Biomedical Research	3
BIOS:4120	Introduction to Biostatistics	3
BMB:7251	Introduction to Protein Structures	1
BMB:7252	Enzymes, Carbohydrates, Nucleic Acids, Lipids, and Membranes	1

BMB:7253	Introduction to Metabolism	1
BMB:7254	Metabolism I	1
BMB:7255	Metabolism II	1
BMB:7256	Molecular Biology	1
MICR:6259	Graduate Bacteria and Human Disease	4
MICR:6267	Graduate Viruses and Human Disease	3
MICR:6268	Biology and Pathogenesis of Viruses	2
MICR:6270	Graduate Bacterial Genetics	3
MMED:6220/ ACB:6220/ MPB:6220	Mechanisms of Cellular Organization	3
MMED:6226/ ACB:6226/ MPB:6226	Cell Cycle Control	1
MMED:6227/ ACB:6227/ MPB:6227	Cell Fate Decisions	1
PATH:5270/ IGPI:5270/ MMED:5270	Pathogenesis of Major Human Diseases	3
PCOL:6207	Ion Channel Pharmacology	1
PCOL:6225	Growth Factor Receptor Signaling	1

Additional Requirements

Laboratory Rotations

Prior to selecting a laboratory for dissertation work, students are expected to perform three laboratory rotations, with each rotation lasting approximately 12 weeks in duration. During the first semester, students should become acquainted with the research interests of the faculty members in the immunology program. This learning process is facilitated by faculty presentations in IMMU:6211 Immunology Graduate Student Seminar during the fall semester. Students are also encouraged to meet with specific faculty to discuss their research programs. This enables students to make an informed decision about their laboratory rotations, with the guidance and approval of their advisor and the graduate studies committee.

At the latest, students should begin their first rotation within the first week of graduate study. Medical Scientist Training Program (MSTP) students who have completed rotations in immunology program laboratories before joining the program are excused from further rotations if joining that immunology laboratory. Students with MS degrees that include a research-based dissertation may be excused from one rotation.

Rotations are graded either satisfactory or unsatisfactory. This grade is based upon a number of criteria including attendance and work habits. When not in classes or seminars, students are expected to spend the remaining portion of the day in the laboratory. Without a strong commitment to the rotation project, it is difficult to fulfill the purpose and aims of the rotation. A satisfactory grade is required in each of the laboratory rotations. If a satisfactory grade is not received in one of the rotations, an additional rotation is assigned. Failure to receive a satisfactory grade in the extra rotation results in the student being placed on academic probation. Following each rotation, an evaluation is given to each student by the faculty member and submitted to the graduate studies committee.

Teaching

Students complete a teaching requirement lasting one semester. A variety of courses are available in several departments, and the program leadership place students in courses based upon interest, expertise, and scheduling.

Publication Requirements

It is expected that the dissertation project be of sufficient breadth, depth, and novelty to result in first-author research publications in high-quality peer-reviewed journals. A minimum of one peer-reviewed paper must be published or in press prior to the completion of the PhD. In addition, a second publication, in which the student is a coauthor on a peer-reviewed article, a review, or book chapter must be published or in press prior to the completion of the degree. Students are not permitted to schedule a dissertation defense until it has been demonstrated that both of these requirements have been met.

Comprehensive Examination

The comprehensive examination is generally taken in the spring semester of the second year of study. MSTP students who joined their dissertation laboratory at the beginning of the first year of graduate study and students entering the program with an MS degree may begin the comprehensive exam process in September of the second year of graduate study.

Students taking the comprehensive examination prepare a single abstract of an original research proposal. The examination committee determines if the abstract topic is appropriate as nonoverlapping in major approach or topic with the student's dissertation research and if the abstract is scientifically sound to potentially serve as the basis for a defensible research proposal. After the abstract is accepted, students are given four weeks to complete and submit the written comprehensive examination proposal. The oral defense is scheduled 14–21 days after the proposal is accepted by the committee, depending on the availability of the committee members. The written portion of the comprehensive exam is written in the form of an NIH-style pilot grant proposal based on the abstract and instructions from the comprehensive examination. A detailed student handbook is available on the Interdisciplinary Graduate Program in Immunology website.

Final Examination

The five members of the thesis committee serve as an advisory body for the preparation of the thesis. The committee meets with each student to review the material that they expect to be incorporated into the thesis. Although meetings with the committee should be yearly, the candidate, thesis advisor, or the committee can request a meeting at any time. A final draft of the thesis must be given to all members of the committee a minimum of two weeks before the final examination.

The final examination takes the form of a seminar presented to the program. This presentation is announced according to Graduate College policy. Questions, comments, and discussion follow. After the seminar, the candidate meets with the committee for the final thesis defense. In some cases revisions may be required. The degree is not awarded until the thesis is signed.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in immunology in a combined degree program offered by the Graduate College and the Carver College of Medicine. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

For information regarding admission and application procedures, visit the Interdisciplinary Graduate Program in Immunology website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Immunology, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Fall		
BMED:5207	Principles of Molecular and Cellular Biology	3
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6231	Research in Immunology	6
IMMU:6247	Graduate Immunology and Human Disease	4
PCOL:5204	Basic Biostatistics and Experimental Design	1
	Hours	**15**
Spring		
IMMU:6201	Graduate Immunology	3
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6231	Research in Immunology	8
Elective course [c]		3
	Hours	**15**
Second Year		
Any Semester		
Elective course (at least 3 s.h. if needed) [c]		
	Hours	**0**
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6221	Rigor and Reproducibility in Immunology	1
IMMU:6231	Research in Immunology	8
IMMU:6241	Writing a Scientific Proposal	2
IMMU:7221	Advanced Topics in Immunology	3
	Hours	**15**
Spring		
Exam: Doctoral Comprehensive Exam		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6231	Research in Immunology	14
	Hours	**15**
Third Year		
Fall		
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6231	Research in Immunology	1
	Hours	**2**
Spring		
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6231	Research in Immunology	1
	Hours	**2**
Fourth Year		
Fall		
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6231	Research in Immunology	1
	Hours	**2**
Spring		
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6231	Research in Immunology	1
	Hours	**2**
Fifth Year		
Fall		
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6231	Research in Immunology	1
	Hours	**2**
Spring		
IMMU:6211	Immunology Graduate Student Seminar	1
IMMU:6231	Research in Immunology	1

Exam: Doctoral Final Exam [d]	
Hours	**2**
Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Work with faculty advisor to determine appropriate graduate elective coursework and sequence.

d Program seminar followed by the dissertation defense.

Informatics

Chair

- Juan Pablo Hourcade (Computer Science/Nursing)

Graduate degrees: MS in informatics; PhD in informatics

Graduate certificate: informatics

Faculty: https://cs.uiowa.edu/people

Website: https://informatics.grad.uiowa.edu/

The Interdisciplinary Graduate Program in Informatics (IGPI) was proposed in 2006, largely motivated by the increasing amount of research at the intersection of computational disciplines and the humanities, arts, and the natural, biological, health, and social sciences. The proposal to establish the program emphasized the rapid changes brought about by information technology and how they in turn changed approaches across a wide variety of disciplines. Among these changes were the ability to ask different types of questions and analyze information at scales not previously possible.

The program aimed to fill a gap in training for practitioners and researchers who could provide a bridge between computing and other disciplines. IGPI graduates would receive training in core computational and statistical topics and combine it with coursework in a cognate area.

Changes in computing and how it affects society and scholarship make informatics even more relevant today than it was in 2006. One of the key changes has been in the increasing ubiquity of computer devices that facilitate communication and information access. These trends clearly point toward a near future where most people will be able to communicate with most other people around the world, as well as access any information, anytime, anywhere. The main barriers are likely to be political instead of technological. These changes mean that computers are directly affecting the way most people perceive the world, remember information, pay attention, communicate, learn, and make decisions.

This ubiquity means that it is becoming increasingly difficult to exercise one's basic rights and fulfill basic needs without using interactive technologies. People use computers to vote, to stay informed, and to express and share opinions. In addition, people use computers to ride public transportation, get money from banks, and pay for groceries. Hence, there are increased responsibilities in the design of computing systems, as well as the need to study their impact on society.

One final trend that is germane to informatics is the increasing availability and low cost of digital storage and processing, together with the wide availability and use of sensors, digital instruments, and other forms of capturing digital data. The result has been a tremendous growth in the amount of data available to scientists, businesses, and government. These changes have brought about the need for novel analysis techniques, for researchers and practitioners who can understand the data and these techniques, as well as the need to design these systems so they can enable new discoveries and insights while safeguarding privacy.

This world, where computers are playing a vital role not only in academic disciplines, but in society at large, calls for practitioners and researchers who can understand computing and also interface with other fields. IGPI was developed to fill this gap. The program is interdisciplinary, involving the Graduate College, the Carver College of Medicine, the Tippie College of Business, and the colleges of Dentistry, Engineering, Liberal Arts and Sciences, Nursing, Pharmacy, and Public Health. Students may pursue a Master of Science degree in informatics (with one of three cognates in geoinformatics, health informatics, or human-computer interaction) or a PhD in informatics. University of Iowa graduate students in other programs may elect to earn a Certificate in Informatics in addition to their main program of study. All three programs complete the same core courses, with flexible electives that allow students to focus on the subarea of greatest interest to them.

Geoinformatics provides methods and technologies needed to measure, store, analyze, manage, and visualize information about phenomena occurring on or near the earth's surface. It is an increasingly essential technology for understanding and managing the complex world.

Health informatics uses contemporary information technologies to improve the storage, organization, retrieval, and evaluation of health information in order to support clinical, clinical research, and public health applications.

The human-computer interaction cognate is intended for students interested in designing useful and usable technologies. The cognate's courses provide an interdisciplinary foundation including psychology, sociology, and engineering.

Programs

Graduate Programs of Study

- Master of Science in Informatics [p. 1753]
- Doctor of Philosophy in Informatics [p. 1757]
- Certificate in Informatics [p. 1760]

Courses

Informatics Courses

IGPI:3011 Social Science Approaches to Global Health **3 s.h.**
Review of major components of research in the social sciences as they apply to global health topics; preparation for academic pursuits or careers that utilize research to address global health issues in a systematic way. Same as GHS:3010.

IGPI:3050 Geospatial Programming **3 s.h.**
Introduction to geospatial programming with Python; programming basics, data structures, and algorithms; spatial data models and structures; vector-based and raster-based geoprocessing; automating GIS tasks and models; spatial libraries (e.g., ArcPy, GeoPandas, GDAL, PySAL). Prerequisites: SEES:2050. Same as SEES:3050.

IGPI:3100 Introduction to Mathematical Statistics I **4 s.h.**
Review of mathematical basics for mathematical statistics, descriptive statistics, probability, conditional probability, discrete and continuous univariate and multivariate distributions, and sampling distributions. Prerequisites: MATH:1860 or MATH:1560. Same as STAT:3100.

IGPI:3101 Introduction to Mathematical Statistics II **3 s.h.**
Point and interval estimation, testing statistical hypotheses, simple regression, nonparametric methods. Prerequisites: STAT:3100. Same as STAT:3101.

IGPI:3120 Probability and Statistics 4 s.h.
Models, discrete and continuous random variables and their distributions, estimation of parameters, testing statistical hypotheses. Prerequisites: MATH:1560 or MATH:1860. Same as DATA:3120, STAT:3120.

IGPI:3200 Applied Linear Regression 3 s.h.
Regression analysis with focus on applications; model formulation, checking, and selection; interpretation and presentation of analysis results; simple and multiple linear regression; logistic regression; ANOVA; polynomial regression; tree models; bootstrapping; hands-on data analysis with computer software. Prerequisites: STAT:2020 or STAT:2010 or STAT:3120. Same as DATA:3200, ISE:3760, STAT:3200.

IGPI:3212 Bioinformatics for Beginners 3 s.h.
Overview of bioinformatics topics including access to sequence data, pairwise and multiple sequence alignment algorithms, molecular phylogeny, microarray data analysis, protein analysis, proteomics, and protein structure analysis; emphasis on each topic includes biological motivation, computational approach (practical and theoretical), and interpretation of output. Prerequisites: BIOL:2512 or BIOL:2211 or BMB:3120 or MICR:3170. Same as BIOL:3212.

IGPI:3314 Genomics 3 s.h.
Major areas of genomics including genome sequencing, assembly, and annotation; evolutionary genomics, metagenomics, functional genomics, and computational genomics; synthetic biology and genome engineering. Prerequisites: BIOL:1412 and (BIOL:2211 or BIOL:2512 or BIOL:2723 or MICR:3170). Same as BIOL:3314.

IGPI:3330 Introduction to Software Design 3 s.h.
Design of software for engineering systems; algorithm design and structured programming; data structures; introduction to object-oriented programming in JAVA; applications to engineering problems; lab arranged. Prerequisites: ENGR:2730. Same as ECE:3330.

IGPI:3500 Introduction to Environmental Remote Sensing 3 s.h.
Basic concepts and principles of remote sensing; sources of data; georegistration; digital processing and classification of remotely sensed images for extraction of environmental information; linkage of remote sensing techniques with GIS analysis. Same as SEES:3500.

IGPI:3510 Biostatistics 3 s.h.
Statistical concepts and methods for the biological sciences; descriptive statistics, elementary probability, sampling distributions, confidence intervals, parametric and nonparametric methods, one-way ANOVA, correlation and regression, categorical data. Requirements: MATH:0100 or MATH:1005 or ALEKS score of 30 or higher. Same as STAT:3510.

IGPI:3520 GIS for Environmental Applications 3 s.h.
Students learn new, more advanced techniques for the representation and study of human and natural systems using geographic information systems (GIS); application of this new knowledge to environmental management and problem solving. Prerequisites: SEES:2050. Same as SEES:3520.

IGPI:3540 Geographic Visualization 3 s.h.
Concepts and techniques that underlie cartographic representation, interaction, and geovisualization; map symbolization and visual variables; spatiotemporal visualization, multivariate mapping, interactive cartography, animation, geovisual analytics, 3D visualization, virtual and augmented reality. Prerequisites: SEES:2050. Same as SEES:3540.

IGPI:4100 Statistical Inference I 3 s.h.
Review of probability, distribution theory (multiple random variables, moment-generating functions, transformations, conditional distributions), sampling distributions, order statistics, convergence concepts, generating random samples. Prerequisites: MATH:2850 and STAT:3101. Recommendations: undergraduate standing. Same as STAT:4100.

IGPI:4101 Statistical Inference II 3 s.h.
Continuation of STAT:4100; principles of data reduction, point estimation theory (MLE, Bayes, UMVU), hypothesis testing, interval estimation, decision theory, asymptotic evaluations. Prerequisites: STAT:4100. Recommendations: undergraduate standing. Same as STAT:4101.

IGPI:4115 Finite Element I 3 s.h.
One- and two-dimensional boundary value problems; heat flow, fluid flow, torsion of bars; trusses and frames; isoparametric mapping; higher order elements; elasticity problems; use of commercial software. Prerequisites: ENGR:2750. Same as CEE:4533.

IGPI:4150 Health and Environment: GIS Applications 3 s.h.
Introduction to how geographic information systems (GIS) and spatial statistics are used in the study of patterns of health and disease in space and time. Same as GHS:4150, SEES:4150.

IGPI:4159 Air Pollution Control Technology 3 s.h.
Sources, environmental and health impacts, regulations, modeling of air pollution; processes and alternative strategies for control; global climate considerations. Same as CBE:4459, CEE:4159.

IGPI:4200 Statistical Methods and Computing 3 s.h.
Methods of data description and analysis using SAS; descriptive statistics, graphical presentation, estimation, hypothesis testing, sample size, power; emphasis on learning statistical methods and concepts through hands-on experience with real data. Recommendations: graduate standing in non-statistics or less quantitative major. Same as STAT:4200.

IGPI:4213 Bioinformatics 2,4 s.h.
Overview of bioinformatics topics, including access to sequence data, pairwise and multiple sequence alignment algorithms, molecular phylogeny, microarray data analysis, protein analysis, proteomics and protein structure analysis; emphasis on each topic includes biological motivation, computational approach (practical and theoretical), and interpretation of output. Prerequisites: BMB:3120 or MICR:3170 or BIOL:2512 or BMB:3110. Recommendations: grade of B-plus or higher in BIOL:2512 or graduate standing. Same as BIOL:4213, GENE:4213.

IGPI:4373 Molecular Evolution: Genes, Genomes, and Organisms 3 s.h.
Theory underlying phylogenetic analysis with application of these methods to molecular data sets; analysis of multigene data, organellar, and nuclear genome sequences to reconstruct the history of cells. Prerequisites: BIOL:3172 with a minimum grade of C-. Same as BIOL:4373.

IGPI:4500 Advanced Remote Sensing 4 s.h.
Theory and practice of remote sensing and digital image processing; practical applications to human-environment interactions. Requirements: SEES:3100 or SEES:3500 or CEE:3783. Same as SEES:4500.

IGPI:4520 GIS for Environmental Studies: Applications 3 s.h.
Project-driven course to advance student knowledge of geographic information systems (GIS); application of GIS to environmental change analysis, environmental assessment, hazard/risk analysis, and environmental decision-making. Prerequisites: SEES:3520. Same as SEES:4520.

IGPI:4522 Bayesian Statistics 3 s.h.
Bayesian statistical analysis, with focus on applications; Bayesian and frequentist methods compared; Bayesian model specification, choice of priors, computational methods; hands-on Bayesian data analysis using appropriate software; interpretation and presentation of analysis results. Prerequisites: STAT:3200 and (STAT:3101 or STAT:4101 or STAT:3120). Same as PSQF:4520, STAT:4520.

IGPI:4540 Statistical Learning 3 s.h.
Introduction to supervised and unsupervised statistical learning, with a focus on regression, classification, and clustering; methods will be applied to real data using appropriate software; supervised learning topics include linear and nonlinear (e.g., logistic) regression, linear discriminant analysis, cross-validation, bootstrapping, model selection, and regularization methods (e.g., ridge and lasso); generalized additive and spline models, tree-based methods, random forests and boosting, and support-vector machines; unsupervised learning topics include principal components and clustering. Requirements: an introductory statistics course and a regression course. Recommendations: prior exposure to programming and/or software, such as R, SAS, and Matlab. Same as BAIS:4540, DATA:4540, STAT:4540.

IGPI:4580 Data Visualization and Data Technologies 3 s.h.
Introduction to common techniques for visualizing univariate and multivariate data, data summaries, and modeling results; how to create and interpret these visualizations and assess effectiveness of different visualizations based on an understanding of human perception and statistical thinking; data technologies for obtaining and preparing data for visualization and further analysis; students learn how to present results in written reports and use version control to manage their work. Requirements: an introductory statistics course and a regression course. Recommendations: prior exposure to basic use of statistical programming software (e.g., R or SAS) as obtained from a regression course strongly recommended. Same as DATA:4580, STAT:4580.

IGPI:4581 Introduction to Geographic Databases 3 s.h.
Introduction to basic building blocks of spatial database design, spatial data models, structures, relationships, queries (SQL), indexing, and geoprocessing; design and construction of various types of spatial databases, including relational and big data approaches such as ArcGIS geodatabase, PostGIS/PostgreSQL, and MongoDB. Prerequisites: SEES:2050. Same as SEES:4580.

IGPI:4740 Large Data Analysis 3 s.h.
Current areas that deal with problem of big data; techniques from computer science, mathematics, statistics; high performance and parallel computing, matrix techniques, cluster analysis, visualization; variety of applications including Google PageRank, seismology, Netflix-type problems, weather forecasting; fusion of data with simulation; projects. Prerequisites: (CS:1210 with a minimum grade of C- or ENGR:2730 with a minimum grade of C-) and (MATH:3800 or CS:3700) and (STAT:3200 or IE:3760 or IGPI:3200). Same as CS:4740, MATH:4740, STAT:4740.

IGPI:5001 Introductory Methodology 3-4 s.h.
Introduction to quantitative techniques in political science; set theory, probability distributions, estimation, testing; emphasis on acquiring mathematical skills for more advanced quantitative work in political science. Requirements: MA or PhD standing in political science. Same as POLI:5001.

IGPI:5015 Independent Study arr.

IGPI:5110 Introduction to Informatics 3 s.h.
Fundamentals of computer science: algorithms, complexity, relational databases, systems concepts, programming in Python. Same as CS:5110.

IGPI:5120 Regression Modeling and ANOVA in the Health Sciences 3 s.h.
Continuation of BIOS:4120; correlation, simple and multiple linear regression, confounding, interactions, model selection, single and multiple factor ANOVA (analysis of variance) models, contrasts, multiple comparisons, nested and block designs; introduction to mixed models; for non-biostatistics majors. Offered spring semesters. Prerequisites: BIOS:4120. Same as BIOS:5120, STAT:5610.

IGPI:5130 Applied Categorical Data Analysis 3 s.h.
Analysis of proportions, risk measures, and measures of association; Mantel-Haenszel method; logistic regression for binary responses and for matched data; logistic regression for multi-category responses; analysis of count data (Poisson regression and negative binomial regression); analysis of clustered data (generalized estimating equations and generalized linear mixed effects model); special topics include the application of propensity score methods; designed for non-biostatistics majors. Offered fall semesters. Prerequisites: BIOS:5120. Same as BIOS:5130.

IGPI:5199 Applied Statistics I 4 s.h.
Descriptive statistics, basic inferential methods (confidence intervals, chi-square tests); linear models (regression and ANOVA models—specification and assumptions, fitting, diagnostics, selection, testing, interpretation); nonlinear models, logistic regression. Prerequisites: STAT:3101. Corequisites: STAT:4100 or STAT:5100. Requirements: facility with matrix algebra. Same as STAT:5200.

IGPI:5206 Medical Imaging Physics 3 s.h.
Physics and data acquisition techniques of major medical imaging modalities (X-ray, CT, MR, ultrasound, PET, SPECT); physical interactions of energy with living tissue; principles and methods for acquiring imaging data and subsequent image construction; how individual modalities influence image quality; MATLAB programming required. Second in a medical imaging sequence. Prerequisites: BME:2200 and BME:2210. Same as BME:5210, ECE:5470.

IGPI:5211 Genes, Genomes, and the Human Condition Graduate Lecture 3 s.h.
Organization, expression, and evolution of genes in context of genomes; focus on human genome; distribution and transmission of variation in human population. Recommendations: BIOL:1411 highly recommended. Same as BIOL:5211.

IGPI:5212 Biomedical Signal Processing 3 s.h.
Application of signal processing methods (e.g., Fourier, Laplace, z-transforms) to biomedical problems, such as analysis of cardiac signals, circadian rhythm, the breathing cycle; computer simulation lab. Same as BME:5200.

IGPI:5251 Advanced Biosystems 3 s.h.
Biological systems unique to systems analysis; operation under nonequilibrium conditions; tools for systems analysis developed from models of systems at equilibrium (i.e., mechanical systems); fundamental difference between biological and mechanical systems that impact systems analysis; expand knowledge of linear systems and begin work with nonlinear systems; various modeling and analysis approaches useful in biomedical and biomedical engineering research. Prerequisites: BME:2200. Same as BME:5251.

IGPI:5270 Pathogenesis of Major Human Diseases 3 s.h.
Critical analysis of pathogenesis models in a series of major human diseases; clinical presentation, analysis of cellular and molecular events leading to the disease, discussion of key papers. Offered spring semesters. Same as MMED:5270, PATH:5270.

IGPI:5310 Research Data Management 3 s.h.
Introduction to data management techniques and problems encountered in gathering and processing data from biomedical investigations; introduction to SAS, techniques taught in SAS; designed for non-biostatistics majors. Recommendations: prior programming experience with C, C++, Python, Java, or other. Same as BIOS:5310, STAT:5810.

IGPI:5311 Informatics for Sustainable Systems 3 s.h.
Introduction to fundamental and advanced environmental informatics concepts and procedures including automated data collection, data management, data transformations, and processing to support modeling and analysis; scientific visualization of environmental data to support management of food, energy, and water (FEW) resources; sustainability in FEW systems. Same as CEE:5310, URP:5310.

IGPI:5331 Graph Algorithms and Combinatorial Optimization 3 s.h.
Combinatorial optimization problems; time complexity; graph theory and algorithms; combinatorial optimization algorithms; complexity theory and NP-completeness; approximation algorithms; greedy algorithms and matroids. Prerequisites: ECE:3330. Same as ECE:5330.

IGPI:5400 Computing in Statistics 3 s.h.
R; database management; graphical techniques; importing graphics into word-processing documents (e.g., LaTeX); creating reports in LaTeX; SAS; simulation methods (Monte Carlo studies, bootstrap, etc.). Prerequisites: CS:1210 and STAT:3200 and (STAT:3120 or STAT:3101 or STAT:4101). Corequisites: STAT:5100 and STAT:5200 if not already completed. Same as DATA:5400, STAT:5400.

IGPI:5415 Satellite Image Processing and Remote Sensing of Atmosphere 3 s.h.
Introduction to principles of atmospheric radiation and techniques for satellite image processing; hands-on experience with data calibration, image registration and enhancement, noise filtering and (supervised and unsupervised) multi-spectral classification of satellite imageries; various satellite sensors used for monitoring of different atmospheric processes and constituents. Same as CBE:5415.

IGPI:5417 Physical Meteorology and Atmospheric Radiative Transfer 3 s.h.
Physical processes for weather and climate including radiative transfer, cloud and precipitation formation, and atmospheric electricity; theory of scattering by atmospheric particles (e.g., clouds, aerosols, molecules), atmospheric radiative transfer equations, and numerical techniques and tools to solve these equations. Requirements: senior or graduate standing. Same as CBE:5417, CEE:5417.

IGPI:5450 Machine Learning 3 s.h.
Fundamentals of machine learning theory including regression, classification, neural networks, clustering, and principal component analysis; engineering applications. Prerequisites: ECE:2400 or BME:2200. Same as ECE:5450.

IGPI:5460 Digital Signal Processing 3 s.h.
Theory, techniques used in representing discrete-time signals; system concepts in frequency and sampling domains; FIR and IIR digital filter theory, design and realization techniques; theory, application of discrete Fourier transforms/FFT. Prerequisites: ECE:3400. Same as ECE:5460.

IGPI:5480 Digital Image Processing 3 s.h.
Mathematical foundations and practical techniques for digital manipulation of images; image sampling, compression, enhancement, linear and nonlinear filtering and restoration; Fourier domain analysis; image pre-processing, edge detection, filtering; image segmentation. Prerequisites: ECE:2400 or BME:2200. Same as ECE:5480.

IGPI:5510 Biostatistical Computing 2 s.h.
Introduction to computer programming using SAS and R statistical software packages; programming language syntax, constructs, procedures, and techniques for data management, data analysis, and statistical programming commonly encountered in biostatistics; designed for first-year biostatistics majors. Offered fall semesters. Corequisites: BIOS:5710. Same as BIOS:5510.

IGPI:5641 Computer-Based Control Systems 3 s.h.
Discrete and digital control systems; application of computers in control; sampling theorem; discrete time system models; analysis and design of discrete time systems; control design by state variable and input/output methods; advanced topics in digital controls; lab. Prerequisites: ECE:5600. Same as ECE:5640.

IGPI:5710 Biostatistical Methods I 4 s.h.
Probability distributions, moments, estimation, parametric and nonparametric inference for one-sample and two-sample problems, analysis of frequency data; emphasis on use of computers; designed for first-year biostatistics majors. Offered fall semesters. Requirements: two semesters of calculus. Same as BIOS:5710.

IGPI:5720 Biostatistical Methods II 4 s.h.
Continuation of BIOS:5710; multi-factor ANOVA (analysis of variance), multiple comparisons, orthogonal contrasts, linear regression and correlation, regression diagnostics and remedial measures, model selection, and mixed models; designed for first-year biostatistics majors. Offered spring semesters. Prerequisites: BIOS:5710. Requirements: one semester of linear algebra. Same as BIOS:5720.

IGPI:5730 Biostatistical Methods in Categorical Data 3 s.h.
Estimation of proportions, rates, risks, relative risks, and odds ratios; Mantel-Haenszel method; logistic regression (including ordinal logistic regression and multi-category nominal logistic regression); Poisson regression and negative binomial regression; methods for correlated or clustered data (conditional logistic regression, generalized estimating equations, and mixed effects models); special topics include an introduction to generalized linear models and likelihood-based inferential techniques in this framework; designed for first-year biostatistics majors. Offered spring semesters. Prerequisites: BIOS:5510 and BIOS:5710. Corequisites: BIOS:5720. Same as BIOS:5730.

IGPI:6140 Academic User Services and Technology 3 s.h.
Information and technological needs of academic library users; methods and models of reference and technical support services; standards for user interface (UI)/user experience (UX), including web content accessibility guidelines (WCAG); communicating about and ethical implications of academic library technologies. Same as SLIS:6140.

IGPI:6155 Information Visualization 3 s.h.
Introduction to theories, techniques, and examples of information visualizations for different presentations of data. Prerequisites: SLIS:5020. Same as SLIS:6155.

IGPI:6210 Applied Survival Analysis 3 s.h.
Nonparametric, parametric, and semi-parametric methods for time-to-event data; types of censoring; Kaplan-Meier estimation; Cox proportional hazards models, including methods for assessing adequacy of the proportional hazards assumption; time varying covariates; sample size calculations for comparison of two or more groups; focus on analysis of real data sets and examples using statistical software. Offered spring semesters. Prerequisites: BIOS:5120 or BIOS:5720. Same as BIOS:6210.

IGPI:6216 Finite Element II 3 s.h.
Computer implementation; plate and shell elements; mixed and hybrid formulations; nonlinear analysis; recent development; introduction to boundary element method. Prerequisites: CEE:4533. Same as CEE:6532, ME:6215.

IGPI:6310 Introductory Longitudinal Data Analysis 3 s.h.
Introduction to statistical models and estimation methods for outcome variables (normal and non-normal) clustered or measured repeatedly in time or space; focus on applications and computer software methods for ANOVA based methods, hierarchical linear models, linear mixed models, correlated regression models, generalized estimating equations, and generalized linear mixed models. Offered fall semesters. Prerequisites: BIOS:5120 or STAT:3200. Same as BIOS:6310, STAT:6550.

IGPI:6420 Advanced Database Management and Big Data 3 s.h.
Advanced database management topics; basics of semi-structured data and web services; how to retrieve real-world big data sets from web services; use of SQL and PL/SQL to analyze data in relational databases; big data related topics (e.g., Hadoop, Hive). Same as BAIS:6420.

IGPI:6480 Knowledge Discovery 3 s.h.
Knowledge discovery process including data reduction, cleansing, and transformation; advanced modeling techniques from classification, prediction, clustering, and association; evaluation and integration. Same as BAIS:6480.

IGPI:6490 Information Policy and Ethics 3 s.h.
Recent developments in production, use, and organization of information have created new opportunities and raised ethical challenges that demand responses from information professionals; exploration of major ethical frameworks and their relevance for addressing ethical issues arising in information-intensive environments; practice-based assignments that provide opportunities for students to apply ethical theories to key ethical issues faced in various information-intensive contexts. Same as SLIS:6490.

IGPI:6501 Seminar in Spatial Analysis and Modeling 1-3 s.h.
Research themes in spatial analysis, GIScience, simulation, remote sensing. Same as SEES:6500.

IGPI:6510 Readings in Informatics arr.
Topics not covered in other courses; individual study.

IGPI:6515 Independent Study arr.

IGPI:6520 Research for Dissertation arr.
Requirements: PhD candidacy.

IGPI:6530 Environmental and Spatial Statistics 3 s.h.
Geostatistics kriging, variogram estimation, trend estimation, sampling design, extensions to river networks and the globe, lattice data analysis, analysis of spatial point patterns. Prerequisites: STAT:4101 and STAT:3200. Same as STAT:6530.

IGPI:6600 Linear Programming 3 s.h.
Mathematical programming models; linear and integer programming, transportation models, large-scale linear programming, network flow models, convex separable programming. Requirements: calculus and linear algebra. Same as BAIS:6600, ISE:6600.

IGPI:6610 Statistical Methods in Clinical Trials 3 s.h.
Survey of statistical methods commonly used in clinical trials; primary focus on methodologic perspective for the design, conduct, analysis, and interpretation of all phases of clinical trials; logistical and operational aspects of conducting multisite clinical trials; designed for biostatistics majors. Offered spring semesters. Prerequisites: BIOS:5720. Requirements: familiarity with SAS and R programming. Same as BIOS:6610.

IGPI:6650 Causal Inference 3 s.h.
Causal inference overview, emphasis on inference in observational research; conceptual issues (e.g., counterfactuals, causal graphs, time-varying treatments/confounding), methods (e.g., inverse probability weighting, doubly robust estimators), and related applications (e.g., causal mediation analysis, quantitative bias analysis); for advanced biostatistics or epidemiology students. Prerequisites: (BIOS:5720 and BIOS:5730) or (EPID:6400 and EPID:5241 and EPID:5610). Same as BIOS:6650, EPID:6655.

IGPI:6700 Discrete Optimization 3 s.h.
Introduction to modeling and solving discrete optimization problems; integer programming, network flows, dynamic programming. Prerequisites: BAIS:6600. Same as BAIS:6700.

IGPI:7000 Business Analytics Topics 3 s.h.
Same as BAIS:7000.

IGPI:7210 Survival Data Analysis 3 s.h.
Types of censoring and truncation; survival function estimation; parametric inference using exponential, Weibull, and accelerated failure time models; nonparametric tests; sample size calculation; Cox regression with stratification and time-dependent covariates; regression diagnostics; competing risks; topics may include analysis of correlated survival data and/or recurrent events; designed for biostatistics and statistics majors. Offered fall semesters of odd years. Prerequisites: BIOS:5720 and ((STAT:4100 and STAT:4101) or (STAT:5100 and STAT:5101)). Same as BIOS:7210, STAT:7570.

IGPI:7310 Longitudinal Data Analysis 3 s.h.
Statistical models and estimation methods for outcome variables (normal and non-normal) clustered or measured repeatedly in time or space; includes ANOVA based methods, hierarchical linear models, linear mixed models, error structures, generalized estimating equations, and generalized linear mixed models; may include Bayesian approaches; designed for biostatistics and statistics majors. Offered spring semesters of odd years. Prerequisites: (BIOS:5720 and STAT:4100 and STAT:4101) or (STAT:5100 and STAT:5101). Same as BIOS:7310.

IGPI:7400 Computer Intensive Statistics 3 s.h.
Computer arithmetic, random variate generation, numerical optimization, numerical linear algebra, smoothing techniques, bootstrap methods, cross-validation, MCMC, EM and related algorithms; other topics per student/instructor interests. Prerequisites: (BIOS:5710 or STAT:5200) and STAT:3101 and STAT:5400. Requirements: proficiency in Fortran or C or C++ or Java. Same as DATA:7400, STAT:7400.

IGPI:7470 Image Analysis and Understanding 3 s.h.
Mathematical foundations and practical techniques of digital image analysis and understanding; image segmentation (from edges and regions), object description (from boundaries, regions, scale, scale insensitive descriptions, 3D shape, texture) pattern recognition (statistical and syntactic methods, cluster analysis), image understanding (knowledge representation, control strategies, matching, context, semantics), image analysis and understanding systems; lab arranged. Prerequisites: ECE:5480. Same as ECE:7470.

IGPI:7480 Advanced Digital Image Processing 3 s.h.
Advanced local operators (scale-space imaging, advanced edge detection, line and corner detection), image morphology (binary/gray scale operators, morphological segmentation and watershed), digital topology and geometry (binary/fuzzy digital topology, distance functions, skeletonization), color spaces, wavelets and multi-resolution processing (Haar transform, multi-resolution expansions, wavelet transforms in one or two dimensions, fast wavelet transform, wavelet packets), image registration (intensity correlation, mutual information, and landmark-based deformable registration methods). Prerequisites: ECE:5460 and ECE:5480. Same as ECE:7480.

IGPI:7600 Advanced Biostatistics Seminar 0-3 s.h.
Current topics; supervised experience in reading and interpreting biostatistical literature. Same as BIOS:7600.

Informatics, MS

The MS in informatics is a non-research, course-based program for students who wish to enhance their careers with advanced knowledge of informatics. The coursework combines core informatics courses with cognate courses in one of these areas: geoinformatics, health informatics, or human-computer interaction.

Learning Outcomes

Students will exhibit:

- understanding of computational thinking concepts;
- experience in software development;
- expertise in data analytics methods;
- comprehension of and practice applying human-centered computing concepts;
- awareness of professional ethics; and
- domain-specific knowledge and skills related to the cognate area.

Requirements

The Master of Science program in informatics requires a total of 31 s.h. of graduate credit, including 19 s.h. of core courses and 12 s.h. of coursework in a chosen subprogram: geoinformatics, health informatics, or human-computer interaction. Students must maintain a Graduate College Program grade-point average of at least 3.00.

The MS in informatics requires the following coursework.

Core Courses

All students complete the following core courses.

Programming

Course #	Title	Hours
This course:		
CS:5110/IGPI:5110	Introduction to Informatics	3
One of these:		
CS:3010	Software Engineering Fundamentals in Java	3
CS:3210	Programming Languages and Tools	3
CS:3980	Topics in Computer Science I	3
SEES:3050/ IGPI:3050	Geospatial Programming (required for geoinformatics cognate)	3

Statistics

Course #	Title	Hours
One of these:		
BIOS:4120	Introduction to Biostatistics (required for health informatics cognate)	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Data Science

Course #	Title	Hours
One of these:		
BAIS:6480/ IGPI:6480	Knowledge Discovery	3
STAT:4540/ BAIS:4540/ DATA:4540/ IGPI:4540	Statistical Learning	3
An approved course (consult advisor)		3

Databases

Course #	Title	Hours
One of these:		
CS:4400	Database Systems	3
SEES:4580/ IGPI:4581	Introduction to Geographic Databases (required for geoinformatics cognate)	3

Human Factors

Course #	Title	Hours
One of these:		
CS:4500	Research Methods in Human-Computer Interaction	3
CS:4510	Human-Computer Interaction for Computer Science (if student has not taken CS:2520)	3
SEES:3540/ IGPI:3540	Geographic Visualization (required for geoinformatics cognate)	3

Ethics

Course #	Title	Hours
This course:		
CS:5980	Topics in Computer Science III	1

Subprograms

Students choose one of three subprograms and complete the requirements.

Geoinformatics Subprogram

Course #	Title	Hours
All of these:		
SEES:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3
SEES:3520/ IGPI:3520	GIS for Environmental Applications	3
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3

Health Informatics Subprogram

Course #	Title	Hours
Four of these:		
BIOL:3212/ IGPI:3212	Bioinformatics for Beginners	3
BIOL:4386	Introduction to Scientific Computing for Biologists	3
BIOS:5120/ IGPI:5120/ STAT:5610	Regression Modeling and ANOVA in the Health Sciences	3
BMB:3310/ CBIO:3310/ MMED:3310	Practical Data Science and Bioinformatics (recommended for students with a biology background)	3
BMB:4310/ BME:4310	Computational Biochemistry	3
BME:5335	Computational Bioinformatics	3
CS:4470	Health Data Analytics	3
EPID:4400	Epidemiology I: Principles	3

Human-Computer Interaction Subprogram

Course #	Title	Hours
Three of these:		
PSQF:6243/ STAT:6513	Intermediate Statistical Methods	3
PSY:3060	Sensation and Perception	3
An approved elective (consult director)		3
One of these:		
CS:4500	Research Methods in Human-Computer Interaction (if not taken to satisfy Human Factors requirement)	3
CS:4510	Human-Computer Interaction for Computer Science (if not taken to satisfy Human Factors requirement and if have not taken CS:2520)	3
ISE:6211	Human Factors in Healthcare Systems	3
ISE:6220	Cognitive Engineering	3

For more information about the Master of Science requirements, see the Interdisciplinary Graduate Program in Informatics website.

Combined Programs

MS (Health Informatics–Pharmacy Subprogram)/PharmD

The purpose of the combined program is to provide an opportunity for professional students in the College of Pharmacy to receive formal training in health informatics in addition to training in pharmacotherapy and health care. Students completing the degree program receive an MS in informatics with the health informatics–pharmacy subprogram (without thesis) from the Graduate College and a PharmD from the College of Pharmacy. Students develop special expertise in information technology, including management of electronic health records, health information exchange standards, electronic prescribing, medication management, decision support, and other competencies.

The combined program requires 34 s.h. Courses that can be used to count toward both programs include 19 s.h. of core courses, 6 s.h. of courses from the health informatics cognate, and 9 s.h. from the PharmD curriculum selected from the following.

Course #	Title	Hours
PHAR:8209	Introductory Pharmacy Practice Experiences Hospital	3
PHAR:8250	Applications of Pharmacy Practice I	2
PHAR:8265	Applications of Pharmacy Practice II	2
PHAR:8374	Applications of Pharmacy Practice III	2
PHAR:8378	Pharmacy Law and Ethics	2

A separate application for each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. It is recommended that students apply to the Graduate College for admission to the MS program before entering the spring semester of their first year in the pharmacy program. For more information, see Doctor of Pharmacy, PharmD [p. 2061] in the College of Pharmacy section of the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. They must also meet the admission requirements of the informatics subprogram they want to enter; see PhD and MS Admission on the program's website.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Informatics, MS

- Geoinformatics Subprogram [p. 1754]
- Health Informatics Subprogram [p. 1755]
- Human-Computer Interaction Subprogram [p. 1755]

Geoinformatics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**

First Year		
Fall		
STAT:4143 or BIOS:4120	Introduction to Statistical Methods or Introduction to Biostatistics	3
CS:5110	Introduction to Informatics	3
Programming course [b]		3
	Hours	**9**
Spring		
STAT:4540 or BAIS:6480	Statistical Learning or Knowledge Discovery	3
CS:4400 or SEES:4580	Database Systems or Introduction to Geographic Databases	3
CS:5980	Topics in Computer Science III [c]	1
SEES:3500	Introduction to Environmental Remote Sensing	3
	Hours	**10**
Second Year		
Fall		
CS:4510 or SEES:3540 or CS:4500	Human-Computer Interaction for Computer Science or Geographic Visualization or Research Methods in Human-Computer Interaction	3
SEES:3520	GIS for Environmental Applications	3
	Hours	**6**
Spring		
SEES:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
SEES:4150	Health and Environment: GIS Applications	3
	Hours	**6**
	Total Hours	**31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Choose from CS:3010, CS:3210, CS:3980, SEES:3050.
c Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

Health Informatics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
STAT:4540 or BIOS:4120	Statistical Learning or Introduction to Biostatistics	3
CS:4400 or SEES:4580	Database Systems or Introduction to Geographic Databases	3
CS:5110	Introduction to Informatics	3
	Hours	**9**
Spring		
STAT:4540 or BAIS:6480	Statistical Learning or Knowledge Discovery	3
CS:5980	Topics in Computer Science III [b]	1
Health informatics course [c]		3
Programming course [d]		3
	Hours	**10**
Second Year		
Fall		
CS:4500 or SEES:3540 or CS:4510	Research Methods in Human-Computer Interaction or Geographic Visualization or Human-Computer Interaction for Computer Science	3
Health informatics course [c]		3
	Hours	**6**
Spring		
Health informatics course [c]		3
Health informatics course [c]		3
	Hours	**6**
	Total Hours	**31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
c See the General Catalog for list of approved courses.
d Choose from CS:3010, CS:3210, CS:3980, SEES:3050.

Human-Computer Interaction Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
STAT:4143 or BIOS:4120	Introduction to Statistical Methods or Introduction to Biostatistics	3
CS:4400 or SEES:4580	Database Systems or Introduction to Geographic Databases	3
CS:5110	Introduction to Informatics	3
	Hours	**9**
Spring		
STAT:4540 or BAIS:6480	Statistical Learning or Knowledge Discovery	3
CS:4510 or CS:4500 or SEES:3540	Human-Computer Interaction for Computer Science or Research Methods in Human-Computer Interaction or Geographic Visualization	3

CS:5980	Topics in Computer Science III [b]	1
Programming course [c]		3
	Hours	**10**
Second Year		
Fall		
Human-computer interaction course [d]		3
Human-computer interaction course [d]		3
	Hours	**6**
Spring		
Human-computer interaction course [d]		3
Human-computer interaction course [d]		3
	Hours	**6**
	Total Hours	**31**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

c Choose from CS:3010, CS:3210, CS:3980, SEES:3050.

d See the General Catalog for list of approved courses.

Informatics, PhD

The PhD in informatics emphasizes preparation for research, teaching, and scholarly endeavors in academic settings or private, industrial, or governmental laboratories. Students focus on applying informatics research to a field of choice (e.g., health, biology, human-computer interaction, geography, design).

Learning Outcomes

Students will exhibit:

- broad, up-to-date knowledge of informatics topics including computational thinking, software development, data analytics, human-centered computing concepts, and professional ethics;
- domain-specific knowledge and skills related to the field of application of informatics research;
- fluency at reading, analyzing, synthesizing, and communicating research; and a
- thorough understanding of relevant research methods and ability to conduct original research that contributes to the field of informatics.

Requirements

The Doctor of Philosophy program in informatics requires at least 72 s.h. of graduate credit. A total of 19 s.h. of core courses are required plus an additional 12 s.h. of courses approved by a student's committee. The remaining 41 s.h. may be completed with additional coursework or through reading or research hours. Students must maintain a Graduate College major program grade-point average of at least 3.00.

It requires completion of coursework, satisfactory performance on the qualifying exam, comprehensive exam, and the proposal, plus the production and formal defense of a dissertation describing original research results.

Students select an advisor from among the program faculty. On the rare occasion when students choose a PhD advisor who is outside the program, a co-advisor from the program faculty must be designated.

The PhD in informatics requires the following coursework.

Core Courses

Students complete a total of 19 s.h. in core coursework. The student's advisor and the rest of the student's committee consisting of at least two other faculty select the remaining courses (12 s.h. minimum) for a total of at least 31 s.h. of coursework.

Programming

Course #	Title	Hours
This course:		
CS:5110/IGPI:5110	Introduction to Informatics	3
One of these:		
CS:3010	Software Engineering Fundamentals in Java	3
CS:3210	Programming Languages and Tools	3
CS:3980	Topics in Computer Science I	3
SEES:3050/ IGPI:3050	Geospatial Programming	3

Statistics

Course #	Title	Hours
One of these:		
BIOS:4120	Introduction to Biostatistics	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Data Science

Course #	Title	Hours
One of these:		
BAIS:6480/ IGPI:6480	Knowledge Discovery	3
STAT:4540/ BAIS:4540/ DATA:4540/ IGPI:4540	Statistical Learning	3

An additional course (consult advisor)

Databases

Course #	Title	Hours
One of these:		
CS:4400	Database Systems	3
SEES:4580/ IGPI:4581	Introduction to Geographic Databases	3

Human Factors

Course #	Title	Hours
One of these:		
CS:4500	Research Methods in Human-Computer Interaction	3
CS:4510	Human-Computer Interaction for Computer Science	3
SEES:3540/ IGPI:3540	Geographic Visualization	3

Ethics

Course #	Title	Hours
This course:		
CS:5980	Topics in Computer Science III	1

Elective Core Coursework

Course #	Title	Hours
Coursework selected in consultation with advisor and committee		12

Electives

The remaining 41 s.h. may be completed with additional coursework or through reading or research hours.

Comprehensive Examination

PhD students must pass a comprehensive examination at or near completion of their coursework requirements. Students prepare a 20–30 page survey/discussion (along the lines of the introduction and literature review from an eventual thesis) for distribution to their faculty committee, followed at least

two weeks later by a 20–40 minute oral presentation, and a question/answer session.

Students may request that the MS be granted at the time of the comprehensive exam. The MS without thesis is awarded upon successful completion of the comprehensive exam but may, at the examination committee's discretion, be awarded even if students do not pass the exam. Students may also choose to complete the thesis requirements and be awarded an MS with thesis.

Dissertation

Students complete dissertation coursework in consultation with their advisor.

Upon successful completion of all requirements, including the dissertation and its oral defense, students are awarded the Doctor of Philosophy degree.

For more information about the Doctor of Philosophy requirements, see the Interdisciplinary Graduate Program in Informatics website.

Combined Programs

MD/PhD

Students may work toward the Doctor of Medicine degree and a PhD in informatics in a combined degree program offered by the Carver College of Medicine and the Graduate College. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

Students applying to the PhD program do not need a master's degree prior to admission. Students who hold a master's degree upon entering the PhD program may apply to use transfer credit from their master’s degree courses toward their PhD program requirements.

Students applying to the PhD program who are not selected for admission are automatically considered for admission to the MS program if they do not already hold a master's degree.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. They must also meet the admission requirements of the informatics program; see PhD and MS Admission on the program's website.

Career Advancement

The program emphasizes preparation for research, teaching, and scholarly endeavors in academic settings or private, industrial, or governmental laboratories.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Informatics, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; maximum of 33 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
BIOS:4120 or STAT:4143	Introduction to Biostatistics or Introduction to Statistical Methods	3
CS:5110	Introduction to Informatics	3
Elective course [b]		3
	Hours	**9**
Spring		
STAT:4540 or BAIS:6480	Statistical Learning or Knowledge Discovery	3
CS:4400 or SEES:4580	Database Systems or Introduction to Geographic Databases	3
CS:5980	Topics in Computer Science III [c]	1
Programming course [d]		3
	Hours	**10**
Second Year		
Any Semester		
Qualifying Exam [e]		
	Hours	**0**
Fall		
CS:4510 or SEES:3540 or CS:4500	Human-Computer Interaction for Computer Science or Geographic Visualization or Research Methods in Human-Computer Interaction	3
Elective course [b]		3
Elective course [b]		3
	Hours	**9**
Spring		
Elective course [b]		3
Elective course [b]		3
Elective course [b]		3
	Hours	**9**
Third Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [f]		
	Hours	**0**
Fall		
Elective course [b]		3
Elective course [b]		3
Elective course [b]		3
	Hours	**9**
Spring		
Elective course [b]		3
Elective course [b]		3

Elective course [b]		3
	Hours	**9**
Fourth Year		
Fall		
Dissertation Proposal Defense [g]		
Elective course [b]		3
Elective course [b]		3
Elective course [b]		3
	Hours	**9**
Spring		
IGPI:6520	Research for Dissertation [b]	8
Exam: Doctoral Final Exam [h]		
	Hours	**8**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b See the General Catalog and department website for specifics about elective coursework requirements; may be a combination of research for dissertation hours, directed readings, independent study, and graduate coursework.
c Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
d Choose from CS:3010, CS:3210, CS:3980, SEES:3050.
e Typically completed during second year fall semester. See the General Catalog and department website for specifics.
f Taken before the end of third year. See the General Catalog and department website for specifics.
g Typically completed six months prior to final oral exam (dissertation defense).
h Oral dissertation defense.

Informatics, Graduate Certificate

Requirements

The graduate Certificate in Informatics requires 19 s.h. of graduate credit. Students must earn a major program grade-point average of at least 3.00 in certificate coursework. The certificate program is designed for students enrolled in University of Iowa graduate degree programs who wish to study informatics as a complement to their degree program and for nondegree students who are interested in increasing their knowledge of informatics.

The Certificate in Informatics requires the following coursework.

Required Courses

Programming

Course #	Title	Hours
This course:		
CS:5110/IGPI:5110	Introduction to Informatics	3
One of these:		
CS:3010	Software Engineering Fundamentals in Java	3
CS:3210	Programming Languages and Tools	3
CS:3980	Topics in Computer Science I	3
SEES:3050/ IGPI:3050	Geospatial Programming	3

Statistics

Course #	Title	Hours
One of these:		
BIOS:4120	Introduction to Biostatistics	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Data Science

Course #	Title	Hours
One of these:		
BAIS:6480/ IGPI:6480	Knowledge Discovery	3
STAT:4540/ BAIS:4540/ DATA:4540/ IGPI:4540	Statistical Learning	3
An approved course (consult advisor)		3

Databases

Course #	Title	Hours
One of these:		
CS:4400	Database Systems	3
SEES:4580/ IGPI:4581	Introduction to Geographic Databases	3

Human Factors

Course #	Title	Hours
One of these:		
CS:4500	Research Methods in Human-Computer Interaction	3
CS:4510	Human-Computer Interaction for Computer Science	3
SEES:3540/ IGPI:3540	Geographic Visualization	3

Ethics

Course #	Title	Hours
This course:		
CS:5980	Topics in Computer Science III	1

For more information about certificate requirements, see the Interdisciplinary Graduate Program in Informatics website.

Admission

Certificate program applicants may be degree or nondegree graduate students. Applicants who are enrolled in a University of Iowa graduate degree program must be in good academic standing in their program.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Informatics, Graduate Certificate

Course	Title	Hours
Academic Career		
Any Semester		
The graduate certificate in informatics requires 19 s.h. of graduate credit.		
	Hours	**0**
First Year		
Fall		
CS:5110	Introduction to Informatics	3
	Hours	**3**
Spring		
Certificate: programming elective course [a]		3
	Hours	**3**
Second Year		
Fall		
BIOS:4120 or STAT:4143	Introduction to Biostatistics or Introduction to Statistical Methods	3
	Hours	**3**

Spring		
CS:4510 or SEES:3540 or CS:4500	Human-Computer Interaction for Computer Science [b] or Geographic Visualization or Research Methods in Human-Computer Interaction	3
	Hours	**3**
Third Year		
Fall		
STAT:4540 or BAIS:6480	Statistical Learning or Knowledge Discovery	3
	Hours	**3**
Spring		
CS:5980	Topics in Computer Science III	1
	Hours	**1**
Fourth Year		
Fall		
SEES:4580 or CS:4400	Introduction to Geographic Databases or Database Systems	3
	Hours	**3**
	Total Hours	**19**

a Students must complete one course from CS:3010, CS:3210, CS:3980, SEES:3050.

b CS:4500 is typically offered only during fall semesters. Check MyUI for course availability since offerings are subject to change.

Interdisciplinary Studies

Graduate degrees: MA in interdisciplinary studies; MFA in interdisciplinary studies; MS in interdisciplinary studies; PhD in interdisciplinary studies

The interdisciplinary studies graduate program serves students seeking a more diversified and comprehensive advanced study program than typically allowed for those specializing in a single discipline. Interested students must already be admitted to an existing graduate program prior to seeking approval for an interdisciplinary studies program.

The interdisciplinary studies program allows students to tailor their educational interests, research, and scholarship. With the permission of the student's advisory committee and of the graduate college, students may complete additional graduate certificates and degrees.

Programs

Graduate Programs of Study

- Master of Arts in Interdisciplinary Studies [p. 1763]
- Master of Fine Arts in Interdisciplinary Studies [p. 1764]
- Master of Science in Interdisciplinary Studies [p. 1765]
- Doctor of Philosophy in Interdisciplinary Studies [p. 1766]

Interdisciplinary Studies, MA

Learning Outcomes

- Develop the ability to integrate knowledge and methodologies from multiple disciplines to address complex problems and create innovative solutions.
- Enhance critical thinking and analytical skills by evaluating and synthesizing diverse perspectives and approaches.
- Cultivate communication skills around interdisciplinary concepts and findings to both specialized and general audiences.
- Foster collaboration skills to work effectively in diverse teams and interdisciplinary areas.

Requirements

The MA in interdisciplinary studies requires a minimum of 30 s.h. of graduate credit. Students accepted to the MA in interdisciplinary studies may work with the Graduate College to include a self-defined subprogram as part of the new degree title. The self-defined subprogram is a tailored and topical subtitle for the MA in interdisciplinary studies and typically defines the focus of the students' courses and/or scholarship.

A final exam may be required. Students have the option to complete a thesis. Coursework is approved by the student's advisory committee and must be numbered 3000 or above.

Contact the Office of Academic Affairs [gradcoll@uiowa.edu] in the Graduate College for more information.

Interdisciplinary Studies, MFA

Learning Outcomes

- Develop the ability to integrate knowledge and methodologies from multiple disciplines to address complex problems and create innovative solutions.
- Enhance critical thinking and analytical skills by evaluating and synthesizing diverse perspectives and approaches.
- Cultivate communication skills around interdisciplinary concepts and findings to both specialized and general audiences.
- Foster collaboration skills to work effectively in diverse teams and interdisciplinary areas.

Requirements

The MFA in interdisciplinary studies requires a minimum of 48 s.h. of graduate credit. Students accepted to the MFA in interdisciplinary studies may work with the Graduate College to include a self-defined subprogram as part of the new degree title. The self-defined subprogram is a tailored and topical subtitle for the MFA in interdisciplinary studies and typically defines the focus of the students' courses and/or scholarship.

A thesis and final exam are required. Coursework is approved by the student's advisory committee and must be numbered 3000 or above.

Contact the Office of Academic Affairs [gradcoll@uiowa.edu] in the Graduate College for more information.

Interdisciplinary Studies, MS

Learning Outcomes

- Develop the ability to integrate knowledge and methodologies from multiple disciplines to address complex problems and create innovative solutions.
- Enhance critical thinking and analytical skills by evaluating and synthesizing diverse perspectives and approaches.
- Cultivate communication skills around interdisciplinary concepts and findings to both specialized and general audiences.
- Foster collaboration skills to work effectively in diverse teams and interdisciplinary areas.

Requirements

The MS in interdisciplinary studies requires a minimum of 30 s.h. of graduate credit. Students accepted to the MS in interdisciplinary studies may work with the Graduate College to include a self-defined subprogram as part of the new degree title. The self-defined subprogram is a tailored and topical subtitle for the MS in interdisciplinary studies and typically defines the focus of the students' courses and/or scholarship.

A final exam may be required. Students have the option to complete a thesis. Coursework is approved by the student's advisory committee and must be numbered 3000 or above.

Contact the Office of Academic Affairs [gradcoll@uiowa.edu] in the Graduate College for more information.

Interdisciplinary Studies, PhD

Learning Outcomes

- Develop the ability to conduct original research that integrates theories, methodologies, and knowledge from multiple disciplines to address complex problems and contribute to the advancement of knowledge.
- Enhance critical thinking and analytical skills by evaluating and synthesizing diverse perspectives and approaches to generate innovative solutions.
- Cultivate advanced communication skills to effectively articulate interdisciplinary research findings to both specialized and general audiences.
- Foster collaboration skills to work effectively in diverse teams and interdisciplinary settings, promoting a culture of cooperation and mutual respect.

Requirements

The PhD in interdisciplinary studies requires a minimum of 72 s.h. of graduate credit. Students accepted to the PhD in interdisciplinary studies may work with the Graduate College to include a self-defined subprogram as part of the degree title. The self-defined subprogram is a tailored and topical subtitle for the PhD in interdisciplinary studies and typically identifies the focus of students' courses and/or scholarship.

A comprehensive exam, final exam, and thesis are required. Coursework is approved by the Graduate College and the student's advisory committee and must be numbered 3000 or above.

International Writing Program

Director

- Christopher Merrill

Faculty: https://iwp.uiowa.edu/people

Website: https://iwp.uiowa.edu

The International Writing Program (IWP) conducts a unique fall residency program for established writers from outside the United States. During the fall semester, IWP may offer courses related to the program's general mission.

Residency Program

Each fall the International Writing Program assembles a community of poets, fiction writers, essayists, playwrights, and journalists for an 11-week residency on campus. Participants range from emerging talents to writers who are among their countries' leading literary figures and writers of world stature. For most, their time in the program is their first, or their first extended, stay in the United States.

At the University of Iowa, they live and interact with each other while working on writing and translation projects and participating in public events. Throughout their residency, they present their work in IWP:3191 International Literature Today and IWP:5205 International Translation Workshop, and participate as guests in many other courses on campus. They also meet with the public through readings, panel discussions, a film series, and other presentations.

Since 1967 over 1,600 writers from over 160 countries have participated in the program.

International Writing Program participants are supported by the University of Iowa, and through bilateral agreements with many countries, grants from cultural institutions and governments abroad, and private funds.

For more information, contact the International Writing Program.

Courses

International Writing Program Courses

IWP:3191 International Literature Today **1,3 s.h.**
Same as ENGL:3595, TRNS:3191, WLLC:3191.

IWP:5205 International Translation Workshop **1,3 s.h.**
International writers pair with University of Iowa translators to write new works of poetry and fiction in English; second-language fluency not required for international writers. Same as TRNS:5210.

IWP:7460 Translation Workshop **3 s.h.**
Requirements: at least one world language. Same as TRNS:7460.

Library and Information Science

Director

- Lucilia (Lucy) Santos Green

Graduate degree: MA in library and information science

Graduate certificate: special collections librarianship and archives

Faculty: https://slis.uiowa.edu/faculty-and-staff

Website: https://slis.uiowa.edu/

The School of Library and Information Science offers a graduate-level program of professional and academic preparation for careers in libraries and information centers. The program is accredited by the American Library Association. In concert with the mission of the University of Iowa, the school seeks excellence in its education of future library and information professionals, its contribution to the knowledge base of library and information science, and its service to the school's local, regional, national, and international constituencies.

Library and information professionals serve the needs of their own constituencies—children and teachers, members of academic communities, employees of profit and nonprofit organizations, and the public at large—ranging from information poor to information rich. They work in the contexts of issues such as information and communication technology, public and private information policy, managerial policy, and regional, national, and international economics.

The school offers the MA in Library and Information Science and a variety of dual degrees and certificates to specialize in different areas of librarianship, including joint offerings with the Center for the Book, the College of Law, the Department of English, and a school teacher-librarian endorsement for licensed K–12 teachers. The MA may be pursued while completing other degrees at the University of Iowa, including other master's and PhD degrees. Undergraduates at the University of Iowa may also apply for the Undergraduate to Graduate (U2G) degree program and complete their bachelor's degree in combination with the MA in Library and Information Science.

Student Organizations and Activities

All MA students in the school are automatically members of LISSO, the Library and Information Science Student Organization, which also serves as the student chapter of the American Library Association. LISSO sponsors various activities, such as speaker series, workshops, brown bag lunches, and social events. Participation in LISSO events provides students with significant opportunities for professional and extracurricular growth as well as completion of capstone portfolio requirements. Students are encouraged to join other state and national professional organizations.

Honor Society

The Beta Beta Theta Chapter of Beta Phi Mu, the international honor society for library and information science, is located at the University of Iowa. Each year new members are chosen from the top 25% of the preceding year's graduating class. To be eligible for membership, graduates must achieve a grade-point average of at least 3.75, demonstrate professional promise, and be recommended by the faculty.

Related Certificate

Certificate in Book Arts and Book Studies

Students may apply to earn the Certificate in Book Arts and Book Studies. The program requires 15 additional s.h. of graduate credit through the University of Iowa Center for the Book for students who are enrolled in the joint Library and Information Sciences MA/Certificate in Book Arts and Book Studies program. For more information, see the MA and Certificate in Book Arts and Book Studies [p. 1775] in the catalog.

Programs

Graduate Programs of Study

- Master of Arts in Library and Information Science [p. 1773]
- Certificate in Special Collections Librarianship and Archives [p. 1778]

Facilities

The School of Library and Information Science (SLIS) is housed in the south wing on the third floor of the university's Main Library, in a setting that promotes community among students, faculty, and staff and provides easy access to the resources of the University of Iowa Libraries. Facilities are provided for the varied instructional and research activities of the school.

The school includes classrooms dedicated for use by School of Library and Information Science faculty and students. These classrooms feature a wired workstation technology setup with Windows and Macintosh computers fully equipped with videoconferencing systems and large high-definition screens.

Gunther Commons

Gunther Commons, a state-of-the-art collaborative laboratory equipped with workstations, is the school's combined student center and technology lab. Individuals and teams of students gather in Gunther Commons to work on course assignments and to gain experience with specialized software. Students have access to Windows and Macintosh computers, with gigabit access to the campus network and wireless service throughout the Main Library.

University of Iowa Libraries

All of the resources of the University of Iowa Libraries are available to the school's students and faculty. The system contains more than 4 million volumes in the Main Library and six departmental libraries.

The web-based catalog provides access to books and periodicals, electronic indexes, and full-text databases held by the university libraries. In addition, InfoHawk+ provides online resource access to resources arranged by subject and academic discipline. Wireless internet access is available in the Main Library.

The school benefits from proximity to the Learning Commons, encompassing the majority of public space on the first floor of the Main Library. The Learning Commons is a technology-

infused, comfortable, and flexible learning space, and an academic and information help center.

The third floor of the Main Library, where SLIS is located, also houses the map collection, Special Collections, and University Archives, including the Iowa Women's Archives.

Other Libraries

Students have access to a variety of libraries through field trips, practicum experience, and personal use: the State Historical Society of Iowa library in Iowa City; the Iowa City, Coralville, and Cedar Rapids public and school libraries; the Augustana, Coe, Cornell, Mount Mercy, and Grinnell college libraries; and the Herbert Hoover Presidential Library and Museum in West Branch, IA.

Other Resources

The second floor of the University Capitol Centre houses the instructional services and campus services departments of the university's Information Technology Services. It provides instructional and research computing facilities and services for the university community. All university students, staff, and faculty may use the center's computers for university-related research, thesis preparation, and class work. Instructional Technology Centers provide campuswide access to the university's academic computing resources.

Courses

Library and Information Science Courses

SLIS:4150 Introduction to Book Studies 3 s.h.
Theory and practice of book studies; meanings of word and image in the book format; comparative study of other media, applied study of the codex as a physical artifact. Same as ENGL:4150, UICB:4150.

SLIS:4910 The Book in the Middle Ages 3 s.h.
Relation of text, decoration, function, creators, and audience in different genres of medieval manuscript books 400-1500 A.D. Same as HIST:4422, UICB:4910.

SLIS:4920 The Book in Early Modern Europe 3 s.h.
History of the book and communication in Europe 1400-1800; production, distribution, and use of texts in cultural context. Same as HIST:4429, UICB:4920.

SLIS:5010 Libraries, Culture, and Society 3 s.h.
Role of libraries and information agencies in society; major issues including information policy, professional ethics, literacy, diversity, technology, and pedagogy. Requirements: admission to library and information science.

SLIS:5020 Public User Services and Technology 3 s.h.
Information and technological practices and affordances of public and school libraries; information technology needs of public and school library users; digital divide and inequality; reference and technical support practices and systems in public and school libraries; user technology management (IT strategic planning and public computing policies). Requirements: admission to library and information science.

SLIS:5030 Information Organization 3 s.h.
Introduction to information organization, the systems and standards used in libraries and information centers to describe and organize documents and records for optimal stewardship and retrieval; hands-on experience in creating media (e.g., LibGuides, Omeka galleries) and encoding XML documents; preparation for further practice in cataloging, metadata, preservation, and retrieval. Requirements: admission to library and information science.

SLIS:5041 College and University Libraries 3 s.h.
Focus on praxis of academic librarianship—the way theories and ideas are applied and embodied in day-to-day work of librarians and organization of academic libraries; exploration of different types of academic libraries and their goals, functions, services, and contexts in which they operate; different types of academic librarianship; development of a preparedness for engaging complexities of academic library work as it progresses the goals of higher education; for students interested in academic librarianship, archives, and special collections. Requirements: admission to library and information science program.

SLIS:5042 Public Libraries 3 s.h.
Modern public libraries were founded on principles of equality, democracy, intellectual freedom, and public good; exploration of the historical development of public libraries and current issues related to their management and operations; practical projects and observation of library operations; opportunity to apply classroom learning to real-world work; for students interested in working in a public library or archives. Requirements: admission to library and information science program.

SLIS:5044 School Library Media Administration 3 s.h.
How to create and deliver a program that focuses on teaching responsibilities of school librarians and their collaborative role in the school; examination of research, standards, curricular frameworks, information process, and inquiry models; administrative and leadership roles of teacher librarian including policy and procedure development, budgeting, and program evaluation; development of a functional library program plan.

SLIS:5200 Innovation and Technology Methodology 3 s.h.
Power of technology to connect, communicate, create, convince, and collaborate within library setting; development of a personal philosophy and network within the innovative technology realm; introduction to a variety of multimedia tools; creation of projects on multiple platforms.

SLIS:5220 Resources for Children 3 s.h.
Children's literature and librarianship are entwined, interdisciplinary fields that now encompass everything from storytelling to new media, reflecting the field's service to a population spanning from newborns to 14-year-olds; survey of issues that youth librarians must understand by studying a progression of ages and developmental stages, issues of professional practice, and elements of genre and media for young people, anchored by books and media suited to these ages; strategies and resources that youth services professionals can use for creating responsive services and collections in the 21st century.

SLIS:5230 Resources for Young Adults 3 s.h.
Examination of topics related to populations served by youth service departments (i.e., societal issues and informational needs) and the ways libraries meet needs of young adults; immersion into the world of young adults and how this relates to recreational reading and information seeking needs; how to evaluate and select from a variety of fiction, nonfiction, print, digital, and web-based resources; how to guide young adults to become competent, critical consumers and producers of information while creating a welcoming environment that celebrates diversity.

SLIS:5240 Resources for Adults 3 s.h.
Role of public libraries in meeting adults' informational and recreational needs; popular culture materials, reader's advisory services, lifelong learning.

SLIS:5400 Community Archives 3 s.h.
Community archives are projects and organizations that employ archival methods to organize self-determined group memory. Set in sometimes complex symbiotic relationships with other heritage organizations like libraries, institutional archives, and museums, community archives can be community-led and participatory. Explore the state of community memory as organized by community leaders; ask after community archival practices, prerogatives, and sustainability in the contemporary United States toward broader concerns that tie community memory and how it is kept with questions of community self-determination and wellbeing.

SLIS:5450 Reader's Advisory: Practices, Resources, and Media 3 s.h.
Reader's advisory, the professional term for connecting books and readers in libraries, is made up of practices and ideas that facilitate leisure reading and enjoyment of books and media. Cover different modes, strategies, and resources for reader's advisory work in libraries; give attention to related activities such as author visits, book clubs, and algorithms and reading. Share learning about recommendations and genres as part of a plan for developing best practices in this important area of public library service.

SLIS:5520 Studies in Book History and Technologies 0-3 s.h.
Topics related to production, distribution, and consumption of books through history and into the future. Same as UICB:5520.

SLIS:5530 Preservation Management 3 s.h.
Responsible stewardship of collections, integration of preservation into libraries and archives systems, maximizing limited resources, establishing preservation priorities, and advocacy; appropriate care of books, paper, photographs, time-based media (e.g., audio, video, film), and born-digital objects; lectures, discussions, student presentations, and hands-on activities; for students who will be responsible for managing collections. Same as UICB:5530.

SLIS:5535 Book Conservation 3 s.h.
Practical methods, materials assessment, conservation history and evolution. Prerequisites: UICB:4270. Same as UICB:5220.

SLIS:5600 Reading Culture: History and Research in Print and Digital Media 3 s.h.
What reading means, and what it means to read, have changed with time and place; cultural study of books and reading to evaluate strategies and resources involved in crafting historical interpretations of books and their readers; consideration of ways that reading has always been interdependent with other media, from needlework to social media; how researchers locate and interpret primary source material to study reading culture, and how cultural heritage organizations promote their holdings to researchers. Same as UICB:5600.

SLIS:5630 Introduction to Special Collections and Archives 3 s.h.
Introduction to history of collecting in special collections and key areas of praxis (e.g., appraisal, arrangement and description, preservation, reference and access, outreach).

SLIS:5700 Cultural Heritage 3 s.h.
Increased use of digital technologies in collection, organization, dissemination, and use of heritage resources that generate intellectual, social, technological, legal, and ethical challenges to—and opportunities for—the heritage practice; exploration of challenges and opportunities, as well as their impact on the heritage profession; students become familiar with key heritage-related concepts and topics, apply them to a concrete project, and write a report of their findings.

SLIS:6020 Literacy and Learning 3 s.h.
Learning and literacy theory relevant to work in information services; how librarians can help people process information and use it to form understanding and create new knowledge. Prerequisites: SLIS:5010.

SLIS:6040 Media Production Workshop 3 s.h.
Hands-on workshop to familiarize students with media production software and methods common to work in libraries and information centers; students may produce media including websites, apps, podcasts, videos, infographics, and tweets; studio course with emphasis on peer assistance and feedback.

SLIS:6115 Introduction to Research Methods in Library and Information Science 3 s.h.
An introduction to the fundamental concepts and techniques of research in library and information science, with an emphasis on both qualitative and quantitative research methods. Students will explore the purpose of research in social inquiry, develop an understanding of empirical research, and distinguish between basic and applied research. Key topics include research design, sampling techniques, data collection, and analysis, as well as ethical considerations in research.

SLIS:6130 Community Engagement 3 s.h.
Community engagement is the process of asking, listening to, and empowering individuals, organizations, and partners to build relationships and move toward common goals that benefit and improve a community; exploration of applications for community engagement; opportunity for students to explore community engagement principles through practical experiences; for students interested in library programming and outreach, or work in a library or archives. Requirements: admission to library and information science program.

SLIS:6140 Academic User Services and Technology 3 s.h.
Information and technological needs of academic library users; methods and models of reference and technical support services; standards for user interface (UI)/user experience (UX), including web content accessibility guidelines (WCAG); communicating about and ethical implications of academic library technologies. Same as IGPI:6140.

SLIS:6145 Digital Preservation and Stewardship 3 s.h.
Concepts, theories, and ethical practices for preservation of born-digital and digitized materials in cultural heritage institutions. Learn to apply standards, best practices, and sustainable strategies for the preservation of wide-ranging digital collections; situate preservation as a key component of responsible digital stewardship, assess tools and systems, devise storage strategies, and optimize workflows for the long-term accessibility of digital collections; understand basic digital stewardship practices, personal digital archives, digital forensics, social media and web archiving, and data management for the digital humanities.

SLIS:6150 Information Behavior 3 s.h.
People seek, gather, and use information in various contexts; exploration of patterns of information behavior to develop a better understanding of personal and sociocultural aspects of human information needs and practices in contexts; practice-based assignments that provide opportunities for students to research an information activity or phenomenon, a type of information, or a particular user group; how librarianship is about understanding and serving information needs of various communities.

SLIS:6155 Information Visualization 3 s.h.
Introduction to theories, techniques, and examples of information visualizations for different presentations of data. Prerequisites: SLIS:5020. Same as IGPI:6155.

SLIS:6170 Management, Teams, and Leadership 3 s.h.
Managers, teams, and leaders are critical for effective operations of libraries and information centers; exploration of principles and practices of organizational management, human resources, financial management, budgeting, communications, policy making, and strategic planning; strategies for cultivating and supporting inclusive, culturally competent organizations and structured approaches for planning and evaluating library programs and services; practical assignments that prepare students to work in libraries and archives. Requirements: admission to library and information science program.

SLIS:6250 Cataloging and Classification 3 s.h.
Introduction to various systems used to describe materials and information in library catalogs; principles of organizing catalog information for effective retrieval; standards used across libraries, archives, and museums including Anglo-American Cataloguing Rules (AACR2), Resource Description and Access (RDA), Dewey Decimal System, and Library of Congress Classification; knowledge and skills needed to begin work as professional catalogers in a diverse range of libraries.

SLIS:6255 Rare Book Cataloging 3 s.h.
Application of cataloging standards to rare books and other special collections materials; hands-on cataloging of rare books and visits to local collections; critical skills and confidence necessary to begin cataloging rare, special, and unusual books using accepted standards from the field; for students interested in archives and special collections librarianship.

SLIS:6330 Collection Development 3 s.h.
Collecting is a core library activity that includes various types of media collected from traditional print to digital media; focus on curating an inclusive collection that is accessible to all library patrons; examination of the life cycle of a resource within the library from understanding intellectual freedom policies to identification of resource needs, selection and acquisition, promotion and use, to deselection; collection development across library settings and how collection development relates to instruction in libraries. Prerequisites: SLIS:5010 and SLIS:5030.

SLIS:6335 Metadata Theories and Applications 3 s.h.
Introduction to concepts, principles, functional requirements, and practices of metadata; emphasis on metadata implementations in library, archive, and museum communities; extensive hands-on exercises; application and design of metadata element sets and schemas, data exchange formats, and value vocabularies.

SLIS:6345 Stewardship of Information and Collections 3 s.h.
Library collections provide a foundation for library service; exploration of issues affecting development and management of library collections including policies, assessment, budgeting, selection, deselection, acquisitions, partnerships, formats, marketing, legal issues, cooperation, and ethics; strategies for cultivating and supporting inclusive, culturally competent collections, and how this supports intellectual freedom; practical assignments that prepare students for collection stewardship work in public, academic, and school libraries. Prerequisites: SLIS:5010. Corequisites: SLIS:5010, if not taken as a prerequisite. Requirements: admission to library and information science program.

SLIS:6350 Archives: Theory and Practice 3 s.h.
Overview of theories, principles, ethical practices, and core functional areas of archival stewardship. Covers collection development, appraisal, accessioning, preservation, collection management, arrangement and description, access and use, and digitization. Students develop an understanding of the history of the field of archives and engage with contemporary issues that shape the profession. Topics include the decolonization of archives, rapid-response collecting, Protocols for Native American Archival Materials (PNAAM), reparative archival work, environmental sustainability, digital repatriation, and community archives.

SLIS:6355 Advanced Topics in Special Collections 3 s.h.
Advanced focused study in the areas relating to special collections and archives.

SLIS:6370 Topics in Book Studies 3 s.h.
Topics relevant to book studies and special collections. Same as UICB:6370.

SLIS:6411 Special Topics in Library and Information Science 3 s.h.
Processes and resources that humanities students and scholars use to find information and create knowledge considered in context of larger cultural forces that shape inquiry, and library and university resources that support scholarly communication; for students interested in humanities subject librarianship, special collections, and humanities centered archives.

SLIS:6490 Information Policy and Ethics 3 s.h.
Recent developments in production, use, and organization of information have created new opportunities and raised ethical challenges that demand responses from information professionals; exploration of major ethical frameworks and their relevance for addressing ethical issues arising in information-intensive environments; practice-based assignments that provide opportunities for students to apply ethical theories to key ethical issues faced in various information-intensive contexts. Same as IGPI:6490.

SLIS:6520 Practicum in Libraries and Information Centers 3 s.h.
Focus on practical application of theory; students gain experience in library and information science work, work with faculty member to identify opportunities for practicum placement in libraries and other organizations, and set professional and personal goals; 120 hours of fieldwork; participation in classroom conversations. Requirements: 12 s.h. of SLIS coursework.

SLIS:6530 School Library Media Practicum 3 s.h.
Field experience in an elementary and a secondary school library program for a total of 40 hours; discussion of various program components including delivery of library's instructional program, collaborative efforts, integration of information literacy skills and technology to support learning, and administrative and operational tasks involved in managing a school library program; students facilitate a lesson at both sites and complete a project that supports library instruction. Prerequisites: SLIS:5044.

SLIS:6570 Independent Study 1-3 s.h.
Formal contract between student and faculty member. Requirements: formal proposal.

SLIS:6571 Distance and Online Education: Independent Study 1-3 s.h.
Formal contract between student and faculty member; opportunity to pursue in-depth research in a particular area of interest that does not duplicate an existing course in the curriculum; students meet with faculty member to design a plan of study and submit a bibliography and description of the final project. Requirements: formal proposal.

SLIS:6580 Thesis 0-6 s.h.

SLIS:6600 Curation and Collection Development for Special Collections 3 s.h.
Fundamentals of collection development for special collections curators that guide the collecting lifecycle for rare books and distinctive collections; includes an overview of the history of institutional collecting, proactive collecting and policy creation, collections assessment, and workflows; students will learn approaches to budgeting and allocating funding, strategies for building relationships with dealers, approaches for working with individual donors alone and in collaboration with development officers, as well as the legal and ethical frameworks that guide the purchase, acquisition, use, circulation, and deaccessioning of cultural heritage materials.

SLIS:6700 Digital Leadership in Cultural Heritage Institutions 3 s.h.
Introduces the foundational concepts of digital leadership within the context of libraries, archives, and museums, with a focus on navigating the challenges and opportunities of a post-digital society; students will explore how emerging technologies—particularly artificial intelligence—are reshaping the competencies, mindsets, and strategic approaches required of contemporary GLAM professionals; prepares students to lead digital transformation efforts with ethical awareness, technological fluency, and visionary thinking through case studies, critical readings, and applied projects.

SLIS:6800 Applied Research in Archives and Special Collections 3 s.h.
Introduction to original research in special collections librarianship and archives, emphasizing the development of independent research projects grounded in historical, socio-cultural, ethical, or practical dimensions of the field; students will build on prior coursework to formulate research questions, craft proposals, engage in scholarly inquiry, and craft a publishable-quality paper in consultation with the instructor; emphasis will be placed on critical thinking, peer review, and communicating research findings which will equip students with the skills to contribute meaningfully to the professional and academic discourse in the field.

SLIS:6900 Introduction to Legal Research for Library and Information Science Students 3 s.h.
Introducing students without legal training to the concepts and tools necessary to provide basic legal research assistance in an academic, public, or special library; structure of the U.S. legal system, reading and understanding legal citations, and free and subscription legal research resources; ethics of providing legal research assistance to non-lawyers. Corequisites: SLIS:5010.

SLIS:7900 SLIS Graduation Seminar 0 s.h.
Creation of an electronic portfolio that includes an introduction, résumé, professional statement, and work samples (with introductory reflective essays) that document competency in the American Library Association's nine professional competency areas.

Library and Information Science, MA

Students who pursue the Master of Arts in library and information science gain an understanding of the foundations of library and information professions, including the history of the fields, ethical and philosophical concerns, and principles of stewardship for a variety of forms of documentation and records. Students are taught the theory and practice of strategic management within information organizations, preparing them for careers and leadership in a broad variety of information organizations. They gain the knowledge needed to anticipate future trends in information access and organization. Students study the close relationship between research and practice. Finally, students become knowledgeable about the factors that underlie users' information needs and appropriate strategies to assist them.

The MA in library and information science has held continuous accreditation from the American Library Association since 1971. The degree prepares students to work in public libraries, K–12 school libraries, academic libraries, law libraries, archives, and special collections.

The School of Library and Information Science combines online education with on-campus opportunities and collaboration allowing online students to participate in real-time learning experiences with their on-campus classmates. Both full- and part-time enrollment options are available for on-campus and virtual coursework. For more information about the online program option, see Online MA in LIS on the School of Library and Information Science website. Not all coursework for this program is taught in person. On-campus students will be required to take some online coursework to complete the degree requirements.

Learning Outcomes

Gateway Knowledge

Students will understand the historical, social, cultural, and civic contexts of various library and information service roles in the United States, and students will internalize key values of the profession such as intellectual freedom, information equality, and community well-being. Students will also learn best practices in professional communication and development.

Information Resources

Students will understand the lifecycle of recorded knowledge and information from creation to use and the best practices for developing collections—including acquisition, selection, purchasing, processing, storage, and deselection—with special attention to emerging formats and genres of information resources.

Lifelong Learning and Continuing Education

Students will understand that lifelong learning and continuing education are organizational goals for libraries and information centers to provide as well as professional goals for library and information workers to seek out. Students will understand best practices for professional development and also best practices for teaching and learning in libraries and information centers.

Management and Administration

Students will understand best practices for project and team management, strategic planning and communication, organizational workflows and assessment, library advocacy and development, and community partnerships and engagement.

Organization of Recorded Knowledge and Information

Students will understand how to evaluate, represent, and organize information and knowledge across cultures and communities as well as how to devise, maintain, and use systems of organization in both physical and digital environments toward efficient discovery and retrieval by diverse users.

Reference and User Services

Students will understand the techniques for discovering, retrieving, evaluating, and synthesizing information from diverse sources, and students will understand methods for learning and describing the information needs of various users and communities and how libraries and information centers can work with these communities toward meeting their needs.

Research and Evidence-Based Practice

Students will understand the methods of intervention-oriented research and assessment methods in libraries and information centers, and students will recognize, evaluate, and apply the different types of evidence that information professionals use to measure the success of services, practices, and facilities.

Information Equity

Students will understand that a central value of libraries and information centers is to mitigate information inequality, and students will endeavor to improve library and information practices through informed, respectful, and inclusive interventions that recognize and centralize social difference across race, gender, sexuality, (dis)ability, socioeconomic status, nationality, religion, age, education, literacy, and other vectors.

Technological Knowledge and Skills

Students will understand and identify the technological infrastructure that enables library and information services, and students will be able to evaluate existing and emerging technologies toward inclusive and effective practice.

Requirements

The Master of Arts in library and information science requires 36 s.h. of graduate credit. Students must maintain a minimum Graduate College program grade-point average (GPA) of 3.00. Students must earn a grade of B-minus or higher in all core courses and a grade of C or higher in elective courses. Courses may be repeated one time if a student receives a grade below the stated threshold; however, the original grade will still contribute to the cumulative GPA. If the second completion does not result in a minimum qualifying grade, the student will be ineligible to complete the MA in library and information science at the University of Iowa.

See the School of Library and Information Science Handbook on the School of Library and Information Science website for further details.

Students may apply a maximum of 12 s.h. of graduate transfer credit from non-University of Iowa institutions and 9 s.h. transfer credit from a University of Iowa graduate program. These courses must be in library and information science or areas related to the degree and are subject to applicable rules and approval by the curriculum committee. Approval is based on the course's content, currency, and applicability to a student's program.

The program may be completed fully online or through a mix of online and in-person courses. Please check residence criteria for any joint degrees and certificates. Most of the online coursework is delivered synchronously and is designed to be completed in two years with an enrollment of 9 s.h. during each of the fall and spring semesters. The School of Library and Information Science strongly recommends that students not register for more than 12 s.h. during fall and spring semesters and 8 s.h. during summer sessions. The program also may be completed through part-time study.

A thesis option may be available; interested students should contact the program for more information.

The MA in library and information science requires the following coursework.

Requirements	Hours
Core Courses	15
Electives	21

The curriculum includes two levels of coursework. Core courses consist of five required courses that provide a solid grounding for all successive coursework. Students select elective coursework consisting of seven courses for 21 s.h. or a combined electives course total of 21 s.h. based on their areas of interest. This two-level arrangement allows students to concentrate in an area that most closely matches their professional goals.

Core Courses

Course #	Title	Hours
All of these:		
SLIS:5010	Libraries, Culture, and Society (taken in student's first semester)	3
SLIS:5030	Information Organization	3
SLIS:6115	Introduction to Research Methods in Library and Information Science	3
SLIS:6170	Management, Teams, and Leadership	3
SLIS:7900	SLIS Graduation Seminar	0
One of these:		
SLIS:5020	Public User Services and Technology	3
SLIS:6140	Academic User Services and Technology	3

Electives

Course #	Title	Hours
With their advisor's guidance, students select seven courses for 21 s.h. or a combined course total of 21 s.h. from these:		
SLIS:4150	Introduction to Book Studies	3
SLIS:4910	The Book in the Middle Ages	3
SLIS:4920	The Book in Early Modern Europe	3
SLIS:5041	College and University Libraries	3
SLIS:5042	Public Libraries	3
SLIS:5044	School Library Media Administration	3
SLIS:5200	Innovation and Technology Methodology	3
SLIS:5220	Resources for Children	3
SLIS:5230	Resources for Young Adults	3
SLIS:5400	Community Archives	3
SLIS:5450	Reader's Advisory: Practices, Resources, and Media	3
SLIS:5520	Studies in Book History and Technologies	0-3
SLIS:5530	Preservation Management	3
SLIS:5535	Book Conservation	3
SLIS:5600	Reading Culture: History and Research in Print and Digital Media	3
SLIS:5630	Introduction to Special Collections and Archives	3
SLIS:6020	Literacy and Learning	3
SLIS:6040	Media Production Workshop	3
SLIS:6130	Community Engagement	3
SLIS:6140	Academic User Services and Technology	3
SLIS:6145	Digital Preservation and Stewardship	3
SLIS:6150	Information Behavior	3
SLIS:6250	Cataloging and Classification	3
SLIS:6255	Rare Book Cataloging	3
SLIS:6330	Collection Development	3
SLIS:6335	Metadata Theories and Applications	3
SLIS:6345	Stewardship of Information and Collections	3
SLIS:6350	Archives: Theory and Practice	3
SLIS:6355	Advanced Topics in Special Collections	3
SLIS:6370	Topics in Book Studies	3
SLIS:6411	Special Topics in Library and Information Science	3
SLIS:6490	Information Policy and Ethics	3
SLIS:6520	Practicum in Libraries and Information Centers	3
SLIS:6530	School Library Media Practicum	3
SLIS:6570	Independent Study	1-3
SLIS:6580	Thesis	0-6

Students may choose to satisfy up to 6 s.h. for the degree with an approved practicum (SLIS:6520 Practicum in Libraries and Information Centers). Students may repeat the practicum once for a total of 6 s.h. Placements must be preapproved by the practicum faculty lead. For more information, see the School of Library and Information Science website.

Specializations

To earn the degree, students do not need to select an area of specialization. However, programs often are designed around particular career goals, and the school offers courses in the following specialized focus areas that students may choose to take to prepare them for working in a specific area of library and information science.

Public Libraries

Public libraries provide informational, educational, and recreational materials and a wide range of services for a diverse clientele. Although public libraries receive the bulk of their funding from local taxes, they also may be organized on a regional or statewide cooperative basis. The variety of uses, services, materials, and organizational structures of public libraries makes this a challenging area of librarianship. Public librarians need to develop skills in analyzing the communities they serve, designing comprehensive marketing plans to meet their needs, implementing the plans in a cost-effective way, and evaluating the success of their efforts.

Academic Libraries

The academic library, whether in a community college, a four-year college, or a university, provides information services in support of the parent institution's teaching, research, and public service missions. These services include instruction in the use of the library and its resources. Management skills and subject or language competence are often required. Since librarians in this setting usually are considered academic faculty members, a second master's or other advanced degree is recommended.

School Libraries

Teacher librarians provide instruction to students in accessing, evaluating, and using information; collaborate with teachers on the use of resources in instruction; provide leadership in the use of instructional and information technologies for technology-enabled student learning; offer reading guidance; provide reference service; and manage the library media center. In the state of Iowa, school librarians are referred to as teacher librarians.

The University of Iowa offers a state-approved program leading to endorsement as Teacher Librarian K–12. In order to fulfill state requirements for this endorsement, students must hold or be eligible for a teaching license and must complete a designated sequence of courses that leads both to certification and to the MA degree.

Licensed teachers employed in Iowa schools may enroll in a distance education program that leads to an MA in library and information science and endorsement for teacher librarianship. Contact the School of Library and Information Science for details.

Students who are interested in school libraries but lack a valid Iowa teaching license may earn licensure as a teacher librarian by completing 30 s.h. in the College of Education. The Master of Arts in library and information science with teacher licensure requires 66 s.h. of credit. Students must apply and be admitted to both programs.

Combined Programs

Undergraduate Degree/MA

Students working on an undergraduate degree at the University of Iowa who are interested in earning an MA in library and information science may apply to a combined undergraduate degree and MA degree program. The Undergraduate to Graduate (U2G) program enables students to begin work on the MA as they complete their baccalaureate degree and complete both degrees in five years. Students admitted to the program may count 12 s.h. toward both their undergraduate degree and the MA.

Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

For more information, visit Undergraduate to Graduate (U2G) on the Graduate College website.

MA/JD

The School of Library and Information Science and the College of Law offer a combined Master of Arts/Juris Doctor program. Students in the combined program may apply a limited amount of credit toward both degrees, thereby completing the combined program with fewer semester hours than if each degree was completed separately. Students enroll in law courses their first year and begin taking School of Library and Information Science courses in their second year.

Separate application to each degree program is required. For more information about the JD, see Juris Doctor, JD [p. 1833] (College of Law) in the catalog. Elective courses also are available through the College of Law for students who wish to specialize in law librarianship but who do not want to pursue the JD.

MA/MFA in Book Arts

The School of Library and Information Science and the Center for the Book offer a combined Master of Arts/Master of Fine Arts in book arts. The combined program allows students with a strong interest in the physical book to acquire training in the book arts, book history, and material book studies. The earned expertise in the production and legacy of the book as a physical artifact combined with expertise in library and information science can be an asset for those focused on careers in special collections libraries and archives.

Students in the combined program earn both degrees by completing fewer semester hours than if each degree was completed separately. Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. For more information, see the MFA in book arts [p. 1724] in the catalog.

Students interested in a librarianship career with a more general interest in the physical book should consider the book studies/book arts and technologies certificate in combination with the MA in library and information science.

MA/Certificate in Book Arts and Book Studies

The Center for the Book and the School of Library and Information Science (SLIS) collaborate to offer the Certificate in Book Arts and Book Studies/MA library and information science program. The combined program enables students to

earn an MA in library and information science and a Certificate in Book Arts and Book Studies. It requires admission to the School of Library and Information Science MA program and the Center for the Book certificate program.

The MA/Certificate in Book Arts and Book Studies offers multiple pathways into professional engagement with artifacts available in archives and libraries, such as rare and artist books. Students select courses that enable them to gain skills and knowledge in areas of service such as conservation, cataloging, instruction, and outreach. The combined program requires 51 s.h. of coursework. Students take 27 s.h. of SLIS courses; 15 s.h. of book arts, studies, and technologies courses; and the remaining 9 s.h. may be taken in either SLIS or Center for the Book coursework, or from another unit with approval from the SLIS advisor.

Admission deadline is Feb. 1 for fall entry. For more information, see the Certificate in Book Arts and Book Studies [p. 1727] in the catalog.

MA/PhD in English

The combined MA in library and information science/PhD in English program prepares students for careers in academic libraries as humanities subject specialists, reference and instruction librarians, first-year experience librarians, special collections librarians and curators, and archivists. It also enhances the research profiles and methodological toolboxes of digital humanists as well as archival historicists, in addition to improving pedagogical skills. Offered by the Graduate College and the College of Liberal Arts and Sciences; see the PhD in English in the catalog.

Admission

Applicants begin the admission process by submitting an online graduate application through Admissions. Applicants then receive a HawkID and can upload the remaining application documents through MyUI. Transcripts of all academic work, a written statement of purpose and goals, a résumé or curricula vitae, and three letters of recommendation are required. Applicants to the teacher-librarian program are asked to include a copy of their current teaching certificate. The admission committee considers each applicant's letters of recommendation, statement of purpose, résumé or curriculum vitae, and other appropriate criteria, as well as an applicant's grade-point average (GPA). Applicants for admission to the MA program should have a GPA of at least 3.00 on a 4.00 scale. Graduate Record Examination (GRE) General Test scores are not required. Admission is competitive.

Completed applications should be received by Feb. 1 for priority consideration for fall admission. Decisions of the admissions committee are announced approximately six weeks after the application deadline. Late applications are considered if places are still available. Financial aid is often not available for late applicants. Admitted students are assigned a faculty advisor for program planning during their first semester.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

School of Library and Information Science graduates have many options for employment. Alumni hold positions in public, school, special, and academic libraries as well as other information settings. They serve in varied roles, such as information consultant, database manager, library administrator, webmaster, network coordinator, cataloger, children's librarian, school library media specialist, and archivist.

The school shares announcements of national and international job opportunities through an electronic mailing list. In addition, the Library and Information Science Student Organization (LISSO) sponsors talks by speakers versed in areas of librarianship as well as workshops on résumé writing, social media networking, and interviewing. Internships and other opportunities provide students with hands-on experience that may enhance their job prospects.

For recent information on library and information science placement, see the Library Research Service (LRS) website and the annual Placement and Salaries 2022 report on the Library Journal website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Library and Information Science, MA

Course	Title	Hours
Academic Career		
Any Semester		
36 s.h. of graduate level coursework must be completed; up to 12 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
Students must earn a grade of B-minus or higher in all core courses and a grade of C or higher in elective courses.		
Students may design their program around particular career goals such as Public Librarianship, Information Processes, Medical Librarianship, Youth Services, Archives and Media, and Academic Librarianship by working with their advisor to determine coursework and sequence.		
Students may pursue select degrees, certificates or a certification simultaneously in less time than would be required to complete the programs of study independently. [c]		
	Hours	**0**
First Year		
Fall		
SLIS:5010	Libraries, Culture, and Society [d, e]	3
SLIS:5020 or SLIS:6140	Public User Services and Technology [e] or Academic User Services and Technology	3
SLIS elective [f]		3
	Hours	**9**

Spring		
SLIS:5030	Information Organization [e, g]	3
SLIS:6115	Introduction to Research Methods in Library and Information Science [e]	3
SLIS:6170	Management, Teams, and Leadership [e, h]	3
	Hours	**9**
Second Year		
Fall		
SLIS elective [f]		3
SLIS elective [f]		3
SLIS elective [f]		3
	Hours	**9**
Spring		
SLIS:7900	SLIS Graduation Seminar [i]	0
SLIS elective [f]		3
SLIS elective [f]		3
SLIS elective [f]		3
	Hours	**9**
	Total Hours	**36**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Students can complete a combined degree with the SLIS MA and either a Juris Doctor or the Book Arts MFA, or may consider the SLIS MA with the Book Arts and Book Studies certificate, Informatics certificate, or Public Digital Humanities certificate. The SLIS MA may also be combined with the School Library Media certification.

d Course should be taken during the first semester of the program.

e SLIS core course.

f Students must complete 21 s.h. of SLIS elective graduate coursework. Work with an academic advisor to determine coursework and sequence. Additional information can be found in the General Catalog and on department website.

g Course should be taken during the second semester of the program.

h Course can be taken in either year one or two based on individual schedule.

i Students will complete and submit a capstone portfolio during their final semester. If they are graduating in the summer, they will submit their capstone portfolio during the previous spring semester.

Special Collections Librarianship and Archives, Graduate Certificate

Requirements

The graduate certificate in Special Collections Librarianship and Archives requires 15 s.h. of coursework.

The certificate develops students' skills in a variety of areas suitable to work in special collections, archives, and cultural heritage settings. Students take an introductory course and select four additional courses, one from each of the areas of study: material culture research and analysis; care and use of collections; arrangement, description, and cataloging; and digital curation and stewardship. Students may choose to complete an approved practicum in special collections.

The Certificate in Special Collections Librarianship and Archives requires the following coursework.

Required Course

Course #	Title	Hours
This course:		
SLIS:5630	Introduction to Special Collections and Archives	3

Areas of Study

Students take four courses for a total of 12 s.h., one from each of the following areas.

Material Culture Research and Analysis

Courses in this area offer students knowledge of primary source literacies and research skills that can be applied to the care, use, and interpretation of unique and distinct collections and supporting the researchers who work with them.

Course #	Title	Hours
One of these:		
SLIS:4920	The Book in Early Modern Europe	3
SLIS:5600	Reading Culture: History and Research in Print and Digital Media	3
SLIS:6411	Special Topics in Library and Information Science	3

Care and Use of Collections

Courses in this area explore the role of the special collections practitioner in the balance between providing access and promoting the use of collections and the preservation practices that ensure the long-term safety and stewardship of unique and distinct collections.

Course #	Title	Hours
One of these:		
SLIS:5530	Preservation Management	3
SLIS:6145	Digital Preservation and Stewardship	3

Arrangement, Description, and Cataloging

Courses in this area explore contemporary descriptive practices for special collections and archives with a focus on user discovery.

Course #	Title	Hours
One of these:		
SLIS:6255	Rare Book Cataloging	3
SLIS:6350	Archives: Theory and Practice	3

Digital Curation and Stewardship

Courses in this area investigate the selection, acquisition, development, preservation, and delivery of digitized and born-digital collections.

Course #	Title	Hours
One of these:		
SLIS:5530	Preservation Management	3
SLIS:6140	Academic User Services and Technology	3

Molecular Medicine

Director

- Krystal Parker

Faculty: https://mmed.medicine.uiowa.edu/profile

Website: https://mmed.medicine.uiowa.edu/

The Molecular Medicine Program provides interdisciplinary training in the concepts and methodologies fundamental to the investigation of biological processes and molecular mechanisms that relate to human disease.

The program provides the curriculum for the molecular medicine subprogram for the Doctor of Philosophy in biomedical science. It is a sequence of required and elective coursework, which provides students with broad exposure to areas, including molecular biology, cell biology, biochemistry, and integrative sciences. The curriculum ensures comprehensive exposure to conceptual and experimental aspects of molecular and cellular biology and of translational studies. Sufficient flexibility is provided so that students can adapt the program to allow specialization in their own area of interest. See the PhD in biomedical science [p. 1701] (molecular medicine subprogram) in the Graduate College section of the catalog.

Faculty members are involved in a variety of research projects involving molecular and cellular biology and molecular medicine.

Facilities

Training is conducted primarily in laboratories and teaching facilities of the Carver College of Medicine Stead Family Department of Pediatrics and the departments of Anatomy and Cell Biology, Biochemistry and Molecular Biology, Internal Medicine, Microbiology and Immunology, Molecular Physiology and Biophysics, Neurology, Neuroscience and Pharmacology, Obstetrics and Gynecology, Ophthalmology and Visual Sciences, Otolaryngology–Head and Neck Surgery, Pathology, Psychiatry, Radiation Oncology, and Surgery; and the College of Liberal Arts and Sciences departments of Biology and Chemistry. Faculty laboratories and central research facilities available to students provide access to the most up-to-date research equipment.

Courses

Molecular Medicine Courses

MMED:3310 Practical Data Science and Bioinformatics **3 s.h.**
Understanding how to access large biological data sets and use them to answer biological questions is an important skill for researchers; immersive introduction to computational handling of data; how to access and analyze publicly available data; critically evaluate data quality and analysis in context of measuring gene expression; basic coding in R/RStudio, plotting and data display, fitting and regression, statistical inference, statistical models, downloading and data wrangling; basic introduction to machine learning (clustering); for students with no computational background. Prerequisites: BIOL:1411 with a minimum grade of C- and BIOL:1412 with a minimum grade of C-. Requirements: college algebra. Recommendations: BMB:3110, or BMB:3120 and BMB:3130, or other upper-level life sciences courses. Same as BMB:3310, CBIO:3310.

MMED:5270 Pathogenesis of Major Human Diseases **3 s.h.**
Critical analysis of pathogenesis models in a series of major human diseases; clinical presentation, analysis of cellular and molecular events leading to the disease, discussion of key papers. Offered spring semesters. Same as IGPI:5270, PATH:5270.

MMED:6220 Mechanisms of Cellular Organization **3 s.h.**
Current understanding of basic cell biological processes; key experiments that led to guiding insights; mechanisms that cells use for compartmentalization and how those mechanisms are regulated; biogenesis of major organelles (e.g., mitochondria, peroxisomes, nucleus, secretory/endocytic membrane system); functions of cytoskeleton in cell motility, organelle motility, and cell division. Prerequisites: BMB:3130. Same as ACB:6220, MPB:6220.

MMED:6226 Cell Cycle Control **1 s.h.**
Cell cycle regulation, DNA damage-dependent cell cycle regulation, redox-dependent cell cycle regulation, cellular senescence. Same as ACB:6226, MPB:6226.

MMED:6227 Cell Fate Decisions **1 s.h.**
Cellular fate decisions including signal integration, terminal differentiation in development, mechanisms of embryonic stem cell gene regulation/cellular reprogramming, cell death paradigms, and cell death in development and cancer. Same as ACB:6227, MPB:6227.

MMED:6230 Pathogenesis of Metabolic and Cardiovascular Disorders **3 s.h.**
Students focus on metabolic and cardiovascular diseases—the leading cause of morbidity and mortality in the United States; introduction to major subclasses of metabolic and cardiovascular diseases, definition of pathogenesis and clinical features of diseases, and exploration of methodologies used to study diseases; course format includes lecture, critical examination of literature, and demonstration of experimental models.

MMED:6250 Mechanisms of Parasitism Journal Club **1 s.h.**
Reviews of recent publications in molecular parasitology research and thesis research by training grant or journal club students; for students pursuing graduate thesis research in microbiology or a related discipline. Same as MICR:6250.

MMED:6260 Methods for Molecular and Translational Medicine 1 s.h.
Basic and advanced scientific techniques used to integrate biological questions in molecular and translational medicine; particularly useful for comprehensive exam preparation.

MMED:6280 Critical Thinking in Molecular Medicine 1 s.h.
Opportunity to work closely with participating faculty to gain skill in critical reading of research literature and facility in presenting material to an audience. Requirements: advanced graduate standing.

MMED:7290 Seminars in Molecular Medicine 1 s.h.
Research findings in molecular biology. Requirements: molecular and cellular biology graduate standing.

MMED:7305 Molecular Medicine Research arr.
Requirements: molecular and cellular biology graduate standing.

MMED:7310 Translational Medicine Education Rounds 1 s.h.
Students obtain clinical insights into their area of specialty in biomedical research through selection of a clinical mentor to complement the expertise of their research mentor; clinical mentors provide students with case studies, clinical scenarios, and physician shadowing opportunities which may allow students to gain new perspectives and insight into applications of biomedical research. Requirements: enrollment in Molecular Medicine Program, completion of rotations, and selection of a research mentor.

MMED:8115 Molecular Physiology 4 s.h.
Principles of human physiology, organ systems, cell function. Offered fall semesters.

Neuroscience

Chair

- Daniel T. Tranel (Neurology/Psychological and Brain Sciences)

Graduate degree: PhD in neuroscience

Faculty: https://neuroscience.grad.uiowa.edu/people/faculty

Website: https://neuroscience.grad.uiowa.edu

The Neuroscience Program provides an interdisciplinary and interdepartmental approach to graduate education and research training in the structure, function, and development of the nervous system and its role in cognition and behavior. Students obtain training at all levels of the nervous system, from cellular/molecular to the behavioral/cognitive.

Programs

Graduate Program of Study

- Doctor of Philosophy in Neuroscience [p. 1782]

Facilities

Training is conducted primarily in the laboratories and teaching facilities of the Carver College of Medicine graduate departments of Anatomy and Cell Biology, Biochemistry and Molecular Biology, Internal Medicine, Molecular Physiology and Biophysics, Neurology, Neuroscience and Pharmacology, and Psychiatry; the College of Liberal Arts and Sciences departments of Biology, Communication Sciences and Disorders, Health, Sport, and Human Physiology, and Psychological and Brain Sciences; and the Neuroscience Program.

Students use faculty laboratories and central research facilities for ultrastructural analysis; histochemistry and immunocytochemistry; electrophysiology; fluorescence-activated cell sorting; cellular and subcellular biochemistry; cell, tissue, and organ culture; operant and classical conditioning; molecular biology; behavioral genetics; neural substrates of complex behavior; brain-behavior relationships in humans; neuropsychology; and functional neuroimaging (PET, fMRI).

Courses

Neuroscience Courses

NSCI:5212 Foundations in Behavioral and Cognitive Neuroscience 4 s.h.
Concepts, methods, and findings in behavioral and cognitive neurosciences. Prerequisites: BIOL:3253. Same as PSY:5212.

NSCI:5365 Seminar: Neuropsychology and Neuroscience arr.
Clinical neuropsychology and cognitive neuroscience: cutting-edge research from scientific journals, case presentations in clinical neuropsychology, and current research. Same as NEUR:5365, PSY:5365.

NSCI:5653 Fundamental Neurobiology I 3 s.h.
Neurobiology from molecular/cellular to systems levels, including cell biology of the neuron; membrane electrophysiology; synaptic transmission and plasticity, functional neuroanatomy, sensory, motor and autonomic systems; emotion, memory, sleep, language, attention and cognition, neuronal development; focus on systems and developmental neurobiology; first in a two-semester sequence. Same as BIOL:5653, PSY:5203.

NSCI:5654 Fundamental Neurobiology II 3 s.h.
Neurobiology from molecular/cellular to systems levels, including cell biology of the neuron; membrane electrophysiology; synaptic transmission and plasticity; functional neuroanatomy, sensory, motor and autonomic systems; emotion, memory, sleep, language, attention and cognition, neuronal development; focus on molecular/cellular neurobiology and neurophysiology; second in a two-semester sequence. Prerequisites: BIOL:5653 or NSCI:5653 or PSY:5203. Same as BIOL:5654, PSY:5205.

NSCI:5658 Fundamental Neurobiology I Discussion 2 s.h.
Discussion of selected papers, including classics from neurobiology literature; coordinated with BIOL:5653 lecture material. Same as BIOL:5658, PSY:5204.

NSCI:5659 Fundamental Neurobiology II Discussion 2 s.h.
Discussion of selected papers, including classics from neurobiology literature; coordinated with BIOL:5654 lecture material. Same as BIOL:5659, PSY:5206.

NSCI:6265 Neuroscience Seminar 0-1 s.h.
Research presentations. Same as ACB:6265, BIOL:6265, MPB:6265, PSY:6265.

NSCI:7235 Neurobiology of Disease 3 s.h.
Broad, thematic understanding of disease mechanisms in neurobiological disorders. Prerequisites: ACB:6252. Same as NEUR:7235.

NSCI:7305 Neuroscience Research arr.
Requirements: neuroscience graduate standing.

Neuroscience, PhD

For information about predoctoral training opportunities in neuroscience, contact the Neuroscience Program.

Learning Outcomes

Graduates will:

- achieve a broad and deep knowledge base in neuroscience spanning the subdisciplines from cell/molecular to systems/cognitive neuroscience;
- achieve a high proficiency in research theory, design, and practice, including the ability to apply appropriate quantitative methods and statistical approaches, design and carry out the research with rigor and reproducibility, and incorporate responsible conduct in all phases of the research;
- develop strong oral and written communication skills so that they can be conversant with neuroscientists in any area of the field and can bring a broad interdisciplinary perspective to their own research;
- develop teaching effectiveness in formal and informal settings and establish credentials in teaching excellence; and
- provide impactful service to the program, institution, and scientific community, and understand the value of providing engaging outreach to society to prepare them for effective entry into the workforce and society.

Requirements

The Doctor of Philosophy program in neuroscience requires a minimum of 72 s.h. of graduate credit. Students must maintain a cumulative grade-point average of 3.00. The program's curriculum is designed around three tracks: molecular/cellular, developmental/systems, and cognitive/behavioral. Following broad-based instruction in a core curriculum, students specialize in one of the tracks.

Within a framework of core, track-specific, and elective courses, students pursue a program of study individually designed according to their undergraduate training and graduate research goals. After enrolling in the neuroscience program, entering students consult with the advisory committee regarding their level of preparation for the program's required courses.

The Student Advisory Committee meets with all first- and second-year graduate students once each semester, helping students explore their research interests and select faculty mentors for the required laboratory rotations. Each student is expected to complete three rotations in faculty laboratories before selecting a thesis advisor. Rotations ordinarily last 12 weeks but may last from 8 to 16 weeks. Under special circumstances, two rotations may be in the same laboratory, an arrangement that permits a student to learn a variety of techniques and approaches before settling down to work on the dissertation project. Students usually choose a dissertation lab at the end of their first year.

Background Requirements

Successful students will have demonstrated preparedness for graduate training in neuroscience by completing a bachelor's degree and substantive prior research experience in one or more of the following areas: biochemistry, general physiology, cell biology, and statistics. Didactic coursework in quantitative methods, statistics, and/or computer programming is also beneficial.

Neuroscience Core

The following courses form the core of the neuroscience graduate curriculum.

Course #	Title	Hours
NSCI:5653	Fundamental Neurobiology I	3
NSCI:7235	Neurobiology of Disease	3
ACB:6252	Functional Neuroanatomy	arr.
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
PSY:6370	Principles of Neuropsychology	3
One statistics course		3-4
In addition, students register for the following two courses each semester:		
NSCI:6265	Neuroscience Seminar	0-1
NSCI:7305	Neuroscience Research	arr.

Electives

Elective requirements may be met by completing 8 s.h. from a list of courses offered by the departments of Anatomy and Cell Biology, Biology, Molecular Physiology and Biophysics, Neuroscience and Pharmacology, Psychological and Brain Sciences, and other departments as appropriate. With permission of the Student Advisory Committee, students may satisfy the elective requirement wholly or in part by registration in the following courses.

Course #	Title	Hours
NSCI:5212	Foundations in Behavioral and Cognitive Neuroscience	4
NSCI:5365	Seminar: Neuropsychology and Neuroscience	arr.
BIOL:3343	Animal Physiology	3
BIOL:4213	Bioinformatics	2,4
BMED:5207	Principles of Molecular and Cellular Biology	3
CSD:5234	Acquired Cognitive-Communication Disorders	arr.
CSD:6230	Psychoacoustics	2-3
GENE:6200	Current Topics in Genetics	1
HHP:6300	Motor Control Seminar	1
MATH:5750	Mathematical Biology I	3
MICR:5218	Microscopy for Biomedical Research	arr.
MMED:6220	Mechanisms of Cellular Organization	3
MMED:6226	Cell Cycle Control	1
MMED:6227	Cell Fate Decisions	1
PCOL:5135	Principles of Pharmacology	1
PCOL:5137	Neurotransmitters	1
PCOL:6207	Ion Channel Pharmacology	1
PCOL:6225	Growth Factor Receptor Signaling	1
PSY:3320	Psychopathology	3

PSY:5070	Programming for Psychologists	3
PSY:5080	Foundations in Cognitive Neuroscience	4
PSY:5610	Proseminar in Cognition and Perception	3
PSY:6440	Developmental Cognitive Neuroscience	3
PSY:7150	Current Topics in Psychology	3
PSY:7210	Seminar: Advanced Topics in Behavioral and Cognitive Neuroscience	3
RHET:7500	Science Communication in the Digital Age	2-3
STAT:6300	Probability and Stochastic Processes I	3

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in neuroscience in a combined degree program offered by the Graduate College and the Carver College of Medicine. Applicants apply to the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Neuroscience, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
	Hours	**0**
First Year		
Any Semester		
Choose a Dissertation Lab [d]		
	Hours	**0**
Fall		
NSCI:5653	Fundamental Neurobiology I	3
NSCI:6265	Neuroscience Seminar	1
NSCI:7235	Neurobiology of Disease	3
NSCI:7305	Neuroscience Research	5
PSY:6370	Principles of Neuropsychology	3
	Hours	**15**
Spring		
ACB:6252	Functional Neuroanatomy	4
NSCI:6265	Neuroscience Seminar	1
NSCI:7305	Neuroscience Research	7
Elective course [e]		3
	Hours	**15**
Second Year		
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
NSCI:6265	Neuroscience Seminar	1
NSCI:7305	Neuroscience Research	8
Statistics course [f]		3 - 4
Elective course [e]		3
	Hours	**15-16**
Spring		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
NSCI:6265	Neuroscience Seminar	1
NSCI:7305	Neuroscience Research	12
Elective course [e]		2
	Hours	**15**
Summer		
Exam: Doctoral Comprehensive Exam		
	Hours	**0**
Third Year		
Fall		
NSCI:6265	Neuroscience Seminar	1
NSCI:7305	Neuroscience Research	3
	Hours	**4**
Spring		
NSCI:6265	Neuroscience Seminar	1
NSCI:7305	Neuroscience Research	3
	Hours	**4**
Fourth Year		
Fall		
NSCI:6265	Neuroscience Seminar	1
NSCI:7305	Neuroscience Research	1
	Hours	**2**
Spring		
NSCI:6265	Neuroscience Seminar	1
NSCI:7305	Neuroscience Research	1
Exam: Doctoral Final Exam [g]		
	Hours	**2**
	Total Hours	**72-73**

a This Interdisciplinary graduate program is designed within a framework of core, track-specific, and elective courses. Students pursue a program of study individually designed according to their undergraduate training and graduate research goals. The curriculum is designed around three tracks: molecular/cellular, developmental/systems, and cognitive/behavioral; following broad-based instruction in a core curriculum, students specialize in one of the tracks.

b Students must complete specific requirements in the University of Iowa Graduate College after program

admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Each student is expected to complete three rotations in faculty laboratories before selecting a dissertation advisor. Rotations ordinarily last 12 weeks but may last from 8 to 16 weeks. Under special circumstances, two rotations may be in the same laboratory, an arrangement that permits a student to learn a variety of techniques and approaches before settling down to work on the dissertation project.

e Elective requirements may be met by completing 8 s.h. from a list of courses offered by the departments of Anatomy and Cell Biology, Biology, Molecular Physiology and Biophysics, Neuroscience and Pharmacology, Psychological and Brain Sciences, and other departments with approval.

f Work with faculty advisor to select an appropriate course.

g Dissertation defense.

Planning and Public Affairs

Director

- Haifeng Qian

Graduate degrees: MPAff; MS in urban and regional planning

Faculty: https://sppa.uiowa.edu/faculty-staff

Website: https://sppa.uiowa.edu/

Planning and public affairs encompasses the development and implementation of public policies that improve the quality of life in cities, regions, states, and nations as well as protects the environment and sustains the earth. Concentration areas for the MS in urban and regional planning include economic development, land use and environmental planning, housing and community development, and transportation. Focus is on analytical urban planning, public policy, and sustainability. Concentration areas for the Master of Public Affairs include public and nonprofit management and public policy.

The School of Planning and Public Affairs is a campus leader in community engagement and hosts the Iowa Initiative for Sustainable Communities (IISC) through which students from disciplines across campus provide key answers to important sustainability questions for communities in Iowa.

Related Certificate

Transportation Planning

The Transportation Planning Program offers the Certificate in Transportation Planning. The program focuses on the varied and complex problems of transportation and on interdisciplinary approaches to addressing them. The departments of Civil and Environmental Engineering, Industrial and Systems Engineering, Mechanical Engineering (College of Engineering), Economics (Tippie College of Business), and the School of Planning and Public Affairs (Graduate College) participate in the program.

The certificate is coordinated by the School of Planning and Public Affairs. See the Certificate in Transportation Planning [p. 1814] (Graduate College) in the catalog.

Programs

Graduate Programs of Study

- Master of Public Affairs [p. 1793]
- Master of Science in Urban and Regional Planning [p. 1797]

Courses

- Urban and Regional Planning Courses [p. 1785]
- Public Affairs Courses [p. 1789]

Urban and Regional Planning Courses

URP:1001 How to Change the World **3 s.h.**
Have you ever wondered what it would take to solve our biggest societal problems (e.g., pollution, hunger, homelessness, access to health care)? Often the answer is through public policy—the programs, rules, and laws meant to guide society; introduction to public policy through case studies and examples of people and institutions that have truly changed the world; activities designed to help students change the world around them. GE: Social Sciences. Same as PBAF:1001.

URP:1030 Climate Leadership and Justice **3 s.h.**
Preparation for engaged students to lead on climate change in their communities; understanding climate change causes and impacts, consideration of intergenerational justice and equity in climate adaptation and mitigation; application of best practices in climate policies and planning; supporting community and business resilience and capacity building. Same as PBAF:1030.

URP:2013 Introduction to Sustainability **3 s.h.**
Introduction to sustainability knowledge, skills, and habits as a means to shape one's vision of a sustainable citizen; emphasis on basic skills of literacy, applied math, and finding information; traditional sustainability knowledge areas related to society, economy, and environment; intersecting themes (e.g., informed consumerism, eco-economics, and livable environments). GE: Sustainability. GE: Social Sciences; Sustainability. Same as BUS:2013, SEES:2013.

URP:2020 Environment and Society: Sustainability, Policy, and Politics **3 s.h.**
How society balances its needs against those of the natural environment when addressing modern challenges like climate change, conservation, and energy crises; exploration of sustainability through the lens of U.S. environmental policy and politics; application of fundamental theories of public policy to answer questions—when do environmental problems become policy problems; what economic, social, and political forces shape environmental policy decisions; and what are the consequences of environmental policies for individuals and organizations? GE: Sustainability. GE: Social Sciences; Sustainability. Same as PBAF:2020.

URP:2056 The Splendor of Cities **3 s.h.**
Exploration and journey through space and time of global cities—London in the 1600s, Paris in the 1800s, and New Delhi in the 20th century—by use of videos and documentaries; how cities form and grow in response to social, political, cultural, and economic forces. GE: International and Global Issues. Same as PBAF:2056.

URP:3001 Planning Livable Cities **3 s.h.**
Development of livable cities in the United States; economic, physical, environmental, and political forces that shape their growth; impact of planning, how it shapes the future of cities. Same as SEES:3920.

URP:3002 Foundations of Community Engagement 1 s.h.
Knowledge, skills, and tools necessary for meaningful community engagement. Through a combination of theoretical insights, case studies, and practical strategies, become better prepared to engage partners in community-engaged courses and future careers. Effectively engage with diverse community members, assess local issues, and incorporate best practices of community engagement into academic and professional work.

URP:3134 Regional and Urban Economics 3 s.h.
Theory of location and regional development; central place theory; why cities exist and trade with one another; models of land use patterns, rents; empirical tests of models; policy applications. Prerequisites: ECON:1100. Same as ECON:3640.

URP:3135 Environmental and Natural Resource Economics 3 s.h.
Environmental and resource use problems; efficient mechanisms and other policies for environmental protection, management of common property resources. Prerequisites: ECON:1100 and ECON:1200. Same as ECON:3625.

URP:3350 Transportation Economics 3 s.h.
Overview of transportation markets—intercity, rural, urban; transportation modes—rail, highway, air, water, pipeline, transit; issues in finance, policy, planning, management, physical distribution, and environmental, economic, and safety regulation. Recommendations: ECON:1100 and ECON:1200. Same as ECON:3750, SEES:3940.

URP:4001 Foundations of Community Engagement 1 s.h.
Knowledge, skills, and tools necessary for meaningful community engagement. Through a combination of theoretical insights, case studies, and practical strategies, become better prepared to engage partners in community-engaged courses and future careers. Effectively engage with diverse community members, assess local issues, and incorporate best practices of community engagement into academic and professional work.

URP:4225 Applied GIS for Planning and Policy Making 3 s.h.
Analysis of Census of Population and Housing data using GIS software; data and analytical needs of urban planners; coverage of GIS topics to plan functions of GIS and spatial analysis, varied GIS software in a planning organization; structure of the census. Same as PBAF:4225.

URP:4243 The Land Development Process 3 s.h.
How land is developed; analysis of site suitability, preparation of subdivision plan, site plan review, development approval process, infrastructure and site preparation, negotiating local development politics; field trips.

URP:4245 Growth Management 3 s.h.
Causes and consequences of urban sprawl, shortfalls in conventional land use planning; local and state growth management policies, techniques of policy implementation, positive and negative impacts of such policies; Smart Growth; emerging challenges.

URP:4253 Designing Sustainable and Healthy Cities 1-3 s.h.
Principles and practical elements of urban design for sustainable and healthy cities; general urban design background for policy makers and planners; impacts of urban design for environmental sustainability, community health, and well-being; physical, mental, social, and environmental health as affected by urban form, air and water quality, green spaces, and climate change impacts. Same as PBAF:4253.

URP:4256 Environmental Policy 3 s.h.
Environmental policy formation and politics; comparative international perspective on the United States' experience. Same as PBAF:4256.

URP:4260 Transportation Policy and Planning 3 s.h.
Institutional setting for transportation planning, evolution of domestic transportation policy, international influences, transportation modes and markets, current sources of transportation planning information, emerging policy issues. Same as PBAF:4260.

URP:4262 Transportation Research Methods and Analysis 3 s.h.
Methods for measuring current and future transportation demand based on changes in population, preferences, built environment, and changing policy objectives; survey design and analysis; basics of travel demand modeling. Same as CEE:4176.

URP:4266 Transportation, Urban Form, and Sustainability 3 s.h.
Policies and interactions between transportation and land use; location theories and practices; transportation infrastructure, land use, and travel behavior modeling; current policies that influence travel behavior and urban form. Same as PBAF:4266.

URP:4271 Housing Policy 3 s.h.
Recent housing policy initiatives at federal, state, and local levels.

URP:4273 Community Development Through Creative Placemaking 3 s.h.
Examination of practices, ideas, and techniques for community development in small to large communities; particular focus on creative placemaking, in which planners and the public strategically shape the physical and social character of a neighborhood, town, city, or region around arts and cultural activities; application of this approach to a specific community project; for students in the arts, humanities, social sciences, and planning and public affairs. Same as PBAF:4273.

URP:4280 Planning for Disaster Mitigation and Recovery 2-3 s.h.
Types of disasters that communities face; what role planners play, what role should they play; importance of hazard mitigation and planning for post-disaster recovery; where planners' unique skills play the most significant roles in aiding a community to redesign a safer future. Same as PBAF:4280.

URP:4295 Economic Development Policy 3 s.h.
Analysis of policies and programs at national, regional, state, and local levels that address problems of economic growth, development, decline.

URP:4297 Financing Economic Development for Poverty Alleviation 3 s.h.
How public policies in general, and planning practices in particular, have an impact on an individual's likelihood of becoming poor, remaining poor, and getting out of poverty; how land use, housing, transportation, and economic development policies affect distribution and accessibility of jobs, education, housing, and public services. Same as PBAF:4297.

URP:4750 Environmental Impact Analysis 3 s.h.
In-depth exposure to the history and evolution of the U.S. Environmental Impact Assessment (EIA) process; discussion of major court cases; ecological, economic, and political aspects of current environmental controversies; exposure to real-world scenarios that are crucial to understanding the EIA process in action; field trips to six or seven environmental control facilities in Iowa City and neighboring areas. Prerequisites: SEES:1070. Same as SEES:4750.

URP:5310 Informatics for Sustainable Systems 3 s.h.
Introduction to fundamental and advanced environmental informatics concepts and procedures including automated data collection, data management, data transformations, and processing to support modeling and analysis; scientific visualization of environmental data to support management of food, energy, and water (FEW) resources; sustainability in FEW systems. Same as CEE:5310, IGPI:5311.

URP:5678 Application Simulation to Transportation 3 s.h.
Transportation system management and traffic engineering; application of real-time simulation and visualization. Prerequisites: CEE:3763 or CEE:4763. Same as CEE:5678.

URP:5679 Landscape Planning and Design 1,3 s.h.
Introduction to landscape architecture; natural processes and human/nature relations; history of landscape architecture including major forms and designs in eastern and western civilizations; urban gardens (e.g., industrialization, garden cities, parks, streetscapes, roof gardens, etc.); components of landscapes (e.g., land, soils, water, plants, climate); landscape planning (e.g., regional level, urban, zonal scales); landscape design process.

URP:5800 Environmental Policy: Theory and Practice 3 s.h.
Various types of approaches to environmental policy, with a focus on the differences between market-based (taxes and regulatory markets) and command and control (regulations and bans); assessment of approaches in terms of efficacy, efficiency, and equity; key United States and international environmental policies such as the Clean Water Act, the Endangered Species Act, and the Paris Agreement; role of technology, research, and development in addressing environmental problems. Same as PBAF:5800, SEES:5800.

URP:6200 Analytical Methods for Evidence-Based Policy 1-3 s.h.
Data science, statistics, quantitative reasoning, study design and analysis for planning and policy; applied quantitative and qualitative research, surveys, public participation; data sharing and data management for reproducibility and accessibility. Same as PBAF:6200.

URP:6201 Data Science for Urban Analytics 3 s.h.
Integration of methods with the planning process; application of multiple regression, population estimation and projection, survey methods, time series analysis, industrial growth and change; presentation of results to decision makers and the public. Prerequisites: URP:6200. Same as PBAF:6201.

URP:6202 Land Use Planning: Law and Practice 3 s.h.
Legal, social foundations of land use planning; comprehensive planning, zoning and subdivision review; legal aspects of land use, environmental planning; ordinance drafting; staff report writing; citizen participation.

URP:6203 The Making of Cities: Histories and Theories of Planning 1,3 s.h.
Histories and dynamics of urban change in Western cities as a reflection of social, cultural, economic, and environmental forces; alternative city planning philosophies, perspectives, and ethics relevant to planners and policy makers; special attention to how urban planning intersects with racism and social justice, as well as climate change and sustainability.

URP:6205 Economics for Policy Analysis 1,3 s.h.
Principles of economics, concepts and techniques of microeconomic analysis, market failures, role of government in the economy, tax policy, income inequality, and program evaluation. Same as PBAF:6205.

URP:6208 Program Seminar 1 s.h.
Planning, administrative, and policy processes; roles of planners, public policy analysts, and administrators; professional ethics and standards. Same as PBAF:6208.

URP:6209 Sustainable Communities Lab I 3 s.h.
Experience working on a two-semester project involving a current planning issue, usually for a client. Requirements: urban and regional planning graduate standing. Same as SDG:6000.

URP:6210 Sustainable Communities Lab II 3 s.h.
Continuation of URP:6209. Prerequisites: URP:6209. Requirements: urban and regional planning graduate standing. Same as SDG:6210.

URP:6211 Community Outreach Practicum 1-3 s.h.
Application of planning skills to community work by nonprofit organizations in local area; urban planners contributing to their communities; community outreach.

URP:6225 Applied GIS for Planning and Policy Making 3 s.h.
Analysis of U.S. Census data using GIS software; data and analytical needs for urban planning and public policy making; coverage of GIS topics including spatial analysis of social science and environmental problems, site selection; graphical display of results, including online maps; development of models in GIS. Same as PBAF:6225.

URP:6229 Practicum 1-5 s.h.
Full-time internship of at least five months with a planning-related organization. Requirements: urban and regional planning graduate standing.

URP:6233 Public Finance and Budgeting 3 s.h.
Local budgeting process and revenue instruments available for local governments to finance their infrastructure; local budgeting process, mechanics of property tax and other revenue sources, connection between taxation and land use, economic development, growth management, and transportation; issues regarding financing K-12 public schools. Same as PBAF:6233.

URP:6240 Public Management: State and Local Perspectives 3 s.h.
Public management in a democratic society; balancing of administrative and democratic values and interests; examination of institutional, political, organizational, and ethical context of public management and policy making; students acquire important management, leadership, and decision-making skills, as well as reflect on their values and behaviors with regard to administration and public service, particularly in a diverse and changing society; service in public sector contrasted with service in private and nonprofit sectors. Same as PBAF:6240.

URP:6243 The Land Development Process 1,3 s.h.
How land is developed; analysis of site suitability, preparation of subdivision plan, site plan review, development approval process, infrastructure and site preparation, negotiating local development politics; field trips. Prerequisites: URP:6202.

URP:6245 Growth Management 3 s.h.
Causes and consequences of urban sprawl, shortfalls in conventional land use planning; local and state growth management policies, techniques of policy implementation, positive and negative impacts of such policies; Smart Growth; emerging challenges. Same as PBAF:6245.

URP:6253 Designing Sustainable and Healthy Cities 1-3 s.h.
Principles and practical elements of urban design for sustainable and healthy cities; general urban design background for policy makers and planners; impacts of urban design for environmental sustainability and for community health and well-being; physical, mental, social, and environmental health as they are affected by urban form, air and water quality, green spaces and climate change impacts. Same as PBAF:6253.

URP:6256 Environmental Policy 3 s.h.
Environmental policy formation and politics; comparative international perspective on the United States' experience. Same as PBAF:6256.

URP:6258 Systems and Scenario Thinking 3 s.h.
Quantitative and qualitative methods for complex dynamic systems; participatory modeling; systems thinking, integrated assessment, and scenario planning; decision-making, policy development, and evaluation; nonlinear dynamics of cities, materials, energy, and human-environment relationships; numerical modeling; historical and contemporary roles of human activities in the Earth system. Same as PBAF:6258.

URP:6260 Transportation Policy and Planning 3 s.h.
Institutional setting for transportation planning, evolution of domestic transportation policy, international influences, transportation modes and markets, current sources of transportation planning information, emerging policy issues. Same as PBAF:6260.

URP:6263 Special Topics in Transportation Planning 3 s.h.
Introduction to a topic in transportation planning not covered in depth in other course offerings. The topics will rotate based on instructor and student interests, but may include areas such as public transportation, freight, and airport planning. Regardless of the topic area, students will learn about current topics in the field and analytical techniques, with a focus on increasing the sustainability and equity of transportation systems.

URP:6266 Transportation, Urban Form, and Sustainability 3 s.h.
Policies and interactions between transportation and land use; location theories and practices; transportation infrastructure, land use, travel behavior modeling; current policies that influence travel behavior and urban form. Same as PBAF:6266.

URP:6268 Freight Transportation Planning 3-4 s.h.
Freight transportation planning in the United States; surface modes, primarily trucking and rail, as well as trade-offs in bulk movements by inland waterways and pipelines; comparison with recent developments in policy, planning, and practice for surface transportation in other developed economies (e.g., Europe).

URP:6270 Transportation Planning Studio 3 s.h.
Community-engaged transportation planning project administered through the Iowa Initiative for Sustainable Communities; application of transportation planning knowledge to produce a plan or study, and presentation of results to a client. Prerequisites: URP:6266.

URP:6271 Housing Policy 3 s.h.
Recent housing policy initiatives at federal, state, and local levels. Same as PBAF:6271.

URP:6273 Community Development Through Creative Placemaking 3 s.h.
Examination of practices, ideas, and techniques for community development in small to large communities; particular focus on creative placemaking, in which planners and the public strategically shape the physical and social character of a neighborhood, town, city, or region around arts and cultural activities; students and faculty apply this approach to a specific community project; for students in the arts, humanities, social sciences, and planning and public affairs. Same as PBAF:6273.

URP:6277 Affordable Housing Finance 3 s.h.
Financing development or rehabilitation of affordable housing; low-income housing tax credits, the housing finance system and current regulatory issues, mortgage discrimination, improving financing for rental housing.

URP:6278 Nonprofit Organizational Effectiveness I 3 s.h.
Operational and financing aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as HMP:6360, MGMT:9150, PBAF:6278, RELS:6070, SPST:6010, SSW:6247.

URP:6279 Nonprofit Organizational Effectiveness II 3 s.h.
Qualities for leadership of nonprofit organizations, including relationships with staff and volunteers; relationship of nonprofit and outside world; marketing, public relations, advocacy strategies for nonprofits. Same as HMP:6365, MGMT:9160, PBAF:6279, RELS:6075, SPST:6020, SSW:6248.

URP:6280 Planning for Disaster Mitigation and Recovery 2-3 s.h.
Types of disasters that communities face; what role planners play, what role should they play; importance of hazard mitigation and planning for post-disaster recovery; where planners' unique skills play the most significant roles in aiding a community to redesign a safer future. Same as PBAF:6280.

URP:6282 Grant Writing 1-2 s.h.
Same as PBAF:6282, SSW:6282.

URP:6295 Economic Development Policy 3 s.h.
Business and industrial locations, theories of regional growth and development, tools for regional economic analysis, economic impacts of COVID-19, development strategies in increasingly knowledge-driven and globalizing regional economies, economic development finance and policy, and economic development planning process. Same as PBAF:6295.

URP:6297 Financing Economic Development for Poverty Alleviation 3 s.h.
How public policies in general, and planning practices in particular, have an impact on an individual's likelihood of becoming poor, remaining poor, and getting out of poverty; how land use, housing, transportation, and economic development policies affect distribution and accessibility of jobs, education, housing, and public services. Same as PBAF:6297.

URP:6305 Readings arr.

URP:6315 Independent Study in Planning 1-6 s.h.
Research and analysis of a special planning problem; opportunity to apply knowledge in area of specialization.

URP:6325 Thesis: Urban and Regional Planning arr.

URP:6335 Internship 1-3 s.h.
Work in a planning or related agency or nonprofit organization.

URP:6340 Public Policy Analysis 3 s.h.
Rationales and goals of public policy; major steps, key methods, and tools in policy analysis; professional delivery of policy recommendations. Same as PBAF:6340.

URP:6400 Sustainable Development: The Kerala Experience 3 s.h.
Exploration of student interests in social entrepreneurship, global health, microfinance, cultural production, environmental sustainability, or other development issues in India; varied disciplinary perspectives (i.e., public health, business, social work, geography, art); student work with Indian NGOs employing a diverse variety of techniques to address social problems such as child labor, health care for the poor, illiteracy, and disability services. Winter session. Same as PBAF:6400.

Public Affairs Courses

PBAF:1001 How to Change the World 3 s.h.
Have you ever wondered what it would take to solve our biggest societal problems (e.g., pollution, hunger, homelessness, access to health care)? Often the answer is through public policy—the programs, rules, and laws meant to guide society; introduction to public policy through case studies and examples of people and institutions that have truly changed the world; activities designed to help students change the world around them. GE: Social Sciences. Same as URP:1001.

PBAF:1030 Climate Leadership and Justice 3 s.h.
Preparation for engaged students to lead on climate change in their communities; understanding climate change causes and impacts, consideration of intergenerational justice and equity in climate adaptation and mitigation; application of best practices in climate policies and planning; supporting community and business resilience and capacity building. Same as URP:1030.

PBAF:2020 Environment and Society: Sustainability, Policy, and Politics 3 s.h.
How society balances its needs against those of the natural environment when addressing modern challenges like climate change, conservation, and energy crises; exploration of sustainability through the lens of U.S. environmental policy and politics; application of fundamental theories of public policy to answer questions—when do environmental problems become policy problems; what economic, social, and political forces shape environmental policy decisions; and what are the consequences of environmental policies for individuals and organizations? GE: Sustainability. GE: Social Sciences; Sustainability. Same as URP:2020.

PBAF:2056 The Splendor of Cities 3 s.h.
Exploration and journey through space and time of global cities—London in the 1600s, Paris in the 1800s, and New Delhi in the 20th century—by use of videos and documentaries; how cities form and grow in response to social, political, cultural, and economic forces. GE: International and Global Issues. Same as URP:2056.

PBAF:3001 Public Policy Lab 3 s.h.
Research project offering students first-hand experience with public policy projects. Each lab differs in specific topic, based on the instructor's area of expertise. All labs offer the following on-the-ground experience: organization and analysis of data; how to construct and analyze a "big data" data set in an interdisciplinary collaborative research setting; how to apply and build policy theory with empirical data; and how to write an academic journal article.

PBAF:3117 Bureaucratic Politics and Public Administration 3 s.h.
Examination of bureaucracy from political, theoretical, and practical perspectives; what we mean by "bureaucracy" and how it developed over time; political control of bureaucracy; how bureaucracy performs its tasks, including behavior of bureaucrats; role of nonprofit service delivery in modern bureaucracy; how bureaucracy affects American policy and politics. Same as POLI:3117.

PBAF:3560 Public Policy and Persuasion 3 s.h.
Students build their skill set in policy analysis, formation, and communication through a social justice lens; engagement in service learning projects in one Iowa community, where work done directly impacts that community's ability to make changes; development of effective writing and oral presentation styles that can be adapted to different audiences; focus on homelessness policy using social policy and social justice concepts to explore work of policy makers who have "right-sized" existing systems to serve communities in crisis and propose solutions to systemic problems that disadvantage marginalized populations. Prerequisites: RHET:1030 or RHET:1040 or RHET:1060. Same as POLI:3560, RHET:3560, SJUS:3560.

PBAF:3570 Poverty Policy 3 s.h.
How poverty is regulated and addressed in the United States, and by federal, state, and local governments; particular focus on programs including Temporary Assistance for Needy Families (TANF), Section 8 housing, Medicaid, and Medicare; how these systems have changed over time; current models and innovations that have emerged in practice. Same as GHS:3570, POLI:3570, SSW:3570.

PBAF:3580 Native American Public Policy 3 s.h.
Exploration of ways that Native nations govern themselves, including the relationship between these sovereign entities and the U.S. government; topics include Indian Child Welfare Act, membership and enrollment, income and taxation, crime and justice; how these systems have changed over time; current practices and innovations that have emerged within different tribes. Same as NAIS:3580.

PBAF:4205 Economics for Policy Analysis 1-3 s.h.
Principles of economics, concepts and techniques of microeconomic analysis, market failures, role of government in the economy, tax policy, income inequality, and program evaluation.

PBAF:4225 Applied GIS for Planning and Policy Making 3 s.h.
Analysis of Census of Population and Housing data using GIS software; data and analytical needs of urban planners; coverage of GIS topics to plan functions of GIS and spatial analysis, varied GIS software in a planning organization; structure of the census. Same as URP:4225.

PBAF:4233 Public Finance and Budgeting 3 s.h.
Local budgeting process and revenue instruments available for local governments to finance their infrastructure; local budgeting process, mechanics of property tax and other revenue sources, connection between taxation and land use, economic development, growth management, and transportation; issues regarding financing K-12 public schools.

PBAF:4253 Designing Sustainable and Healthy Cities 1-3 s.h.
Principles and practical elements of urban design for sustainable and healthy cities; general urban design background for policy makers and planners; impacts of urban design for environmental sustainability, community health, and well-being; physical, mental, social, and environmental health as affected by urban form, air and water quality, green spaces, and climate change impacts. Same as URP:4253.

PBAF:4256 Environmental Policy 3 s.h.
Environmental policy formation and politics; comparative international perspective on the United States' experience. Same as URP:4256.

PBAF:4260 Transportation Policy and Planning 3 s.h.
Institutional setting for transportation planning, evolution of domestic transportation policy, international influences, transportation modes and markets, current sources of transportation planning information, emerging policy issues. Same as URP:4260.

PBAF:4266 Transportation, Urban Form, and Sustainability 3 s.h.
Policies and interactions between transportation and land use; location theories and practices; transportation infrastructure, land use, and travel behavior modeling; current policies that influence travel behavior and urban form. Same as URP:4266.

PBAF:4273 Community Development Through Creative Placemaking 3 s.h.
Examination of practices, ideas, and techniques for community development in small to large communities; particular focus on creative placemaking, in which planners and the public strategically shape the physical and social character of a neighborhood, town, city, or region around arts and cultural activities; application of this approach to a specific community project; for students in the arts, humanities, social sciences, and planning and public affairs. Same as URP:4273.

PBAF:4280 Planning for Disaster Mitigation and Recovery 2-3 s.h.
Types of disasters that communities face; what role planners play, what role should they play; importance of hazard mitigation and planning for post-disaster recovery; where planners' unique skills play the most significant roles in aiding a community to redesign a safer future. Same as URP:4280.

PBAF:4297 Financing Economic Development for Poverty Alleviation 3 s.h.
How public policies in general, and planning practices in particular, have an impact on an individual's likelihood of becoming poor, remaining poor, and getting out of poverty; how land use, housing, transportation, and economic development policies affect distribution and accessibility of jobs, education, housing, and public services. Same as URP:4297.

PBAF:4340 Public Policy Analysis 3 s.h.
Rationales and goals of public policy; major steps, key methods, and tools in policy analysis; professional delivery of policy recommendations.

PBAF:5117 Bureaucratic Politics and Public Administration 3 s.h.
Examination of bureaucracy from political, theoretical, and practical perspectives; what we mean by "bureaucracy" and how it developed over time; political control of bureaucracy; how bureaucracy performs its tasks, including behavior of bureaucrats; role of nonprofit service delivery in modern bureaucracy; how bureaucracy affects American policy and politics. Same as POLI:5117.

PBAF:5120 Public Policy Process 3 s.h.
Theoretical and practical approaches to policy formation, adoption, implementation, and analysis; builds on theories of organizations, institutions, and interest group dynamics; important substantive policy areas (e.g., environmental, energy, housing, fiscal, infrastructure) that strengthen understanding of contemporary policies; application of theoretical and analytical tools to actual policy domains.

PBAF:5800 Environmental Policy: Theory and Practice 3 s.h.
Various types of approaches to environmental policy, with a focus on the differences between market-based (taxes and regulatory markets) and command and control (regulations and bans); assessment of approaches in terms of efficacy, efficiency, and equity; key United States and international environmental policies such as the Clean Water Act, the Endangered Species Act, and the Paris Agreement; role of technology, research, and development in addressing environmental problems. Same as SEES:5800, URP:5800.

PBAF:6200 Analytical Methods for Evidence-Based Policy 1-3 s.h.
Data science, statistics, quantitative reasoning, study design and analysis for planning and policy; applied quantitative and qualitative research, surveys, public participation; data sharing and data management for reproducibility and accessibility. Same as URP:6200.

PBAF:6201 Data Science for Urban Analytics 3 s.h.
Integration of methods with the planning process; application of multiple regression, population estimation and projection, survey methods, time series analysis, industrial growth and change; presentation of results to decision makers and the public. Prerequisites: URP:6200. Same as URP:6201.

PBAF:6205 Economics for Policy Analysis 1,3 s.h.
Principles of economics, concepts and techniques of microeconomic analysis, market failures, role of government in the economy, tax policy, income inequality, and program evaluation. Same as URP:6205.

PBAF:6208 Program Seminar 1 s.h.
Planning, administrative, and policy processes; roles of planners, public policy analysts, and administrators; professional ethics and standards. Same as URP:6208.

PBAF:6213 Public Affairs Capstone I 2 s.h.
Students work on a community, state, federal, or nonprofit-based project focused on research and development of policy proposals and management action steps.

PBAF:6214 Public Affairs Capstone II 3 s.h.
Students work on a community, state, federal, or nonprofit-based project with focus on research and development of policy proposals and management action steps. Requirements: MPAff graduate standing.

PBAF:6225 Applied GIS for Planning and Policy Making 3 s.h.
Analysis of U.S. Census data using GIS software; data and analytical needs for urban planning and public policy making; coverage of GIS topics including spatial analysis of social science and environmental problems, site selection; graphical display of results, including online maps; development of models in GIS. Same as URP:6225.

PBAF:6233 Public Finance and Budgeting 3 s.h.
Local budgeting process and revenue instruments available for local governments to finance their infrastructure; local budgeting process, mechanics of property tax and other revenue sources, connection between taxation and land use, economic development, growth management, and transportation; issues regarding financing K-12 public schools. Same as URP:6233.

PBAF:6238 Public Human Resource Management 1 s.h.
Fundamental human resource management principles; application to a variety of human resource issues in public and nonprofit organizations including recruitment, employee development and evaluation, compensation and benefits, diversity, performance management systems, health/safety systems, and employee relations.

PBAF:6240 Public Management: State and Local Perspectives 3 s.h.
Public management in a democratic society; balancing of administrative and democratic values and interests; examination of institutional, political, organizational, and ethical context of public management and policy making; students acquire important management, leadership, and decision-making skills, as well as reflect on their values and behaviors with regard to administration and public service, particularly in a diverse and changing society; service in public sector contrasted with service in private and nonprofit sectors. Same as URP:6240.

PBAF:6241 Strategic Management of Public and Nonprofit Organizations 3 s.h.
Application of well-known concepts of strategic planning and management to public and nonprofit organizations; topics include environmental assessment, mission identification, strategic issue identification, strategy formulation, strategic budgeting, strategic management and human relations, information technology and strategic management, performance measurement, strategic communication, strategic management and collaboration, strategic management and politics.

PBAF:6245 Growth Management 3 s.h.
Causes and consequences of urban sprawl, shortfalls in conventional land use planning; local and state growth management policies, techniques of policy implementation, positive and negative impacts of such policies; Smart Growth; emerging challenges. Same as URP:6245.

PBAF:6253 Designing Sustainable and Healthy Cities 1-3 s.h.
Principles and practical elements of urban design for sustainable and healthy cities; general urban design background for policy makers and planners; impacts of urban design for environmental sustainability and for community health and well-being; physical, mental, social, and environmental health as they are affected by urban form, air and water quality, green spaces and climate change impacts. Same as URP:6253.

PBAF:6256 Environmental Policy 3 s.h.
Environmental policy formation and politics; comparative international perspective on the United States' experience. Same as URP:6256.

PBAF:6258 Systems and Scenario Thinking 3 s.h.
Quantitative and qualitative methods for complex dynamic systems; participatory modeling; systems thinking, integrated assessment, and scenario planning; decision-making, policy development, and evaluation; nonlinear dynamics of cities, materials, energy, and human-environment relationships; numerical modeling; historical and contemporary roles of human activities in the Earth system. Same as URP:6258.

PBAF:6260 Transportation Policy and Planning 3 s.h.
Institutional setting for transportation planning, evolution of domestic transportation policy, international influences, transportation modes and markets, current sources of transportation planning information, emerging policy issues. Same as URP:6260.

PBAF:6266 Transportation, Urban Form, and Sustainability 3 s.h.
Policies and interactions between transportation and land use; location theories and practices; transportation infrastructure, land use, travel behavior modeling; current policies that influence travel behavior and urban form. Same as URP:6266.

PBAF:6271 Housing Policy 3 s.h.
Recent housing policy initiatives at federal, state, and local levels. Same as URP:6271.

PBAF:6273 Community Development Through Creative Placemaking 3 s.h.
Examination of practices, ideas, and techniques for community development in small to large communities; particular focus on creative placemaking, in which planners and the public strategically shape the physical and social character of a neighborhood, town, city, or region around arts and cultural activities; students and faculty apply this approach to a specific community project; for students in the arts, humanities, social sciences, and planning and public affairs. Same as URP:6273.

PBAF:6278 Nonprofit Organizational Effectiveness I 3 s.h.
Operational and financing aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as HMP:6360, MGMT:9150, RELS:6070, SPST:6010, SSW:6247, URP:6278.

PBAF:6279 Nonprofit Organizational Effectiveness II **3 s.h.**
Qualities for leadership of nonprofit organizations, including relationships with staff and volunteers; relationship of nonprofit and outside world; marketing, public relations, advocacy strategies for nonprofits. Same as HMP:6365, MGMT:9160, RELS:6075, SPST:6020, SSW:6248, URP:6279.

PBAF:6280 Planning for Disaster Mitigation and Recovery **2-3 s.h.**
Types of disasters that communities face; what role planners play, what role should they play; importance of hazard mitigation and planning for post-disaster recovery; where planners' unique skills play the most significant roles in aiding a community to redesign a safer future. Same as URP:6280.

PBAF:6282 Grant Writing **1-2 s.h.**
Same as SSW:6282, URP:6282.

PBAF:6295 Economic Development Policy **3 s.h.**
Business and industrial locations, theories of regional growth and development, tools for regional economic analysis, economic impacts of COVID-19, development strategies in increasingly knowledge-driven and globalizing regional economies, economic development finance and policy, and economic development planning process. Same as URP:6295.

PBAF:6297 Financing Economic Development for Poverty Alleviation **3 s.h.**
How public policies in general, and planning practices in particular, have an impact on an individual's likelihood of becoming poor, remaining poor, and getting out of poverty; how land use, housing, transportation, and economic development policies affect distribution and accessibility of jobs, education, housing, and public services. Same as URP:6297.

PBAF:6315 Independent Study in Public Affairs **1-6 s.h.**
Exploration of the field of public policy and/or public administration.

PBAF:6335 Internship **1-3 s.h.**
Internship; 240 hours of public affairs work with a public or nonprofit organization.

PBAF:6340 Public Policy Analysis **3 s.h.**
Rationales and goals of public policy; major steps, key methods, and tools in policy analysis; professional delivery of policy recommendations. Same as URP:6340.

PBAF:6400 Sustainable Development: The Kerala Experience **3 s.h.**
Exploration of student interests in social entrepreneurship, global health, microfinance, cultural production, environmental sustainability, or other development issues in India; varied disciplinary perspectives (i.e., public health, business, social work, geography, art); student work with Indian NGOs employing a diverse variety of techniques to address social problems such as child labor, health care for the poor, illiteracy, and disability services. Winter session. Same as URP:6400.

Master of Public Affairs, MPAff

One of the enduring grand challenges is how to collectively, creatively, and democratically respond to key challenges facing our communities, nation, and the world. Among these challenges are environmental change, including an increased incidence and intensity of disasters such as flooding, sea level rise, and wildfires attributable to climate change; health care; an aging population; addiction; inadequate infrastructure; inequality; unaffordable housing; racism; transportation; immigration; economic development; and public safety.

In response, the Master of Public Affairs program trains future leaders to systematically and creatively address these and other challenges in the coming years. With its interdisciplinary public affairs infrastructure—representing colleges, departments, and centers across campus—the University of Iowa is a leader in public affairs locally and nationally. The program educates public affairs leaders who will creatively and knowledgeably address society's most critical issues and contribute to addressing the grand challenges of the 21st century.

Learning Outcomes

Ability To Lead and Manage in Public Governance

- Understand public administration and management theories and practices.
- Apply public administration and management theories and practices to achieve the goals of public and nonprofit organizations.
- Understand budgeting, financing, and human resource management in public and nonprofit organizations.
- Develop leadership and team-building skills.

Ability To Participate In and Contribute to the Public Policy Process

- Understand the policymaking process in the institutional and market context.
- Identify key stakeholders in the policy process and understand their interactions with the public policy process.
- Conduct policy analysis and make policy recommendations.

Ability To Analyze, Synthesize, Think Critically, Solve Problems, and Make Evidence-Informed Decisions in a Complex and Dynamic Environment

- Properly frame policy problems, policy goals, and policy alternatives.
- Collect, analyze, and report data, and apply economic, statistical, and spatial analysis methods in data analysis.
- Synthesize quantitative and qualitative evidence to inform policymaking.

Ability To Articulate and Apply a Public Service Perspective

- Recognize competing values in public interest and engage the general public in decision-making.
- Understand the importance of accountability in public administration.
- Apply professional codes of ethics in policy analysis, policymaking, and administering policy.

Ability To Communicate and Interact Productively With a Diverse and Changing Workforce and Society at Large

- Understand the changing demographics and values of society and the implications of these changes for public service and public policymaking.
- Value and identify ways to engage and represent the public in the public sector.
- Develop oral, writing, and media skills for effective communication with diverse stakeholders.

Ability To Pursue Sustainable Outcomes Through Public Policy, Public Administration, and Public Management (Program-Specific Competency)

- Understand complex interactions between public, private, and nonprofit organizations and the role of these organizations within human and natural systems.
- Articulate and apply a sustainability perspective (the implementation of policies, processes, and practices that meet the needs of the present without compromising the ability of future generations to meet their own needs) to public administration, management, and policy.
- Analyze real-world problems through multidisciplinary perspectives and work collaboratively to solve problems.

Requirements

The graduate Master of Public Affairs (MPAff) requires a minimum of 42 s.h. of credit. Students must earn a grade of B-minus or higher in all core and concentration area courses and must maintain a Graduate College program grade-point average of at least 3.00.

The required curriculum includes eight core courses, electives (including those taken within a concentration area), a year-long capstone project, and an internship. Courses are offered by the School of Planning and Public Affairs (Graduate College), the departments of Management and Entrepreneurship (Tippie College of Business), Civil and Environmental Engineering (College of Engineering), Educational Policy and Leadership Studies (College of Education), Political Science, Sociology and Criminology, the School of Earth, Environment, and Sustainability, the MA in strategic communication program in the School of Journalism and Mass Communication (College of Liberal Arts and Sciences), the College of Public Health, and the Larned A. Waterman Iowa Nonprofit Resource Center (College of Law).

The Master of Public Affairs requires the following coursework.

Requirements	Hours
Core Courses	19
Concentration Area	9
Capstone	5
Electives	9

Core Courses

Students must earn a grade of B-minus or higher in all core courses except PBAF:6208.

Course #	Title	Hours
All of these:		
PBAF:5117	Bureaucratic Politics and Public Administration	3
PBAF:5120	Public Policy Process	3
PBAF:6200	Analytical Methods for Evidence-Based Policy	3
PBAF:6205	Economics for Policy Analysis	3
PBAF:6208	Program Seminar	1
PBAF:6225	Applied GIS for Planning and Policy Making	3
PBAF:6233	Public Finance and Budgeting	3

Concentration Area

Students complete 9 s.h. in one of two concentration areas: public and nonprofit management or public policy. 6 s.h. must be in planning and public affairs (prefix PBAF) or urban and regional planning (prefix URP) courses numbered 5000 or above. Students further develop competencies in the concentration area by applying the concepts and skills gained in core coursework. All concentration area coursework requires a grade of B-minus or above.

Public and Nonprofit Management

Course #	Title	Hours
This required course:		
PBAF:6240	Public Management: State and Local Perspectives	3
6 s.h. from these:		
JMC:5220	Foundations of Strategic Communication	3
JMC:5225	Digital Strategic Communication	3
JMC:5236	Topics in Strategic Communication	3
JMC:5270	Leadership Communication	3
LAW:8753	Nonprofit Organizations: Structure, Governance, and Strategy	3
LAW:8755	Nonprofit Organizations: Advocacy, Collaboration, and Fundraising	3
MGMT:3500	Nonprofit Organizational Effectiveness I	3
MGMT:3600	Nonprofit Organizational Effectiveness II	3
MGMT:4600	Nonprofit Ethics and Governance	3
PBAF:6238	Public Human Resource Management	1
PBAF:6241	Strategic Management of Public and Nonprofit Organizations	3
PBAF:6282	Grant Writing	2
PBAF:3560	Public Policy and Persuasion	3

Public Policy

Course #	Title	Hours
One of these:		
PBAF:6201	Data Science for Urban Analytics	3
PBAF:6340	Public Policy Analysis	3
6 s.h. from these:		
CEE:3790	Resilient Infrastructure and Emergency Response	3
CEE:4107	Sustainable Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CRIM:3416	Race, Crime, and Justice	3
CRIM:3417	Community Corrections	3
CRIM:3425	Women, Crime, and Justice	3
CRIM:3600	Crime and Public Policy	3
EPLS:6222	Introduction to Educational Policy	3
EPLS:6225	Higher Education Policy	3
EPLS:6228	K-12 Education Finance and Policy	3
HMP:5610	Health Policy	3
HMP:5650	Health Policy Analysis	3
HMP:6710	Federalism and Health Policy	3
JMC:5248	Strategic Political Communication	3
LAW:8433	Environmental Law	3
LAW:8622	International Environmental Law	3
PBAF:5120	Public Policy Process	3
PBAF:6201	Data Science for Urban Analytics	3
PBAF:6340	Public Policy Analysis	3
POLI:3102	The U.S. Congress	3
POLI:3104	Immigration Politics	3
POLI:3118	Interest Groups	3
POLI:3203	Campaigns, Elections, and Voting Behavior	3
POLI:3204	Public Opinion	3
POLI:3518	Water Wars: Conflict and Cooperation	3
POLI:3519	Politics of Aging	3
SEES:3420	Sustainable and Green Building Concepts	3
SEES:4750	Environmental Impact Analysis	3
SEES:4770	Environmental Justice	3
URP:5800	Environmental Policy: Theory and Practice	3
URP:6253	Designing Sustainable and Healthy Cities	3
URP:6256	Environmental Policy	3

URP:6258	Systems and Scenario Thinking	3
URP:6260	Transportation Policy and Planning	3
URP:6263	Special Topics in Transportation Planning	3
URP:6266	Transportation, Urban Form, and Sustainability	3
URP:6271	Housing Policy	3
URP:6273	Community Development Through Creative Placemaking	3
URP:6295	Economic Development Policy	3
URP:6297	Financing Economic Development for Poverty Alleviation	3

Capstone

Students take the public affairs capstone courses, typically in their final two semesters. They work on a community, state, federal, or nonprofit project in which they focus their efforts on an analysis of a contemporary public policy problem, research, development of policy proposals, and recommended action steps. This is done in tandem with the university's Iowa Initiative for Sustainable Communities (IISC), which for ten years has been providing public consultation to communities in Iowa.

Course #	Title	Hours
Both of these:		
PBAF:6213	Public Affairs Capstone I	2
PBAF:6214	Public Affairs Capstone II	3

Electives

Students complete an additional 9 s.h. of elective coursework. Elective courses may be chosen from planning and public affairs (prefix PBAF) or urban and regional planning (prefix URP) courses numbered 4000 or above, with the exception of URP:6305 Readings and URP:6325 Thesis: Urban and Regional Planning; from courses outside of the School of Planning and Public Affairs listed under the preceding "Concentration Area" section; or from the following course list. With the permission of the program, additional courses not listed here may be approved as electives.

Students must complete a minimum of 3 s.h. in elective courses from planning and public affairs (prefix PBAF) or urban and regional planning (prefix URP) courses numbered 5000 or above.

Students are encouraged, but not required, to complete an approved internship with a public agency or a nonprofit organization through PBAF:6335 Internship. They engage in 80, 160, or 240 hours of internship work under the supervision of a public affairs professional. A maximum of 3 s.h. of PBAF:6335 Internship can apply toward elective requirements.

Course #	Title	Hours
CEE:3003	Project Management Skills	1
EPLS:5240	Topics in Education	arr.
EPLS:6217	Theory and Practice of Leadership	2-3
IS:3910	Approaches to Advocacy: From Theory to Practice	3

Final Examination

An oral and written exam constitute the final examination. If the oral exam is passed, then the written exam does not need to be taken.

Combined Programs

Undergraduate Degree/MPAff

Students working on an undergraduate degree program in the Tippie College of Business or the colleges of Education, Engineering, Liberal Arts and Sciences, and Public Health who are interested in earning the Master of Public Affairs degree may apply to a combined undergraduate degree/MPAff graduate degree program. The Undergraduate to Graduate (U2G) program enables students to begin work on the MPAff degree as they complete their baccalaureate degree. Combined degree programs enable students to earn both degrees in less time than it would take to earn the two degrees separately.

Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. For more information, visit Undergraduate to Graduate (U2G) on the Graduate College website.

Admission

Admission requires an undergraduate degree and fulfillment of the minimum requirements of the Graduate College.

The priority deadline for funding consideration is Jan. 15 for fall admission. Funding for those who submit materials after these dates is considered only as funding permits. Applications for admission are accepted until July 15; April 15 for international students. For spring admission, applications are accepted until Dec. 1.

To apply, follow the directions on the Graduate Admissions website. Applicants can apply online and upload all supporting materials. All students requesting funding must also complete and upload the Funding Application/Award Form.

Career Advancement

Graduates land positions in professional policy analytical and/or managerial service in the public and nonprofit sectors. The degree builds knowledge and skills in a mix of topics that includes policy, economics, statistics, research, and management and prepares students for professions that influence public policy through analysis, application, or management. They have a number of career choices available, many of which lead to executive positions in federal, state, and local governments, or in nonprofit agencies.

Example positions in the local, state, federal, nonprofit, and private sectors include:

- local—government specialist leading to a city manager, community health director, or public housing manager;
- state—program manager for a state housing authority or a policy analyst/program manager for a variety of state agencies;

- federal—presidential management fellow, or starting as a GS-9 position in the federal government in a variety of federal agencies;
- nonprofit—program director leading to a nonprofit organization director; and
- public, private, and nonprofit—public and government relations specialist, lobbyist, or elected official.

The School of Planning and Public Affairs provides career assistance efforts for both internship and post-graduation job seekers. It offers job information access and one-on-one advising support from the school's career services coordinator.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Master of Public Affairs, MPAff

Course	Title	Hours
Academic Career		
Any Semester		
42 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b, c]		
	Hours	**0**
First Year		
Fall		
PBAF:5120	Public Policy Process	3
PBAF:6200	Analytical Methods for Evidence-Based Policy	3
PBAF:6205	Economics for Policy Analysis	3
PBAF:6208	Program Seminar	1
	Hours	**10**
Spring		
PBAF:5117	Bureaucratic Politics and Public Administration	3
PBAF:6225	Applied GIS for Planning and Policy Making	3
PBAF:6233	Public Finance and Budgeting	3
Concentration area course [d]		3
	Hours	**12**
Second Year		
Fall		
PBAF:6213	Public Affairs Capstone I	2
PBAF:6335	Internship [d, e]	3
Concentration area course [f]		3
Elective course [d]		3
	Hours	**11**
Spring		
PBAF:6214	Public Affairs Capstone II [g]	3
Concentration area course [d]		3
Elective course [d]		3
Exam: Master's Final Exam [h]		
	Hours	**9**
	Total Hours	**42**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Students must earn a grade of B-minus or higher in all core and concentration area courses except PBAF:6208.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Students complete an additional 9 s.h. of elective coursework. Elective courses may be chosen from planning and public affairs (prefix PBAF) or urban and regional planning (prefix URP) courses numbered 4000 or above with the exception of URP:6305 and URP:6325; from courses outside of the School of Planning and Public Affairs included in the General Catalog concentration area list; or from CEE:3003, EPLS:5240, EPLS:6217, IS:3910.

e Students are encouraged, but not required, to complete an approved internship with a public agency or a nonprofit organization through PBAF:6335. They engage in 80, 160, or 240 hours of internship work under the supervision of a public affairs professional. A maximum of 3 s.h. of PBAF:6335 can apply toward elective requirements.

f Students complete 9 s.h. in one of two concentration areas: public and nonprofit management or public policy. 6 s.h. must be in planning and public affairs (prefix PBAF) or urban and regional planning (prefix URP) courses numbered 5000 or above. See the General Catalog for list of approved courses.

g Typically taken in final semester.

h Consists of both oral and written components.

Urban and Regional Planning, MS

The Master of Science in urban and regional planning is a two-year degree program fully accredited by the Planning Accreditation Board. It is built on the premise that planners must be educated in methods of policy analysis and that there is a common body of knowledge, represented in the core curriculum, that provides a solid foundation for all specializations in the field.

A wide range of educational backgrounds provides good preparation for graduate study in urban and regional planning. Students with undergraduate majors such as environmental policy and planning, architecture, anthropology, public policy, geographic information science, business administration, economics, engineering, communication studies, finance, geography, education, marketing, political science, sociology, history, journalism, and English currently study in the school. With an increasingly diverse student body and a low student-faculty ratio, the School of Planning and Public Affairs is committed to creating an environment that is inclusive and welcoming of all students. Approximately 20 full-time students and some part-time students are enrolled and about 20% are international students.

The common core of courses and the design of the facilities allow students to get to know each other quickly. Students interact closely with faculty members in the classroom, in informal conversation, and while working on research projects. Students and faculty also collaborate in the second-year capstone courses, URP:6209 Sustainable Communities Lab I and URP:6210 Sustainable Communities Lab II, to prepare plans and reports for communities throughout Iowa. This work is supported by the university's Iowa Initiative for Sustainable Communities, which was created by the School of Planning and Public Affairs.

Graduate students working toward a master's degree in urban and regional planning may elect to pursue one of the combined degree programs offered by the school in collaboration with the colleges of Education, Engineering, Law, and Public Health, and the schools of Earth, Environment, and Sustainability and Social Work (College of Liberal Arts and Sciences).

Learning Outcomes

General Planning Knowledge

The comprehension, representation, and use of ideas and information in the planning field, including appropriate perspectives from history, social science, and the design professions:

- purpose and meaning of planning—appreciation of why planning is undertaken, the impact of planning;
- planning theory—appreciation of the behaviors and structures available to bring about sound planning outcomes;
- planning law—appreciation of the legal and institutional contexts within which planning occurs;
- human settlements and history of planning—understanding of growth and development of places over time and space;
- the future—understanding relationships between past, present, and future in planning domains, potential for intervention; and
- global dimensions—appreciation of interactions, flows of people and materials, cultures, and differing approaches to planning.

Planning Skills

Use and application of knowledge to perform specific tasks required in the practice of planning:

- research—tools for assembling and analyzing information from practice, scholarship, from primary/secondary sources;
- written, oral, and graphic communication—the ability to prepare clear, accurate, compelling text, graphics, and maps for presentations;
- quantitative and qualitative methods—data collection, analysis, modeling tools for forecasting, analysis, and projects/plans design;
- plan creation and implementation—tools for sound plan formulation, adoption, and implementation and enforcement;
- planning process methods—tools for stakeholder involvement, community engagement, and working with diverse communities; and
- leadership—tools for attention, formation, strategic decision-making, team building, and organizational/community motivation.

Values and Ethics

Values inform ethical and normative principles used to guide planning in a democratic society:

- professional ethics and responsibility—appreciation of key issues of planning ethics, public decision-making, research, and client representation (American Institute of Certified Planners Code of Ethics);
- governance and participation—appreciation of the roles of officials, stakeholders, and community members in planned change;
- sustainability and environmental quality—appreciation of natural resources, how to create sustainable futures;
- growth and development—appreciation of economic, social, and cultural factors in urban and regional growth and change; and
- social justice—appreciation of equity concerns in planning.

Requirements

The Master of Science in urban and regional planning requires a minimum of 45 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average of at least 3.00.

The graduate curriculum is based on the philosophy that planners must develop the theoretical and analytic skills that will permit them to analyze social problems and evaluate public policies. Planners must also cultivate professional skills such as report writing, oral presentation, computer use, and team management in order to work effectively in various organizational and political environments.

Work for the master's degree includes core courses, an area of concentration, electives, and capstone courses. A final examination is required. A thesis is not required, although

students may petition to write one. Students are encouraged to complete an approved internship or practicum.

The MS in urban and regional planning requires the following coursework.

Requirements	Hours
Core Curriculum	25
Concentration Area	9
Elective Courses	5
Capstone Courses	6

Core Curriculum

The core curriculum helps students develop an understanding of the institutions—social, economic, political, administrative, and legal systems—that provide the context for policy analysis and that constrain public choices. It also promotes developing the ability to identify social goals and normative criteria for evaluating public policies, as well as the analytic skills to perform such investigations.

The core requires a minimum of 25 s.h., including an advanced economic methods course. The advanced economics methods course usually is taken during the first three semesters. Early core courses are drawn primarily from traditional disciplines, particularly economics and statistics, and include an introduction to land use planning and to theories and practice of planning. As students proceed through the curriculum, increasing emphasis is placed on the development of critical judgment and insight, achieved through the application of theory and methods to realistic planning problems and case studies.

The core curriculum includes the following courses; students may request a substitution of selected core courses on the basis of previous coursework. Students must earn a grade of B-minus or higher in all core courses except PBAF:6208 Program Seminar.

Course #	Title	Hours
All of these:		
URP:6200	Analytical Methods for Evidence-Based Policy	3
URP:6201	Data Science for Urban Analytics	3
URP:6202	Land Use Planning: Law and Practice	3
URP:6203	The Making of Cities: Histories and Theories of Planning	3
URP:6205	Economics for Policy Analysis	3
URP:6208	Program Seminar	1
URP:6225	Applied GIS for Planning and Policy Making	3
URP:6233	Public Finance and Budgeting	3
URP:6258	Systems and Scenario Thinking	3

Concentration Area

Beginning in the second semester, students choose a concentration area and develop it by applying the concepts and skills developed in the core. Currently, the school's faculty and course offerings support four concentration areas: economic development, housing and community development, land use and environmental planning, and transportation planning.

Each concentration area consists of one required course and two electives; at least one of the electives must be in a School of Planning and Public Affairs course (prefix PBAF or URP) numbered 5000 or above. Students must earn a grade of B-minus or higher in all concentration area courses.

Students may combine two concentration areas as approved by the student's advisor. Examples of combined areas are environmental and economic development planning, and transportation and community development planning. Students may also design other concentration areas, subject to faculty approval. For example, they may specialize in health services planning with appropriate coursework in the departments of Health Management and Policy or Occupational and Environmental Health, or in human services planning with courses in the School of Social Work.

Economic Development

Course #	Title	Hours
This course:		
URP:6295	Economic Development Policy	3
At least one of these:		
URP:6245	Growth Management	3
URP:6266	Transportation, Urban Form, and Sustainability	3
URP:6273	Community Development Through Creative Placemaking	3
PBAF:6241	Strategic Management of Public and Nonprofit Organizations	3
One of these:		
PBAF:3570	Poverty Policy	3
ECON:3350	Industry Analysis	3
ENTR:4200	Entrepreneurship: Business Consulting	3
ENTR:4400	Managing the Growth Business	3
FIN:4230	Real Estate Process	3
FIN:9230	Real Estate Finance and Investments	3
An additional course from this list		3

Housing and Community Development

Course #	Title	Hours
This course:		
URP:6271	Housing Policy	3
At least one of these:		
URP:6243	The Land Development Process	3
URP:6245	Growth Management	3
URP:6273	Community Development Through Creative Placemaking	3
URP:6278	Nonprofit Organizational Effectiveness I	3
URP:6295	Economic Development Policy	3

URP:6400	Sustainable Development: The Kerala Experience	3
One of these:		
PBAF:3570	Poverty Policy	3
FIN:4230	Real Estate Process	3
FIN:9230	Real Estate Finance and Investments	3
SSW:4843	Social Welfare Policy and Practice	3
SSW:6400	Theory and Skills for Working With Organizations and Communities	3
An additional course from this list		3

Land Use and Environmental Planning

Course #	Title	Hours
This course:		
URP:6256	Environmental Policy	3
At least one of these:		
URP:5310	Informatics for Sustainable Systems	3
URP:5800	Environmental Policy: Theory and Practice	3
URP:6243	The Land Development Process	3
URP:6245	Growth Management	3
URP:6253	Designing Sustainable and Healthy Cities	3
URP:6266	Transportation, Urban Form, and Sustainability	3
URP:6280	Planning for Disaster Mitigation and Recovery	3
URP:6400	Sustainable Development: The Kerala Experience	3
One of these:		
CEE:3790	Resilient Infrastructure and Emergency Response	3
CEE:4107	Sustainable Systems	3
CEE:4158	Solid and Hazardous Wastes	3
CEE:4159	Air Pollution Control Technology	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
JMC:5266	Risk Communication	3
OEH:4240	Global Environmental Health	3
OEH:4260	Global Water and Health	3
SEES:3340	Ecosystem Services	3
SEES:3350	Urban Ecology	3
SEES:3390	Integrated Watershed Analysis	3
SEES:3500	Introduction to Environmental Remote Sensing	3
SEES:3760	Hazards and Society	3
SEES:4150	Health and Environment: GIS Applications	3
SEES:4210	Sustainability as a System Science	3
SEES:4500	Advanced Remote Sensing	4
SEES:4770	Environmental Justice	3
SEES:6300	Seminar in Environment, Conservation, and Land Use	3
An additional course from this list		3

Transportation Planning

Course #	Title	Hours
This course:		
URP:6266	Transportation, Urban Form, and Sustainability	3
At least one of these:		
URP:6260	Transportation Policy and Planning	3
URP:6263	Special Topics in Transportation Planning	3
One of these:		
URP:3350	Transportation Economics	3
URP:4262	Transportation Research Methods and Analysis	3
CEE:3763	Principles of Transportation Engineering	3
CEE:4730	Transportation Infrastructure Construction and Management	3
CEE:4762	Design of Transportation Systems	3
CEE:4763	Traffic Engineering	3
CEE:5998	Individual Investigations: Civil and Environmental Engineering	3
CPH:4220	Global Road Safety	3
An additional course from this list		3

Elective Courses

Students complete an additional 5 s.h. of elective courses; a minimum of 3 s.h. must be completed in School of Planning and Public Affairs courses (prefix URP or PBAF) numbered 5000 and above. With the permission of the program, courses not listed below may supplement those offered by the School of Planning and Public Affairs.

Students are encouraged but not required to complete an internship in a planning agency or related organization by taking URP:6335 Internship. To earn 2 s.h. of credit for the internship, students must submit a brief paper summarizing and evaluating their experience. Internships are usually paid staff positions and are completed during the summer between the first and second years or during the academic year.

Course #	Title	Hours
At least 5 s.h. from these:		
CEE:3003	Project Management Skills	1
EPLS:5240	Topics in Education	arr.
EPLS:6217	Theory and Practice of Leadership	2-3
IS:3910	Approaches to Advocacy: From Theory to Practice	3
School of Planning and Public Affairs courses (prefix URP or PBAF) numbered 4000 or above		

Non-School of Planning and Public Affairs courses (prefix URP or PBAF) approved for a concentration area; see "Concentration Area" above	

Thesis

A thesis is not required, although students may petition to write one. Up to 5 s.h. of credit from URP:6305 Readings and URP:6325 Thesis: Urban and Regional Planning may apply toward the elective requirement.

Capstone Courses

Students complete the following two capstone courses, usually during the third and fourth semesters. A grade of B- minus or higher is required for both courses.

Course #	Title	Hours
Both of these:		
URP:6209	Sustainable Communities Lab I	3
URP:6210	Sustainable Communities Lab II	3

Alternatively, an extended internship, consisting of at least five months of full-time employment in a planning-related organization, may qualify as a practicum. The practicum course URP:6229 Practicum generally takes place during the summer after the first year and fall semester of the second year. Students register for the practicum course in two consecutive sessions for a total of at least 6 s.h.

Final Exam

A final exam is required for all students. Thesis students are required to pass an oral defense of their thesis in place of the final exam. An oral and written examination constitutes the final exam for students who do not write a thesis. Students who do not write a thesis do not enroll in any course to prepare for the final exam. If the oral examination is passed, then the written examination does not need to be taken.

Combined Programs

The School of Planning and Public Affairs participates in several combined degree programs, in which students work toward an MS in urban and regional planning at the same time they work toward another degree. Combined degree programs enable students to earn both degrees in less time than it would take to earn the two degrees separately.

Undergraduate Degree/MS

Students working on an undergraduate degree program in the Tippie College of Business or the colleges of Education, Engineering, Liberal Arts and Sciences, and Public Health who are interested in earning the MS in urban and regional planning may apply to a combined undergraduate degree/MS graduate degree program. The Undergraduate to Graduate (U2G) program enables students to begin work on the MS as they complete their baccalaureate degree. Combined degree programs enable students to earn both degrees in less time than it would take to earn the two degrees separately.

A separate application for each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. For more information, visit Undergraduate to Graduate (U2G) on the Graduate College website.

Graduate Degrees/MS

See "Two Master's Degrees" under Master's Degrees in the Manual of Rules and Regulations on the Graduate College website for information on earning concurrent master's degrees. The following combined degree programs for the Master of Science in urban and regional planning are available.

- JD/MS; see Juris Doctor, JD [p. 1833] (College of Law) in the catalog.
- MS in civil and environmental engineering with a sustainable water development subprogram/MS; see the MS in civil and environmental engineering [p. 1599] (College of Engineering) in the catalog.
- MS in occupational and environmental health/MS; see the MS in occupational and environmental health [p. 2157] (College of Public Health) in the catalog.
- MSW/MS; see the Master of Social Work, MSW [p. 1010] (College of Liberal Arts and Sciences) in the catalog.
- MA in educational policy and leadership studies with a higher education and student affairs subprogram/MS; see the MA in educational policy and leadership studies (College of Education) in the catalog.

Requirements for each combined degree program can vary. The minimum requirements for the urban and regional planning part of any combined degree include completion of at least 35 s.h. in School of Planning and Public Affairs courses (prefix URP), the core and capstone courses, 9 s.h. of a concentration, and the master's degree final examination. In the case of two master's degrees, all programs require at least 60 s.h. of credit.

Students who wish to enter a combined degree program must apply to each program separately; they must be admitted to both programs before they may be admitted to the combined program. Other combined degrees may be possible. Contact the admissions coordinator at the School of Planning and Public Affairs for more information about combined degree programs.

Admission

Admission to the School of Planning and Public Affairs requires an undergraduate degree and fulfillment of the minimum requirements of the Graduate College. For fall admission, prospective students should submit complete materials to graduate admissions by Jan. 15 if funding is requested. Funding for those who submit materials after these dates is considered only as funding permits. Applications for admission are accepted until July 15; April 15 for international students. For spring admission, the deadline is Nov. 1 if funding is requested. Applications are accepted until Dec. 1.

To apply, follow the directions on the Graduate Admissions website. Applicants can apply online and upload all supporting materials. All students requesting funding must also complete and upload the Funding Application/Award Form.

Career Advancement

Today's planners find themselves in demand for such diverse jobs as sustainability coordinator and planner, environmental analyst/planner, land use planner, transportation planner, community development planner, zoning coordinator, water resources planner, community organizer, economic development planner, recycling coordinator, planning director,

neighborhood planner, state legislative analyst, planning consultant, and nonprofit project manager or director.

Recent graduates have taken positions with city, metropolitan, and regional planning agencies; state and federal government; nonprofit organizations; and private consulting firms. They work in all geographic regions of the United States and in countries around the world.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Urban and Regional Planning, MS

Course	Title	Hours
Academic Career		
Any Semester		
45 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Students must earn a grade of B-minus or higher in all Core and Concentration Area courses and must maintain an overall Graduate College program GPA of at least 3.00; maximum of 8 s.h. of readings credit. [b]		
	Hours	**0**
First Year		
Any Semester		
URP:6335	Internship [c]	1-3
URP:6229	Practicum [d]	1-5
	Hours	**2-8**
Fall		
URP:6200	Analytical Methods for Evidence-Based Policy	3
URP:6202	Land Use Planning: Law and Practice	3
URP:6203	The Making of Cities: Histories and Theories of Planning	3
URP:6205	Economics for Policy Analysis	3
URP:6208	Program Seminar	1
	Hours	**13**
Spring		
URP:6201	Data Science for Urban Analytics	3
URP:6225	Applied GIS for Planning and Policy Making	3
URP:6233	Public Finance and Budgeting	3
Concentration Area course [e]		3
	Hours	**12**
Second Year		
Fall		
URP:6209	Sustainable Communities Lab I [f]	3
URP:6258	Systems and Scenario Thinking	3
Concentration Area course [e]		3
	Hours	**9**
Spring		
URP:6210	Sustainable Communities Lab II [f]	3
Concentration Area course [e]		3
Elective course [g]		3
Elective course [g]		2
Exam: Master's Final Exam [h]		
	Hours	**11**
	Total Hours	**47-53**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Students are encouraged to complete an internship in a planning agency or related organization. To earn 2 s.h. of credit for the internship, students must submit a brief paper summarizing and evaluating their experience.

d An extended internship, consisting of at least five months of full-time employment in a planning-related organization, may qualify as a practicum. It carries 5 s.h. of credit and substitutes for the internship and the capstone courses.

e Students must complete at least 9 s.h. in one of the following concentration areas: Transportation Planning, Housing and Community Development, Economic Development, Land Use and Environmental Planning, or Geographic Information Systems. Work with faculty advisor to determine appropriate coursework and sequence.

f Capstone coursework; grade of B-minus or better required.

g Complete at least 5 s.h. of electives. See the General Catalog for list of approved courses and work with faculty advisor to determine appropriate coursework and sequence.

h If the oral examination is passed, then the written examination does not need to be taken.

Public Digital Humanities

Advisor

- Thomas Keegan (English)

Graduate certificate: public digital humanities

Faculty: https://www.lib.uiowa.edu/studio/contact/

Website: https://www.lib.uiowa.edu/studio/pdh-certificate/

The Certificate in Public Digital Humanities welcomes students with no prior training in the digital humanities. The certificate program offers credentials to graduate students who plan to incorporate digital technology into their future research, teaching, or careers. Students learn interdisciplinary ways of conceiving of their own and other's digital work, while exploring digital tools that underlie many humanistic and social scientific research projects. Students also learn important skills such as how to manage an original project, collaborate with digital humanities scholars and practitioners across different departments, programs, units, and centers, participate in teams, and communicate technical information to a nonspecialist audience.

The certificate provides crucial training and education for the 21st-century humanist interested in the intersection between technology and research.

The Certificate in Public Digital Humanities is administered by the Graduate [p. 1682] College.

Programs

Graduate Program of Study

- Certificate in Public Digital Humanities [p. 1803]

Public Digital Humanities, Graduate Certificate

Requirements

The graduate Certificate in Public Digital Humanities requires 12 s.h. of coursework. Students must maintain a Graduate College major program grade-point average of at least 3.00 for the certificate.

The Certificate in Public Digital Humanities requires the following coursework.

Required Course

Course #	Title	Hours
This course:		
CLAS:7290	Digital Humanities Theory and Practice	3

Electives

Students choose elective coursework to suit their disciplinary or technical needs. Since electives are updated every semester, students can view a full list of available elective courses as well as access an elective course petition form; visit Public Digital Humanities Certificate on the University of Iowa Libraries website.

Course #	Title	Hours
6 s.h. from these:		
AFAM:6500/ AMST:6500/ ENGL:6050	Critical Readings in Cultural Studies: Stuart Hall's Legacy and Influences	3
AMST:3078/ GWSS:3078/ MUSM:3078/ SPST:3078	Archiving Women's History	3
AMST:3600/ AFAM:3600	Digitizing Blackness	3
AMST:5000	Interdisciplinary Research in American Cultures	3
ARTH:3000	Digital Approaches to the Study of Art	3
CINE:4620	Topics in Film Form, Style, and Theory (when topic is film adaptation)	3
CLSL:6014	Later Empire (when topic is digital text analysis)	arr.
COMM:6336	Seminar in Rhetorical Theory (when topic is critical approaches to digital culture)	1-4
ENGL:3182	Digital Cultures and Literacies	3
ENGL:6080	New Media Poetics	3
GRAD:6510	Introduction to Programming	1
GRAD:6521	Scholarly Communication and Journal Publishing	1
GRAD:6522	Digital Exhibits: Effective Design and Development	1
GRAD:6530	Open Source Web Mapping for Beginners	1
GRAD:6535	Data Visualization and Mapping	1
GRAD:6545	Introduction to Podcasting	1
GWSS:3050	Topics in Gender, Women's, and Sexuality Studies (when topic is race, gender, and sexuality in the digital humanities)	1,3
HIST:6002	Introduction to Graduate Studies in History: Historiography and Methods (when topic is digital related)	3
IGPI:4580/ DATA:4580/ STAT:4580	Data Visualization and Data Technologies	3
JMC:3122	Influencers, Artificial Intelligence, and Digital Games	3
JMC:3425	Personal Branding	3-4
JMC:3640	Information and Data Visualization	3-4
JMC:6333	Seminar in Media Communication (when topic is critical media studies or digital cultures or global digital media)	3
RHET:7500	Science Communication in the Digital Age	2-3
SEES:3540/ IGPI:3540	Geographic Visualization	3
SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3
SLIS:6140/ IGPI:6140	Academic User Services and Technology	3
SLIS:6145	Digital Preservation and Stewardship	3
SLIS:6155/ IGPI:6155	Information Visualization	3
SLIS:6350	Archives: Theory and Practice	3
SLIS:6411	Special Topics in Library and Information Science (when topic is designing "dataviz")	3

Capstone Course

Students should complete all certificate coursework before they enroll in the capstone course.

Course #	Title	Hours
This course:		
GRAD:6590	Digital Humanities Capstone	3

View Public Digital Humanities Certificate on the University of Iowa Libraries website for more information.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and

should be discussed with an academic advisor. For additional sample plans, see MyUI.

Public Digital Humanities, Graduate Certificate

Course	Title	Hours
Academic Career		
Any Semester		
The graduate certificate in public digital humanities requires 12 s.h. of coursework.		
	Hours	**0**
First Year		
Fall		
CLAS:7290	Digital Humanities Theory and Practice	3
	Hours	**3**
Spring		
Certificate: public digital humanities elective course[a]		3
	Hours	**3**
Second Year		
Fall		
Certificate: public digital humanities elective course[a]		3
	Hours	**3**
Spring		
GRAD:6590	Digital Humanities Capstone	3
	Hours	**3**
	Total Hours	**12**

a See the General Catalog for list of approved courses.

Sustainable Development

Director

- David M. Cwiertny (Chemical and Biochemical Engineering/ Chemistry/Civil and Environmental Engineering)

Graduate degree: MS in sustainable development

Website: https://sdg.grad.uiowa.edu/

First introduced in the Brundtland Report of 1987, *Our Common Future*, the principle of sustainable development calls for meeting the needs of society today without compromising the ability of future generations to meet their own needs. Today, the United Nations Sustainable Development Goals (UN SDGs) provide a blueprint for sustainable development that addresses global challenges including climate change, access to clean water, healthy air, safe and reliable energy, long-term economic well-being, equity, responsibility to other species, and conflict over limited resources.

Through training centered on the UN SDGs, the sustainable development program prepares students for technical and/ or policy leadership roles in the private or public sector to advance the sustainable development of communities in Iowa, across the United States, and around the world. Leveraging existing strengths at the University of Iowa in the areas of resource sustainability and engagement for sustainable communities, the sustainable development program is built on coursework, community-engaged projects, and professional development experiences that culminate in the MS in sustainable development.

This program of study aims to train the next generation of sustainability professionals for career placement opportunities at state and federal agencies, national laboratories, policy think tanks, nongovernmental organizations (NGOs), and in the private sector.

Programs

Graduate Program of Study

- Master of Science in Sustainable Development [p. 1806]

Courses

Sustainability Development Goals Courses

SDG:4000 The United Nations Sustainable Development Goals: A Blueprint for a Sustainable Future 3 s.h.
Establishment of baseline competencies among students from diverse backgrounds; introduction to the United Nations sustainable development goals framework; foundational concepts for sustainable development (e.g., life-cycle analysis, systems thinking, data processing, visualization). Same as SEES:4000.

SDG:5100 Building Future Leaders in Sustainable Development 3 s.h.
Focus on competencies needed to translate training and research into action for social good; topics include ethics, cultural competency, collaboration and team science, use-inspired design, and engagement. Same as CEE:5151.

SDG:5225 Communicating Data Through Stories 3 s.h.
How to communicate science effectively and responsively with multiple audiences from peers and professors to potential employers, policymakers, and the lay public; focus on speaking about science clearly and vividly in ways that can engage varied audiences, especially those outside the student's own field; connecting and finding common ground with an audience, defining goals, identifying main points, speaking without jargon, explaining meaning and context, using storytelling techniques and multimedia elements. Same as CEE:5225, GRAD:5225.

SDG:6000 Sustainable Communities Lab I 3 s.h.
Experience working on a two-semester project involving a current planning issue, usually for a client. Requirements: urban and regional planning graduate standing. Same as URP:6209.

SDG:6210 Sustainable Communities Lab II 3 s.h.
Continuation of URP:6209. Prerequisites: URP:6209. Requirements: urban and regional planning graduate standing. Same as URP:6210.

SDG:6325 Thesis: Sustainable Development 1-5 s.h.

Sustainable Development, MS

This interdisciplinary program equips students with higher-order learning skills as well as more practical, applied preparation for a variety of careers in sustainable development. The program's goal is to produce trainees with not only the fundamental and theoretical understanding expected from more traditional graduate degree recipients, but also the highly marketable, professional skills of someone graduating from an applied field of study.

Learning Outcomes

Graduates will be able to:

- analyze problems, conduct research, and make policy recommendations on topics related to the United Nations Sustainable Development Goals (UN SDGs), and anticipate the social, economic, political, technological, human health, and environmental impacts of their proposed interventions;
- communicate science effectively and responsively with diverse audiences, from technical peers to potential employers, policymakers, and the public, as well as communicate across modern forms of media intended for public engagement and dissemination of advances toward sustainable development goals; and
- demonstrate qualities essential to thrive across a range of careers, including interpersonal skills (e.g., collaboration, teamwork, and cultural competence), problem-solving abilities (e.g., inquiry, critical thinking, and creativity), and professional strengths (e.g., work ethic, responsible conduct, management, and leadership).

Requirements

The interdisciplinary Master of Science program in sustainable development requires a total of 30 s.h. of graduate credit to earn the degree without thesis. Students may choose to earn the degree with thesis. All students must maintain a UI cumulative grade-point average of at least 2.75.

With the approval of their faculty advisors, students develop a study plan that satisfies the requirements of their chosen curriculum. All students must successfully complete the core courses and take two analytical and methods courses plus elective coursework that focuses on one of the United Nations Sustainable Development Goals (UN SDGs).

The thesis option requires the completion of a project with a program partner (e.g., a community, nongovernmental organization, public agency, or private sector partner) and culminates in a required project portfolio. Students choosing the thesis option must register for SDG:6325 Thesis: Sustainable Development.

Some grants also require students to complete a responsible conduct of research or research ethics course (ENGR:7270 Engineering Ethics). Students should check with the program director to determine whether this requirement applies to them.

The MS in sustainable development requires the following coursework.

Core Courses

Course #	Title	Hours
All of these:		
SDG:4000/ SEES:4000	The United Nations Sustainable Development Goals: A Blueprint for a Sustainable Future	3
SDG:5100/ CEE:5151	Building Future Leaders in Sustainable Development	3
SDG:5225/ CEE:5225/ GRAD:5225	Communicating Data Through Stories	3
SDG:6000/ URP:6209	Sustainable Communities Lab I	3
SDG:6210/ URP:6210	Sustainable Communities Lab II	3

Analytical and Methods Courses

Students choose two courses (at least 6 s.h.) offered by supporting programs. The courses provide students with training in analytical competencies necessary for sustainable development, including spatial analysis, statistics, informatics, data management, and decision analysis.

Course #	Title	Hours
Two of these:		
CEE:5310/ IGPI:5311/URP:5310	Informatics for Sustainable Systems	3
CEE:5460	Water Quality and Flow	3
SEES:3050/ IGPI:3050	Geospatial Programming	3
SEES:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3
SEES:3520/ IGPI:3520	GIS for Environmental Applications	3
SEES:3540/ IGPI:3540	Geographic Visualization	3
SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3
SEES:4520/ IGPI:4520	GIS for Environmental Studies: Applications	3
SEES:4580/ IGPI:4581	Introduction to Geographic Databases	3
URP:6200/ PBAF:6200	Analytical Methods for Evidence-Based Policy	3
URP:6225/ PBAF:6225	Applied GIS for Planning and Policy Making	3
URP:6258/ PBAF:6258	Systems and Scenario Thinking	3

Electives

Students complete at least 9 s.h. in elective coursework structured around the 2030 Sustainable Development Goals (SDGs). Students are required to focus on one SDG and complete three courses in that specialization area to provide depth in one area.

Students completing a thesis are permitted to apply a maximum of 3 s.h. of SDG:6325 Thesis: Sustainable

Development toward elective requirements but are not required to do so.

Affordable and Clean Energy

Course #	Title	Hours
CBE:3405	Green Chemical and Energy Technologies	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CHEM:4760	Radiochemistry: Energy, Medicine, and the Environment	3
SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3

Clean Water and Sanitation

Course #	Title	Hours
CEE:4102	Groundwater	3
CEE:4119	Hydrology	3
CEE:4150/CBE:4420	Environmental Chemistry	3
CEE:4385	Water Scarcity in Rural India	3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE:5460	Water Quality and Flow	3
OEH:4240	Global Environmental Health	3

Climate Action

Course #	Title	Hours
CEE:4159/ CBE:4459/IGPI:4159	Air Pollution Control Technology	3
CEE:4180	Fundamentals of Atmospheric Science	3
SEES:3331	Human Dimensions of Climate	3
SEES:4470	Ecological Climatology	3
SEES:5800/ PBAF:5800/ URP:5800	Environmental Policy: Theory and Practice	3

Industry, Innovation, and Infrastructure

Course #	Title	Hours
SEES:3420	Sustainable and Green Building Concepts	3
URP:6202	Land Use Planning: Law and Practice	3
URP:6266/ PBAF:6266	Transportation, Urban Form, and Sustainability	3

Responsible Consumption and Production

Course #	Title	Hours
CEE:4158/ OEH:4920	Solid and Hazardous Wastes	3
GHS:3560	Global Garbage and Global Health	3
SEES:3090/ GHS:3070	Hungry Planet: Global Geographies of Food	3
SEES:4750/ URP:4750	Environmental Impact Analysis	3
SEES:4770/ AFAM:4770/ GHS:4770	Environmental Justice	3
URP:6256/ PBAF:6256	Environmental Policy	3

Sustainable Cities and Communities

Course #	Title	Hours
CEE:4107/CBE:4410	Sustainable Systems	3
SEES:3350	Urban Ecology	3
SEES:3400	Iowa Environmental Policy in Practice	3
SEES:3760/ GHS:3760	Hazards and Society	3
SEES:4210	Sustainability as a System Science	3
URP:6245/ PBAF:6245	Growth Management	3

The Biosphere (Life Below Water and Life on Land)

Course #	Title	Hours
CBE:3405	Green Chemical and Energy Technologies	3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
SEES:3020	Earth Surface Processes	3
SEES:3340	Ecosystem Services	3
SEES:4790	Applied Environmental Geology	3

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations and the Graduate College Admission Requirements on the Graduate College website and the sustainable development admission requirements.

Prospective students must hold a baccalaureate degree or the equivalent from an accredited institution with preparation appropriate for advanced study in the field of sustainability. Students with an undergraduate degree in natural and social sciences, technology, engineering, and/or mathematics will be well prepared to thrive in this interdisciplinary degree program. The program is intentionally designed to be inclusive for students coming from different and diverse academic backgrounds given the broad range of perspectives and expertise that are needed to move society closer to sustainable development goals.

Application materials must include:

- one- or two-page self-statement describing an applicant's interest in the sustainable development program, how formal and informal experiences make the applicant a good fit for the program, and how the applicant can uniquely contribute to the program; the statement should

briefly discuss the career path(s) the applicant intends to pursue upon completion of the degree;
- a résumé; and
- three letters of recommendation.

Career Advancement

Graduates can obtain employment across a variety of sectors that intersect with sustainability and sustainable development, including jobs in public service at the local, state, or federal level in all areas related to the environment (e.g., watershed management coordinators, state natural resource departments, and sustainability directors for cities across the United States, analysts and scientists at governmental agencies such as the U.S. Department of Agriculture or the U.S. Environmental Protection Agency. Graduates may find employment in the private sector as consultants for industries seeking to improve the sustainability of their operations and processes (e.g., sustainable supply chain, waste management, minimization, and sustainability reporting, metric development, and management).

Graduates are better qualified for positions in the private sector including chief sustainability officer, director of sustainability, and sustainability project manager or coordinator. Opportunities also exist for careers in global development, working internationally with nongovernmental organizations (NGOs), and other organizations that strive to advance sustainable development goals worldwide, particularly in resource-constrained areas of the developing world. In addition, degree recipients are well-positioned to pursue additional graduate studies toward a PhD, MBA, or JD degree.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Sustainable Development, MS

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 2.75 is required. [c]		
	Hours	**0**
First Year		
Fall		
SDG:4000	The United Nations Sustainable Development Goals: A Blueprint for a Sustainable Future	3
SDG:5100	Building Future Leaders in Sustainable Development	3
URP:6209	Sustainable Communities Lab I	3
	Hours	**9**
Spring		
SDG:5225	Communicating Data Through Stories	3
URP:6210	Sustainable Communities Lab II	3
Analytical and Methods course [d, e]		3
	Hours	**9**
Second Year		
Fall		
ENGR:7270	Engineering Ethics [f]	1
Analytical and Methods course [d, e]		3
Elective course [e, g]		3
Elective course [e, g]		3
	Hours	**10**
Spring		
Elective course [e, g]		3
Final Exam [h]		
	Hours	**3**
	Total Hours	**31**

a This interdisciplinary program equips students with higher-order learning skills as well as more practical, applied preparation for a variety of careers in sustainable development. The program's goal is to produce trainees with not only the fundamental and theoretical understanding expected from more traditional graduate degree recipients, but also the highly marketable, professional skills of someone graduating from an applied field of study.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Students choose two courses (at least 6 s.h.) offered by supporting programs.

e Work with faculty advisors to select appropriate coursework from an approved list; refer to the General Catalog for more information.

f Some grant funded students are also required to complete a responsible conduct of research or research ethic course (ENGR:7270); students should check with the SDG Program Director to determine whether this requirement applies to them.

g Students complete at least 9 s.h. in elective course coursework structured around the 2030 Sustainable Development Goals (SDGs). Students are required to focus on one SDG and complete three courses in that specialization area to provide depth in one area.

h Completion of all coursework.

Translational Biomedicine

Executive Dean

- Patricia L. Winokur

Education Director

- Donna A. Santillan (Obstetrics and Gynecology)

Graduate degree: MS in translational biomedicine

Website: https://icts.uiowa.edu/

The Translational Biomedicine Program offers training in translational biomedicine, biostatistics, ethics, and in various elective areas while providing time to conduct mentored research under the direction of an interdisciplinary team. It is specifically tailored to clinicians in medicine, nursing, pharmacy, dentistry, and psychology, as well as to PhD researchers conducting translational research in the biomedical sciences.

Related Programs

Certificate

The Department of Epidemiology and the Institute for Clinical and Translational Science offer the graduate certificate program in translational and clinical investigation; see the Certificate in Translational and Clinical Investigation [p. 2166] (College of Public Health) in the catalog.

Master of Science

The Department of Epidemiology (College of Public Health) offers an MS in clinical investigation [p. 2128] which may be a good alternative to the Translational Biomedicine Program.

Programs

Graduate Program of Study

- Master of Science in Translational Biomedicine [p. 1810]

Facilities

Training is conducted mainly in the laboratories and teaching facilities of the Carver College of Medicine and the College of Public Health. The university's Institute for Clinical and Translational Science is available for research training. The program is also linked with the Carver College of Medicine's graduate training program in clinical research.

Courses

Translational Biomedicine Courses

TBM:5000 Translational Biomedical Research arr.
Student research guided by mentor.

TBM:5001 Introduction to Translational Biomedicine 3 s.h.
Basis for clinical and translational research; introduction to principles of experimental design for patient- and population-oriented research; approaches available to clinical and translational investigators (e.g., statistics, questionnaires, ethics, imaging, information technology); infrastructure that supports clinical and translational investigators at the University of Iowa and nationally; for early-career clinicians/scientists and established investigators. Requirements: enrollment in translational biomedicine MS program.

TBM:5002 Critical Thinking and Communication: Study Design and Commercialization 1 s.h.
Various study design methodologies and process of commercialization; presentations of current projects. Requirements: candidacy for MS in translational biomedicine.

TBM:5003 Critical Thinking and Communication: Scientific Writing and Presentation Strategies 1 s.h.
Grant development and journal writing process; development of effective scientific presentations.

TBM:5004 Critical Thinking and Communication: Career Development and the Funding Process 1 s.h.
Introduction to a variety of career development awards and their requirements; opportunity to work on personal career development grant applications.

TBM:5005 Critical Thinking and Communication: Leadership, Team Science, and Community Engagement 1 s.h.
Leadership skills for managing and developing a research team; leading and organizing a team; managing and sharing resources with other faculty and fellows; finding, hiring, and keeping good people; leading productive meetings; delegation strategies, resources and tools for quality community engagement; information on applying and teaching leadership skills to mentees.

Translational Biomedicine, MS

Learning Outcomes

The goals of the MS program in translational biomedicine are to:

- promote interaction and collaboration among researchers across the translational research spectrum;
- enrich understanding of T1 research (laboratory), T2 research (application to evidence-based practice), T3 research (implementation and dissemination), and T4 research (population studies and policy development) for basic and clinical scientists to expand the relevance of their work in these areas; and
- develop skills in ethical decision-making, scientific leadership, team building, networking, and research program management.

Requirements

The Master of Science program in translational biomedicine (TBM) requires a minimum of 34 s.h. of graduate credit plus a final project. Students must maintain a UI cumulative graduate program grade-point average of at least 3.00. The plan of study for students in the two-year program is tailored to their scientific goals and interests.

The program is designed to teach members of scientific teams how to move biomedical discoveries into clinical applications and beyond. It is tailored for individuals who have completed doctoral-level training in one area of biomedicine and wish to apply their expertise to the translational research spectrum. The program admits individuals who hold medical or graduate degrees (e.g., MD, DO, DDS, DNP, PhD, PharmD, DVM, or the equivalent) and are employed by the University of Iowa at the faculty ranks of associate professor, assistant professor, instructor/associate, fellow physician, or postdoctoral scholar/fellow.

The MS in translational biomedicine requires the following coursework.

Core Courses

Course #	Title	Hours
All of these:		
TBM:5000	Translational Biomedical Research	9
TBM:5001	Introduction to Translational Biomedicine	3
TBM:5002	Critical Thinking and Communication: Study Design and Commercialization	1
TBM:5003	Critical Thinking and Communication: Scientific Writing and Presentation Strategies	1
TBM:5004	Critical Thinking and Communication: Career Development and the Funding Process	1
TBM:5005	Critical Thinking and Communication: Leadership, Team Science, and Community Engagement	1
BIOS:4120	Introduction to Biostatistics	3
EPID:4400	Epidemiology I: Principles	3
EPID:6950	Clinical Research Ethics	2
One of these:		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
EPID:5241	Statistical Methods in Epidemiology	4

Electives

Students must earn a minimum of 6 s.h. in graduate-level elective coursework pertinent to their educational goals. Electives may be selected from the following lists, or students may obtain approval for other courses with program administration approval.

Biostatistics

Course #	Title	Hours
BIOS:5130	Applied Categorical Data Analysis	3
BIOS:5310	Research Data Management	3
BIOS:6210	Applied Survival Analysis	3
BIOS:6310	Introductory Longitudinal Data Analysis	3
BIOS:7600	Advanced Biostatistics Seminar	0-3

Device Development

Course #	Title	Hours
BME:5101	Biomaterials and Implant Design	3
BME:5640	Ergonomics of Occupational Injuries	3

Drug Discovery

Course #	Title	Hours
PCOL:5135	Principles of Pharmacology	1
PCOL:5136	Pharmacogenetics and Pharmacogenomics	1
PCOL:6203	Pharmacology for Graduate Students	5
PCOL:6250	Advanced Problem Solving in Pharmacological Sciences	1
PHAR:5512	Drug Discovery and Mechanisms	3

Epidemiology

Course #	Title	Hours
EPID:5214	Meta-Analysis of Epidemiologic Studies	3
EPID:5241	Statistical Methods in Epidemiology	4
EPID:5500	Introduction to Clinical Epidemiology	3
EPID:5560	Biomarkers in Epidemiology	3

EPID:5610	Intermediate Epidemiology Data Analysis With SAS and R	3
EPID:6400	Epidemiology II: Advanced Methods	4
EPID:6900	Design of Intervention and Clinical Trials	3

Genetics

Course #	Title	Hours
ACB:6200	Current Topics in Genetics	1
BIOL:3373	Human Population Genetics and Variation	3
BIOL:3713	Molecular Genetics	4
BIOL:5412	Fundamental Genetics: Graduate Lecture	3
GENE:6150	Genetic Analysis of Biological Systems	3
GENE:7191	Human Molecular Genetics	3
MMED:6250	Mechanisms of Parasitism Journal Club	1
PCOL:5136	Pharmacogenetics and Pharmacogenomics	1

Informatics

Course #	Title	Hours
BIOL:4213	Bioinformatics	2,4
BIOL:4386	Introduction to Scientific Computing for Biologists	3
CS:5110	Introduction to Informatics	3
IGPI:3314	Genomics	3

Innovation

Course #	Title	Hours
ENTR:2000	Entrepreneurship and Innovation	3
MED:8073	Biomedical Innovation	1
NURS:6553	Seminar on Innovations	4

Neuroscience

Course #	Title	Hours
BIOL:2753	Introduction to Neurobiology	3
NSCI:5212	Foundations in Behavioral and Cognitive Neuroscience	4
NSCI:5653	Fundamental Neurobiology I	3
PSY:6370	Principles of Neuropsychology	3

Final Project

In addition to completion of the 34 s.h. in required coursework, scholars must submit a final project. The project may be in one of the following formats.

- A complete grant application for a K01, K08, K23, R01, R03, R21, a U.S. Department of Veterans Affairs career development award, or the equivalent. The R03 completed as part of the required grant writing course may not be submitted as the final project.
- An original research manuscript that is of acceptable quality for a peer-reviewed biomedical journal (the paper can be ready for submission, under review, or already published). The manuscript must contain the following components: a structured abstract; an introductory section that adequately frames the research question addressed; and a methodology section that sufficiently describes the following elements (study design, study sample, data collection strategies and sources, data elements, and data analysis), results of the study, and a discussion including a description of the relationship of the current findings to prior relevant research and/or policy implications of the findings and methodological limitations.

Admission

The Translational Biomedicine Program welcomes applicants who have diverse educational and scientific backgrounds and varied research interests. Applicants must have a strong interest and background in a health science profession and knowledge of basic sciences and medicine.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Translational biomedicine applicants must:

- have a doctoral-level degree in a biomedical discipline (e.g., MD, DO, DDS, DNP, PhD, PharmD, DVM, or the equivalent);
- be employed by the University of Iowa as an associate professor, assistant professor, instructor/associate, a fellow physician, or a postdoctoral scholar/fellow;
- be engaged in scientific research with a University of Iowa mentor who has funding from a peer-reviewed source (e.g. National Institutes of Health, National Science Foundation, and so forth);
- hold a bachelor's degree from a regionally accredited American college or university or an equivalent degree from an international institution, as determined by University of Iowa Admissions; and
- have a grade-point average of at least 3.00 or the international equivalent, as determined by University of Iowa Admissions.

Applicants must submit a curriculum vitae, a statement of research interest and career goals, and three letters of recommendation. One letter must be from the applicant’s UI research mentor; the program recommends that the second be a letter of support from the applicant’s department chair.

Students and their mentors must guarantee sufficient time for coursework and research. The program does not require a specific percent effort, but successful candidates would likely devote 50–75% of their time to a combination of coursework and research.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Translational Biomedicine, MS

Course	Title	Hours
Academic Career		
Any Semester		
34 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
In addition to completion of the required coursework, students must submit a final project. [b]		
	Hours	**0**
First Year		
Fall		
TBM:5000	Translational Biomedical Research	3
TBM:5001	Introduction to Translational Biomedicine	3
TBM:5002	Critical Thinking and Communication: Study Design and Commercialization	1
EPID:4400	Epidemiology I: Principles	3
	Hours	**10**
Spring		
TBM:5000	Translational Biomedical Research	3
TBM:5003	Critical Thinking and Communication: Scientific Writing and Presentation Strategies	1
BIOS:4120	Introduction to Biostatistics	3
EPID:6950	Clinical Research Ethics	2
	Hours	**9**
Second Year		
Fall		
TBM:5004	Critical Thinking and Communication: Career Development and the Funding Process	1
BIOS:5120 or EPID:5241	Regression Modeling and ANOVA in the Health Sciences or Statistical Methods in Epidemiology	3 - 4
Elective course [c]		3 - 4
	Hours	**7-9**
Spring		
TBM:5000	Translational Biomedical Research	3
TBM:5005	Critical Thinking and Communication: Leadership, Team Science, and Community Engagement	1
Elective course [c]		3
	Hours	**7**
	Total Hours	**33-35**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Complete one of the following formats: a complete grant application (K01, K08, K23, R01, R03, R21, or VA career award) or an original research manuscript (>2500 words) of published or in-publishable quality for a peer-reviewed journal. Additional requirements apply.

c Elective coursework pertinent to educational goals and background may be selected from specific lists in Biostatistics, Device Development, Drug Discovery, Epidemiology, Genetics, Informatics, Innovation, and Neuroscience. Program administration approval required for other courses.

Transportation Planning

Director, School of Planning and Public Affairs

- Haifeng Qian

Coordinators, Transportation Planning

- Bogdan Kapatsila, Abbi Castle

Graduate certificate: transportation planning

Faculty: https://sppa.uiowa.edu/faculty-staff

Website: https://sppa.uiowa.edu/

Transportation is vital to modern society. The United States, like other nations, faces many critical transportation problems and issues. The highway system is reaching an advanced stage of its life cycle, transportation finance is unsustainable, public transit operating deficits are growing, the quality of transportation available to many citizens is unacceptably low, serious inequities exist between transportation modes, and extensive changes are called for in traditional transportation institutions. New approaches to financing the nation's road system are badly needed.

Transportation engineers and planners draw on a number of skills to respond to the challenges they face. They must analyze and forecast the movement of people and goods within and between cities; identify effective and efficient means for providing desired transportation services; price these services properly; and evaluate the impact that transportation changes have on land use, environmental quality, economic activity, the local or regional economy, and various subgroups within society.

The graduate Certificate in Transportation Planning is designed for:

- practitioners in planning, engineering, and other fields who want to increase their transportation planning expertise; and
- graduate students at the University of Iowa or other institutions with an interest in the field.

The Certificate in Transportation Planning is coordinated by the School of Planning and Public Affairs [p. 1785].

Programs

Graduate Program of Study

- Certificate in Transportation Planning [p. 1814]

Transportation Planning, Graduate Certificate

Requirements

The graduate Certificate in Transportation Planning requires 12 s.h. of credit.

In order to cover the variety of topics needed for professionals in transportation planning, the certificate curriculum includes transportation planning history, policy, analytic methods, and the relationship between travel, city form, and urban design. For the capstone course, students undertake a real-world transportation project in collaboration with a community partner through the Iowa Initiative for Sustainable Communities.

The first course in the certificate program introduces students to the fundamentals of urban planning history, theory, and the symbiotic relationship between transportation systems, urban form, and sustainability. Elective courses deepen knowledge through specialization in areas of policy, travel behavior analysis, and traffic safety. Students complete the capstone project as their last course to earn the certificate.

The certificate may be completed in one calendar year or completed over a two-year span if students complete one transportation course per semester. This option accommodates part-time students and those currently enrolled in a two-year master's degree program at the University of Iowa.

Courses are taught primarily in hybrid or online formats. Some elective courses are offered on campus only. Courses are taught by faculty members in the School of Planning and Public Affairs and the College of Public Health.

The Certificate in Transportation Planning requires the following work.

Required Coursework

Course #	Title	Hours
This course (completed first):		
URP:6266	Transportation, Urban Form, and Sustainability	3
Two of these:		
URP:4262	Transportation Research Methods and Analysis	3
URP:6233	Public Finance and Budgeting	3
URP:6260	Transportation Policy and Planning	3
CPH:4220	Global Road Safety	3
One of these:		
URP:6210	Sustainable Communities Lab II (with advisor approval)	3
URP:6270	Transportation Planning Studio	3

Master of Science in urban and regional planning students may apply to the certificate program through the Graduate College. See Planning and Public Affairs [p. 1785] in the catalog for information about graduate study and degree requirements in the school.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Transportation Planning, Graduate Certificate

Course	Title	Hours
Academic Career		
Any Semester		
The graduate certificate in transportation planning requires 12 s.h. of credit.		
	Hours	**0**
First Year		
Fall		
URP:6266	Transportation, Urban Form, and Sustainability	3
	Hours	**3**
Spring		
Certificate: transportation planning elective course [a]		3
	Hours	**3**
Second Year		
Spring		
Certificate: transportation planning elective course [a]		3
	Hours	**3**
Summer		
URP:6210 or URP:6270	Sustainable Communities Lab II or Transportation Planning Studio	3
	Hours	**3**
	Total Hours	**12**

a Students must complete two courses from URP:4262, URP:6233, URP:6260, CPH:4220. These courses are all typically offered only in spring semesters.

College of Law

Dean

- Todd E. Pettys

Associate Deans

- Carin N. Crain, Emily A. Hughes, Daria Fisher Page, Jason Rantanen, Adrien K. Wing

Assistant Dean

- Collins B. Byrd

Director, Law Library

- Carissa J. Vogel

Undergraduate certificate: human rights

Professional degrees: JD; LLM; MSL; SJD

Faculty: https://law.uiowa.edu/faculty-and-scholarship/meet-our-faculty

Website: https://law.uiowa.edu

The University of Iowa College of Law is the oldest law school west of the Mississippi River. Founded in 1865 as the Iowa Law School, the college is a charter member of the American Association of Law Schools and an American Bar Association-approved law school.

The College of Law is part of Iowa City's unique cultural community. Students, faculty, and staff work together in a friendly, relaxed, and productive environment that puts students' needs first.

Iowa's challenging law school curriculum carefully balances substantive courses, perspective offerings, examination of ethical values and professionalism, and experiential programs, including a highly active in-house legal clinic. The college's low student-to-faculty ratio and the faculty's open-door policy ensure that students have opportunities for interaction and collaboration with their law professors.

The college's writing program—one of the strongest among law schools nationwide—is integral to all students' academic experience. During both semesters of their first year, students take a small-section course in legal analysis, writing, and research. During the second and third years, they complete four additional writing units. Among opportunities for completing the writing requirement is to work on one of the law school's four student-run scholarly journals: *Iowa Law Review; Journal of Corporation Law; Journal of Gender, Race & Justice;* and *Transnational Law & Contemporary Problems*.

Programs

Undergraduate Program of Study

- Certificate in Human Rights (under University of Iowa Center for Human Rights [p. 1839])

Professional Programs of Study

- Juris Doctor [p. 1833]
- Master of Laws [p. 1836]
- Master of Studies in Law [p. 1837]

The Master of Studies in Law program is not accepting graduate students at this time.

- Doctor of Juridical Science [p. 1838]

Facilities

Facilities and Resources

Boyd Law Building

The Willard L. Boyd Law Building exemplifies Iowa's continuing commitment to legal education and the legal profession. The building's large, circular structure reflects the special character of the Iowa law school and allows the college to operate in a physical environment in which every square foot of space is designed to promote the college's academic and professional programs.

Among the building's facilities are classrooms, the Levitt Auditorium, the Law Library; faculty and administrative offices, offices for the college's cocurricular programs, meeting rooms, and a bookstore. The first floor features the Lauridsen Family Law Commons, a renovation project completed in 2016. This space provides ample areas for studying, including two conference rooms, two seminar rooms, and the Court Café. The third floor of the Boyd Law Building is where the college's clinical law programs are located. This suite functions as a teaching law firm, offering ease of access, usability, and visibility.

Law Library

The centerpiece of the Boyd Law Building is the University of Iowa Law Library. The Law Library has one of the most comprehensive collections of legal materials in the country, containing more than 1.4 million separately cataloged titles. A particular strength of the library is its collection of U.S. legal materials. The Law Library also holds an exceptionally strong collection of materials in foreign, comparative, and international law, including a print collection comprising more than 280,000 volumes and over 1,500 serials and subscriptions.

Research Centers and Programs

Participation in research centers and outreach programs is an important part of the College of Law's service to professional and civic communities.

Iowa Innovation, Business and Law Center

The Iowa Innovation, Business and Law Center is an interdisciplinary teaching and research venture that brings together faculty members who teach and study problems of business, technology, innovation, regulation, and legal policy from diverse perspectives. The center's purpose is twofold: first, it offers an innovative curriculum and outstanding legal training in areas pertaining to government regulation of entrepreneurship, innovation, and management of resources; second, it encourages creative individual and collaborative interdisciplinary research in these areas.

Labor Center

The University of Iowa Labor Center provides educational programs and research support to Iowa's working people and their organizations. Since 1951, the Labor Center has acted as a bridge between the university and Iowa's labor community.

Larned A. Waterman Iowa Nonprofit Resource Center

The Larned A. Waterman Iowa Nonprofit Resource Center offers information and assistance from across the University of Iowa to help Iowa's charitable nonprofit organizations become more effective in building their communities.

Law, Health Policy and Disability Center

The Law, Health Policy and Disability Center is a leader in law, technology, education, and research focused on improving the quality of life for persons living with disabilities. Based at the University of Iowa College of Law, the center concentrates on public policy and its impact on persons with disabilities, emphasizing employment, self-determination, and self-sufficiency.

National Health Law and Policy Resource Center

The National Health Law and Policy Resource Center, founded in 1981, promotes laws and public policies that foster and facilitate accessible, affordable, and quality health services and related services for all Americans, particularly members of vulnerable and disadvantaged populations. The center provides a nonpartisan forum for informed dialogue between academics, practitioners, and public policymakers based on the best available data and information about important health law and policy issues.

University of Iowa Center for Human Rights

The University of Iowa Center for Human Rights was founded in 1999 as an outgrowth of the university's year-long commemoration celebrating the 50th anniversary of the Universal Declaration of Human Rights. Based in the College of Law, the center engages in human rights teaching, scholarship, and public engagement.

Courses

- Law Courses [p. 1816]
- Law Study Abroad Courses [p. 1831]

The following courses are those offered by the College of Law during the past four academic years and those scheduled to be offered during the coming academic year. See Courses and Curriculum on the College of Law website for a list of College of Law courses defined by Interpretation 509-1 of the American Bar Association Standards for the Approval of Law Schools.

Law Courses

LAW:1010 Introduction to the Legal System and Practice **3 s.h.**
Initial study of law and legal reasoning; introduces the nature and function of rules/law, the distinctiveness of legal reasoning, and some basic kinds of law; broad level overview of legal profession, including both criminal and civil proceedings; general foundation for those interested in considering law school or for those whom basic legal knowledge will enhance their career aspirations. GE: Social Sciences.

LAW:4800 Undergraduate Clinical Law Internship Program **arr.**
Students learn about law school experience and legal careers through intensive training in a range of lawyering skills and collaboration with teams of law students on actual client matters; students enrolled in the Center for Environmental Law and Policy work with law students representing a nonprofit or other entity using nonlitigation means to advance social or economic justice; students enrolled in the Federal Criminal Defense Clinic work as investigators with law students representing indigent criminal defendants in the Northern District of Iowa; involves weekly seminars and team supervision, biweekly undergraduate supervision meetings.

LAW:8006 Civil Procedure **4 s.h.**
Procedure before trial; commencement of a suit; subject matter jurisdiction; jurisdiction over the person and venue; pleadings, motion practice, including summary judgment, simple joinder of parties and claims in determining scope and size of the lawsuit; pretrial discovery procedures, the trial, claim and issue preclusion.

LAW:8010 Constitutional Law I **3 s.h.**
Constitutional allocation of governmental powers; doctrine of judicial review and nature of judicial function in constitutional cases; relationships among several branches of national government; the federal system, including powers delegated to national government, powers reserved to states, and intergovernmental immunities; role of judicial process in structuring limits within which society operates; institutional development of legal system, relationship among institutions within the system.

LAW:8017 Contracts **4 s.h.**
Law that governs the otherwise unregulated sector of the economy and concerns the making and enforcement of promises, usually as part of a bargain; basics-formation of agreements, consideration, invalidating causes, parol evidence and interpretation, conditions, remedies; roles of promises and promissory exchanges in a modern economy; limitations the law places on freedom of contract.

LAW:8022 Criminal Law **3 s.h.**
Basic understanding of substantive criminal law; underlying premises of and justifications for criminal law; emphasis on general doctrines that dictate the minimum elements necessary to impose criminal liability, essential requirements of culpable conduct (an *actus reus*, or guilty act), blameworthy mental state (a *mens rea* or guilty mind); rape, homicide, causation, attempt, conspiracy, accomplice liability; various defenses to criminality, such as self-defense, duress, intoxication, insanity, diminished capacity.

LAW:8026 Introduction to Law and Legal Reasoning **1 s.h.**
Basic concepts and intellectual skills necessary for understanding the first-year curriculum.

LAW:8027 Introduction to Legal Theory and Perspectives on the Law **1 s.h.**
Introduction to foundational legal theories and perspectives on the law necessary for understanding the law and law school curriculum.

LAW:8028 Advanced Bar Preparation **3 s.h.**
Extended bar preparation for third-year law students that supplements regular bar exam course; provides strong conceptual understanding of the most highly tested principles of law across three or four subjects; flexible and robust analytical framework to solve bar exam problems from multiple choice to essay questions; preparation to learn skills to study for bar exam following law school graduation.

LAW:8032 Legal Analysis Writing and Research I 2 s.h.
Structured development of effective skills in legal analysis, writing, and research; first of a two-semester sequence.

LAW:8033 Legal Analysis Writing and Research II 3 s.h.
Structured development of effective skills in legal analysis, writing, and research; second of a two-semester sequence. Prerequisites: LAW:8032.

LAW:8037 Property 4 s.h.
Concept of private property as one of legal system's basic foundations; development of Anglo-American property law with changing currents of economic, social, political thought; understanding decision-making by courts in common-law tradition, legislative enactments; origins of property rights; possession and ownership; capacity of property law to recognize a wide range of interest configurations; ease and reliability in conveyance of property interests commercially, gratuitously; function of public recording; role of adverse possession, long-standing property relationships; responsiveness of property law to social change illustrated by modern reforms in landlord-tenant act.

LAW:8046 Torts 4 s.h.
Development of tort principles; civil responsibility for harms to tangible personal and property interests; roles of legislatures, judges, juries; intentional harms, negligence, and strict liability considered from perspectives of jurisprudence, economics, and moral philosophy.

LAW:8105 Administrative Law 3 s.h.
Formal and informal procedures, processes, and functions of state and federal administrative agencies; legislative, executive, and judicial control of their actions; nature and definition of administrative agencies; permissible delegation of authority to administrative agencies; scope of agency authority; agencies' right to obtain information from members of the public; citizens' right to obtain information in agencies' possession; definition and types of administrative rules; rule-making procedure; agency discretion to make law by rule or adjudication; right to a trial-type hearing before an agency; parties' specific rights in an administrative hearing, including notice, open or closed hearing, right to counsel, evidence, nature and exclusivity of the record; agency decision-making process, including role of hearing officers, separation of functions and bias of decision makers, nature of opinion required; judicial review of administrative action, including reviewability of agency action, primary jurisdiction of agencies, exhaustion of administrative remedies, standing, scope of judicial review, mechanics of judicial review.

LAW:8121 Advanced Legal Research Methods in Specialized Subjects 1 s.h.
Legal research methods in specific legal practice and research areas; specific topic rotates each year (litigation and ADR legal research, business and tax legal research, federal legislative history legal research, legal history research); students work with real-world examples to improve research skills related to a particular legal subject.

LAW:8123 Advanced Legal Research 2 s.h.
Builds on LAW:8032 and LAW:8033; in-depth exploration of American legal resources; current print and electronic resources that help students develop better, more efficient search techniques and select the most effective formats for their research; opportunity to review the basic sources of legal information, use varied techniques to access legal information, develop personal strategies for managing information; advanced training in LEXIS, WESTLAW, the internet; nonlegal information sources important to the legal community.

LAW:8124 Legal Research in Practice 2 s.h.
Introduction to legal research methods and resources utilized in the practice of law. Prepares students to effectively and efficiently perform legal research in both print and electronic resources, evaluate information for relevancy, and apply/utilize it in a simulated client environment. Prerequisites: LAW:8033.

LAW:8125 State Legal Research 1 s.h.
Legal resources available for a particular state; exploration of current print and electronic resources, particularly low-cost electronic resources such as FastCase and the internet are explored for purposes of developing better, more efficient search techniques; selection of the most effective formats for research; sources of legal information; techniques for accessing legal information.

LAW:8146 Antitrust Law 3 s.h.
Laws dealing with restraints of trade, monopolization and mergers; history of these laws and their development in the courts; current doctrine and its underlying legal and economic theories; analytical tools of trade: sufficiency of economic efficiency as the measure of justice.

LAW:8153 Applied Evidence 2 s.h.
Opportunities to apply the rules of evidence; use of mock case problems presenting evidentiary issues that attorneys in real practice would address by filing motions in limine; students are enabled to more fully comprehend the reasoning and rationale behind the rules, and appreciate the intricacies of applying the rules to a set of facts; focus on pretrial evidentiary litigation and specific rules of evidence. Prerequisites: LAW:8460.

LAW:8158 Arbitration Principles and Practice 2-3 s.h.
Introduction to law of arbitration and essential skills and procedures involved in its practice; role of arbitration in modern conflict resolution in various settings in which it is used; conceptual framework and explanatory theories for analysis of issues frequently encountered in arbitration; statutory and contractual grounds for arbitration (e.g., labor relations, employment, consumer and commercial transactions); development of skills and understanding of procedure through use of problems and exercises simulating common arbitration scenarios in which students participate as lawyers, arbitrators, and parties.

LAW:8162 Art and Entertainment Law 3 s.h.
Issues affecting creative artists, financiers, producers, other participants in the world of theater, print publishing, motion pictures, television, music, and fine arts; emphasis on the doctrine of droit moral, including the federal Visual Artist's Rights Act and American courts' treatment of the moral rights; cases involving artistic control, credit and billing, grant of privacy and publicity rights, and sound-alike performers.

LAW:8164 Art, Law, and Ethics 3 s.h.
How law and ethics apply to individuals and institutions concerned with visual arts. Same as MUSM:4045.

LAW:8166 Art Law and the Business of Art 2 s.h.
Overview of significant legal, ethical, and business issues in the art market.

LAW:8186 Bankruptcy 3-4 s.h.
Students study the rights of individuals and entities under the federal bankruptcy laws from the perspective of both debtors and creditors; there are three types of bankruptcy proceedings—liquidation bankruptcy for consumers and businesses (Chapter 7), consumer reorganization, known as "wage earner's plans" (Chapter 13), and business reorganization (Chapter 11); students survey foundational topics relevant to all these forms of bankruptcy—in general, equal weight given to both consumer and business bankruptcies; attention given to some of the intricacies of business reorganizations towards the end of the course.

LAW:8187 Debtor-Creditor Law 4 s.h.
Introduction to federal bankruptcy law, debtors' rights and creditors' remedies under state and federal law, and secured transactions under the Uniform Commercial Code. Specific topics of study include how to enforce secured and unsecured debts outside of bankruptcy and the ways in which a bankruptcy filing alters debtor-creditor relationships.

LAW:8189 Banking Law 2 s.h.
Overview of various bank and nonbank financial institutions (including national banks and state banks) and federal regulation of these institutions; examination of goals and policies behind bank and nonbank financial institution regulations to determine whether these goals and policies are achieved by the regulations; attention given to recent developments in regulation of bank and nonbank financial institutions.

LAW:8194 Basic Federal Income Taxation 3-4 s.h.
Operation, policies, principles of federal income tax, including gross income, deductions, property dispositions, tax accounting, assignment of income among family members, time value of money, leveraging.

LAW:8216 Civil Procedure in Pre-Trial Theory and Practice arr.
The law of pleadings and other pretrial matters presented in LAW:8006; hypothetical case developed from interview to pleading to early pretrial stages; experience drafting relevant pleadings and motions. Prerequisites: LAW:8006.

LAW:8224 Client Counseling 1-2 s.h.
Immersion in practice skills fundamental to any attorney-client relationship—interviewing and counseling; exploration of critical unseen factors which impact interviewing and counseling (e.g., self-awareness, cultural competence, bias, beliefs about the role of the lawyer in an attorney-client relationship); introduction and critique of three models of representation including traditional or regnant lawyering, client-centered lawyering, and rebellious or democratic lawyering.

LAW:8230 Commercial Leasing 3 s.h.
Commercial leasing is perhaps the most important part of the real estate business, and more lawyers practice in the area of commercial leasing than any other real estate area; focus on legal doctrine and foundational skills related to a commercial leasing legal practice. Prerequisites: LAW:8017 and LAW:8037.

LAW:8237 Comparative Corporate Governance 2 s.h.
Today's global economy has resulted in a proliferation of multi-national corporations, where frequently the parent corporation is governed by the law of one country, and one or more subsidiaries are governed by the laws of other countries; comparative assessment of advantages and disadvantages to incorporating in a particular country; focus on corporations considering mergers, acquisitions, or joint ventures with corporations outside of their own jurisdiction; and consideration of reasons why a corporation might form a subsidiary under the law of another jurisdiction.

LAW:8241 Comparative Constitutional Law 2-3 s.h.
Comparative focus on the United States Constitution with particular emphasis on the Constitution of France and the freedom of expression in areas such as libel law, hate speech, and more; suitably tailored writing component to help students master course material while also improving their own expressive abilities.

LAW:8242 Cross-Border Discovery 2 s.h.
With increased globalization, transnational civil litigation is part and parcel of civil litigation practice for U.S. lawyers; explore cross-border civil discovery in disputes involving private parties. Prerequisites: LAW:8006.

LAW:8243 Comparative Criminal Law arr.
Comparative study of issues in British and American criminal law; focus on the right of silence/right against self-incrimination in the two countries; historical origins and recent development of these rights in Britain and America with emphasis on the practical application of the rights; effect of capacity and age on the exercise of the rights; prosecution's obligation of disclosure and discovery; confessions; and the admissibility of evidence.

LAW:8263 Comparative Law 2-3 s.h.
Comparative study of origins, development, and principal features of the world's main legal systems; common and civil law traditions; historical development of the main legal systems, their sources, ideologies, techniques; subjects important to international legal practice (e.g., international judicial assistance, application of foreign law in American courts; in-depth study of modern legal systems of the United States, Britain, France, Germany, Japan, Russia; introduction to other legal traditions, including preliterate tribal law, traditional Chinese and Islamic law.

LAW:8265 English Law and Literature 2-5 s.h.
Exploration of relationships between English law and English literature at historical, practical, imaginative, and theoretical levels; students read novels, short stories, plays, poems, and nonfiction works—the earliest piece written by Geoffrey Chaucer in 1387 and most recent piece written by a barrister working in London in 2018; selections intended to provide a diverse cross-section of English literary writings that engage with and are shaped by English law.

LAW:8266 English and European Legal History 2 s.h.
Introduction to English and European legal history; exploration of historical anthropology of law, and, in particular, how written law evolved from custom; development of a single European legal order (medieval England); law of marriage, sexual relations, property and women's rights in comparative perspective; continental and English law.

LAW:8267 English Law and Literature II 1 s.h.
Advanced topics in English law and literature to be taught during the London Law Program; for students who have previously completed the LAW:8265. Prerequisites: LAW:8265.

LAW:8272 Conflict of Laws 2-3 s.h.
Examination of legal problems created when a transaction or relationship has associations with more than one state or nation; students examine questions of judicial jurisdiction (which state's or nation's courts should hear a case?), choice of law (which state's or nation's laws should determine the outcome of a case?), and enforcement of judgments (when will a state or nation enforce the judicial judgments of a different state or nation?).

LAW:8278 First Amendment: Freedom of Expression and Religion 3 s.h.
Examination of the First Amendment's legal protections for freedom of expression and religion; students pursue topics at greater depth than possible in required constitutional law courses; topics include historical roots of these freedoms to current controversies over their scope (i.e., regulation of online misinformation about public health and elections, or whether religious objectors should have exemptions from antidiscrimination laws).

LAW:8280 Constitutional Law II 3 s.h.
Limits on governmental power imposed by the national constitution for protection of individuals; protection of life, liberty, and property by due process and equal protection; freedom of expression and association; religious freedom and the guarantee against establishment of religion; 1st and 14th Amendments.

LAW:8288 Consumer Finance Law 2-3 s.h.
Consumer spending drives the economy; system of consumer finance—the way in which consumers consumption is financed; focus on empirical state of household finances, psychology and sociology of consumer finance, business of consumer finance, and regulation and political economy of consumer finance.

LAW:8301 Copyrights 3-4 s.h.
Federal law of copyrights, primarily the Copyright Act of 1976; emphasis on copyright protections affecting new technologies, such as videotape, computer hardware and software, electronic data transfer, cable television rebroadcast; ability of legal concepts to keep pace with technological developments. Recommendations: LAW:8643.

LAW:8307 Corporate Finance 1-3 s.h.
Introduction to fundamental principles of corporate finance, including financial statement analysis, valuation of corporate securities and of businesses, capital structure decisions, portfolio theory, and efficient capital markets hypothesis; focus on financial and accounting aspects of corporate decisions than with any particular body of law. Prerequisites: LAW:8331.

LAW:8309 Principles of Corporate Finance 1 s.h.
Fundamental concepts of corporate finance and accounting as accepted by the courts and applied in matters relating to securities regulation and disputes arising from mergers and acquisitions: cash versus accrual accounting; how to read and interpret schedules and disclosures contained in a company's balance sheet, income statement, and statement of cash flows; how to interpret and apply various financial ratios derived from a company's financial statements; how to understand, calculate, and apply net present value principles to evaluate investment opportunities; how to calculate equity values using the CapM equation.

LAW:8312 Foundations of Corporate Law 1 s.h.
Corporate law and theory. Topics include the structure and characteristics of both large publicly and closely held corporations, corporate governance, fiduciary duties, and basic principles of agency.

LAW:8318 Corporate Governance and Control 1-4 s.h.
Principal issues in creation of appropriate governance and control systems for large publicly held corporations; questions of corporate structure, shareholder voting rights, duties of directors, derivative suits, indemnification and transfers of control viewed from perspective of Delaware's statutory and common law. Recommendations: LAW:8331.

LAW:8320 Corporate and Partnership Taxation 4 s.h.
Introduction to the federal tax treatment of business entities, analysis of statutory and regulatory materials, and discussion of significant business tax reform proposals. Prerequisites: LAW:8194.

LAW:8322 Corporate Taxation arr.
Influence of tax considerations on the structure of corporate transaction, from a merger to a restructuring to a securities offering; examination of primary Internal Revenue Code provisions that affect corporations and their shareholders; corporate formations, dividends, redemptions, liquidations, taxable asset and stock acquisitions, tax-free reorganizations; analysis of statutory and regulatory materials; tax reform proposals. Prerequisites: LAW:8194. Corequisites: LAW:8331.

LAW:8325 Role of In-House Counsel 3 s.h.
The role of in-house counsel sits at the intersection of law, business, technology, and policy. Explore how in-house lawyers add value as strategic advisors and business partners; focus on developing and honing essential lawyering skills crucial for effective and ethical in-house practice.

LAW:8329 Comparative Criminal Procedure 2 s.h.
Study abroad program.

LAW:8331 Business Associations 3-4 s.h.
Structure, characteristics of both large publicly and closely held corporations; distribution of powers among management, directors, shareholders; fiduciary duties that limit those powers; enforcement of such duties by shareholder suits; may include basic principles of agency, partnership, and limited partnership law.

LAW:8335 Artificial Intelligence, Law, and Business 1,3 s.h.
Exploration of the convergence of artificial intelligence (AI), law, and business. Topics include AI technology and development; domestic and international rules and standards; privacy, compliance, and cybersecurity issues; AI’s role in organizational management and behavior; business and finance uses of AI; and practical tools and skills for the business attorney.

LAW:8342 Topics in Criminal Law Practice 1-3 s.h.
Substantive and procedural aspects of criminal law not covered in regular College of Law criminal law and criminal procedure courses; topics vary. Prerequisites: LAW:8022.

LAW:8343 Topics in Criminal Law Practice II 1-3 s.h.
Substantive and procedural aspects of criminal law not covered in regular College of Law criminal law and criminal procedure courses; topics vary. Prerequisites: LAW:8022.

LAW:8348 Criminal Procedure: Adjudication 3-4 s.h.
Adjudicatory phases of the criminal justice system: indictments and the charging process, preliminary hearings, applications for release on bail and pretrial detention, processes of discovery, guilty pleas, jury selection, conduct of criminal trials, sentencing proceedings and post-trial motions, appellate review, collateral remedies; focus on constitutional rights, specifically the Fifth, Sixth, Eighth, and Fourteenth Amendments; statutory provisions, rules of criminal procedure.

LAW:8350 Criminal Procedure: Investigation 3-4 s.h.
Guarantees and rights of the Fourth, Fifth, and Sixth Amendments to the U.S. Constitution against police and prosecutorial practices designed to investigate and prove criminal cases; protection against unreasonable searches and seizures, guarantee against extraction of involuntary confessions, privilege against self-incrimination constraints upon securing confessions (i.e., *Miranda* doctrine), due process protection against unreliably suggestive identification procedures, right to counsel, protection against inculpatory admissions and identification practices; exclusionary rules and remedies that enforce constitutional guarantees.

LAW:8362 Critical Race Theory arr.
Race relations and racial discrimination in America from perspectives of the Critical Race Theory movement (CRT); affirmative action, hate speech, queer theory, voting rights, postmodernism, liberalism, Asian-critical theory, Latin-critical theory, federal Indian law, critical white studies; critical race feminism—essentialism, motherhood, lawbreaking, employment law, sexual harassment, global issues.

LAW:8373 Secured Transactions 3 s.h.
Article 9 of the Uniform Commercial Code; establishment and perfection of security interests pursuant to credit sales contracts; problems focusing on the interface between Article 9 and federal bankruptcy law, Article 9 and real property security; priority disputes among collateral claimants; rules related to default and rights after default; emphasis on developing an understanding of and facility with a code-based statutory scheme.

LAW:8392 Youth Law and Juvenile Courts 3 s.h.
Examine the criminal legal system, juvenile courts, and their impact on youth.

LAW:8399 Election Law 3 s.h.
The Supreme Court has long declared that the right to vote is fundamental, because it is preservative of all other rights; the right to vote in theory and practice, with focus on its relationship to racial and economic justice; what has been done and what should be done to move us closer to the ideal of political equality; proper role of unelected judges in our democracy; history of the right to vote, "one person, one vote" principle, Voting Rights Act, partisan gerrymandering, voter identification, voter registration, political parties, and campaign finance.

LAW:8415 Employment Discrimination 2-3 s.h.
Legal prohibitions against discrimination in employment on the basis of race, sex, national origin, age; focus on Title VII of the Civil Rights Act of 1964; procedural and remedial problems, elementary issues of proof.

LAW:8421 Employment Law 3-4 s.h.
Legal rights of employers and employees in private workplaces that do not have unions—which is more than 90% of work settings; hiring, minimum wage, independent contractors, termination, workplace privacy, employment-related intellectual property issues, covenants not to compete, occupational safety and health, and unemployment eligibility set into a context of historical origins, new developments, and contemporary trends.

LAW:8423 ERISA: The Basics 2 s.h.
Fundamental requirements, plans and programs covered by the Employee Retirement Income Security Act of 1974 (ERISA) as amended; for students who are interested in employee benefit plans and roles of the Internal Revenue Service (IRS), U.S. Department of Labor, U.S. Government Accountability Office, and Pension Benefit Guaranty Corporation in the regulation of ERISA.

LAW:8428 British Legal System 1-2 s.h.
Taught in London Law Consortium.

LAW:8433 Environmental Law 2-3 s.h.
Role of the legal system in addressing problems of environmental disruption, with special emphasis on air, water, hazardous waste pollution.

LAW:8434 Wildlife and Habitat Conservation Law 1 s.h.
Introduction to the law of species and habitat protection, focusing on animals and plants located in the Macbride Nature Recreation Area, managed by UI WILD.

LAW:8436 Energy Law and Policy 3 s.h.
Introduction to law and policy of energy generation, transmission, and distribution; focus on public utility regulation, energy efficiency and renewable energy mandates, wholesale and retail electricity markets.

LAW:8437 Environmental Disaster Law and Policy 3 s.h.
Introduction to law and policy of environmental disasters, including climate change; complex web of United States laws related to prevention, mitigation, response, and recovery from "natural" disasters.

LAW:8438 Nuclear Energy Law and the Environment 3-4 s.h.
Explore the legal, technical, and policy requirements for the licensing of nuclear power plants and nuclear waste facilities in the United States; critically evaluate existing environmental, safety, and health (ESH) requirements.

LAW:8439 Disaster Response and Recovery 2 s.h.
Law and professional skills necessary to effectively implement federal, state, and local laws designed to save lives, infrastructure, housing, and businesses when a disaster strikes. Corequisites: LAW:8437, if not taken as a prerequisite.

LAW:8453 European Union Business and Competition/ Antitrust Law 2-3 s.h.
Introduction to European Union Business Law; provides an introduction to the European Union's (EU) political and constitutional structure; observes the internal market in goods, workers, establishment, and capital (the so-called four freedoms) as the internal market impacts trade within the EU and non-EU members such as the United States; focuses on the competition/antitrust of the EU with comparisons to U.S. law.

LAW:8456 Survey of Iowa Law 3 s.h.
Survey of Iowa law; Iowa constitutional law, torts, criminal law, and other subjects; students gain an appreciation of unique aspects of Iowa law as well as exposure to common areas of law that attorneys practicing in Iowa are likely to encounter; may involve guest lectures from practitioners, judges, elected officials, or other visitors.

LAW:8460 Evidence 3-4 s.h.
Rules of evidence developed in common-law courts and under statutes; judicial notice; examination of witnesses; privilege and competence; remote and prejudicial evidence; hearsay; burden of proof and presumptions; roles of judge and jury.

LAW:8467 Family Law 3-4 s.h.
Creation, dissolution of marriage and parent-child relationships; lawyer's practical approach to family law problems combined with a broader view of how the law might treat those problems in light of findings from social and behavioral sciences.

LAW:8481 Federal Courts 3-4 s.h.
Role of the federal courts in our federal system of government; the federal courts' original and appellate jurisdiction; Supreme Court review of state courts' judgments; Congress' power to strip the federal courts of jurisdiction; development of federal common law; federal writ of habeas corpus; abstention doctrines; state sovereign immunity; federal remedies against state and local action; and Congress' power to create non-Article III adjudicative tribunals. Prerequisites: LAW:8006 and LAW:8010.

LAW:8497 Federal Criminal Practice 2 s.h.
Introduction to each step in the criminal process together with instruction in advocacy skills required for the effective practice of law; complete chronology of a typical federal criminal case, from grand jury investigation through post-trial motions; importance of strategic thinking. Prerequisites: LAW:8350.

LAW:8498 Federal Sentencing Advocacy 1-2 s.h.
Examination of federal sentencing scheme and procedures; application to a mock criminal case from which students draft a sentencing memoranda and present mock oral sentencing arguments to instructor; effective written and oral advocacy in federal sentencing proceedings.

LAW:8504 Corporate Crimes 1-3 s.h.
Introduction to corporate criminal law; black letter doctrines of corporate liability and sentencing; Department of Justice policies and practices that shape the course of corporate prosecutions; criminal statutes that are of frequent concern for corporations, including those that address false claims, securities fraud, bribery, and mail and wire fraud; developments occurring in this evolving area of law.

LAW:8513 Foreign Comparative and International Legal Research 1-2 s.h.
Treaty research, locating and identifying documents from international organizations and tribunals, legal research in selected jurisdictions outside the United States; variety of print and electronic sources; research methods in foreign and international law.

LAW:8558 Genetics and the Law 3 s.h.
Introduction to legal issues raised by genetic and genomic technologies; genetic privacy, uses and abuses of genetic testing, prenatal diagnosis, mandatory screening, genetic discrimination, regulation of genetic research, DNA banking, research on stored tissue samples, ownership of genetic material and information, and provision of genetic services including informed consent, disclosure, and duties to family members at risk for genetic disease.

LAW:8562 Health Law 2-3 s.h.
Major areas of concern in health law; tension between quality, access, costs; may include malpractice, quality control, health care financing, access (insurance, Medicare, and Medicaid), licensing, bioethics (end-of-life decisions, informed consent, surrogacy, organ transplantation).

LAW:8566 Health Care Financing and Delivery 2-3 s.h.
Major areas of concern in health law with focus on health care financing and delivery, health care organizations, fraud and abuse, and antitrust.

LAW:8567 Health Care Quality and Regulation 3 s.h.
Major areas of concern in health law with focus on quality and patient experiences; tension between quality, access, and costs; may include malpractice, quality control, licensing, and bioethics (i.e., end-of-life decisions, informed consent, surrogacy, organ transplantation).

LAW:8570 Human Rights in the World Community 1-3 s.h.
Introduction to established and developing legal rules, procedures, and enforcement mechanisms that govern protection of international human rights; liberal western and developing world notions of human rights, recent examples of human rights controversies worldwide; international human rights of women.

LAW:8572 International Human Rights Law and Practice 3 s.h.
Introduction to the foundations of international human rights law, institutions, and practice. Consider the historical and theoretical roots of the contemporary human rights system and critiques from a variety of ideological perspectives. Examine how human rights are enforced at the international and regional levels, with special attention paid to the domestic application of human rights law, including within the United States.

LAW:8573 Business and Human Rights 3 s.h.
Exploring how to assess lawyers' and their clients' conduct and the risks of involvement in adverse human rights impacts based on the American Bar Association's 2024 resolution. Corequisites: LAW:8572 or LAW:8649 or LAW:8570 or LAW:8575.

LAW:8575 Seminar: Approaches to Human Rights 3 s.h.
Engagement with historical events, philosophical narratives, legal cases, institutional reports, lived experiences, and theoretical works to study origins, functions, and history of the discourse on human rights; application of a systems thinking framework to events involving treatment of women, Indigenous peoples, disabled persons, racial and ethnic groups, and other disempowered social groups across cultures and throughout history; examination of writings that attempted to explain key historical events and ideas relevant to human rights. Same as RELS:6710.

LAW:8577 Immigration Law and Policy 1-3 s.h.
Legal, historical, social, philosophical, and policy foundations of immigration control; modern debate over immigration; criteria and procedures that govern admission of non-U.S. citizens to the United States for permanent residence and temporary visits; deportation criteria and processes; national security and civil liberties implications of immigration policy; refugees and political asylum; undocumented migrants; acquisition, loss, and significance of U.S. citizenship; focus on U.S. law with introduction to perspectives from comparative and international law; experience analyzing varied fact problems that require strategic decision-making and interpretation of complex statutory provisions.

LAW:8584 Insurance Law 1-3 s.h.
State regulation of insurance, adverse selection and moral hazard, risk classification and rate regulation, and insurance contracts; emphasis on life, long-term care, and disability insurance; may include health insurance, reinsurance, and other types of insurance; focus on social and economic underpinnings of insurance.

LAW:8593 Federal Indian Law arr.
Specialized body of law allocating power and authority in Indian country that has grown up around native American peoples and their reservations; sovereignty, jurisdiction, federal Indian policy, tribal self-government.

LAW:8594 Interest-Based Negotiation for Lawyers 2-3 s.h.
Theory and practice of an approach to negotiation, known as interest-based or problem-solving negotiation; focus of this negotiation model is not on positions of disputants, but interests that underlie these positions; interest-based negotiators attempts to generate options that satisfy, at least minimally, interest of all parties and can lead agreements from which all parties realize some gains; emphasis on acquisition and enhancement of skills necessary to apply this negotiation approach; in-class exercises. Requirements: no prior enrollment in LAW:8720.

LAW:8600 International Business Transactions 1-3 s.h.
Legal and practical issues in international trade and investment; typical private transactions, such as the sale of goods (documentary sales transaction, INCOTERMS, letters of credit, agency, distribution), transfer of technology (franchising, licensing), and direct investment across national borders; how private international sales, investment, and licensing transactions are structured to permit private businesses to minimize and plan for the risks associated with conducting business on a global scale.

LAW:8615 International Commercial Arbitration arr.
Formation and enforcement of agreements to enter arbitration in order to settle international business disputes; process of arbitrating an international business dispute; recognition and enforcement of arbitral awards.

LAW:8622 International Environmental Law 3 s.h.
Laws and institutions developed by the international community to deal with international environmental problems, including those of the atmosphere (acid rain, ozone depletion, radioactive fallout, climate change), hydrosphere (land-based sea pollution, sea-based vessel pollution, transboundary groundwater diversion), lithosphere (hazardous waste disposal, toxic pollutants, decertification), biosphere (driftnet fishing, endangered elephants, loss of tropical rainforests).

LAW:8629 Taxation of International Business Transactions 2-3 s.h.
Introduction to United States aspects of international taxation and international tax policy issues; how the U.S. taxes foreign persons on income they derive from U.S. sources; taxation of U.S. persons on their worldwide income; U.S. bilateral tax treaty network under which many of the statutory rules regarding the taxation of foreigners are modified or supplanted; solving problems that illustrate the operation of the Code and regulations. Prerequisites: LAW:8194.

LAW:8631 International Trade Law: Basic Norms and Regulations 3 s.h.
Basic norms and legal framework of international trade as expressed in the GATT/WTO regime and U.S. trade laws; issues raised by regional trade blocs such as NAFTA; controversies such as the economic and philosophical justifications for, and objections to, free trade from a variety of perspectives.

LAW:8643 Introduction to Intellectual Property 1,3-4 s.h.
Introduction to some of the most important intellectual property rules; goals and theories underlying these rules; common ways in which ideas may be protected—from basic form of protection (secrecy and trace secrecy) to exclusive rights granted over inventions (patents) and creative works (copyright), and concluding with rights related to market-based identities (trade and service marks); brief exploration of ways in which debates over intellectual property rights have permeated modern culture.

LAW:8644 Information Privacy Law 3 s.h.
Every day when we go about the world, we share bits of data about us. Who can amass that data, who can use it, and for what ends? Introduction to information privacy law and policy; law of information privacy; students address statutory, common law, regulatory, and constitutional provisions that determine how governments and private actors collect, store, process, and use information.

LAW:8646 Quantitative Reasoning for Lawyers 3 s.h.
Introduction to quantitative concepts and methods that have become increasingly valuable in legal practice. Explore these concepts through their application to a variety of legal contexts such as employment discrimination, trademark infringement, jury selection, policing, the death penalty, and antitrust to provide students with the skills necessary to engage in quantitative reasoning and to become informed and critical consumers of quantitative evidence.

LAW:8648 IP Challenges in Tech Startups 1 s.h.
In the tech startup world, the in-house counsel's role is an ever-changing landscape of fires to put out with limited time and limited resources, like how to guide the company in licensing its IP; how to handle internal issues that affect external dynamics with customers; and what approach to take in negotiation and strategy as the business evolves and the goal posts move. Students directly engage in exercises that present real-life situations in tech startups.

LAW:8649 Foundations of International Law 1-3 s.h.
Introduction to fundamentals of international law; focus on aspects of international law that concern interests in the United States; survey of sources, methodology, and major doctrines of international law within framework of understanding diverse jurisprudential approaches; international law's relationship to U.S. domestic law and institutions; procedural aspects of international law involving international institutions, including the International Court of Justice; foundation course for students interested in international trade, business, family law, human rights, environmental law, and an interest in European Union law.

LAW:8653 Juries and Jury Selection 1 s.h.
Examines the law and professional skills regarding juries and jury selection. Topics include legal issues arising in jury selection and trial advocacy in the context of jury selection.

LAW:8655 Survey of Legal Advocacy 1 s.h.
Explores how the form and manner of advocacy and persuasion changes based on the legal context and the decision-maker. What may be persuasive before a jury may not be as persuasive before a panel of appellate judges or before a district judge. The ability to advocate changes depending on context; explore how attorneys can and should alter their manner and means of advocacy depending on the context and the decision-maker.

LAW:8658 Jurisprudence 2-3 s.h.
Exploration of questions central to jurisprudence by looking at positions that have been adopted by legal positivist, natural law theory, and sociological models of jurisprudence (i.e., is there more to legal argument than the strategic battle for a favorable judicial ruling? How would one have to conceive of legal reasoning if one were a judge? Are there right answers to legal questions? Do they presuppose a necessary connection between law and morality? Is any exchange of pros and cons merely a spectacle created in order to hide from the dumbfounded public that legal reasoning does not really matter?); comparative dimension provided in readings with background in civil law.

LAW:8660 Justice101 1-3 s.h.
Immersive course on Fourth Amendment rights; students are equipped with tools necessary to teach Justice101 curriculum to the community-at-large with a goal to increase student and community awareness of what is allowed and prohibited during different types of contact with law enforcement; focus on changes in power dynamics in four situations where interactions are most likely to occur—walking in the street, traveling in a vehicle, at school, and at home.

LAW:8670 Labor Law 3-4 s.h.
How national labor law regulates labor relations in the private sector; law relating to unionized employees and firms; right of employees to organize into unions; limits of concerted activities by employees; scope and provisions of collective bargaining; enforcement of the collective bargaining agreement; rights of individual employees in collective units and in labor organizations; lawyer's role in dealing with judicial, administrative, and arbitral tribunals involved in enforcing labor law; lawyer's role in complex interrelationships between policy, statute, judicial, and administrative decisions.

LAW:8673 Land Use 2-3 s.h.
The developed environment as an outcome of legal and political choices; how people should live together; how to regulate and control future use of land; the resulting legal regime and its implications on equity, freedom, sustainability, and daily life. Prerequisites: LAW:8037. Requirements: closed to students who have taken LAW:8796.

LAW:8675 Civil Discourse 1 s.h.
Communication skills needed to engage in civil discourse, including a mix of casebook readings, scholarly articles, and books related to developing skills in navigating difficult conversations with people who hold different views on important topics.

LAW:8676 Public Speaking Lab for Lawyers 2 s.h.
Consider ways to develop clear, persuasive, and informative presentations, and deliver those presentations with comfort and confidence. .

LAW:8677 Accounting, Tax, and Business Considerations for Lawyers 1-3 s.h.
Accounting, tax, and business considerations for lawyers and why these are important considerations for lawyers; changes occurring in today's business models; discussions on choosing a legal structure for a business; financial statements basics, detailed example of a financial statement, and discussion on accounting basics expanded; advanced topics in accounting to allow some background on these topics.

LAW:8680 Law and Economics arr.
Introduction to economics analysis of law; how economic reasoning is used to explain and predict the effects of legal rules; fundamental areas of American law (e.g., property, contracts, torts, criminal law); use of economic efficiency as a normative criterion for evaluating legal rules; efficiency compared to various moral concepts to evaluate such rules.

LAW:8698 Law in the Muslim World 2-3 s.h.
International and comparative law issues relevant to countries in the Muslim world; legal cultures, institutions, rules, actors, processes of several jurisdictions including Afghanistan, Saudi Arabia, Iran, Iraq, Algeria, Nigeria, Palestine, Pakistan; Islamic sharia law as practiced in Sunni and Shiite countries; the role of church versus state, fundamentalism versus secularism, as manifested in the legal system; tension between communitarianism and individualism in modern constitutionalism; intertwining of customary and religious legal practices; first, second, and third generations of human rights; international law on issues such as terrorism, self-determination; women's rights, including polygamy, divorce, child custody, inheritance.

LAW:8709 Introduction to French Law 1-3 s.h.
Introduction to laws of France, characteristic features, and role of main institutions; civil law, contacts, tort, family law, commercial law, criminal law, labor law; visits to a French law school, Paris Court, and Ecole of Magistrature National (ENM), the National Judge School in Bordeaux. Summer abroad program.

LAW:8712 Legislation 2-3 s.h.
Issues related to legislation and legislative process; introduction to legislation, legislative process, legislative advocacy, statutory interpretation, and statutory drafting; students gain an understanding of the role of lawyers in legislative process and formation of public policy.

LAW:8720 Mediation: Theory and Practice 2-4 s.h.
Essential characteristics; comparison of mediation with litigation and other alternative dispute resolution processes; stages of mediation; confidentiality; enforceability of agreement; ethical problems, particularly lawyer-mediator; student role playing; short writing assignments.

LAW:8726 Mergers and Acquisitions 3 s.h.
Significant legal and financial aspects of business combination transactions; transaction documents (e.g., stock purchase agreements, asset purchase agreements, merger agreements); valuation of companies and pricing of deals; legal and financial considerations affecting the structuring of deals; tender offers and their regulation under the Williams Act, tender offer rules; fiduciary duties of target board, including Revlon duties and the Unocal standard; anti-takeover devices (e.g., poison pills and staggered boards, deal protection devices, freezeout transactions); state anti-takeover statutes. Prerequisites: LAW:8331.

LAW:8728 Start-Up and Emerging Companies 3 s.h.
Exposure to myriad legal issues and obstacles faced by start-ups and emerging companies and the lawyers who represent them.

LAW:8742 Negotiations 1-3 s.h.
Nature and theory of negotiations, diverse rhetorics (including the rhetoric of legal argument) relevant to conduct of negotiations, conflict between ethics and effectiveness; readings from game theory, social psychology, anthropology, rhetoric and ethics.

LAW:8743 Negotiation Theory 1 s.h.
Explore negotiation theory in large and small group sessions. Large group sessions address key negotiation topics, such as distributive bargaining; integrative bargaining; legal ethics; cognitive biases; and culture, gender, and race. Small group sessions address these topics in the context of different practice areas, depending on the faculty member leading the small group session.

LAW:8745 Dispute Resolution 3 s.h.
Methods of dispute resolution in civil cases, including negotiation, mediation, and arbitration. Selection of a dispute resolution process is now mandatory in some jurisdictions. Examine different types of dispute resolution mechanisms, the legal framework for these processes, and skills and techniques lawyers use when advocating for clients and neutrals may employ in resolving disputes. Prerequisites: LAW:8006 and LAW:8017. Requirements: closed to students who have already taken or are currently enrolled in LAW:8720, LAW:8594, or LAW:8158.

LAW:8753 Nonprofit Organizations: Structure, Governance, and Strategy 3 s.h.
Focused examination of internal operations of nonprofit organizations; introduction to historical conditions that generated an incredible expansion of diverse and complex organizations that make up the nonprofit sector in the U.S., as well as a multitude of contemporary, real-world obstacles and opportunities leaders and managers navigate within their organizations; topics include issues of accountability, board governance, budgeting, financial management, leadership, strategic planning, taxation, and more; what is a nonprofit organization and what makes a nonprofit organization effective; development of valuable skills necessary to improve the performance of nonprofit organizations.

LAW:8755 Nonprofit Organizations: Advocacy, Collaboration, and Fundraising 3 s.h.
Broad overview of the role nonprofit organizations play in building and enhancing communities; focused examination of the external operations of these organizations; students explore numerous threads that connect nonprofit organizations to outside individuals and entities and are presented with a multitude of contemporary, real-world obstacles and opportunities that leaders and managers navigate outside their organizations; topics focus on issues of advocacy, government relations, fundraising, leadership, marketing, partnerships, public relations, volunteerism, and more.

LAW:8763 Patent Law 2-4 s.h.
All aspects of U.S. patent law; patent claims, adequacy of disclosure, statutory subject matter, validity, inequitable conduct, infringement, remedies, varied specialized doctrines; focus on recent pronouncements from the Court of Appeals for the Federal Circuit. Recommendations: LAW:8643.

LAW:8791 Professional Responsibility 2-3 s.h.
Inquire into the public and private professional responsibility of lawyers as informed by the American Bar Association's Model Rules for Professional Conduct (the template for nearly every state bar's ethics rules) and by other areas of substantive law touching on the legal profession. Examine the convergence and divergence of personal values, professional values, and ethical and professional standards, in order to apply them to professional dilemmas and conflicts.

LAW:8793 Products Liability 2-3 s.h.
General survey of the sources, development, and limits of American laws providing compensation for injuries caused by defective products. Prerequisites: LAW:8017 and LAW:8046.

LAW:8796 Property II 3 s.h.
Continuation of LAW:8037; limits on landowner's use of property by private agreements, judicial actions, public regulations; problem areas (servitudes, nuisance, eminent domain); constitutional limits on government activities adversely affecting private property, community planning, zoning, other forms of local land use control; discrimination related to land development, housing; effectiveness of private ordering, judicial decisions, legislative enactments, administrative processes for resolving conflicts over use of land resources; relationships between law and other disciplines in forging solutions to land use issues; law as instrument for achieving societal objectives regarding land use.

LAW:8798 Real Estate Transactions 3 s.h.
Examination of acquisition, financing, and development of real estate; topics include listing agreements, purchase agreements, conveyancing, real estate finance and security instruments, foreclosure, mechanics' liens, and forms of real estate development, including homeowners/condominium associations and other kinds of common interest communities.

LAW:8800 Issues in Mass Media Law 3 s.h.
Selected topics in mass media law, focusing especially on the media’s role as a disseminator of news. Addresses the tension between freedom of the press and competing interests in privacy, reputation, emotional integrity, and public safety. Examines liability for invasion of privacy, libel, the right of publicity, legal restrictions on newsgathering, access to the media, restrictions on indecency and incitement, and special rules applying to internet publications. Requirements: closed to students who have taken LAW:9829.

LAW:8819 Judicial Remedies 3 s.h.
The law of remedies is the working tool kit for civil litigators, offering various ways to redress a given wrong; remedies to be examined include compensatory damages, injunctive orders, restitution, declaratory judgment, contempt, garnishment, asset tracing, punitive damages, and methods to preserve assets before judgment; cases are drawn from diverse substantive fields, including tort, contract, intellectual property, civil rights, administrative, antitrust, attorneys' fees, and constitutional law.

LAW:8856 Securities Regulation arr.
Examination of law regulating the issuance and sale of securities (i.e., stocks, bonds, other investment vehicles) in the United States; topics include initial public offerings (IPOs), regulation of stock exchanges, private placements of stock, securities fraud litigation, and insider trading law; relevant statutes are the Securities Act of 1933 and the Securities Exchange Act of 1934. Corequisites: LAW:8331.

LAW:8857 Market Regulation 3 s.h.
Examination of how capital markets are regulated; primary emphasis on secondary markets which trade on national stock exchanges, rather than on primary market activity such as initial public offerings (IPOs). Prerequisites: LAW:8331.

LAW:8877 Sex-Based Discrimination 2-3 s.h.
Survey of sex-based discrimination and legal responses in the United States and worldwide; American context—constitutional guarantees and various statutory guarantees, including Title VII of the Civil Rights Act of 1964 and Title IX of the Education Amendments of 1972; global context—examination of various regions of the world, emphasis on France, South Africa, and countries with majority Muslim populations; issues involving customary law, affirmative action/quotas, and constitutional reform.

LAW:8879 Sports Law 2-3 s.h.
Various legal issues relating to the structure and operation of amateur and professional sports industries; topics include labor law and collective bargaining in professional sports, history and status of collective bargaining efforts by college athletes, antitrust law as applied to professional and intercollegiate sports, the NCAA enforcement process, Title IX as applied to intercollegiate sports, the NCAA principle of amateurism and legal challenges, representation of professional athletes and negotiation of sports contracts.

LAW:8880 Baseball Salary Arbitration 1-3 s.h.
Major league baseball salary arbitration process that sports agents, attorneys, and team executives participate in, presided over by panels of lawyer arbitrators; students develop written and oral advocacy skills while participating in mock salary arbitration hearings; three students are chosen to represent the UI College of Law at the Tulane University Law School International Baseball Arbitration Competition in mid-January.

LAW:8881 College Athletics Infractions Process 1-2 s.h.
Moot court competition involving college athletics rules violations; the National Collegiate Athletic Association (NCAA) processes major rules infractions (e.g., recruiting violations) through a hearing process that is similar to an administrative law proceeding; NCAA infractions process; participation in mock hearings.

LAW:8891 State and Local Taxation 2-3 s.h.
Limitations on state taxing powers under the United States Constitution, including Commerce, Due Process, and Privileges and Immunities Clauses; subnational jurisdictions, particularly states with an emphasis on sales tax and corporate income taxes, gross receipts taxes, and excise taxes; issues relating to ecommerce.

LAW:8929 Taxation of Partnerships 2-3 s.h.
Introduction to federal tax treatment of partnerships and limited liability companies, the most common business entities in use in the United States today; classification of entities as partnerships for federal tax purposes; formation of partnership and subsequent contributions to partnership capital; flow-through tax treatment of partnership operations; tax-sensitive allocations of items of partnership income, deduction, credit and loss; partnership distributions and related tax-sheltering strategies, liquidation or sale of partnership interests; death or retirement of partners, tax treatment of partnerships compared with S corporations. Prerequisites: LAW:8194.

LAW:8935 National Security Law 3 s.h.
Surveys several key areas of law and government institutions involved in "national security" with a focus on counterterrorism. Topics include intelligence and surveillance law, domestic national security-related criminal law, domestic and international law related to detention and interrogation, and ongoing and historic debates over domestic terrorism, encryption, and compelled decryption.

LAW:8938 Technology in Law Practice 2 s.h.
Introduction to selected technologies that affect modern law practice including cloud computing, document preparation tools and techniques, e-discovery tools and issues, practice management, professional responsibility concerns, legal project management, courtroom technology, and legal research analytics.

LAW:8954 Trademarks and Unfair Competition Law 2-3 s.h.
Law of unfair competition with primary emphasis on trademarks; subjects include policies underlying unfair competition law, creation and establishment of trademark and trademark-like rights, enforcement of those rights, non-trademark concepts of false advertising, rights in one's persona, and the intersection of the First Amendment and trademark law; practical aspects of trademarks including mechanics of the federal registration process; for students who have an interest in trademark and unfair competition law, both specifically and as part of a broader business law practice.

LAW:8981 Trusts and Estates I 1-4 s.h.
Law of succession and trusts; topics include policy basis of inheritance and the changing character of intergenerational wealth transfer; intestate succession; the requirements for executing and revoking wills; the rise of will substitutes; spousal protection against disinheritance; the creation, modification, and termination of trusts; the particular rules applicable to charitable trusts; the fiduciary duties of trustees; the nature of a beneficiary's interest in trust, the range of the trustee's discretion, and the rights of a beneficiary's creditors; recurring construction problems and pitfalls in drafting.

LAW:8987 Veterans Benefits Law 2-3 s.h.
Theory of veterans' benefits law and introduction to skills necessary to represent veteran clients at every stage of the U.S. Department of Veterans Affairs (VA) adjudication process; how many veterans struggle to navigate the complex VA benefits system without assistance of counsel; law that governs administration and adjudication of these benefits; fundamental law of VA claims adjudication process; dispute resolution and federal agency litigation practice; what is required to effectively represent veterans in their appeals for much needed benefits.

LAW:8992 Water Law arr.
Legal schemes for securing and using water rights in surface water and groundwater for private and public uses in the United States; riparian and prior appropriation doctrines of water allocation, groundwater management regimes, federal water management and regulation, and interstate and transboundary allocation devices; evolving role of science, economics, and policy in water allocation law; does not address issues of water quality, which are covered in environmental law.

LAW:8993 Water Quality and Pollution Control Law 3 s.h.
Overview of environmental laws enacted to protect the integrity and quality of water. Examines existing federal statutes.

LAW:9010 Appellate Advocacy I 1 s.h.
Experience based on an assigned fictitious case: writing an appellate brief asserting the client's position, and arguing the case before a panel of students, faculty, community attorneys. Prerequisites: LAW:8032 and LAW:8033. Requirements: closed to students who have taken LAW:9012.

LAW:9011 Client-Centered Public Defense Advocacy 1-3 s.h.
Introduction to core elements of court-appointed representation in criminal courts.

LAW:9012 Advanced Appellate Advocacy 2-3 s.h.
Continuation of argument and advocacy skills introduced in LAW:8033. Prerequisites: LAW:8033. Requirements: closed to students who have taken LAW:9010.

LAW:9021 Van Oosterhout Baskerville Moot Court Competition 1 s.h.
Single-elimination tournament culminating in the final four advocates arguing before a panel of judges; advocates write a portion of the brief, argue for and against the issue they briefed. Prerequisites: LAW:9010.

LAW:9028 Jessup Moot Court Competition Team 1-2 s.h.
Participation as team member in Jessup International Moot Court Competition; preparation of memorials in fall, travel to February regional rounds; travel to international competition in Washington, D.C., for top two teams. Prerequisites: LAW:9010.

LAW:9033 National Moot Court Competition Team 1 s.h.
Participation by third-year students as law school's representatives in the National Moot Court Competition. Requirements: placement as one of four finalists in LAW:9021.

LAW:9034 National Moot Court Tutorial 2 s.h.
For students participating in the National Moot Court competition; provides a problem and a substantial record, which provide basis for appellate brief and oral argument competition; integrates teaching of substantive law with development of oral and written advocacy skills in preparation and application for the national competition.

LAW:9037 Advanced Moot Court Competition Team 1 s.h.
Advanced Moot court team; members are top advocates from previous year's Van Oosterhout/Baskerville competition. Fall of third year.

LAW:9038 Jessup International Moot Court Competition 1 s.h.
Participation by second-year students in intramural regional- and national-level moot court competition in international law; intensive criticism in appellate brief writing and oral argument. Prerequisites: LAW:9010.

LAW:9041 Vis International Moot Court 1-3 s.h.
Participation for up to four students in the Vis International Moot Court, an annual international moot competition concerning international commercial arbitration under the Vienna Convention on the International Sale of Goods (CISG); under close supervision of instructor, students prepare two briefs, one for the claimant and one for the respondent, are mooted repeatedly by instructor and practicing attorneys (often alumni of the competition), and then participate in multiple rounds of moot court competition in the United States and, ultimately, either Hong Kong or Vienna. Recommendations: one course in international arbitration or international business transactions.

LAW:9046 Moot Court Board 1-3 s.h.
Experience as member of the Moot Court Board administering the Appellate Advocacy Program, researching appellate cases used in the program, judging appellate arguments. Requirements: membership based on performance in LAW:9010.

LAW:9055 Jury Focus Groups 1 s.h.
Role of the jury in civil and criminal court systems; how lawyers can use jury focus groups to learn more about their cases.

LAW:9060 Trial Advocacy 1-2 s.h.
Opportunities to develop and refine skills used in preparation and trial of civil and criminal cases; students are "on their feet" during most class sessions, practicing the arts of voir dire, opening statement, direct and cross examination, introduction of exhibits, use of expert testimony, and closing argument; the course culminates with a full-scale trial, from filing of pretrial motions to rendering of a jury verdict conducted by student co-counsel; students receive extensive criticism on the effectiveness of their classroom and final performances, and all class sessions are frequently recorded for review and critiqued by instructors and fellow students. Prerequisites: LAW:8460.

LAW:9061 Advanced Trial Advocacy - Stephenson Competition 1-2 s.h.
Review and expansion of topics presented in the initial trial advocacy course; preparation and application of these principles in the Stephenson trials; introduction to additional advanced problems such as the evidentiary issues raised in the trial problem. Corequisites: LAW:9060.

LAW:9062 Trial Advocacy Board 1-2 s.h.
Administration of Trial Advocacy Program and Stephenson Competition; research and writing in connection with trial problems and readings used in program; critique of performances of trial problems. Prerequisites: LAW:8460 and LAW:9060.

LAW:9066 Stephenson Trial Advocacy Team arr.
Student participation as College of Law representatives in Stephenson Trial Advocacy Competition. Prerequisites: LAW:9061.

LAW:9115 Law Review 1-2 s.h.
Performance of substantive tasks to produce a first-rate scholarly journal; writing a substantial note; comprehensive legal research experience; analysis of complex legal issues with enhanced critical-reasoning skills and command of the legal standard, The Bluebook citation system; selection of students that transfer to UI College of Law after their first year and rising second-year students is based on the Write-On Competition.

LAW:9118 Student Journal Editor - Law Review arr.
Experience on the *Iowa Law Review* editorial staff: managing production, overseeing business operations, administering student writing program, selecting and editing articles for publication, supervising student research and writing. Eligibility based on previous writing for the journal. Prerequisites: LAW:9115.

LAW:9124 Journal of Corporation Law 1-2 s.h.
Experience editing articles and writing commentaries for *The Journal of Corporation Law*, a student-operated scholarly publication that examines subjects of current importance to businesses and the bar.

LAW:9127 Student Journal Editor - Journal of Corporate Law arr.
Experience on *The Journal of Corporation Law* editorial staff: managing production, overseeing business operations, administering student writing program, selecting and editing articles for publication, supervising student research and writing. Eligibility based on previous writing for the journal. Prerequisites: LAW:9124.

LAW:9142 Transnational Law and Contemporary Problems Journal 1-2 s.h.
Experience researching and writing on issues in international and comparative law for the journal *Transnational Law & Contemporary Problems*. Requirements: second- or third-year law standing.

LAW:9145 Student Journal Editor - TLCP Journal arr.
Experience researching, writing, and editing on issues in international and comparative law for the journal *Transnational Law & Contemporary Problems*. Requirements: second- or third-year law standing.

LAW:9163 Journal of Gender, Race and Justice 1-2 s.h.
Academic year experience on *The Journal of Gender, Race & Justice:* writing two journal pieces, including a recent development and a note or a comment, and performing office duties. Requirements: second- or third-year law standing.

LAW:9166 Student Journal Editor - Gender, Race and Justice arr.
Experience on *The Journal of Gender, Race & Justice* editorial staff: managing student writing program, overseeing business operations and production, selecting symposium topic and participants, selecting and editing all publications pieces; eligibility based on writing and editing experience.

LAW:9302 Clinical Law Program: Internship arr.
Experience working directly with faculty members on cases and in-house program; full participation in interviewing, fact investigation, negotiation, courtroom proceedings.

LAW:9303 Advanced Clinical Law Internship arr.
Continued representation of a specific client or matter; or continued representation of clients in the practice group in which students worked their first semester, but with more ownership and greater independence; opportunity to serve as mentors to new clinical law internship students. Prerequisites: LAW:9302.

LAW:9310 Human Rights Initiative Clinic 6 s.h.
Work with partner organizations to preserve the basic guardrails for a free and fair society, supporting human rights defenders, journalists and others who experience repression based on the peaceful exercise of the rights to speech, association, and civic participation. Corequisites: LAW:8572.

LAW:9319 Poverty Law Practicum 4 s.h.
Provide opportunities to practice client interview and counseling skills, writing skills geared toward high-volume litigation, and oral and written advocacy, including an opportunity to represent clients in state small claims court.

LAW:9320 Field Placement: District of Columbia Program arr.
Students work closely with attorneys and enroll in a weekly seminar with other externs in the Washington, DC, area; through seminar and field work, students examine the role of attorneys in the nation's capital, witness the function of administrative agencies and the process of federal lawmaking, and engage in self-evaluation and reflection on field work.

LAW:9322 Field Placement: Judicial arr.
Close work with a federal district court judge or state appellate judge conducting research and drafting a wide variety of legal memoranda, orders, and opinions; assist in hearings and perform other duties generally associated with a judicial clerkship; weekly meetings with a faculty supervisor to discuss student's work in chambers; participation in biweekly classroom discussions.

LAW:9324 New York Pro Bono Scholars Program arr.
Students spend 12 weeks working full time in a pro bono placement while also completing an academic component at their law school; students are permitted to take the New York bar examination in February of their final year of study before they graduate; after successful completion of the program and any other graduation requirements, students are admitted to practice as soon as practicable after they receive their JD degree (typically in June).

LAW:9331 Field Placement: General arr.
Students earn credit working closely with attorneys in a wide range of placements; field placements designed so that students are directly involved in activities characteristically performed by attorneys in a real-world setting; some placements routinely offered and arranged by the law school, others by students and approved by faculty; some placements are local and students take them along with their other classes; other placements are full time, located across the country and around the world; in addition to fieldwork, students are enrolled in a seminar with other externs.

LAW:9332 Field Placement: Advanced arr.
Students appear in court, advise clients, or engage in other lawyering tasks; skills topics tailored to student interest and selected to cover material not explored in the general field placement course; students develop and and teach a class on a lawyering skill topic of their choice for the general field placement course.

LAW:9335 Summer Legal Placement 1-3 s.h.
Externship opportunities for direct involvement in activities characteristically performed by attorneys (e.g., research and writing, document drafting, client interviewing and counseling, fact investigation, negotiations, court appearances); in-depth exposure to as many facets of the actual practice of law as practicable in each externship.

LAW:9423 Tutorial arr.
Different types of pedagogical techniques.

LAW:9429 Intellectual Property Advocacy 1-4 s.h.
Integrates teaching of substantive intellectual property law with development of oral and written advocacy skills in intellectual property field; builds on earlier learning in preparation for practice of law.

LAW:9436 Sexuality and the Law 3 s.h.
The field of sexuality studies can cover everything from sexual knowledge, beliefs, attitudes, values, and behaviors of individuals to sexual cultures, identities, and communities; focus on social, economic, political, and cultural dimensions of sexuality.

LAW:9444 Tutorial for Foreign-Trained Lawyers 1 s.h.
Introduction to the legal system and legal educational system of the United States; particular emphasis on those aspects of the U.S. system that present a strong contrast with other countries' legal systems, whether from civil or common law traditions; for foreign-trained law students (LLM, JD, or SJD) who have not earned a U.S.-based JD or U.S.-based LLM degree that includes an introduction to U.S. law and legal system.

LAW:9455 Medical Tutorial for Law Students arr.
Participation on medical and/or surgical rounds under supervision of attending physician; didactic sessions on legal, medical, and ethical issues arising from the clinical experience, and issues such as peer review, credentialing, quality assurance, cost containment, AIDS, reproductive technology; recent developments in medical technologies. Cosponsored by Carver College of Medicine.

LAW:9460 SJD Tutorial 5 s.h.
Thesis work under supervision of Doctor of Juridical Science (SJD) committees; dissertation committee chairs conduct an irregular series of meetings to learn about and discuss issues common to research and writing of each thesis involved; students develop full thesis proposals and draft individual chapters; forum provided for workshopping student work and development of students' abilities to discuss and critique legal scholarship; for all SJD students during their two semesters of residency at the College of Law.

LAW:9473 Writing Tutorial arr.
Writing project on a subject or topical area specified by the supervising faculty member; group meetings; writing tutorial.

LAW:9478 Advanced Legal Writing: Writing Center 2 s.h.
Qualities of good legal writing including predictive, persuasive, and academic writing; how to teach those skills to others. Requirements: College of Law writing center tutor.

LAW:9486 Directed Research and Writing arr.
Research and writing project unrelated to any substantive course, supervised by a faculty member.

LAW:9490 Independent Research Project arr.
Work under faculty supervision; research.

LAW:9491 Independent Research and Writing arr.
Independent research and writing under thesis advisor/committee chair. Requirements: SJD enrollment.

LAW:9508 Environmental, Social, and Governance Basics 2-3 s.h.
By developing an awareness of Environmental, Social, and Governance (ESG) issues confronting society, students will be better positioned to advise a range of clients on a range of issues. Students will also be better prepared to draft a range of documents at the intersection of law and ESG, such as corporate disclosure documents, model legislation, and policy statements.

LAW:9509 Advanced Problems in International Environmental Law arr.
Research and writing seminar exploring selected topics that may be encountered in practice; topics vary.

LAW:9510 Climate Change Law and Policy 3 s.h.
Introduction to law and policy related to climate change; seminar readings provide an overview of laws and policies that seek to mitigate climate change and adapt to its effects; fundamentals of climate science including scientific knowledge regarding impacts of climate change and obstacles to effective communication about climate science; various private and public responses to climate change at local, state, federal, and international levels; exploration of different trends in climate change litigation.

LAW:9528 Advanced Topics in International Law arr.
Contemporary problems of public international law and policy; issues arising from armed conflict, use of force, pacific settlement of disputes; human rights law and policy (individual civil, political, economic, social, and cultural rights; group rights such as self-determination, development, environment, peace); trade and development; environmental law and policy (e.g., climate change, species extinction, pollution).

LAW:9545 Tax Policy 2-4 s.h.
Tools to evaluate existing and proposed changes to state and federal tax systems; evaluation of tax systems through numerous perspectives whether economic, philosophical, or comparative, depending on student interest; specific attention to tax policy proposals that command popular and congressional attention; students write a policy paper that evaluates a current tax policy proposal. Requirements: prior or concurrent enrollment in any tax course.

LAW:9554 Compliance, Ethics, and Risk Management arr.
Public and private organizations—including corporations, nonprofits, universities, and government agencies—are responsible for ensuring that their personnel comply with legal and regulatory requirements; organizations must find mechanisms to develop strategies and cultures of compliance; students develop an understanding of the field of organizational compliance and issues that compliance professionals are responsible for overseeing, establish a strong foundation in behavioral and traditional legal ethics, and develop persuasive arguments regarding strengths and weaknesses of compliance efforts undertaken by organizations. Corequisites: LAW:8331.

LAW:9556 Constitutional Theory: Originalism and Its Critics 3 s.h.
Originalism is ascendant, at least at the Supreme Court, but there is widespread disagreement about what originalism is, what it would require of judges, and whether originalist methods are justified; exploration of scholarship supporting different forms of originalism. Prerequisites: LAW:8010 or LAW:8280.

LAW:9558 Corporate Boards Seminar 2 s.h.
Simulation of seven meetings of a board of directors of a hypothetical company; students act as board members facing a discrete issue of corporate governance and take turns acting as chair of the board or as general counsel, leading the board of directors though a discussion of the issues; focus on the normal functioning of United States publicly listed companies, as well as on the duties of directors in times of crisis or significant change to the corporation. Prerequisites: LAW:8331 and (LAW:8307 or LAW:8309).

LAW:9573 Cultural Property/Heritage arr.
Concept of cultural property, measures for its protection, impact of these measures on the transfer of cultural items; traditional art and architecture, biological and fossil material, human remains; contexts in which issues have arisen, such as stolen cultural property, property acquired during armed conflict and in colonial settings, and property collected in the field or excavated; international, national, and state law, including UNESCO convention on illicit transfer of cultural property, U.S. Archaeological Resources Protection Act, Native American Graves Protection and Repatriation Act; how developing professional ethics codes affect the concept of cultural property.

LAW:9578 Electronic Surveillance Law 3-4 s.h.
Explore many of the electronic surveillance authorities and related privacy protections that exist in United States, including the Wiretap Act, Stored Communications Act, Pen Register Act, national security letter statutes, state statutes, and related topics like compelled decryption.

LAW:9582 Deals arr.
Economic structure of complex commercial transactions as memorialized in agreements including bank credit facilities, indentures, underwriting agreements, other documents governing equity financings and financings involving convertible or preferred securities, venture capital agreements, securitization documents, business combination agreements, joint venture and shareholders agreements, limited liability company operating agreements, project finance documents; commercial agreements and how sophisticated parties order their private relationships to achieve efficient results. Prerequisites: (LAW:8331 and LAW:8726) or LAW:8307.

LAW:9591 Family Law in the World Community arr.
Family law from a global perspective; treatment of family law problems in varied legal systems; application of international treaties and conventions to issues such as child custody, adoption and foster care, education and child labor, juvenile crime and punishment, child trafficking and exploitation, migrant and refugee children, child soldiers.

LAW:9630 Leadership in Higher Education 3 s.h.
Introduction to leadership in higher education; readings provide an overview of leadership skills needed to navigate some of the most pressing issues in higher education; students consider the role of professional schools operating within a larger university; discussion topics may include academic freedom, diversity/equity/inclusion, and intercollegiate athletics; assessment and development of individual leadership skills while analyzing policy questions associated with institutional responses to everyday decision-making and crisis management.

LAW:9631 Higher Education and the Law arr.
Introduction to the most pressing legal issues facing colleges and universities today: free speech on campus; academic freedom and tenure; diversity; student discipline; student privacy, safety, and well-being; Title IX; and intercollegiate athletics; a major goal is to consider the policy questions associated with institutional responses to these legal issues.

LAW:9635 Happiness and the Law 3-4 s.h.
Happiness, law, and public policy; lawyer and client relationship; how to be a happy lawyer; pedagogical mix of Socratic discussion of readings and experiential components through which students experiment with mindfulness techniques and constructing an actionable and personal career-life plan that takes into account themes explored; additional experiential exercises.

LAW:9639 History of Regulation of Smoking and Tobacco arr.
Regulation of smoking and tobacco use; history, beginning with 19th and early 20th centuries; state statutes and case law; OSHA, EPA, and FDA regulations; class action litigation, involvement of law firms in formulating tobacco company strategies, use of medical studies, economic history of the tobacco industry.

LAW:9641 Drug Use, Addiction, and the Law 3 s.h.
Focus on the ethical, philosophical, and policy issues that inform how the legal system addresses drug use and addiction; includes a mix of casebook readings and scholarly articles.

LAW:9645 Race, Class, and Education 2-3 s.h.
Education plays a crucial role in sustaining a democratic society, and as such, it is critical to understand and be able to critique legal and public policy choices that shape educational systems; exploration of issues of equity, access, and reform in American education, particularly as pertains to race and class.

LAW:9660 Twentieth-Century American Legal History 3 s.h.
Addresses major developments in American law, with a focus on three topics: freedom of expression and belief, immigration and citizenship, and civil rights. Situates legal developments within their social, cultural, and political contexts; considers the activities of a range of legal actors, from Supreme Court justices to social protest movements to ordinary citizens.

LAW:9681 Elder Law arr.
With the aging population, elder law has become one of the fastest growing areas of law practice; examination of legal, policy, and planning issues related to aging in America; topics include planning for incapacity, guardianship, end-of-life planning (advance medical directives), social security, Medicare and Medicaid, planning for catastrophic illness and long-term care, elder abuse and neglect; exploration of ethical issues dealing with elderly and adult children of elderly.

LAW:9701 International Criminal Law arr.
Available legal responses to ISIS; topics include the law of genocide, war crimes (including gender crimes), crimes against humanity, terrorism, human trafficking, money laundering, the International Criminal Court, and alternatives to prosecution including national truth commissions; strengths and weaknesses of international criminal law as a response to mass atrocity; practical considerations that limit and permit the effective functioning of this burgeoning legal experiment.

LAW:9708 International and Comparative Labor and Employment Law 2-3 s.h.
Survey of labor and employment laws and norms developed and promulgated by the International Labor Organization (ILO), the European Union, free trade agreements, and corporate codes; comparative focus on laws of the United States, Germany, and China—three leading world economies with vastly different labor and employment law systems; how to make informed questions, including to local counsel, when cross-border, employment-related legal issues are encountered; why countries have different systems of labor and employment protection despite the fact that they all try to solve similar problems; how the United States is, or is not, unique.

LAW:9723 Seminar on Islamic Law and Government 3 s.h.
Islamic legal and political legacy from formative period until modern time; critical analysis of logic and context of development; development of jurisprudential, legal, and political literature; overview of theories and practices of governance in Islam beginning with Caliphate system and ending with modern nation-state models. Same as RELS:6723.

LAW:9739 Topics in the Philosophy of Law arr.
Opportunity to explore certain questions in law and philosophy at greater depth; topics vary, ranging from foundational questions to issues with strong practical implications for public policy; readings specifically selected to fit topic area.

LAW:9759 Narrative and Law 3-4 s.h.
How arguments can be made more interesting and relevant by storytelling techniques, and how the portrayals of the law in literature have evolved over the years.

LAW:9770 Latinx and the Law 3 s.h.
Exploration of legal and theoretical issues relevant to Latina/o/x people in the United States; topics include role of law in defining Latinx identity, legal histories of Latinx subgroups (e.g., Mexican Americans, Puerto Ricans, Cuban Americans), legal regulation of language and accent, immigration and citizenship law, and antidiscrimination law.

LAW:9805 Hot Topics in Iowa Law and Legislation 3 s.h.
Exploration of recent developments and hot topics in Iowa state law, including recently passed legislation and legislation being considered by the Iowa legislature.

LAW:9820 The Law of Low-Wage Workers 3 s.h.
Exploration of how traditional labor and employment law might be insufficient to properly protect low-wage workers; focus on alternative representational institutions (e.g., worker centers) and the special role that federal, state, and local law enforcement agencies and attorneys general play in this area; special concerns of particular groups of low-wage workers (e.g., agriculture, meatpacking, the “gig” economy, households/domestic work); may include immigrant and prison labor. Prerequisites: LAW:8421 or LAW:8670 or LAW:8415.

LAW:9821 Law and Political Economy 3-5 s.h.
How law and lawyers contribute to the transformation of political and economic life.

LAW:9826 LLM Seminar arr.
Basic research and analytical methodologies for the international and comparative law fields; workshop approach to project proposals, drafts.

LAW:9829 Media Law 3 s.h.
Overview of law that applies to mass media, citizen media, and social media; how law has attempted to define "the Media," and how it has distinguished between distribution platforms in treatment of media rights and obligations; American press and notions of press freedom at time of founding; tracking evolution of law governing injuries inflicted by speakers beginning with common-law treatment of libel and slander to constitutionalization of those torts; examination of law that applies to various journalistic tools; problems of jurisdiction and choice of law posed by online news; examining market influence on content; comparing American system with other countries approaches to media law.

LAW:9830 Housing Law and Policy 3 s.h.
Examination of how housing laws and policies in this country have fallen short of realizing the Housing Act's lofty ideal; exploration of challenges and tradeoffs inherent in developing effective legal solutions to the housing crisis through class discussions and exercises, research papers, and moderated presentations by housing professionals—from community organizers to legal aid lawyers to real estate developers and public officials.

LAW:9831 Property and Race in U.S. History 3-4 s.h.
How property law and policy has reflected and shaped the treatment of different racialized groups in the United States; how this history affects property ownership and racial and economic status today; property considered narrowly (e.g., through probate, citizenship restrictions on land ownership, access to mortgages, and the Fair Housing Act) and broadly (e.g., through assertion of sovereign authority over territory and arguments that race itself is a form of property).

LAW:9834 Transportation Law and Policy 3-4 s.h.
Transportation plays an outsized and understudied role in day-to-day life, economy, and society; law plays a similarly vital and underappreciated role in determining transportation policy; introduction to the law and policy of transportation.

LAW:9858 Mass Tort Litigation 3 s.h.
Focus on the procedural and substantive issues raised by the explosion of product and enterprise liability in the context of mass injuries. Representative topics include the introduction to the topic of mass tort litigation, seminal cases, analytical frameworks for the handling and resolution of mass torts, general causation versus specific causation in toxic torts, and problems raised by heterogeneity of plaintiffs and their injuries. Prerequisites: LAW:8046.

LAW:9860 Inside-Out: Social Justice Issues and Critical Theory 2-4 s.h.
Use of Inside-Out model; law students (outside students) co-learn with incarcerated students (inside students) at the Iowa Medical and Classification Center (IMCC), also known as Oakdale, a medium security state prison and the site for the University of Iowa Liberal Arts Beyond Bars (UI LABB) program; analysis and discussion of current social justice issues through a critical legal theory lens (i.e., critical race theory, feminist legal theory, LatCrit, ClassCrits, queer theory, critical disability theory).

LAW:9861 Current Social Justice Issues and Critical Theory Perspectives 2-4 s.h.
Use of critical theories as a tool to examine current social justice issues; creation of a learning environment that adheres to the values of critical legal theories—which is non-hierarchical, values expression in all forms from a broad range of authors/creators, and disrupts traditional understanding of the classroom.

LAW:9863 Patent Prosecution Seminar 3-4 s.h.
Drafting seminar on patent application preparation and prosecution; student drafting exercises and presentations on advanced patent law topics; administrative rules and procedures governing practice before the U.S. Patent and Trademark Office; for students who plan to practice patent law. Prerequisites: LAW:8643 or LAW:8763.

LAW:9865 Intellectual Property Scholarship Seminar 3-4 s.h.
Exploration of major themes in intellectual property law scholarship through juxtaposition of classic and contemporary intellectual property law articles.

LAW:9871 Privacy Law and Technology 3-4 s.h.
We have become, wittingly or not, compulsive data makers; every day we shed reams of personal information that those who have an interest in empowering, monetizing, manipulating, or suppressing us are eager to acquire; this dynamic is redrawing the line between what it means for information to be private/public, personal/commercial, ours/theirs; privacy law and technology serves an interdisciplinary introduction to technologies, laws, and policies that shape how that information is collected, who has access to it, and what it can reveal about us; class sessions alternate between focusing on legal frameworks and the technologies they implicate.

LAW:9873 Contract Drafting Boot Camp 1 s.h.
Contracts are an essential part of the practice of law for transactional lawyers who draft contracts, and litigators who often argue about what contracts mean; introduction to the parts of a contract and the principles of contract drafting in a week-long intensive simulation; students consider doctrine, theory, skills, and ethics associated with contract drafting, and engage in multiple contract drafting exercises. Requirements: no prior, current, or future enrollment in LAW:9874.

LAW:9874 Principles of Contract Drafting 2-3 s.h.
Principles of drafting business contracts; focus on structure of contracts, how to draft each of the parts of a business contract, and how to translate the needs of the business into clear and understandable contractual language; examination of typical business contracts (e.g., nondisclosure agreements, letters of intent, purchase agreements, and other types of agreements); students complete drafting exercises and a series of larger contract drafting projects.

LAW:9875 Judicial Opinion Drafting 3 s.h.
Introduction to duties and responsibilities of judicial clerkships; writing bench memoranda and draft opinions at trial and appellate levels.

LAW:9882 Public Health Law arr.
Introduction to scope, function, and history of governmental activities and programs encompassed by public health regimes (primarily in the United States); legal and constitutional powers and duties of states to create prerequisites for health of population as a whole; limitations on exercise of that power to restrict individuals interests (inter alia) in liberty, autonomy, privacy, and property; tensions and conflicts that arise when collective action on behalf of public/common good constrains what the state deems to be acceptable risks triggered by actions of private individuals.

LAW:9886 Reconstruction and the Constitution arr.
After the Civil War, during Reconstruction, Congress enacted the 13th, 14th, and 15th Amendments that changed the constitutional course of the nation and took place during the period of most progressive reform in U.S. history; students address: How do these amendments fit together? Where did the language of these amendments come from? How did these relate to the Dred Scott case? How did this constitutional change occur? What was necessary for this reform to come about? What was necessary legally? What was necessary in terms of social context for this progressive reform to occur? How do these amendments relate to the Bill of Rights and the 17th Amendment for women's suffrage? Prerequisites: LAW:8010.

LAW:9912 Selected Issues in Family Law arr.
In-depth look at an issue or set of issues in family law; relevant cases, statutes, scholarship; class visits or on-the-job observations with community members who play roles in the family law process being examined.

LAW:9915 Reproductive Justice Seminar 3 s.h.
Introduces students to foundational concepts within reproductive justice and rights. Focus on legal and systemic oppressions that impact all aspects of reproductive decision-making, including the equally important rights to not have a child and to have a child. Emphasizes questions of how race, ethnicity, gender, sexual orientation, and socioeconomic status can affect reproductive decision-making and experiences.

LAW:9936 Selected Topics in Immigration Law arr.
Issues arising out of contemporary problems of immigration law and practice; topics may include immigration enforcement policy, draft immigration legislation, initiating representation, bond hearings, suppression/other motions practice, defensive asylum/related claims, appellate practice, "know your rights" counseling, establishing powers of attorney/other forms of legally binding substitute decision-making pertaining to family members/property/other assets, identifying and working with local resources/community organizations that can assist with or reinforce goals of individual client representation; may involve guest speakers/field trips to local nonprofits/ government agencies. Recommendations: no specialized knowledge of immigration law is presupposed and no prior immigration law courses required.

LAW:9950 SJD Continuous Enrollment 1 s.h.
Intended for SJD students working on their dissertation with no mandatory classes left to take; continuous registration is a College of Law policy and students should register for continuous registration only if they are not going to register for any other tuition and fee-assessing courses. Requirements: SJD enrollment, completion of required coursework, and promotion to candidacy.

LAW:9959 Supreme Court Seminar arr.
Supreme Court practice, procedure, jurisdiction; the art of opinion writing; in-depth analysis of cases on the court's pending docket; writing briefs, conducting research, conferencing cases, assigning and preparing opinions, and persuading colleagues; preparation of an opinion.

LAW:9965 Empirical Analysis of Crime and Criminal Justice Policy 3 s.h.
Selected readings of social science articles on criminal justice system; basic concepts needed to become educated consumers of empirical research in general.

LAW:9989 Litigation for Decarceration 2-3 s.h.
Analysis and discussion of recent criminal-legal reforms aimed at reducing the number of individuals who are imprisoned in the federal system.

LAW:9990 Wrongful Convictions and the American Criminal Justice System arr.
Over 300 innocent persons in the United States have been exonerated through DNA evidence after being convicted of crimes they did not commit since 1989; how wrongful convictions occur, how they are remedied, how future injustices can be prevented; introduction to criminal appeals and postconviction proceedings; examination of cases of wrongful convictions; common factors that contribute to conviction of innocent; challenges of proving innocence under statutory and constitutional law; how the system can be reformed to prevent wrongful convictions.

Law Study Abroad Courses

LWAB:8230 France Summer Program: Paris and Arcahon arr.
Intensive coursework in France taught by professors from Iowa and France; program begins in Paris where students visit courts and a law school with speakers including prominent judges and lawyers; students then travel to Arcachon for remainder of stay. Five-week courses in May and June.

LWAB:8825 London Law Program 1-3 s.h.
London Law Program is open to second- and third-year law students who spend ten days taking classes in the heart of London; students visit parliament, the UK supreme court, the Inns of Court, and attend a symposium at Oxford University as part of their coursework; each course offered includes a strong comparative dimension. Winter session.

LWAB:9223 Law Study Abroad at Catolica University arr.
Exchange student study at the University of Católica in Lisbon, Portugal.

LWAB:9226 Law Study Abroad at Radboud University Nijmegen arr.
Exchange student study at Radbound University in Nijmegen, Netherlands.

LWAB:9230 Law Study Abroad at Ewha Womens University arr.
Exchange student study at Ewha Womens University in Seoul, South Korea.

LWAB:9238 Law Study Abroad at National University Ireland arr.
Exchange student study at National University Ireland, Galway, Ireland.

LWAB:9242 Law Study Abroad at Pontifica Comillas University arr.
Exchange student study at Pontifica Comillas University, Madrid, Spain.

Juris Doctor, JD

The Juris Doctor (JD) is a professional degree awarded by the College of Law. The University of Iowa College of Law is approved by the Council of the Section of Legal Education and Admissions to the Bar of the American Bar Association.

The first year of the JD program offers the personal connection and attention students need to develop a strong intellectual foundation for legal thinking and writing. The College of Law has one of the lowest student-to-faculty ratios of any law school. Professors have an open-door policy, and they serve as models for the kind of highly collaborative, rigorously professional behavior that prepares students to serve as counselors to their clients. Students get intensive, individualized instruction from legal writing faculty; the College of Law is one of the few law schools in the nation with a full-time faculty dedicated solely to a student's growth as a legal writer.

In the second and third years, students focus on the areas of law that most interest them, drawing from a rich menu of mainstream, specialized, and clinical courses. Students have access to a wide array of experiential learning opportunities, including participating in moot court competitions; taking the lead with real clients through field placement and clinical law programs; and writing for one of the four student-run scholarly journals. The field placement program, in particular, provides a wide range of placements for students still in law school. Students have worked in U.S. District Courts, legal aid centers, federal public defenders' offices, and nongovernmental organizations (NGOs) around the world. Students also may add distinction to their résumés by participating in study abroad or exchange programs.

Details about applications and admission to the program are available on the College of Law website.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Cocurricular and Extracurricular Programs

Students enrich their course of study by participating in the college's cocurricular and extracurricular programs, which include Moot Court, the Trial Advocacy Program, and four student-produced journals.

Moot Court

In the Moot Court appellate advocacy programs, students draft appellate briefs, build expertise with citation form, develop research skills, and strengthen their persuasive abilities through oral arguments.

Trial Advocacy

The Trial Advocacy Program is a student-run, faculty-supervised program in which students develop and refine skills used to prepare and try civil and criminal cases. The heart of the program is LAW:9060 Trial Advocacy, a course taught by law school faculty, federal and state judges, and experienced trial attorneys. Students are on their feet during most class sessions, practicing the arts of jury selection, opening statement, direct and cross-examination, introduction of exhibits, use of expert testimony, and closing argument. The course culminates with a full-scale trial—from the filing of pretrial motions to the rendering of a jury verdict—conducted by student co-counsel before a visiting judge and a jury of laypersons.

The Stephenson Competition is named after Judge Roy L. Stephenson, a U.S. District Court and Eighth Circuit Court of Appeals judge and a 1940 graduate of the College of Law. Students who demonstrate superior ability in advocacy skills during the trial advocacy courses participate in a series of mock trials judged by local members of the bench and bar. Individuals selected from the competition represent the University of Iowa in the national trial competition.

Iowa Law Review

Since its inception in 1915, the *Iowa Law Review* has served as a scholarly legal journal, noting and analyzing developments in the law and suggesting future paths for the law to follow. Students have managed the review since 1935, editing and publishing articles by professors and students. To learn more, visit the Iowa Law Review website.

Journal of Corporation Law

The *Journal of Corporation Law* is the nation's oldest and most cited student-published legal periodical specializing in corporate law. The journal's scope includes antitrust, intellectual property, labor law, securities, taxation, employment discrimination, insurance, product liability, and regulated industries, as well as traditional corporate topics. Selected articles submitted by practitioners and academics are published in each of four annual issues. See the Journal of Corporation Law website.

Journal of Gender, Race & Justice

The *Journal of Gender, Race & Justice* pushes the boundaries of legal scholarship and theory in its focus on social justice issues. The journal hosts a symposium at the College of Law every third year, bringing together nationally renowned legal scholars and practitioners to discuss the relationships among the law and race, gender, sex, sexual identity, economic class, ability, and other identity characteristics. The journal publishes an annual volume of legal works that includes symposium papers, papers from conferences outside the college, and articles written by Iowa law students. To learn more, visit the Journal of Gender, Race & Justice website.

Transnational Law & Contemporary Problems

Transnational Law & Contemporary Problems addresses issues and problems that transcend traditional political boundaries, that are of interest to the international and comparative law community, and that are not commonly found in other journals and reviews. One issue takes the form of a symposium addressing specific topics; this issue has a guest editor who is a legal scholar noted for work on the symposium topic. The second issue is submission-based. Every other year the journal organizes and sponsors a symposium on a contemporary international issue; past topics include climate change, the European Union's sovereign debt crisis, and war crimes. For more information, visit the Transnational Law & Contemporary Problems website.

Requirements

The Juris Doctor (JD) requires a minimum of 88 s.h. to earn the degree. To be eligible for a JD degree, students must meet the credit hour requirements, meet the length of study requirements, achieve a cumulative grade-point average of

at least 2.10, take and complete all required courses, satisfy the writing requirements, and satisfy the experiential course requirement.

First-Year Curriculum

The first-year curriculum emphasizes development of analytical skills, a sense of the role of legal institutions in society, and essential writing skills. Each course in the first-year curriculum shares these emphases and conveys substantive knowledge about a particular area of the law.

First-year students take the following courses.

Course #	Title	Hours
First Year, Fall		
LAW:8017	Contracts	4
LAW:8026	Introduction to Law and Legal Reasoning	1
LAW:8027	Introduction to Legal Theory and Perspectives on the Law	1
LAW:8032	Legal Analysis Writing and Research I	2
LAW:8037	Property	4
LAW:8046	Torts	4
First Year, Spring		
LAW:8006	Civil Procedure	4
LAW:8010	Constitutional Law I	3
LAW:8022	Criminal Law	3
LAW:8033	Legal Analysis Writing and Research II	3
Elective		3

The two-semester sequence LAW:8032 and LAW:8033, Legal Analysis Writing and Research (LAWR), is designed to equip students with effective skills in legal analysis, writing and oral communication (oral advocacy), and research.

Second- and Third-Year Curriculum

Second- and third-year courses cover the range of specialties within the legal profession, allowing students to explore and follow their professional interests in a particular career specialization, to write for one of the school's four student-run scholarly journals, to pursue combined degrees in law-related graduate programs, or to simply obtain the widest possible exposure to the legal landscape.

All second- and third-year students must complete the following coursework.

Course #	Title	Hours
LAW:8280	Constitutional Law II	3
LAW:8791	Professional Responsibility	3
Experiential course requirement		
Four writing units beyond the writing requirements of the first year		

Combined Programs

JD/Graduate Degrees

Some students want to explore areas beyond the law, whether it is to maximize their skill sets for future careers, gain in-depth knowledge in a second subject matter, or simply broaden their minds. Combined degree programs allow students to pursue two degrees simultaneously, taking advantage of synergies between degree requirements while gaining significant exposure to a second area of study. Juris Doctor students may pursue combined degree programs with most graduate and professional programs at the University of Iowa. Students may earn a JD degree and another graduate or professional degree in a shorter amount of time than if the two degrees were pursued independently.

Admissions Qualification

To pursue a combined degree, students must apply to and be accepted separately into the JD program and another graduate or professional program. Students typically seek admission to the second degree-granting program after matriculation at the College of Law by applying to the graduate program of interest during their first year of law school. In some cases, it is possible to apply to both programs simultaneously. Students who have already begun graduate work at the University of Iowa may apply to the College of Law. Once students have been accepted into the JD program and another graduate or professional program, they must obtain permission from the associate dean for student affairs or the dean of the College of Law to be classified as a combined degree candidate. Prospective students interested in a combined degree program should contact the admissions offices of both programs to discuss the proposed program of study.

Students who wish to pursue a combined degree program and obtain admission into one college but not the other may enter the college in which they were admitted. However, they are not granted combined degree status. Likewise, combined degree students who terminate work toward one of the degree programs may typically continue to work toward the other degree.

Admissions Procedures

Prospective combined degree students must submit separate applications to the College of Law and the graduate program of interest. They must take the Law School Admission Test (LSAT) and comply with all College of Law admissions requirements. Students must also meet the admission requirements of their other graduate program by taking tests such as the Graduate Record Examination (GRE) General Test or the Graduate Management Admission Test (GMAT). Prospective students should inform the admissions offices of both programs that they are applying to a combined degree program to confirm the admissions requirements for the other program.

Students interested in a combined degree program at the beginning of their legal studies should indicate they are seeking a combined degree on their application. Students who are admitted to both colleges will receive separate letters of admission from those colleges as well as an official notification of being admitted to the combined degree program from Admissions.

Admission information for the Juris Doctor (JD) is available on the College of Law Admissions page. For information about other graduate programs of interest, visit Academics on the University of Iowa home page.

Shared Credit Policies

Students enrolled in a combined degree program must satisfy the semester hours and course requirements that all students must satisfy for each degree separately. However, they have the option of using credit for some courses toward both degrees. These courses are typically electives in each

discipline. For example, students enrolled in a combined JD/MPH program may be able to count the family law and introduction to U.S. health care system courses toward the graduation requirements of both the JD and MPH degrees.

The amount of shared credit that may be applied toward both programs of study varies by program. Generally, combined degree program students may apply up to 12 s.h. earned in their second program of study toward the JD provided that the courses satisfy the College of Law policy on non-law courses. The JD/MPH degree permits up to 12 s.h. of specific College of Law courses to count toward MPH graduation requirements. Some degree programs allow students to count up to 6 s.h. of College of Law courses toward a non-law degree. Details on the Graduate College policy may be found in the Manual of Rules and Regulations on the Graduate College website. Prospective students should check with their graduate or professional program of interest to determine the law semester hours that count for both programs as well as other rules or restrictions concerning the counting of courses toward both degrees with the College of Law.

Additional details about College of Law graduation requirements and other policies may be found in the College of Law Student Handbook. Students considering a combined degree program should be aware that the first-year program in the College of Law consists of required courses and they typically may not take courses outside the College of Law.

Student Tuition Assessment Policy

Students in a JD and a graduate/professional degree combined program are assessed tuition at the College of Law rate if the tuition in the other college is lower than in the College of Law, except for any semester or summer session in which they are not enrolled in any law courses and none of the semester hours being earned in other colleges are applied toward their JD degree. All combined degree students pursuing a JD degree are assessed at least six semesters of law school tuition.

Master of Laws, LLM

The Master of Laws (LLM) is designed for two types of students, those who could benefit from either the legal practice or the research track.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Legal Practice Track

This track is for foreign-trained jurists who seek a comparative introduction to, and specific training in, aspects of United States law and legal institutions, and a path to state bar admission. Students benefit from the College of Law's legal analysis, writing, and research course, and core courses including contracts, property, torts, and professional responsibility. An extended orientation provides an introduction to United States law.

Research Track

This track is for foreign-trained jurists or graduates of JD programs in the United States who wish to deepen their understanding of law and are interested in research. The program encourages close collaboration with renowned experts in comparative law; anti-competition law; law and economics; law and society; international law, including the law pertaining to international business transactions and/or human rights; and business and innovation.

The LLM program admits fewer applicants so that students receive substantial attention from the faculty. Admission is competitive. All applicants must present evidence of high academic potential and strong recommendations, especially from law professors who supervised their work in classes or seminars.

Requirements

The Master of Laws program requires that students successfully complete a minimum of 24 s.h. of credit, as approved by their faculty advisor. Coursework is selected from the College of Law's general course offerings and from LLM-specific courses.

Required Courses

Course #	Title	Hours
All of these:		
LAW:8026	Introduction to Law and Legal Reasoning	1
Two faculty-supervised writing units		1-4
Two first-year courses, including at least one of these:		
LAW:8017	Contracts	4
LAW:8037	Property	4
LAW:8046	Torts	4
May include one of these:		
LAW:8006	Civil Procedure	4
LAW:8010	Constitutional Law I	3
LAW:8022	Criminal Law	3

Legal Practice Track

This track is open to foreign-trained lawyers who do not have a JD earned in the United States. Students enroll in the LLM orientation to the U.S. legal system course in two parts; a course in professional legal writing; a course in professional responsibility; and at least two basic bar exam courses, such as contracts, torts, or constitutional law. This track is designed to qualify students to take the bar exam in states that allow graduates of LLM programs to complete the bar exam.

Research Track

This track is open to both foreign-trained students and students who hold a JD degree earned in the United States. LLM students without a JD degree must take the LLM orientation to the U.S. legal system course in August before the start of the fall semester. Students take the LLM seminar, a research and writing course in which they write a research paper on a topic chosen with the approval of their advisor. This track is especially suitable for those seeking to enter into an academic career or one that primarily involves policy formulation or research.

Students who earned a JD in the United States and international students who have been trained in another common-law jurisdiction, whose English competence is sufficiently high, and who choose the research track are required to undertake a more ambitious research project intended to lead to the production of a publishable paper. Those who are suitably qualified may also attempt the longer research paper with their advisor's approval.

With the exception of the LLM orientation course and the LLM seminar, courses are taken with other JD students from law course offerings, especially offerings on U.S., international, and comparative law. This method of instruction ensures a very effective comparative experience through broad contact with U.S. law students and professors, and U.S.-trained students similarly benefit from close contact with foreign-trained lawyers.

Master of Studies in Law, MSL

The Master of Studies in Law program has been suspended and is not accepting graduate students at this time. The suspension of this program was approved by the Iowa Board of Regents in spring 2023.

The Master of Studies in Law (MSL) degree is primarily intended to educate students and professionals in other fields who do not wish to practice law but who need to recognize and respond effectively to legal issues arising in their work. Individuals who have completed their BA or BS degree may choose to better position themselves in the job market. Others may be on an established career path but seek to increase their skill set and enhance mobility and promotion opportunities.

The MSL program provides professionals with an overview of the legal system as a whole, as well as an introduction to some of the legal issues that they are likely to confront in their fields. Students take existing courses in the College of Law alongside JD students.

The degree may be completed in as little as one year of full-time study or no more than four years of part-time study. The MSL program does not qualify graduates to practice law.

Doctor of Juridical Science, SJD

The Doctor of Juridical Science (SJD) program is intended for students who wish to conduct original and advanced legal research in law under faculty supervision.

Requirements

The Doctor of Juridical Science program includes five requirements for earning the SJD degree.

Year of Residency

Doctor of Juridical Science students must spend at least one academic year (two semesters) in residence in the SJD program at the College of Law.

Students must complete 18 s.h. of credit during their first year of residency; students who have not earned an LLM degree complete 24 s.h. They must enroll in the SJD tutorial (5 s.h. each semester; 10 s.h. total) to conduct research and writing under the supervision of their SJD dissertation committee. The work in the SJD tutorial focuses on formulating a detailed dissertation proposal, beginning research for and writing portions of the dissertation, and completing one or more chapters.

Students are expected to write a dissertation of publishable quality making a significant and original contribution to legal scholarship. The dissertation should be a book-length manuscript or a series of related articles of equivalent intellectual ambition and scope.

The balance of the required 18 s.h. will be earned through research and writing related to a student's dissertation, supervised by the student's SJD chair. However, at the discretion of a student's SJD committee, some of the semester hours may be allocated to courses or seminars that the committee feels a student needs to strengthen their ability to write a successful dissertation.

Admission to SJD Candidacy

Admission to candidacy is a formal step that must be achieved before a student has the right to continue in the SJD program to complete a dissertation and is determined by the student's committee on the basis of the work done during the student's year of residency in the program.

As part of the assessment process, the SJD committee holds an oral examination toward the end of a student's year of residency that focuses on the work the candidate has completed on the dissertation, the candidate's general knowledge and understanding in relation to the subject matter of the dissertation, and the candidate's further plans for completion of the dissertation. If the committee is not able to admit the student to SJD candidacy at the conclusion of the first year of residency, the committee may give an extension of up to one calendar year if it finds a sufficient basis to believe that the student likely will be able to satisfy the necessary standard within that time.

Presentation of Dissertation Work

Each student is required to make at least one substantive presentation of dissertation work at a meeting of the SJD tutorial to a specially constituted group of faculty, or in a public meeting, as arranged with the student's SJD committee.

Completion of the Dissertation

Students admitted to SJD candidacy continue to enroll in 1 s.h. of dissertation credit, which provides access to university resources, including the Law Library. However, students admitted to SJD candidacy are free to complete their dissertations wherever they wish. In any event, they must continue to coordinate with their committee and continue to register each fall and spring semester as an SJD candidate in the college.

Oral Defense of the Dissertation

Before a student's SJD committee decides whether to approve the student's completed dissertation, the student must successfully defend the dissertation in an oral defense led by the committee. A student must complete the dissertation and have it approved by the committee within five calendar years from the date of admission to SJD candidacy.

Admission

To be admitted to the SJD program, students typically first complete the LLM degree at the University of Iowa or a similar master's-level degree at another law school, either in the United States or at an English-language law school with academic standards equivalent to those of highly ranked United States LLM programs. In appropriate circumstances, the admissions committee will consider applications from excellent students without an English-language master's-level degree who wish to proceed directly to work on their SJD degree. All applicants must show strong evidence of scholarly research and writing abilities.

For more information, visit the SJD application process website.

University of Iowa Center for Human Rights

Director, Center for Human Rights

- Adrien K. Wing

Director, Human Rights Certificate Program

- Brian R. Farrell

Undergraduate certificate: human rights

Faculty: https://uichr.uiowa.edu/academics/faculty

Website: https://uichr.uiowa.edu/

The University of Iowa Center for Human Rights administers the Certificate in Human Rights, the only undergraduate credential awarded by the College of Law.

The Certificate in Human Rights involves an integrated, specific course of study that includes an introduction to foundational concepts in human rights as they have been informed by political, ethical, moral, legal, and historical thought. Through the curriculum, students explore diverse, pressing human rights topics from interdisciplinary perspectives, identify solutions to global challenges, learn to translate foundational human rights concepts into effective advocacy, and strengthen their ability to communicate with academic and nonacademic audiences.

Human rights purport that all people deserve to live life with dignity; that human beings are owed the protection of these rights simply because they are human. Universal human rights apply to all equally and without discrimination. They encompass civil and political rights; economic, social, and cultural rights; and apply to both individuals and groups. The rights set forth in human rights doctrines, such as the Universal Declaration of Human Rights, are interrelated, interdependent, and indivisible.

The University of Iowa Center for Human Rights prepares students to apply human rights concepts to their professional career or field of study. Students learn to appreciate the value of empathy, social responsibility, and engaged global citizenship.

Pre-law students and others considering legal careers can experience undergraduate courses taught by law faculty and explore the role of the law and legal regimes—and how they intersect with civil society—to promulgate, promote, and protect human rights.

Students enrolled in the certificate program enjoy a unique, optional opportunity to engage in a field-based supervised internship on behalf of a scholar imprisoned for their ideas. HRTS:3920 Advocacy in Action: From the Classroom to Congress (Washington, D.C.) begins with team-based development of an advocacy plan on behalf of the scholar and culminates by implementing the advocacy plan on the ground in Washington D.C. in the halls of Congress.

The center also offers merit-based funding to support summer rights-related internships, hosts an annual student academic conference and essay contest, and provides hands-on learning experiences through center internships.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Human Rights [p. 1841]

Courses

University of Iowa Center for Human Rights Courses

HRTS:2115 Introduction to Human Rights 3 s.h.
Analysis and evaluation of the international human rights program; relationship between human rights and international law. Same as IS:2115.

HRTS:2902 The Arts and Human Rights 1-3 s.h.
Examination of emerging human rights issues in the arts from an interdisciplinary and international perspective. Same as IS:2902.

HRTS:2903 Technology and Human Rights 1-3 s.h.
Examination of emerging human rights issues in technology from an interdisciplinary and international perspective. Same as IS:2903.

HRTS:2907 Literature and Human Rights 1-3 s.h.
Examination in human rights in literature from an interdisciplinary and international perspective. Same as IS:2907.

HRTS:2908 Governance and Human Rights 1-3 s.h.
Examination of emerging human rights related to governance issues from an interdisciplinary and international perspective. Same as IS:2908.

HRTS:2909 Human Rights Lab 1-3 s.h.
Discussion-based examination of emerging human rights issues from an interdisciplinary and international perspective. Same as IS:2909.

HRTS:2910 Law and Human Rights 1-3 s.h.
Examination of the law to address emerging human rights issues from an interdisciplinary perspective.

HRTS:3904 Business, Labor, and Human Rights 1-3 s.h.
Examination of emerging human rights issues in labor and business from an interdisciplinary and international perspective. Same as IS:3904.

HRTS:3905 Topics in Human Rights 1-3 s.h.
Examination of emerging human rights issues from an interdisciplinary and international perspective. Same as IS:3905.

HRTS:3906 Global Crises and Human Rights 3 s.h.
Exploration of human rights in context of global challenges; multidisciplinary; topics may include military conflict, nuclear war, human trafficking, environmental disasters, and other international human rights crises.

HRTS:3910 Approaches to Advocacy: From Theory to Practice 3 s.h.
Examine the application of advocacy models to the practice of human rights advocacy. Students explore real-life human rights and humanitarian advocacy initiatives, learn to apply a variety of advocacy models, and critically analyze challenges faced by practitioners working in the field of human rights advocacy. Same as IS:3910.

HRTS:3920 Advocacy in Action: From the Classroom to Congress (Washington, D.C.) 3 s.h.
Supervised, organized internship; focus on collaborative design and implementation of human rights-based advocacy plan for imprisoned scholar; includes three-day field experience in Washington D.C.

HRTS:3930 Peer Assistantship 1-2 s.h.
Designed to foster student and faculty collaboration in the classroom through a supervised mentoring internship; creates a credited opportunity for the student to work with the faculty member in a course they have previously taken by providing peer assistance and mentoring to currently enrolled students.

Human Rights, Certificate

Learning Outcomes

Students who earn the Certificate in Human Rights will be able to:

- critically analyze real-world global challenges from a human rights perspective;
- articulate creative and effective solutions to real-world global challenges from interdisciplinary perspectives by applying human rights principles, advocacy strategies, and tactics grounded in the inherent dignity and the equal and inalienable rights of all people;
- identify and trace the impact of the major events that have led to the formation of contemporary human rights concepts, norms, and institutions;
- explain the historical underpinnings of international human rights advocacy and international institutions that emerged in response to doctrines of racial superiority, inequality, discrimination, imperialism, and conflict during the 20th century;
- identify the relevance of, difference between, and constructive potential for problem-solving using interdisciplinary academic methods and inquiries;
- explain differences between a human rights approach and general normative or ethical approaches to an issue (i.e., how is the question “what is unjust or unfair” different from “what is a violation of human rights”?);
- apply human rights frameworks to other fields of study, including the student’s primary major and professional work;
- integrate concepts from other fields of study into their human rights coursework;
- critically analyze the major scholarly debates about human rights, past and present;
- articulate justifications of human rights frameworks and regimes as well as critiques of discourses on, and approaches to, human rights;
- explain foundational international human rights legal concepts;
- develop skills to interpret and apply legal norms;
- create recommendations to improve the efficacy of violation mitigation and/or the international human rights system;
- identify the potential and the limits of the law in advancing human rights;
- identify human rights violations and analyze mitigation options based on existing international human rights legal frameworks;
- identify the basic operational functions of international and domestic legal regimes involved with the promulgation, promotion, and protection of modern human rights standards;
- analyze and evaluate the relationship of human rights to individuals, governments, corporations, and civil society organizations and analyze and evaluate the role of each in the promotion and protection of human rights and in relationship to other social priorities;
- identify specific target audience(s) with the capacity to raise awareness about and mitigate human rights abuses and to effectively communicate desired actions and outcomes to these diverse audiences in both academic and/or non-academic settings;
- critically analyze when and how human rights frameworks can benefit organizational and business settings;
- develop collaborative skills, improve effective oral communication and presentation skills; and
- develop critical thinking, reading, listening, writing, research, and analytical skills.

Requirements

The undergraduate Certificate in Human Rights requires 18 s.h. of credit. Students must maintain a grade-point average of at least 2.00 in certificate coursework. They may count a maximum of 6 s.h. of transfer credit toward the certificate with approval from the certificate program's faculty advisory group.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Individuals should declare their intent to earn the certificate in MyUI.

The Certificate in Human Rights requires the following coursework.

Foundations in Human Rights

Course #	Title	Hours
All of these:		
HRTS:2115/IS:2115	Introduction to Human Rights	3
HIST:3108	History of Human Rights	3
PHIL:3430	Philosophy of Human Rights	3

Contemporary Global Issues in Human Rights

HRTS:2909/IS:2909 Human Rights Lab is repeatable. Other contemporary global issues courses are repeatable if the topic differs.

Course #	Title	Hours
6 s.h. from these:		
HRTS:2902/IS:2902	The Arts and Human Rights	1-3
HRTS:2903/IS:2903	Technology and Human Rights	1-3
HRTS:2907/IS:2907	Literature and Human Rights	1-3
HRTS:2908/IS:2908	Governance and Human Rights	1-3
HRTS:2909/IS:2909	Human Rights Lab	1-3
HRTS:3904/IS:3904	Business, Labor, and Human Rights	1-3
HRTS:3905/IS:3905	Topics in Human Rights	1-3
HRTS:3906	Global Crises and Human Rights	3

Human Rights in Practice

Course #	Title	Hours
One of these:		
HRTS:3910/IS:3910	Approaches to Advocacy: From Theory to Practice	3

HRTS:3920	Advocacy in Action: From the Classroom to Congress (Washington, D.C.)	3

Career Advancement

The Certificate in Human Rights teaches students to explore topics from interdisciplinary perspectives, identify solutions to global challenges, translate foundational concepts into effective advocacy, and strengthen their ability to communicate with diverse audiences. The certificate not only bolsters the skillsets of students who transition directly to a career following graduation, but it also benefits students bound for law school or other professional or graduate studies. Students enroll in the certificate program from undergraduate departments and majors across the University of Iowa.

Certificate program graduates currently have careers:

- practicing law;
- advancing access to justice and legal reform;
- investigating human rights violations for metropolitan governmental commissions;
- creating legislative policy;
- working for human rights nongovernmental organizations (NGOs), such as the Center for Civilians in Conflict;
- coordinating services for people who are homeless;
- advocating for domestic abuse survivors;
- designing K–12 curriculums;
- creating international development programs for governmental agencies, such as the U.S. Agency for International Development (USAID);
- producing print and broadcast news; and
- resettling refugees and asylum seekers.

The center circulates a student newsletter to alert students to relevant internship and employment opportunities. The Pomerantz Career Center also offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Human Rights, Certificate

Course	Title	Hours
Academic Career		
Any Semester		
Courses for the Certificate in Human Rights may be taken in any order but taking HRTS:2115 Introduction to Human Rights in your first semester is recommended. Most other HRTS courses are offered only one semester each year.		
	Hours	**0**
First Year		
Fall		
HRTS:2115	Introduction to Human Rights	3
Certificate: Contemporary Global Issues in Human Rights course(s) [a]		3
	Hours	**6**
Spring		
HIST:3108	History of Human Rights	3
Certificate: Contemporary Global Issues in Human Rights course(s) (HRTS:2909 Human Rights Lab is recommended) [a]		1
	Hours	**4**
Second Year		
Any Semester		
HRTS:3920 or HRTS:3910	Advocacy in Action: From the Classroom to Congress (Washington, D.C.) [b] or Approaches to Advocacy: From Theory to Practice	3
	Hours	**3**
Fall		
PHIL:3430	Philosophy of Human Rights	3
Certificate: Contemporary Global Issues in Human Rights course(s) [a]		1
	Hours	**4**
Spring		
Certificate: Contemporary Global Issues in Human Rights course(s) [a]		1
	Hours	**1**
	Total Hours	**18**

a Complete a total of 6 s.h. of Contemporary Global Issues in Human Rights courses (prefix HRTS) numbered 2902 through 2909 or 3904 through 3906. There are typically 1 s.h., off-cycle courses as well as a 3 s.h. course in Contemporary Global Issues offered in the fall and spring semesters.

b Complete the 3 s.h. of Human Rights in Practice requirement by taking HRTS:3910 (typically offered in the fall) or HRTS:3920 (typically offered in the spring).

Carver College of Medicine

Vice President for Medical Affairs and the Tyrone D. Artz Dean

- Denise J. Jamieson

Executive Dean and Senior Associate Dean for Clinical and Translational Medicine

- Patricia L. Winokur

Vice Dean, Clinical Affairs

- Douglas J. Van Daele

Senior Associate Dean, External Affairs

- Gerard P. Clancy

Senior Associate Dean, Medical Education

- Christopher S. Cooper

Associate Dean, Continuing and Integrated Medical Education

- Joseph F. Szot

Interim Associate Dean for Health Equity

- Joyce Goins-Fernandez

Associate Dean, Faculty Affairs and Development

- Peter M. Snyder

Associate Dean, Graduate and Postdoctoral Studies

- Daniel T. Tranel

Associate Dean, Graduate Medical Education

- Mark C. Wilson

Associate Dean, Medical Education

- Amal Shibli-Rahhal

Associate Dean, Medical Education and Professional Programs

- David P. Asprey

Associate Dean, Research

- Robert C. Piper

Assistant Deans

- Ken L. Cheney, James Y. Choi, Gregory C. Nelson

Undergraduate majors: medical laboratory science (BS); nuclear medical technology (BS); radiation sciences (BS)

Undergraduate certificate: EMT paramedic program

Professional degrees: MCA; MCN; MD; MM; MPA

Graduate degrees: MA; MME; MS; DPT; PhD

Website: https://medicine.uiowa.edu/

The Roy J. and Lucille A. Carver College of Medicine is an integral part of the University of Iowa. It contributes to the education of thousands of university students, is home to ground-breaking research in a wide array of disciplines, and provides a statewide health care resource.

The Carver College of Medicine is the only college in Iowa that offers a curriculum leading to the Doctor of Medicine. It also offers a Bachelor of Science in medical laboratory science, nuclear medicine technology, and radiation sciences (see "Undergraduate Programs of Study" under Programs [p. 1844] in this section of the catalog). It offers Master of Science and Doctor of Philosophy degrees in several disciplines, the Master in Medical Education, and the Doctor of Physical Therapy (see "Graduate Programs of Study" under Programs [p. 1844] in this section of the catalog). In addition, the Carver College of Medicine offers professional degrees: the Doctor of Medicine, the Master of Clinical Anatomy, the Master of Clinical Nutrition, and the Master of Physician Assistant Studies (see "Professional Programs of Study" under Programs [p. 1844] in this section of the catalog).

Doctor of Medicine and other health sciences students have a number of opportunities to gain experience in medical clinics, community hospitals, and a major academic medical center. MD graduates may pursue further training in the specialties of family and community medicine, internal medicine, surgery, and pediatrics at one of 13 University of Iowa-affiliated residency programs in six Iowa cities. The college also participates in the education of students in the colleges of Dentistry, Nursing, Pharmacy, and Public Health and in the life sciences and health-related programs of the colleges of Liberal Arts and Sciences and Engineering, and the Graduate College.

Health professionals from throughout the Midwest take part in the college's year-round continuing medical education programming, updating their knowledge and skills through refresher courses, clinics, and conferences. The college also offers a variety of services that support Iowa physicians and community hospitals.

In addition to providing education and resources for physicians and other health care organizations, the college addresses broad public issues of distribution and organization of health care services. Its faculty members advise and serve on national, state, and regional health planning councils, health boards, and various health agencies.

Accredited by the Liaison Committee on Medical Education of the American Medical Association and the Association of American Medical Colleges, the Carver College of Medicine meets the requirements of all state licensing boards. Its MD diploma admits the holder to all privileges granted to graduates of all medical colleges before such boards. All other professional programs administered by the college are accredited by their respective accrediting bodies.

Doctor of Medicine (MD)

The Doctor of Medicine is a four-year program that prepares students to practice primary care medicine and to pursue further education and training in specialized areas of medicine. For a description of the MD curriculum and information about admission to the program, financial support, and academic rules and procedures, see Doctor of Medicine [p. 1880] in the catalog.

Programs

Undergraduate Programs of Study

The Carver College of Medicine offers a Bachelor of Science with majors in medical laboratory science, nuclear medicine technology, and radiation sciences. See Medical Laboratory Science [p. 1897], Nuclear Medicine Technology [p. 1923], and Radiation Sciences [p. 1966] in the catalog. In addition, the college offers an undergraduate certificate; see the EMT Paramedic Program [p. 1846] in this section of the catalog.

Graduate Programs of Study

The Carver College of Medicine offers graduate programs leading to the MS in athletic training (see the Department of Orthopedics and Rehabilitation [p. 1934]), the MS and PhD in biochemistry (see the Department of Biochemistry and Molecular Biology [p. 1859]), the MS and PhD in microbiology (see the Department of Microbiology and Immunology [p. 1903]), the MS in pathology (see the Department of Pathology [p. 1941]), the Doctor of Physical Therapy and the PhD in physical rehabilitation science (see the Department of Physical Therapy and Rehabilitation Science [p. 1945]), and the Master in Medical Education (see the Medical Education Program [p. 1893]). Departmental participation and teaching contribute to the Graduate College's MS and PhD in biomedical science [p. 1698] with cell and developmental biology, free radical and radiation biology, molecular physiology and biophysics, and pharmacology subprograms.

The college also offers a combined MD/PhD degree through the Medical Scientist Training Program [p. 1901]; see Combined Programs [p. 1882] in the Doctor of Medicine section of the catalog.

Many of the college's faculty members participate in the Graduate College's interdisciplinary programs in genetics [p. 1733], immunology [p. 1742], molecular medicine [p. 1779], and neuroscience [p. 1781]**.**

Professional Programs of Study

The Carver College of Medicine offers the Doctor of Medicine [p. 1881] degree, the Master of Clinical Nutrition [p. 1878] (MCN), the Master of Midwifery [p. 1931] (MM), the Master of Physician Assistant Studies [p. 1957] (MPA), and the Master of Clinical Anatomy [p. 1855] (MCA).

Undergraduate Rules and Procedures

Undergraduate study in the Carver College of Medicine is guided by the following academic rules and procedures. Students should also refer to their respective programs' policies and procedures.

Health Insurance, Immunizations

All health professions students are required to provide proof of health insurance coverage annually. Contact the University Benefits Office or visit its website.

All health sciences students must show proof of immunizations. For more information, contact Student Health and see Student Requirements and Forms on their website.

Application for Degree

Students who want to be considered for graduation must submit a Degree Application with the Office of the Registrar through MyUI before the deadline for the session in which the degree is to be conferred. Students who have fulfilled the requirements for a minor or a certificate must indicate this on the degree application form filed through MyUI so that completion of the requirements for the minor or certificate can be verified and noted on their transcript.

Academic Recognition

The University of Iowa and the Carver College of Medicine recognize academic achievement every fall and spring semester.

Graduation With Distinction

Graduation with distinction recognizes high academic achievement based on grades. See Grading [p. 17] in the "Academics at Iowa" section of the catalog.

Dean's List

Undergraduate students who achieve a grade-point average (GPA) of 3.50 or higher on 12 s.h. or more of University of Iowa courses graded on an A–F basis during a fall or spring semester and who have no semester hours of I (incomplete) or O (no grade reported) during the same semester are recognized by inclusion on the Dean's List for that semester.

President's List

University of Iowa undergraduate students who achieve a GPA of 4.00 on 12 s.h. or more of University of Iowa graded coursework and who have no semester hours of I (incomplete) or O (no grade reported) for two consecutive semesters (excluding summer sessions) are recognized by inclusion on the President's List.

Financial Support

Students are eligible to apply for undergraduate financial aid. Scholarships, grants, loans, and work-study positions are administered by the university's Office of Student Financial Aid. Part-time employment, sometimes in a related area, is available.

Registration, Credit, Grading

Registration

Information about tuition and fees, registration, and deadlines is available from the Office of the Registrar. Students who add or drop a course after registration or who register late may be assessed a fee. Each course dropped after the deadline results in a W (withdrawn) on the transcript (see the section titled "Changes in Registration"). Students are not allowed to register for full-semester courses after the second week of the semester or the first week of the summer session. Students must register for off-cycle courses before the first day of the course.

The maximum permitted registration for fall and spring semesters is 18 s.h. per semester. The maximum registration for summer session varies: 4 s.h. for the four-week sub-session; 9 s.h. for the eight-week sub-session; 9 s.h. for the six- and eight-week sub-sessions combined; 12 s.h. for the four-week sub-session and the eight-week sub-session; and 12 s.h. for the four-, six-, eight-, and twelve-week sub-sessions combined. Students may register for a maximum of 16 s.h.

of fall semester or spring semester coursework during early registration. Students must contact their academic advisor to discuss permission to register for more than the maximum semester hours allowed.

Changes in Registration

Students may change their registration on MyUI. After the start of the semester, students should view Changes in Registration for information on how to change their schedule of courses and the required permissions.

Approval for all other changes in registration is granted only in extraordinary circumstances. Students whose dropped course or courses result in a registration of 0 s.h. for the semester must follow the procedure for withdrawal from the university instead of the add/drop procedure.

It is the student's responsibility to obtain the required permissions and to understand any consequences associated with the change in registration. Information regarding permissions and consequences will be posted on MyUI; the student should contact their advisor with any questions. See Drop or Withdraw Tuition Responsibility on the Office of the Registrar website.

The Course Deadlines look-up on the Office of the Registrar website provides course-specific deadlines. The cut-off time for obtaining any permissions on deadline days is 4:30 p.m. Students have until 11:59 p.m. to process a drop in MyUI if they have obtained all required permissions by 4:30 p.m.

Withdrawal of Registration

Removing all courses from a schedule (even if only registered for one course) is considered a withdrawal of registration. Students should view the Withdrawal Information on the Office of the Registrar website

It is the student's responsibility to obtain the required permissions and to understand any consequences associated with the withdrawal. Information regarding permissions and consequences will be posted on MyUI; the student should contact their advisor with any questions. See Drop or Withdraw Tuition Responsibility on the Office of the Registrar website.

Auditing Courses

Students may register to audit a course with the approval of the appropriate program director and course instructor. In addition to obtaining these signatures, students must register for zero credit in the course to be audited. The mark of AUS (audit successful) is assigned if a student's attendance and performance are satisfactory; if they are unsatisfactory, the mark of AUU (audit unsuccessful) is assigned. Courses completed with a mark of AUS do not meet any college requirement and carry no credit toward graduation. Auditing may not be used as a second-grade-only option. Tuition will be assessed for audited courses.

Courses Offered by Other University of Iowa Colleges

Students who enroll in courses offered by other University of Iowa colleges are governed by those colleges' rules in matters regarding the courses. See Cross-College Enrollment and Records Policy on the College of Liberal Arts and Sciences website.

Duplication and Regression

Duplication occurs when students take the same course more than once or when they take a course that duplicates the content of a course they already have completed satisfactorily. Regression occurs when students take a course that is less advanced or at a lower level than one in the same subject that they already have completed satisfactorily. Duplication and regression are assessed by the registrar. Semester hours earned by duplication or regression do not count toward graduation.

Minimum Grade Requirement

Students must earn a semester, UI, and overall cumulative GPA of at least 2.00 after acceptance to the Carver College of Medicine.

Students must earn a C or higher in all didactic, lab, and clinical courses. A final course grade of C-minus or below is a failing grade for the program and the BS degree and will not count toward the degree requirements.

Second-Grade-Only Option

Repeating courses for the second-grade-only option is only allowed in extraordinary circumstances. Prior to repeating a course, students must obtain approval from their program director and academic advisor. Upon completion of the course, students must contact their academic advisor to finalize the process.

If the second-grade-only is approved, both grades remain on the permanent record, but only the second one is used to calculate grade-point average and credit earned. Students using the second-grade-only option for courses that are not part of their major must follow the procedure of the college that offers the course.

Since many courses, labs, and internships are prerequisites to others, it may not be possible to repeat a course.

On the permanent record, the second-grade-only option appears as a pound symbol (#), showing that the first grade has been replaced by the second grade in grade-point average calculations and that only the hours from the second registration have been counted as hours earned.

The second-grade-only option cannot be applied to coursework for which a student has already been awarded a UI degree.

Degrees and Minors

Two Bachelor's Degrees

Students who want to earn two bachelor's degrees concurrently, each from a different college, must communicate the request to their academic advisor, who will then contact University of Iowa Admissions. Interested students must complete all requirements for both majors, including the residency requirements.

Second Bachelor's Degree

Students who already hold a bachelor's degree and wish to earn an additional bachelor's degree must satisfy all college and program degree requirements, including at least 30 s.h. consecutively in the Carver College of Medicine.

Minors and Certificates

Students graduating from the Carver College of Medicine may earn a minor and/or certificate in any degree-granting

department or program in the college outside of their program of study or in another college of the university by meeting that department's requirements.

Academic Progress, Probation, Dismissal

Students are expected to maintain satisfactory academic standards and to demonstrate reasonable progress toward the Bachelor of Science Degree. Students who fail to maintain satisfactory academic progress as determined by their program policies will be subject to sanctions that include, but are not limited to, academic probation and program dismissal. Probation serves as a warning that students will not graduate unless their academic performance improves.

Students may be placed on Carver College of Medicine academic probation if their semester, UI, or overall cumulative grade-point average drops below 2.00. Entering students may be admitted on academic probation if they fail to meet the minimum stated standards for admission.

Academic Misconduct

Plagiarism and Cheating

All cases of plagiarism and cheating in the Carver College of Medicine are reported to the associate dean for medical education and professional programs with a statement of relevant facts.

The course instructor may impose course penalties including, but not limited to reduction of the student's course grade or reduction of the assignment and/or exam in question to a 0 or F.

The program director, promotions committee, associate dean for medical education and professional programs, or a faculty committee appointed by the dean, may impose the following or other penalties, as the offense warrants: written warning, programmatic probation, educational sanction, clinical attendance sanction, suspension, and/or dismissal.

Appeals Procedure

Students who would like to appeal a decision should follow their program's appeals procedure.

EMT Paramedic Program

Emergency Medical Technology (EMT) Paramedic Program

Website: https://emergencymedicine.medicine.uiowa.edu/

The Emergency Medical Services Learning Resources Center (EMLSRC) paramedic program is designed to educate individuals currently certified and licensed at the EMT or AEMT level to provide advanced emergency medical care and transportation to victims of serious illness or injury. This program is nationally accredited and follows the 2021 National EMS Education Standards. The three-semester program consists of two semesters of classroom training with a minimum of 284 hours of supervised hospital clinical time. Following completion of the classroom and clinical experience, there is a minimum of 360 hours of supervised paramedic internship. The paramedic program is offered twice per year with cohorts starting in January and August. Students who successfully complete the program are eligible to take the National Registry paramedic examinations, which leads to Iowa certification as a paramedic. Out-of-state applicants should check with their state regarding requirements for reciprocity or recognition of paramedic training received through the EMSLRC.

The classroom portion of the program is held on a "shift-friendly" schedule. Following a three-week rotation, the class meets Monday and Thursday of the first week, Wednesday the second week, and Tuesday and Friday of the third week following the University of Iowa academic calendar. Most clinical rotations are scheduled by the student concurrently with the winter session; however, several foundational rotations are completed in the fall semester. The field internship is scheduled by the student during the final semester.

Program Goal

The program aims to prepare paramedics who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession.

Curriculum

The program adheres to the National Emergency Medical Services Education Standards as defined by the National Highway Traffic Safety Administration (NHTSA). Students who successfully complete the program are eligible for the National Registry paramedic examination.

All students enroll in the courses EMTP:3101 Emergency Medical Technician - Paramedic I and EMTP:3102 Emergency Medical Technician - Paramedic II.

Accreditation

The University of Iowa Hospitals and Clinics EMSLRC paramedic program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

The University of Iowa Health Care EMSLRC is approved by the Iowa Department of Public Health Bureau of Emergency and Trauma Services as an EMS training program (#018).

Facilities

The Carver College of Medicine consists of twelve buildings containing 1.6 million square feet of space with one building (College of Medicine Administration Building) dedicated to administrative departments only. The other eleven buildings house research activities which include research centers, programs, and institutes, as well as the Core Research Facilities, which are a collection of centralized laboratories dedicated to developing and providing state-of-the-art research resources to facilitate biomedical research. They are available on a fee-for-service basis to the entire health sciences community along with outside entities.

The Medical Education Research Facility houses medical education space and research laboratories, including the Holden Comprehensive Cancer Center and the Institute for Vision Research. It also contains the college’s four learning communities. The communities group students who are at different stages in their medical education, encouraging peer-to-peer learning and emphasizing leadership and community service. Each learning community features small-group rooms, study and social spaces, computer workstations, a kitchen area, and staff offices. The Medical Education Research Facility also houses the Performance-

Based Assessment Program, which evaluates students' clinical and communication skills by reviewing simulated physician-patient encounters recorded in mock patient examination suites.

Students acquire clinical skills experience at University of Iowa Health Care, the VA Iowa City Health Care, and in affiliated hospitals and ambulatory care centers throughout Iowa. University of Iowa Hospitals & Clinics serves as a tertiary care center for Iowa and portions of adjoining states. Many patients are referred to University of Iowa Health Care for care and treatment not available in their home communities.

Eckstein Medical Research Building is the home of the Iowa Institute of Human Genetics Genomics Division, Viral Vector Core Facility, Flow Cytometry Facility, and the Biomedical Research Store.

The five basic science departments are housed in the Bowen Science Building and include the departments of Anatomy and Cell Biology, Biochemistry and Molecular Biology, Microbiology and Immunology, Molecular Physiology and Biophysics, and Neuroscience and Pharmacology.

The Medical Education Building houses research and educational space for the Department of Physical Therapy and Rehabilitation Science. It also houses research space for the Department of Psychiatry and is the home of the Office of Consultation and Research in Medical Education (OCRME). OCRME is staffed by education specialists from a range of disciplines who serve the faculty, staff, and administrators in all Carver College of Medicine programs. The office provides educational consultation, initiates and cooperates in educational research endeavors, and conducts faculty development activities.

There are teaching laboratories located in the Medical Education Building, the Bowen Science Building, and the Medical Research Facility.

Other buildings that house a wide range of College of Medicine departments, administration, and research activities are the Carver Biomedical Research Building, Westlawn, Medical Laboratories, the Medical Research Facility, the Medical Research Center, and the Multi-Tenant Facility.

The newest building, completed in 2014, is the Pappajohn Biomedical Discovery Building. The Iowa Neuroscience Institute is located on the first and second floors of the building. The third and fourth floors house the Fraternal Order of Eagles Diabetes Research Center and the Abboud Cardiovascular Research Center, on the fifth floor is the Auditory Research Group, and on the sixth floor is the Lung Biology and Cystic Fibrosis Research Center. The Iowa Institute for Biomedical Imaging is on the lower basement levels housing the 7 Tesla MRI scanner (one of few such devices in the U.S.), 3T along with several smaller devices, and a 3D visualization lab. All researchers in this building are chosen by the Pappajohn Biomedical Institute in which scientists from across the university collaborate to explore high-risk/high-yield scientific questions in the life sciences with the goal of advancing treatments for a wide array of human diseases.

Interdisciplinary Programs and Centers

The college's interdisciplinary programs and centers draw strength from college faculty members and the facilities available to them, without regard to departmental units or to the distinction between graduate and postgraduate training. For more information, contact the vice dean for research.

The following centers are subdivisions of the Carver College of Medicine.

Alzheimer's Disease Research Center

The Alzheimer's Disease Research Center studies Alzheimer's disease and related neurological conditions from the viewpoint of neuroanatomy, neuroimaging, neuropsychology, and neurochemistry. The center's purposes are to improve the diagnosis and treatment of these conditions, to disseminate information on new research to the public, and to contribute to a better understanding of the neural basis of cognition.

Carver Genetic Testing Laboratory

The John and Marcia Carver Nonprofit Genetic Testing Laboratory provides genetic testing for rare eye diseases, especially diseases so rare that commercial tests are unavailable for them. The laboratory's test results provide information to patients and their families while keeping the tests affordable.

Holden Comprehensive Cancer Center

The Holden Comprehensive Cancer Center (HCCC) coordinates the efforts of University of Iowa faculty and staff in research, education, and clinical programs related to all aspects of cancer. The HCCC is recognized by the National Cancer Institute as an NCI-designated cancer center and has comprehensive status, a designation that recognizes the depth and breadth of interdisciplinary cancer research activity taking place at the University of Iowa.

UI Heart and Vascular Center

The UI Heart and Vascular Center coordinates research and training programs related to cardiovascular diseases. It encompasses several programs: Program Project Grant on Integrative Neurobiology of Cardiovascular Function, Program Project Grant on Cerebral Blood Vessels, Program Project Grant on Oxidative Mechanisms in Vascular Disease, Program Project Grant on Genetic and Signaling Mechanisms in the Central Regulation of Blood Pressure, Program Project Grant on Airway Physiology and Pathophysiology in a Porcine CF Model, Program Project Grant on Gene Therapy for Cystic Fibrosis Lung Disease, a Leducq Foundation Consortium grant, and a Cystic Fibrosis Foundation research and development program. It also coordinates several training programs and a program of other interdisciplinary research supported by a number of individual project grants. The center occupies two floors of cardiovascular research laboratories and administrative offices in the Medical Research Center.

Courses

- Carver College of Medicine Courses [p. 1848]
- EMT-Paramedic Program Courses [p. 1851]
- Orthoptics Teaching Program Course [p. 1851]

Most Carver College of Medicine courses are offered by the college's departments and programs. They are listed and described in the corresponding General Catalog sections. The college also offers the following nondepartmental courses.

Carver College of Medicine Courses

MED:0006 Summer Health Professions Education Program 0 s.h.
Summer Health Professions Education Program (SHPEP) for students interested in health professional careers. Requirements: Summer Health Professions Education Program enrollment.

MED:1100 Introduction to Health Care Professions 3 s.h.
Introduction to current U.S. health care system and changes that are likely in the near future; information about distinct health care professions grouped by discipline (e.g., nursing, pharmacy, public health), and less traditional career pathways in health care fields; how health care professionals across disciplines coordinate to deliver better health care; instruction by prominent health care faculty at the University of Iowa; for students considering a career in the health care field.

MED:3740 End-of-Life Care for Adults and Families 3 s.h.
End-of-life issues in care of adults, older adults, and their families. Same as ASP:3740, NURS:3740.

MED:5416 Foundations in Healthcare Ethics 3 s.h.
Major ethical traditions, ideas, and frameworks that have shaped contemporary approaches to healthcare ethics in morally pluralistic Western cultures; four prominent frameworks in healthcare ethics include virtue based, principle based, circumstance based, and consequence based that emphasize four aspects of ethical decision-making—agent, action, context, and outcome.

MED:8001 Medical Elective arr.

MED:8003 Clinical Clerkships arr.

MED:8005 Medical Student Research Fellowships 0 s.h.

MED:8010 Introduction to Medical Education at Iowa 0 s.h.
Introduction to first-year fall courses; advanced concepts in anatomy, biochemistry, cell biology, and clinical reasoning skills; for MD students.

MED:8021 Community Health Outreach I 0-1 s.h.
Presentations and practical experience working with agencies that provide health care and wellness promotion to communities; substance abuse; child, adolescent, and adult health; aging; interpersonal violence; homelessness.

MED:8022 Community Health Outreach II 1-2 s.h.
Presentations, patient-based learning groups, readings, and practical experience working with agencies that provide health care and wellness promotion to communities; substance abuse; child, adolescent, and adult health; aging; interpersonal violence; homelessness.

MED:8023 Community Health Outreach III 1-2 s.h.
Presentations, patient-based learning groups, readings, and practical experience working with agencies that provide health care and wellness promotion to communities; substance abuse; child, adolescent, and adult health; aging; interpersonal violence; homelessness.

MED:8028 Introduction to U.S. Health Care System 1 s.h.
Structure, function, and finance of U.S. health care system; access, cost, quality, finance mechanisms, reform process.

MED:8029 Disruptive Forces in Medicine 1 s.h.
Exploration of the pathogenesis of COVID-19 and its impact on medicine at University of Iowa Health Care; students gain perspective and knowledge about the virus, its impact on medical practice, and future consequences; mechanisms of COVID-19 pathogenesis; racial and social inequities highlighted by the pandemic; insight into clinical challenges (i.e., telemedicine); best practices for patient education and clinician safety in different fields. Requirements: MD enrollment.

MED:8031 Reproductive and Gynecological Health Seminar 1 s.h.
Education on reproductive and gynecological health topics, service opportunities, and mentorship. Requirements: MD standing.

MED:8033 Clinical Skills for Responding to Sexual Violence 1 s.h.
Training that focuses specifically on epidemiology, screening, clinical presentation, initial evaluation, and medical management of sexual violence and interpersonal violence victimization; opportunity to apply preclinical and/or concurrent coursework to true-to-reality, clinically relevant, and medically complex health problems with sexual violence as the underlying cause; development of communication and clinical skills necessary to address sexual and interpersonal violence in a clinical setting. Requirements: MD standing or physician assistant standing or enrollment in degree-seeking graduate or health professional program.

MED:8070 The Examined Life: Writing and Medicine 1 s.h.
Literature, essays, poetry; discussion of participants' writing; students prepare portfolios of their own writing.

MED:8071 Career Life Planning 1 s.h.
Students' individual interests, values, and decision-making processes important in selecting a specialty, engaging in the match process, and integrating oneself into the medical profession; personal career development, culture and climate in which physicians work and learn.

MED:8073 Biomedical Innovation 1 s.h.
Introduction to all phases of medical device/technology development; development of knowledge of entire medical innovation process through didactic sessions, faculty, interactions, and interdisciplinary collaboration; interdisciplinary approach; research and development of a novel medical device, therapy, or model of care. Requirements: MD enrollment.

MED:8074 Research Skills Seminar 1 s.h.
Seminar series designed to bridge gap from undergraduate and medical student experiences to research during residency and beyond; topics include identification of projects and mentors, leadership, collaboration, translation, evidence-based medicine, project development, statistical analysis, presentation, publication, and career progression.

MED:8076 Bioethics and Humanities Seminar 1 s.h.
Broad range of topics in bioethics and medical humanities, including philosophical principles, clinical ethics, research ethics, medical professionalism, narrative ethics, and historical and cultural aspects of medicine. Requirements: enrollment in Carver College of Medicine humanities distinction track.

MED:8077 Personal-Professional Compass 1 s.h.
Provides help for medical students to understand, articulate, and integrate personal and professional values and goals while making their way through medical school; promote student growth as humanistic professionals through written reflections on personal experience, readings from medicine and the humanities, and discussions with peers and mentors; preparation to write an authentic and compelling personal statement for residency applications. Requirements: MD enrollment.

MED:8081 Global Health Issues I 1 s.h.
Core issues in the current field of global health, including history of global health, health and development, social determinants of health, measuring health and disease, disparities in the American health care system, poverty and health, gender issues and reproductive health, child health, immigrant and migrant health issues, and introduction of major players in global health. Requirements: MD enrollment.

MED:8082 Global Health Issues II 1 s.h.
Core issues in the current field of global health, including health care as a human right, why the Third World is the Third World, communicable disease issues, outbreaks and pandemics, noncommunicable issues, malnutrition and obesity, cultural context of health care, violence as a health issue, and emergency response and transition to development. Prerequisites: MED:8081. Requirements: MD enrollment.

MED:8083 Global Cross-Cultural Elective arr.
Cross-cultural medical program with focus on health care problems of a domestic or international community; individually arranged.

MED:8084 Global Health Seminar 1 s.h.
Presentations by faculty members, university special guests, and alumni on their current work in global medicine/global health; implementation of global health concepts. Requirements: MD enrollment.

MED:8121 Clinical and Professional Skills I 3 s.h.
Introduction to concepts of clinical reasoning, communication, physical examination, and evidence-based clinical practice; principles of biomedical ethics; early clinical interactions and placement of classroom experiences into context of patient care through the Early Clinical Experiences (ECE) program; interaction with students from other health sciences colleges to explore the interprofessional approach to caring for patients. Requirements: MD enrollment.

MED:8122 Medicine and Society I 3 s.h.
Delivery of individual disease prevention/health promotion services; introduction to social determinants of health; influence and impact of culture and community on health care; community resources; application of health and risk assessment to individual patients and self. Requirements: MD enrollment.

MED:8123 Foundations of Cellular Life 5 s.h.
Genetics, embryology, molecular biology, biochemistry, cell biology and histology; molecular events required for cellular life; how cells grow and interact to form basic tissues of human body; necessary framework to explore six mechanisms of health and disease. Requirements: MD enrollment.

MED:8124 Mechanisms of Health and Disease I 8 s.h.
Normal and healthy processes within and among mechanisms of oxygenation, metabolism, and genetics/development; first in a series on multisystem mechanisms of health and disease. Requirements: MD enrollment.

MED:8131 Clinical and Professional Skills II 4 s.h.
Interpersonal skills, lifelong learning, interviewing skills, physical examination skills, ethical issues in patient care, and basic approach to patients in terms of prevention, treatment, and follow-up care. Second in a sequence during preclinical semesters of medical school and continuing as an integrated strand throughout curriculum. Requirements: MD enrollment.

MED:8132 Medicine and Society II 4 s.h.
Knowledge and skills related to health promotion and disease prevention from a medicine and society perspective, including impact of behavior, environment, culture, and socioeconomics; identification of major public health problems associated with mechanisms of health and disease. Second in a sequence during preclinical semesters of medical school and continuing as an integrated strand throughout curriculum. Requirements: MD enrollment.

MED:8133 Mechanisms of Health and Disease II 7 s.h.
Normal and healthy processes within and among mechanisms of Immunology/Inflammation, locomotion/integument, and neuropsychiatry; second in a series on mechanisms of health and disease. Requirements: MD enrollment.

MED:8134 Mechanisms of Health and Disease III 11 s.h.
Abnormalities or disruptions leading to disease within and among mechanisms of oxygenation, metabolism, and genetics/development; third in a series on multisystem mechanisms of health and disease. Requirements: MD enrollment.

MED:8199 First-Year Special Study arr.
First-year special study. Requirements: MD enrollment.

MED:8221 Clinical and Professional Skills III 4 s.h.
Advanced clinical reasoning skills through focused patient encounters and interactions with special patient populations; emphasis on integration and use of concepts for cost conscious, patient-centered, interdisciplinary care. Requirements: MD enrollment.

MED:8222 Medicine and Society III 4 s.h.
Health services organization and delivery; emphasis on community dimensions of medical practice and patient safety. Requirements: MD enrollment.

MED:8223 Mechanisms of Health and Disease IV 10 s.h.
Abnormalities or disruptions leading to disease within and among mechanisms of immunology/inflammation, locomotion/integument, and neuropsychiatry; fourth in a series on multisystem mechanisms of health and disease. Requirements: MD enrollment.

MED:8224 Mechanisms of Health and Disease Keystone 7 s.h.
Transition between classroom instruction in mechanisms of health and disease and clinical practice; foundational information from mechanisms of health and disease sequence approached from perspective of what is commonly encountered in clinics; application of information to making diagnostic and management decisions of common important clinical problems. Requirements: MD enrollment.

MED:8299 Second-Year Special Study arr.
Second-year special study. Requirements: MD enrollment.

MED:8320 Transition to Clerkships 1-2 s.h.
Two weeks of skills training prior to start of core clinical clerkships. Requirements: MD or MPA enrollment.

MED:8401 Medicine, Literature, and Writing arr.
Insights, freedom, joy, responsibilities, and challenges of a life in medicine; reading, discussion, individual creative writing.

MED:8403 Teaching Skills for Medical Students 4 s.h.
Practical teaching techniques; opportunity for students to develop teaching skills before they become medical residents.

MED:8404 Advanced Teaching Skills for Medical Students 2 s.h.
Opportunity to expand knowledge and experience in medical education; investigation of medical education in students' specialty of interest through literature research and interaction with faculty; primary focus is to design and successfully complete a faculty approved project. Prerequisites: MED:8403. Requirements: fourth-year MD enrollment.

MED:8405 Leadership for Future Physicians 2 s.h.
Formal training in multiple aspects of leadership; offers future leaders in health science specialties an earlier opportunity to consider leadership abilities and perspectives; for fourth-year medical, physician assistant, nursing, pharmacy, public health, and dental students. Requirements: health science enrollment.

MED:8410 Quality Improvement and Patient Safety 2 s.h.
Students work with faculty and staff involved in quality improvement and patient safety (QI/PS) at University of Iowa Health Care; readings, didactic sessions, and hands-on activities to advance knowledge and practice of QI/PS in health care; activities include review of ongoing QI/PS projects at UI Health Care, application of QI/PS methodologies to project development and analysis, individual and team-based simulations, interdisciplinary collaboration and communication, participating in conferences related to QI/PS, and reflecting on these experiences with peers.

MED:8411 Foundational Science and Drug Therapy 2 s.h.
Advanced medical students partner with advanced pharmacy students and work together to devise evidence-based treatments for patients suffering from common illnesses; foundational science concepts from each student's respective discipline—including mechanisms of health and disease and principles of pharmacokinetics and pharmacodynamics—are used to design and explain proposed treatments; two weeks, case-based.

MED:8412 Improvisation: A Life Skill 4 s.h.
Drawing from interpersonal communication techniques, experiences that help students communicate more empathically with their patients, patients' families, and other health care team members in order to create a safe and trusting exchange.

MED:8413 Oaths and Ethics 4 s.h.
History and purpose of medical oaths; medical oaths compared with professional codes; content of medical oaths in terms of ethical principles and virtues; review of ethical values communicated in ethics-related seminars at University of Iowa Health Care; students write a medical oath that crystallizes their own most important professional commitments.

MED:8414 Health Policy Advocacy Des Moines 4 s.h.
Health policy advocacy experience in Des Moines while Iowa Legislature is in session; students choose an area of interest in health policy advocacy and work with senior legislators, policy advisors, state health department representatives, or advocates of various professional organizations involved in advocacy efforts for health policy; students receive prior approval regarding which health policy issue they want to work on and which individual or professional organization they plan to work with during their onsite experience. Requirements: MD enrollment.

MED:8415 Financial Management for Rising Interns 2 s.h.
Foundational concepts of personal financial management; topics include personal budgeting, educational loan management, investing, risk management and mitigation, medical practice investment, taxation, and additional relevant areas of interest for rising resident physicians. Requirements: MD enrollment.

MED:8416 Foundations in Healthcare Ethics 3 s.h.
Major ethical traditions, ideas, and frameworks that have shaped contemporary approaches to healthcare ethics in morally pluralistic Western cultures; four prominent frameworks in healthcare ethics include virtue based, principle based, circumstance based, and consequence based that emphasize four aspects of ethical decision-making—agent, action, context, and outcome.

MED:8423 Teaching Skills for Teaching Distinction Students 4 s.h.
Practical teaching techniques; opportunity for students to develop teaching skills before they become medical residents. Requirements: MD enrollment. Recommendations: enrollment in the teaching distinction track.

MED:8470 Self-Directed Learning in Advanced Clinical Topics 0 s.h.
Online learning modules on advanced clinical topics; for students in MD program.

MED:8480 Global Health Clerkship arr.
Cross-cultural medical program at an international site; focus on health care problems of a specific community; individual educational objectives set in advance.

MED:8499 Individually Arranged Medicine Elective arr.
Individually arranged elective through the Office of Student Affairs and Curriculum.

MED:9701 Instructional Design and Technology 3 s.h.
Skills and techniques necessary for analysis, design, development, implementation, and evaluation of effective instruction.

MED:9702 Clinical Teaching in Medical Education 3 s.h.
Principles and methods for teaching individuals and small groups in outpatient and inpatient settings. Prerequisites: MED:9701 or PSQF:6205. Recommendations: educational psychology course.

MED:9703 Educational Research and Evaluation 3 s.h.
Research design and program evaluation; approaches relevant to medical education.

MED:9711 Teaching Methods in Medical Education 3 s.h.
Principles and methods for teaching in large and small classrooms. Recommendations: educational psychology course.

MED:9712 Introduction to Educational Measurement in Medical Education 3 s.h.
Classical test theory; overview of medical education assessment methods; practical information for designing and critiquing assessments.

MED:9713 Assessment in Medical Education 3 s.h.
Medical education assessment methods; research methods and literature that support current practices; research project. Prerequisites: MED:9712.

MED:9714 Current Issues in Medical Education 3 s.h.
Selected issues, policies, and research.

MED:9720 Portfolio Project 3 s.h.
Production of individual student portfolios used to integrate knowledge across courses; capstone activity.

MED:9721 Study in Faculty Development 3 s.h.
Academic credit for approved project or other assigned activities for students in the Teaching Scholars program.

MED:9722 Independent Study arr.

MED:9724 Leadership in Medicine 3 s.h.
Introduction to basic leadership and management theories pertaining to a health care setting; focus on the history of leadership development, various components of leadership, and how these components can be used to be a successful leader/administrator. Requirements: Master in Medical Education degree program enrollment.

MED:9725 Simulation in Medical Education 3 s.h.
Appropriate use of various types of simulation in medical education; how to design, deliver, and debrief a simulation activity; literature supporting use of simulation in medical education. Requirements: Master in Medical Education degree program enrollment.

MED:9726 Curriculum Development in Medical Education 3 s.h.
Curriculum development using knowledge and experience gained from MED:9701 and MED:9711; identify an area/topic for creation of curriculum; conduct a needs assessment to identify topics and/or components of curriculum; create a plan with curriculum goals, learning objectives, and methods for evaluation; develop preliminary planning and aspects of implementation and evaluation phases of the model.

MED:9727 Teaching and Assessing Communication Skills in Medical Education 3 s.h.
Explores broad issues related to both teaching and assessing clinician-patient communication skills in medical education; review literature on best practices in clinician-patient communication and on teaching and/or assessing skills among medical learners; explore observation and feedback as key technique in addressing communication skills through observation of peers and learners; video recording of interactions with patients.

MED:9728 Educational Research and Evaluation in Practice 3 s.h.
Mentored research on a topic of interest in health professions education, including obtaining Institutional Review Board (IRB) approval, developing or refining data collection instruments, conducting primary data collection, assisting with statistical or qualitative data analysis and interpretation, and preparing scholarly submissions such as manuscripts and conference abstracts. Recommendations: MED:9703.

Hospital Certificate Programs of Study

The following courses are conducted by University of Iowa Health Care staff.

EMT-Paramedic Program Courses

EMTP:3101 Emergency Medical Technician - Paramedic I 0 s.h.
Preparation for role of entry-level paramedic: comprehension, application, and evaluation of the clinical role; demonstration of technical proficiency in all required skills; demonstration of personal behaviors consistent with professional and employer expectations. Requirements: certification as an emergency medical technician-basic.

EMTP:3102 Emergency Medical Technician - Paramedic II 0 s.h.
Preparation for role of entry-level paramedic: comprehension, application, and evaluation of the clinical role; demonstration of technical proficiency in all required skills; demonstration of personal behaviors consistent with professional and employer expectations. Requirements: admission to emergency medical technician paramedic program.

EMTP:3103 Emergency Medical Technician - Paramedic III 0 s.h.
Preparation for role of entry-level paramedic: comprehension, application, and evaluation of the clinical role; demonstration of technical proficiency in all required skills; demonstration of personal behaviors consistent with professional and employer expectations. Requirements: admission to emergency medical technology paramedic program.

Orthoptics Teaching Program Course

OTP:4902 Orthoptics Program 0 s.h.
Clinical science of binocular vision, ocular motility, and related eye disorders; practical, theoretical training in the Department of Ophthalmology and Visual Sciences two-year program; written, oral and practical national board examinations required at completion. Requirements: bachelor's degree with specific class recommendations.

Anatomy and Cell Biology

Interim Chair

- Robert C. Piper

Professional degree: MCA

Faculty: https://acb.medicine.uiowa.edu/profile/

Website: https://acb.medicine.uiowa.edu/

The Department of Anatomy and Cell Biology performs three major functions. It teaches human anatomy to students preparing for careers in the health care professions; provides advanced courses, teaching experience, and research training to graduate students preparing for careers in academic research and related scientific fields; and conducts original research on the biological basis of cellular functions and human disease processes.

Preclinical Study

The department contributes to the preclinical education of health care professionals by providing major courses in gross anatomy, cell biology, histology, and neuroscience.

Graduate Study

The department offers the cell and developmental biology [p. 1704] subprogram for a PhD in biomedical science in the Biomedical Science Program [p. 1698]. It also participates in the Carver College of Medicine's Medical Scientist Training Program [p. 1901] and the Graduate College's Molecular Medicine [p. 1779], Immunology [p. 1742], Genetics [p. 1733], and Neuroscience [p. 1781] Programs. On occasion, students are directly admitted to a Department of Anatomy and Cell Biology laboratory by arrangement with the laboratory director.

Professional Study

The Department of Anatomy and Cell Biology offers a professional degree, the Master of Clinical Anatomy [p. 1855] (MCA).

Programs

Professional Program of Study

- Master of Clinical Anatomy [p. 1855]

Facilities

The department occupies more than 35,000 square feet in the Bowen Science Building on the University of Iowa health sciences campus. The building houses modern teaching facilities and well-equipped research laboratories. The most modern instrumentation is available, including facilities and equipment for digital microscopic imaging, confocal microscopy, molecular biological techniques, tissue culture, and protein chemistry. Other specialized equipment (e.g., electron microscopes, mass spectrophotometers) is available in other facilities. Through collaborative programs with the Holden Comprehensive Cancer Center and the Abboud Cardiovascular Research Center, faculty and students also have access to outstanding research facilities throughout the university's health sciences campus.

Courses

Anatomy and Cell Biology Courses

ACB:3110 Principles of Human Anatomy 3 s.h.
Gross and microscopic human anatomy; systemic approach to regional anatomy with emphasis on clinical relevance; optional tutorial sessions.

ACB:3122 Independent Study in Anatomy and Cell Biology arr.
Projects arranged with department faculty members.

ACB:5108 Human Anatomy 5 s.h.
Regional dissection, lectures, demonstrations; areas important to physical therapists, particularly the upper and lower extremities. Offered fall semesters. Requirements: physical therapy and rehabilitation science enrollment.

ACB:5203 Gross Human Anatomy for Graduate Students 5-6 s.h.
Regional dissection, lectures, demonstrations, tutorials, discussions, seminars; clinically relevant areas of anatomical radiology, surface anatomy with clinical correlations. Requirements: enrollment in Master of Clinical Anatomy program.

ACB:5206 Graduate Research in Cell and Developmental Biology arr.
Individual laboratory research training in anatomical sciences.

ACB:5210 General Histology Online 4 s.h.
Histology of all tissues of human body starting with basic tissues and working through systems of the body; linked in sequence to ACB:5203 so that students learn about related content at the same time in anatomy and histology; recorded lectures, online modules, and extensive use of Virtual Microscope. Requirements: enrollment in Master of Clinical Anatomy program.

ACB:5218 Microscopy for Biomedical Research arr.
Basic microscopy methods for research including optics, preparation, and analysis of biomedical specimens; light, fluorescence, confocal, transmitting electron, scanning electron, atomic force microscopes, elemental analysis; immunochemistry and stereology techniques; individualized laboratory instruction. Prerequisites: BIOL:2723. Same as BIOL:5218, MICR:5218.

ACB:5224 Graduate Seminar in Cell and Developmental Biology 0-1 s.h.
Current research, literature. Requirements: cell and developmental biology graduate standing.

ACB:6000 Human Anatomy for Advanced Practice 4 s.h.
Integrated study of interrelationships between anatomic structure and physiological function in health and disease at various points in the lifespan; mechanisms governing and supporting cellular, organ, and system function; internal milieu; relationship of study to clinical assessment of functional integrity of individual organ systems utilizing pertinent objective and subjective data; implications of pathophysiology for anesthesia and implications of anesthesia for pathophysiology; foundation for clinical practicums and courses in nurse anesthesia. Requirements: completion of an undergraduate human anatomy and physiology course and admission to anesthesia nursing program. Same as NURS:6000.

ACB:6200 Current Topics in Genetics 1 s.h.
Focus is on a broad topic of central importance to genetics and biology as a whole; invited speakers are distinguished researchers from institutions across the country and within the University of Iowa, their work grounded in genetics, and cover diverse topics using a wide range of genetic model systems and approaches; seminar series. Same as GENE:6200.

ACB:6220 Mechanisms of Cellular Organization 3 s.h.
Current understanding of basic cell biological processes; key experiments that led to guiding insights; mechanisms that cells use for compartmentalization and how those mechanisms are regulated; biogenesis of major organelles (e.g., mitochondria, peroxisomes, nucleus, secretory/endocytic membrane system); functions of cytoskeleton in cell motility, organelle motility, and cell division. Prerequisites: BMB:3130. Same as MMED:6220, MPB:6220.

ACB:6226 Cell Cycle Control 1 s.h.
Cell cycle regulation, DNA damage-dependent cell cycle regulation, redox-dependent cell cycle regulation, cellular senescence. Same as MMED:6226, MPB:6226.

ACB:6227 Cell Fate Decisions 1 s.h.
Cellular fate decisions including signal integration, terminal differentiation in development, mechanisms of embryonic stem cell gene regulation/cellular reprogramming, cell death paradigms, and cell death in development and cancer. Same as MMED:6227, MPB:6227.

ACB:6237 Critical Thinking in Biochemistry and Molecular Biology 1 s.h.
How nucleic acids, proteins, lipids, and carbohydrates interact to influence the function of cells and tissues; how molecules drive signaling pathways and cellular processes essential for biological functions; based on research publications.

ACB:6238 Critical Thinking in Genetics 1 s.h.
Current topics in molecular and classical genetics; emphasis on genetic underpinnings of disease; based on primary research publications.

ACB:6239 Critical Thinking in Cell Biology 1 s.h.
Understanding subcellular organization and intercellular communication; emphasis on critical thinking and primary research publications.

ACB:6248 Critical Thinking in Development 1 s.h.
Current topics in molecular basis of vertebrate development; based on primary research publications.

ACB:6249 Critical Thinking in Cellular Physiology 1 s.h.
Control of physiological systems at the cellular level; emphasis on regulation by molecular signaling pathways; literature based.

ACB:6250 Critical Thinking in Scientific Writing and Presentations 1 s.h.
Scientific grant writing, particularly specific aims development, and oral presentations. Requirements: second-year standing in cell and developmental biology graduate program.

ACB:6252 Functional Neuroanatomy arr.
Basic principles of neuroanatomy and neurophysiology; emphasis on human central nervous system; laboratory emphasis on anatomical study of spinal cord and brain. Offered spring semesters. Requirements: physical therapy and rehabilitation science enrollment or graduate standing. Same as PTRS:6253.

ACB:6265 Neuroscience Seminar 0-1 s.h.
Research presentations. Same as BIOL:6265, MPB:6265, NSCI:6265, PSY:6265.

ACB:7000 Clinical Anatomy Graduate Research 1-3 s.h.
Individual laboratory or education-related research training. Requirements: MCA enrollment.

ACB:7001 Teaching and Learning in the Anatomical Sciences 2 s.h.
Strategies involved in anatomical sciences education including interactive lecturing, dissection, peer teaching/learning, plastination, virtual microscopy, simulation, case presentation, and assessment techniques; recorded lectures and online modules. Requirements: enrollment in Master of Clinical Anatomy program.

ACB:7002 Seminar in Anatomical Sciences 1 s.h.
Opportunity to discuss peer-reviewed anatomical, clinical, and education research articles as related to issues of teaching in anatomical sciences; student- and/or faculty-led presentations prompt further discussion of various in-depth studies that focus on bringing current information into the classroom. Requirements: enrollment in Master of Clinical Anatomy program.

ACB:7010 Anatomy Through Imaging 2 s.h.
Exploration of anatomy through basic imaging techniques; online modules and in-class activities; focus on identification of normal structures through application of anatomical concepts. Requirements: enrollment in Master of Clinical Anatomy program.

ACB:7020 Human Embryology Online 2 s.h.
Major events of embryologic development in humans; more of a morphologic focus than a molecular focus, including important molecular concepts of development; backstory of adult human anatomy and how various birth defects occur. Offered spring semesters. Prerequisites: ACB:5203 or ACB:8101 or ACB:5108. Requirements: enrollment in Master of Clinical Anatomy program.

ACB:7227 Anatomic Study for Teaching 2-3 s.h.
Experience completing a detailed dissection of a region of the human body; opportunity to create models depicting anatomical concepts. Requirements: enrollment in Master of Clinical Anatomy program.

ACB:7400 Practicum in College Teaching for Master of Clinical Anatomy 1-4 s.h.
Supervised college teaching experience; teaching in collaboration with faculty, observation and critiques of teaching, participation in course planning and evaluation procedures; ethical and multicultural considerations. Recommendations: enrollment in Master of Clinical Anatomy program.

ACB:7401 Advanced Human Anatomy 4 s.h.
Regional dissection of the body with emphasis on systems; discussion, reading, clinically relevant imaging, embryology. Requirements: enrollment in Master of Clinical Anatomy program.

ACB:7402 Teaching Elective in Regional Anatomy 2 s.h.
Expand knowledge and experience in medical education; investigate educational pedagogy in a laboratory setting coupled with self-directed learning of anatomical content relevant to professional development; prepare, design, and implement four teaching interactions with year one medical, dental, and physician assistant (M1/D1/PA1) students; design a classroom exercise (e.g., interactive lecture, learning activity, computer-based study module) that helps bridge the basic science content with clinical procedure. Requirements: enrollment in Master of Clinical Anatomy program.

ACB:7500 Case-Based Learning 1 2 s.h.
Case-Based Learning (CBL) is an active technique that uses small group discussion, self-directed learning, and presentation skills via healthcare related cases to learn/revisit didactic concepts. By having opportunities to deeply explore anatomical topics, students can begin to move beyond rote memorization of factual material toward application and integration of these facts to a clinical case. Over time and with increasing levels of expertise, students will be able to evaluate novel patient scenarios in the context of the anatomical sciences. CBL I explores cases related to concepts in gross anatomy, histology, and introductory material related to neuroanatomy and embryology. Requirements: enrollment in Master of Clinical Anatomy program.

ACB:7600 Case-Based Learning 2 2 s.h.
Case-based learning is an active and student-centered technique that uses small group discussion, self-directed learning, and presentation skills via healthcare-related cases to learn didactic concepts. By becoming familiar with and having opportunities to explore anatomical topics, students begin to move beyond memorization of factual material toward application and integration of these facts to a clinical case. Over time and with increasing levels of expertise students will be able to evaluate novel patient scenarios in the context of the anatomical sciences; students explore cases related to advanced concepts in gross anatomy, histology, neuroanatomy, embryology, and imaging. Prerequisites: ACB:7500 with a minimum grade of C. Requirements: enrollment in Master of Clinical Anatomy program.

ACB:7701 Advanced Neuroimaging 1 s.h.
In-depth training of human cross-sectional neuroanatomy and diagnostic neuroimaging, building on prior learning in ACB:6252/PTRS:6253; features a combination of didactic instruction, case review, and active interpretation and presentation of structural brain images. Prerequisites: ACB:6252 or PTRS:6253. Requirements: Master of Clinical Anatomy or health profession graduate program enrollment.

ACB:7702 Advanced Osteology 1 s.h.
In-depth exploration of human bony anatomy, including detailed identification techniques and methods for assessing age, sex, and biological affinity. Requirements: Master of Clinical Anatomy or health profession graduate program enrollment.

ACB:7703 Art and Anatomy 1 s.h.
Exploration of the human body through an artistic lens, including how it has been represented over history and how it has shaped art. Prerequisites: ACB:5203 or ACB:8101 or ACB:8120 or ACB:5108 or ACB:6000 or AT:3060 or HHP:4110. Requirements: Master of Clinical Anatomy enrollment.

ACB:7704 Surface Anatomy and Palpation 1 s.h.
Regional exploration of gross anatomy in the living body through study of structures that are visible and palpable through the skin. Prerequisites: ACB:5203 or ACB:8101 or ACB:5108 or NURS:6000. Requirements: Master of Clinical Anatomy enrollment.

ACB:8101 Medical Gross Human Anatomy 5 s.h.
Complete dissection of the body with regional emphasis stressing relationships to the living system; clinically relevant areas of radiologic imaging, surface anatomy, embryology, and clinical correlations; anatomical knowledge through lectures, small group work, independent activities. Offered fall semesters. Requirements: MD or MPA enrollment.

ACB:8120 Human Gross Anatomy for Dental Students 6 s.h.
Exploration of gross anatomy of human body including thorax, abdomen, and upper limb; extensive focus on head, neck, and neuroanatomy; regional and systemic approaches; course sequence and assessment blended with general histology for dental students; cadaveric dissections closely follow lecture sequence; emphasis on correlations to dental practice. Offered spring semesters. Requirements: DDS enrollment.

ACB:8121 General Histology for Dental Students 4 s.h.
Microscopic study of cells, fundamental tissues, and organ systems; emphasis on tooth-related structures. Offered spring semesters. Requirements: DDS enrollment or anatomy and cell biology graduate standing.

ACB:8401 Advanced Human Anatomy arr.
Regional dissection of the body with emphasis on systems relevant to student's specialty interests; discussion, reading, clinically relevant imaging, embryology. Offered spring semesters. Requirements: fourth-year MD enrollment or graduate standing.

ACB:8402 Teaching Elective in Regional Anatomy 2,4 s.h.
Students expand knowledge and experience in medical education; investigation of educational pedagogy in a laboratory setting coupled with self-directed learning of anatomical content relevant to professional development; preparation, design, and implementation of four teaching interactions with year one medical, dental, and physician assistant (M1/D1/PA1) students; designing a classroom exercise (e.g., interactive lecture, learning activity, computer-based study module) that helps bridge the basic science content with clinical procedure. Requirements: MD standing and enrollment in teaching distinction track.

ACB:8405 Advanced Clinical Neuroanatomy 2 s.h.
Focused training in interpretation of cross-sectional neuroanatomy at a level far exceeding what is currently taught in preclinical curriculum; builds on prior training in diagnostic neuroimaging of the human brain during first and second phases of the medical curriculum, producing postgraduate year one (PGY-1) level of readiness interpreting structural brain images; core knowledge and skills of neurological examination applied within context of clinical problems. Requirements: MD enrollment.

ACB:8498 Special Study On Campus arr.
Anatomy research on campus; individually arranged. Requirements: MD enrollment.

Master of Clinical Anatomy, MCA

The Master of Clinical Anatomy (MCA) program provides a comprehensive education focused on developing clinically relevant content knowledge in the anatomical sciences, including anatomy, histology, neuroanatomy, and embryology. The degree is designed to prepare students who wish to advance to professional programs (e.g., MD, DDS, PA, DPT, etc.) or continue into educational professions or other health-related careers. The MCA program is well-suited for students looking to improve their competitive applications or who want to expand their understanding of the anatomical sciences to make a more informed career decision.

Requirements

The professional Master of Clinical Anatomy (MCA) program requires a minimum of 32 s.h. of work that is distributed between required (25 s.h.) and elective (7 s.h.) coursework. Students must maintain a grade-point average of at least 3.00. The program is designed so that students can complete the requirements in a year and a half and provides clinically relevant content coupled with opportunities for experiential learning to develop skills in teaching and educational research. A portion of the curriculum is offered online to complement classroom and laboratory learning.

Students with a degree in a specific biological science (e.g., genetics) for which no formal coursework in basic gross anatomy has been completed may be required to take a prerequisite undergraduate anatomy course.

The Master of Clinical Anatomy requires the following coursework.

Required Courses

Course #	Title	Hours
ACB:5203	Gross Human Anatomy for Graduate Students	5
ACB:5210	General Histology Online	4
ACB:6252	Functional Neuroanatomy	4
ACB:7001	Teaching and Learning in the Anatomical Sciences	2
ACB:7002	Seminar in Anatomical Sciences (taken twice for 1 s.h. each)	2
ACB:7010	Anatomy Through Imaging	2
ACB:7020	Human Embryology Online	2
ACB:7500	Case-Based Learning 1	2
ACB:7600	Case-Based Learning 2	2

Electives

Students select at least 7 s.h. in elective coursework.

Course #	Title	Hours
ACB:5206	Graduate Research in Cell and Developmental Biology (may earn 1-3 s.h. in addition to required course)	1-3
ACB:7020	Human Embryology Online	2
ACB:7400	Practicum in College Teaching for Master of Clinical Anatomy (may earn 1-2 s.h. in addition to required course)	1-2
ACB:7401	Advanced Human Anatomy	4
ACB:7402	Teaching Elective in Regional Anatomy	2
ACB:8401	Advanced Human Anatomy	4
ACB:8402	Teaching Elective in Regional Anatomy	2
GRAD:7385	Teaching and Learning in Higher Education	3
MED:8403	Teaching Skills for Medical Students	4
PSQF:6205	Design of Instruction	3
Other coursework with MCA program approval		1-3

Research/Education Project

Students successfully present their research/education project in November of their second year.

Capstone Assessment

The capstone assessment is the final formal examination that students are required to pass in order to graduate from the MCA program. The exam is held in the fall semester of the second year and is comprised of a series of hands-on/interactive, case-based assessment tasks that take place across multiple stations. Each station intentionally tests the critical thinking, problem-solving, and analytical skills developed by students during the MCA program while allowing them to demonstrate graduate-level expertise in the anatomical sciences by integrating content knowledge from each of the foundational areas studied during the program: gross anatomy, histology, neuroanatomy, embryology, and anatomical imaging.

Admission

Applicants must:

- have a BA or BS degree with a strong science background;
- have a cumulative grade-point average of at least 3.00;
- provide three letters of reference/support;
- submit a personal statement;
- be available for an interview with the MCA faculty, and;
- submit a Test of English as a Foreign Language (TOEFL) score (only the iBT—Internet-Based Test is accepted with a total score of 93 and a speaking score of 26) and the test must have been taken within the last two years, or submit a current acceptable score from the International English Language Testing System (IELTS) if an international applicant and if English is not student's first language.

Optional for applicants:

- an external performance exam from the last five years, such as the Medical College Admission Test (MCAT), Graduate Record Examination (GRE), or the Dental Admission Test (DAT).

Application deadline is May 22.

For detailed application instructions and forms, visit the Department of Anatomy and Cell Biology website.

Career Advancement

Graduates are prepared for a variety of anatomical sciences education settings that include advanced professional study, faculty/lectureship positions in medicine, and allied health care fields at community colleges. Some will want to continue their studies within a health care profession, others may want to prepare for college-level teaching, and others may want to pursue a career in anatomical sciences.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Master of Clinical Anatomy, MCA

Course	Title	Hours
Academic Career		
Any Semester		
32 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Students must maintain a GPA of at least 3.00.		
	Hours	**0**
First Year		
Fall		
ACB:5203	Gross Human Anatomy for Graduate Students	5
ACB:5210	General Histology Online	4
ACB:7001	Teaching and Learning in the Anatomical Sciences	2
ACB:7002	Seminar in Anatomical Sciences [b]	1
	Hours	**12**
Spring		
ACB:6252	Functional Neuroanatomy	4
ACB:7020	Human Embryology Online	2
ACB:7500	Case-Based Learning 1	2
ACB:7002	Seminar in Anatomical Sciences [b]	1
	Hours	**9**
Summer		
Elective course [c]		1 - 4
Elective course [c]		1 - 4
	Hours	**2-8**
Second Year		
Fall		
ACB:7010	Anatomy Through Imaging	2
ACB:7600	Case-Based Learning 2	2
Elective course (if needed) [c]		1 - 4
Elective course (if needed) [c]		1 - 4
Exam: Master's Final Exam [d]		
	Hours	**6-12**
	Total Hours	**29-41**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Taken twice for 1 s.h. each.

c Students select at least 7 s.h. in elective coursework. See the General Catalog for list of approved courses.

d This is the final formal examination that students are required to pass in order to graduate from the MCA program. The exam is held in the fall semester of the second year and is comprised of a series of hands-on/interactive, case-based assessment tasks that take place across multiple stations. Each station intentionally tests the critical thinking, problem-solving, and analytical skills developed by students during the MCA program while allowing them to demonstrate graduate-level expertise in the anatomical sciences by integrating content knowledge from each of the foundational areas studied during the program: gross anatomy, histology, neuroanatomy, embryology, and anatomical imaging.

Anesthesia

Chair

- Cynthia Wong

Website: https://anesthesia.medicine.uiowa.edu/

Since its inception, the Department of Anesthesia at the University of Iowa has educated more than 700 anesthesiologists, and at least 18 former residents have served as heads of departments of anesthesiology at American medical colleges.

The department has been, and continues to be, well-represented on editorial boards of major anesthesia journals. It provides refresher course lectures for the annual meeting of the American Society of Anesthesiologists, has physician-researchers who are recognized by the National Institutes of Health as independently funded principal investigators, provides many board examiners for the oral exams of the American Board of Anesthesiology, and has earned high national ranking because of these and other objective accomplishments.

The department coordinates the Anesthesia Nursing Program, a collaboration between the Carver College of Medicine and the College of Nursing. The program, which is open to nurses who hold a bachelor's degree, prepares nurse anesthetists to serve rural hospitals in Iowa and nationwide. The curriculum provides intensive training in didactic and clinical anesthesia and includes diverse clinical experience as well as classroom instruction, seminars, and clinical case conferences. For more information, see the Doctor of Nursing Practice [p. 2029] (College of Nursing) section of the catalog.

MD Training

The Department of Anesthesia introduces second-year medical students to anesthesia as a specialty; helps third-year students develop concepts and technical skills related to resuscitation, airway management, and care of the unconscious patient; and offers fourth-year students intensive study in the specialty.

The department offers the following courses for medical students. For course descriptions and prerequisite information, see Courses [p. 1857] in this section of the catalog.

Course #	Title	Hours
ANES:8301	Clinical Anesthesia	2
ANES:8401	Clinical Anesthesia Senior	arr.
ANES:8402	Surgical and Neurosciences Intensive Care	arr.
ANES:8403	Chronic Pain Management	2
ANES:8495	Intensive Care Off Campus	arr.
ANES:8497	Research in Anesthesia	arr.
ANES:8498	Anesthesia On Campus	arr.
ANES:8499	Anesthesia Off Campus	arr.

Residency

Postgraduate and Residency Program

The department's postgraduate and residency program involves diverse clinical experiences, seminars and teaching conferences, and ongoing research activities that help postgraduate students and residents develop the knowledge and skills required of an anesthesia specialist.

Courses

Anesthesia Courses

ANES:6004 Scientific Principles for Anesthesia Practice 4 s.h.
Applicable chemical and physical properties of molecules important in anesthesia; technological principles and equipment used to safely deliver those molecules to patients and monitor patients during anesthesia; topics include basic chemical and physical calculations, properties of substances in solution, measurement, behavior of gases and other fluids, effects of heat transfer, and the specific chemistry of inhaled and intravenous anesthetics and adjuvant drugs. Corequisites: NURS:6006. Same as NURS:6004.

ANES:6006 Pharmacology of Anesthesia Practice 3 s.h.
Builds on content from foundational graduate pharmacology course; focus on safe prescribing, administration, and management of medications used to provide general, regional, or local anesthesia and analgesia for all patient populations across lifespan undergoing varied surgical, obstetrical, or other procedures in any health care setting. Prerequisites: PCOL:6204 with a minimum grade of B-. Requirements: enrollment in anesthesia nursing program. Same as NURS:6006.

ANES:6007 Basic Principles of Anesthesia Practice 5 s.h.
Overview and integration of anesthetic agents and techniques; patient assessment, preoperative airway evaluation, anesthetic planning, principles of fluid management, and arterial blood gas interpretation; principles of general and regional anesthesia and techniques as they pertain to each surgical specialty; Occupational, Safety and Health Administration (OSHA), The Joint Commission (TJC), and institutional regulations and requirements pertinent to anesthesia practice. Prerequisites: NURS:6004 with a minimum grade of B- and NURS:6006 with a minimum grade of B-. Same as NURS:6007.

ANES:6010 Advanced Principles of Anesthesia Practice I 4 s.h.
Special needs and intraoperative anesthetic management of complex patient populations and those with advanced pathologic states; anesthetic techniques for specific surgical subspecialties including pediatrics, obstetrics, neurosurgery, cardiac, vascular, thoracic, transplant, trauma, EENT, dental, and aesthetic or reconstructive procedures; pertinent pathophysiology and anesthetic monitoring and management techniques; clinical case conferences provide opportunities to discuss perianesthetic complications and challenges. Prerequisites: NURS:6007 with a minimum grade of B- or ANES:6007 with a minimum grade of B-. Same as NURS:6010.

ANES:6012 Advanced Principles of Anesthesia Practice II 1 s.h.
Acute and chronic pain treatment modalities for all patients presenting for a variety of medical or surgical procedures across the lifespan. Prerequisites: NURS:6007 with a minimum grade of B- or ANES:6007 with a minimum grade of B-. Same as NURS:6012.

ANES:6050 Introductory Clinical Anesthesia 2 s.h.
Initial mentorship in clinical anesthesia; development of basic clinical skills needed for a career as nurse anesthetist; application and integration of theoretical knowledge in clinical setting. Prerequisites: NURS:6004 and NURS:6006. Corequisites: NURS:6007. Same as NURS:6050.

ANES:6051 Clinical Anesthesia I 2 s.h.
Mentored clinical anesthesia experience; advancement and enhancement of clinical skills in providing anesthesia for various surgical subspecialities including general, orthopedic, pediatric, geriatric, gynecologic, urologic, dental, EENT, ambulatory surgery, and invasive diagnostic procedures. Prerequisites: NURS:6050 or ANES:6050. Corequisites: NURS:6010. Same as NURS:6051.

ANES:6052 Clinical Anesthesia II 2 s.h.
Additional mentored clinical anesthesia experience; advancement and enhancement of clinical skills in providing anesthesia for various surgical subspecialities including general, orthopedic, pediatric, geriatric, gynecologic, urologic, dental, EENT, ambulatory surgery, and invasive diagnostic procedures. Prerequisites: NURS:6051 or ANES:6051. Same as NURS:6052.

ANES:6053 Advanced Clinical Anesthesia 2 s.h.
Mentored clinical anesthesia at selected sites; development of advanced clinical skills and critical thinking by providing anesthesia for all surgical specialties and invasive diagnostic procedures in all anesthetizing locations; providing anesthesia for all patients in all settings, including on call emergency surgeries. Prerequisites: NURS:6052. Same as NURS:6053.

ANES:6054 Obstetrical Anesthesia 2 s.h.
Experience delivering analgesia and anesthesia for parturients during labor and delivery process. Prerequisites: NURS:6052. Same as NURS:6054.

ANES:6055 Rural Anesthesia 2 s.h.
Opportunity to develop experience providing anesthesia and associated health care services at UI-affiliated clinical sites in rural settings. Prerequisites: NURS:6052. Same as NURS:6055.

ANES:8007 Medical Student Fellowships in Anesthesia (Externships) 0 s.h.
Anesthesia call team clinical experience. Requirements: MD standing in anesthesia externship.

ANES:8301 Clinical Anesthesia 2 s.h.
Clinical instruction in perioperative care of the surgical patient; preoperative evaluation, consideration of coexisting medical problems, intraoperative care, postoperative management; basic airway management; introduction to clinical management of acute and chronic pain; case conferences, simulator training.

ANES:8401 Clinical Anesthesia Senior arr.
Advanced clinical experience in anesthesia management of surgical patients with coexisting medical problems; clinical experience in various forms of anesthesia; general, regional (spinal, epidural, peripheral nerve block) anesthesia; practical experience in airway management; mask ventilation, endotracheal intubation, LMA placement, other alternative airway techniques; medical management of surgical patient under anesthesia; pharmacology, cardiovascular and pulmonary physiology; case conferences.

ANES:8402 Surgical and Neurosciences Intensive Care arr.
Evaluation and treatment of critically ill neurological and post-surgical patients; evaluation of pulmonary function, ventilator management, monitoring and management of hemodynamics, fluid balance, acid-based problems, acute kidney injury, acute neurological events, and advanced monitoring techniques.

ANES:8403 Chronic Pain Management 2 s.h.
How to interview and assess patients with pain, work with a multidisciplinary team to determine the type of pain and/or diagnosis, and develop a multimodal treatment plan; readings, classroom discussions, and experiential activities.

ANES:8495 Intensive Care Off Campus arr.
Evaluation and treatment of seriously ill patients in an intensive care unit (other than University of Iowa Hospitals and Clinics); artificial ventilation, evaluation of pulmonary function, monitoring of cardiovascular status, fluid balance and acid base problems, advance monitoring techniques. Prerequisites: ANES:8401. Requirements: 4 s.h. of ANES:8401.

ANES:8497 Research in Anesthesia arr.
Medical research, clinical or laboratory projects; individual study.

ANES:8498 Anesthesia On Campus arr.
Well defined research project relating to anesthesia; arranged by student with departmental approval.

ANES:8499 Anesthesia Off Campus arr.
Knowledge development in anesthesia work and monitor use; ability to identify respiratory, cardiovascular, and neurologic effects of anesthetic agents; skill in airway management; basic skills in general, spinal, epidural, and peripheral nerve block anesthesia.

Biochemistry and Molecular Biology

Chair

- Kris A. DeMali

Undergraduate major: biochemistry and molecular biology (BA, BS)

Graduate degrees: MS in biochemistry and molecular biology; PhD in biochemistry and molecular biology

Website: https://bmb.medicine.uiowa.edu

Biochemistry is the study of basic chemical processes that occur in and govern all living systems. Nearly all areas of the life sciences engage in biochemical research.

The Department of Biochemistry and Molecular Biology offers undergraduate and graduate degrees, and determines the curricula for those programs. Undergraduate students majoring in biochemistry and molecular biology receive their degrees (Bachelor of Arts or Bachelor of Science) from the College of Liberal Arts and Sciences. The Master of Science and the Doctor of Philosophy degrees are awarded by the Graduate College.

Faculty and Research

The department's faculty members supervise research in biochemistry and molecular, cellular, developmental, computational, and structural biology. Their research is supported by grants from the National Institutes of Health (NIH), the National Science Foundation (NSF), the American Heart Association, the American Cancer Society, the Muscular Dystrophy Association (MDA), and other sources. To learn more about the department's faculty members and areas of research, visit the Department of Biochemistry and Molecular Biology website.

Programs

Undergraduate Programs of Study

Majors

- Major in Biochemistry and Molecular Biology (Bachelor of Arts) [p. 1862]
- Major in Biochemistry and Molecular Biology (Bachelor of Science) [p. 1865]

Graduate Programs of Study

- Master of Science in Biochemistry and Molecular Biology [p. 1869]
- Doctor of Philosophy in Biochemistry and Molecular Biology [p. 1870]

Facilities

The Department of Biochemistry and Molecular Biology occupies 36,700 square feet on the fourth floor of the Bowen Science Building, 3,500 square feet on the third floor of the Medical Education Research Facility, and 1,450 square feet on the fourth floor of the Pappajohn Biomedical Discovery Building in the Fraternal Order of Eagles Diabetes Research Center on the university's health sciences campus. It has a number of well-equipped research laboratories and other departmental facilities, including the Biochemistry Stores, the Mattill Biochemistry Reading Room, and the Heath Conference Room.

The department makes available a number of shared instruments. Faculty, staff, and students in the department have access to a variety of shared Carver College of Medicine resources, including the Protein and Crystallography Facility, the Iowa Institute of Human Genetics Genomics Division (DNA Facility), the Nuclear Magnetic Resonance Facility, and the Central Microscopy Research Facility.

Courses

Biochemistry and Molecular Biology Courses

BMB:3110 Biochemistry **3 s.h.**
One-semester survey of basic concepts in modern biochemistry and molecular biology; emphasis on application of biochemical concepts to human metabolism; appropriate for students who plan to pursue a career in health care or want an overview of biochemistry as a discipline. Prerequisites: CHEM:2210 with a minimum grade of C- or CHEM:2230 with a minimum grade of C-. Recommendations: college-level biology course.

BMB:3120 Biochemistry and Molecular Biology I **3 s.h.**
First of the two-semester sequence of biochemistry courses, followed by BMB:3130. Physical and chemical foundations of biochemistry, structure of biological molecules, catalysis, transport, biosignaling, glycolysis, and gluconeogenesis. Prerequisites: CHEM:2210 with a minimum grade of C- or CHEM:2230 with a minimum grade of C-. Recommendations: college-level biology course.

BMB:3130 Biochemistry and Molecular Biology II **3 s.h.**
Second of the two-semester comprehensive biochemistry sequence. Glycogen metabolism, citric acid cycle and the molecular principles of photosynthesis and oxidative phosphorylation; metabolism of lipids, amino acids, and nucleic acids; DNA replication, transcription, and protein translation; team-taught, didactic lecture style. Prerequisites: BMB:3120 with a minimum grade of C-.

BMB:3140 Experimental Biochemistry **3 s.h.**
Use of modern instruments and techniques to fractionate, identify, and characterize constituents of biochemical systems. Prerequisites: BMB:3120 with a minimum grade of C-. Requirements: two semesters of general chemistry and one semester of organic chemistry.

BMB:3150 Development of Senior Research Project **2 s.h.**
Preparation for biochemistry majors pursuing a senior research project in BMB:4999; communicating technical information through writing and speaking; presenting scientific journal articles and writing experimental protocols; developing detailed proposal for one-year senior research project. Prerequisites: BMB:3120 or BMB:3140 or BMB:3130. Requirements: biochemistry major, and junior or senior standing.

BMB:3310 Practical Data Science and Bioinformatics 3 s.h.
Understanding how to access large biological data sets and use them to answer biological questions is an important skill for researchers; immersive introduction to computational handling of data; how to access and analyze publicly available data; critically evaluate data quality and analysis in context of measuring gene expression; basic coding in R/RStudio, plotting and data display, fitting and regression, statistical inference, statistical models, downloading and data wrangling; basic introduction to machine learning (clustering); for students with no computational background. Prerequisites: BIOL:1411 with a minimum grade of C- and BIOL:1412 with a minimum grade of C-. Requirements: college algebra. Recommendations: BMB:3110, or BMB:3120 and BMB:3130, or other upper-level life sciences courses. Same as CBIO:3310, MMED:3310.

BMB:3800 Biochemistry Teaching Practicum arr.
Training for qualified junior or senior undergraduates majoring in biochemistry or a related field to contribute to undergraduate courses; interns may hold review sessions, offer regular office hours, draft questions for homework or exams, assist in proctoring exams, assist students in a laboratory setting, and help with course implementation; guidance from the faculty director and instructors in each course; interns are expected to work approximately three hours per week for each semester hour of credit earned. Requirements: completion of a course covering the same or equivalent material with a grade of B or higher, and must arrange for a short interview with the appropriate course director prior to registration.

BMB:3993 Undergraduate Biochemistry Research arr.
Preparation for BMB:4999; directed research with a biochemistry and molecular biology faculty member; experience in an active biochemistry and molecular biology research lab, learning and performing experiments relevant to current projects in that lab, including exposure to scientific literature; arranged in advance by student and biochemistry and molecular biology faculty member.

BMB:4240 Biophysics and Advanced Biochemistry 3 s.h.
Principles and experimental approaches used to study macromolecular structure, stability, and function; ligand binding and macromolecular interactions; enzyme kinetics and mechanisms; X-ray crystallography and NMR spectroscopy; single molecule and other biophysical approaches. Prerequisites: BMB:3120 and BMB:3130 with a minimum grade of C-. Requirements: one year of biochemistry. Recommendations: physical chemistry course and one semester of calculus.

BMB:4310 Computational Biochemistry 3 s.h.
Introduction to biomolecular modeling and computer simulation techniques; biomolecular structure and molecular driving forces; principles of structural optimization and conformational sampling; applications to biomolecular phenotypes; scripting and molecular visualization in PyMol, setting up and running molecular dynamics simulations using VMD and NAMD, performing refinement of X-ray diffraction data sets using Phenix, and executing Poisson-Boltzmann electrostatic calculations using APBS. Prerequisites: (MATH:1560 or MATH:1860) and CHEM:1120. Recommendations: BMB:3110 or BMB:3120. Same as BME:4310.

BMB:4999 Advanced Undergraduate Biochemistry Research arr.
Advanced directed research with a biochemistry and molecular biology faculty member; work on an individualized research project relevant to research goals of that lab; learning related scientific literature and presentation of research results; arranged in advance by student and biochemistry and molecular biology faculty member and taken after completion of core biochemistry and molecular biology curriculum. Prerequisites: BMB:3120 with a minimum grade of B- and BMB:3130 with a minimum grade of B- and BMB:3140 with a minimum grade of B- and BMB:3150 with a minimum grade of B- and (BMB:3993 or URES:3994 or HONR:3994).

BMB:5215 Directed Readings for Graduate Students arr.
Directed readings with course content arranged with professor.

BMB:5240 Biophysics and Advanced Biochemistry 3 s.h.
Principles and experimental approaches used to study macromolecular structure, stability, and function; ligand binding and macromolecular interactions; enzyme kinetics and mechanisms; X-ray crystallography and NMR spectroscopy; single molecule and other biophysical approaches. Requirements: one year of biochemistry. Recommendations: physical chemistry course and one semester of calculus.

BMB:5244 Molecular Recognition 1 s.h.
Focus on determinants in protein small molecule binding, particularly involving pharmaceutically relevant enzymes and receptors; how modern structure-based drug discovery is greatly aided by ability to employ protein structures in discovery and design of certain classes of drugs; structural approaches for predicting and improving drug affinity and selectivity, which have made a lasting impact across a number of diseases; important contemporary topics include in-depth lectures on fragment based drug discovery (FBDD), use and pitfalls of *in silico* docking and other screening methods, and emergence of covalent drugs. Requirements: introductory course in biochemistry. Same as PHAR:5542.

BMB:5261 Research Techniques 1-6 s.h.
Laboratory rotation for first-year graduate students in biochemistry.

BMB:5282 Seminar 0-2 s.h.
How to evaluate reports of scientific investigations critically; techniques for presenting scientific information.

BMB:5875 Perspectives in Biotechnology 1 s.h.
Topics related to careers in biotechnology with an emphasis on preparing graduate students for careers outside of academia; discussions led by a series of guest speakers from leading biotech industries; understanding the societal impact of basic research; participation in round-table discussions; and presentation of student research findings. Requirements: graduate standing and good academic standing in a participating department supported by the Predoctoral Training Program in Biotechnology. Same as CBE:5875, CEE:5875, CHEM:5875, MICR:5875, PHAR:5875.

BMB:7251 Introduction to Protein Structures 1 s.h.
Basics of protein structures and amino acids; module covers selected chapters of Lehninger's *Principles of Biochemistry*. Recommendations: first-year graduate standing in biosciences or physical sciences.

BMB:7252 Enzymes, Carbohydrates, Nucleic Acids, Lipids, and Membranes 1 s.h.
Basics of enzyme kinetics and enzyme mechanisms, carbohydrates, nucleic acids, and lipids; module covers selected chapters of Lehninger's *Principles of Biochemistry*. Recommendations: first-year graduate standing in biosciences or physical sciences.

BMB:7253 Introduction to Metabolism 1 s.h.
Introduction to metabolism including bioenergetics of metabolic reactions, biochemical signaling, and the basics of carbohydrate metabolism (glycolysis, gluconeogenesis, the pentose phosphate pathway). Module covers selected chapters of Lehninger's *Principles of Biochemistry*. Recommendations: first-year graduate standing in biosciences or physical sciences.

BMB:7254 Metabolism I 1 s.h.
Glycogen metabolism, the citric acid cycle, and amino acid and fatty acid catabolism. Module covers selected chapters of Lehninger's *Principles of Biochemistry*. Recommendations: first-year graduate standing in biosciences or physical sciences.

BMB:7255 Metabolism II 1 s.h.
Oxidative phosphorylation, photosynthesis, the synthesis of nitrogen-containing compounds (amino acids, nucleotides), and principles of hormonal regulation of metabolic pathways. Module covers selected chapters of *Principles of Biochemistry* by Lehninger. Recommendations: first-year graduate standing in biosciences or physical sciences.

BMB:7256 Molecular Biology 1 s.h.
Chromosomal organization, DNA replication, gene expression, RNA processing, and translation; module covers selected chapters of Lehninger's *Principles of Biochemistry*; for graduate students who wish to refresh or advance their knowledge of the central dogma of molecular biology. Recommendations: first-year graduate standing in biosciences or physical sciences.

BMB:7292 Research Biochemistry arr.
Thesis research.

BMB:8101 Biochemistry for Dental Students 3 s.h.
Biochemical concepts and application to clinical problems. Requirements: CHEM:2210 and DDS enrollment. Recommendations: CHEM:2220.

Biochemistry and Molecular Biology, BA

The curriculum for the BA with a major in biochemistry and molecular biology is identical to the BS degree in the first two years of study to maximize student flexibility.

Requirements

The Bachelor of Arts with a major in biochemistry and molecular biology requires a minimum of 120 s.h., including at least 58 s.h. of work for the major. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

The biochemistry and molecular biology major for the Bachelor of Arts degree provides a rigorous education in biochemical concepts and practice in the laboratory while giving students flexibility to specialize in additional disciplines and to obtain clinical volunteer experience. The BA program is intended for most students majoring in biochemistry and molecular biology, including those with pre-medicine, pre-pharmacy, pre-dental, and other pre-health professions interests. It also is appropriate for students earning more than one major.

Qualified students may graduate with honors in the biochemistry and molecular biology major; see "Honors in the Major" under Honors [p. 1863] in this section of the catalog.

The BA with a major in biochemistry and molecular biology requires the following coursework.

Requirements	Hours
Common Requirements	52-53
Additional Requirements	6

Common Requirements

Students complete the following during their first three years.

Course #	Title	Hours
All of these:		
BMB:3120 & BMB:3130	Biochemistry and Molecular Biology I and Biochemistry and Molecular Biology II	6
BMB:3140	Experimental Biochemistry	3
BMB:4240	Biophysics and Advanced Biochemistry	3
BIOL:1411 & BIOL:1412	Foundations of Biology and Diversity of Form and Function	8
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
CHEM:2210	Organic Chemistry I	3
or CHEM:2230	Organic Chemistry I for Majors	
CHEM:2220	Organic Chemistry II	3
or CHEM:2240	Organic Chemistry II for Majors	
CHEM:2410	Organic Chemistry Laboratory	3
or CHEM:2420	Organic Chemistry Laboratory for Majors	
MATH:1850	Calculus I	4
or MATH:1550	Engineering Calculus I	
or MATH:1460	Calculus for the Biological Sciences	
PHYS:1511	College Physics I	4
or PHYS:1611	Introductory Physics I	
PHYS:1512	College Physics II	4
or PHYS:1612	Introductory Physics II	
One of these:		
BIOS:4120	Introduction to Biostatistics	3
MATH:1560	Engineering Calculus II	4
MATH:1860	Calculus II	4
STAT:3510	Biostatistics	3

If students take PHYS:1612 Introductory Physics II, they must take the course with the lab component.

Additional Requirements

In addition to the common requirements listed, students must complete the following.

Course #	Title	Hours
Advanced science electives, as listed in the student handbook.		6

Students intending to earn advanced degrees in the biological or health sciences are advised to enroll in BMB:3993 Undergraduate Biochemistry Research or BMB:4999 Advanced Undergraduate Biochemistry Research for independent research. There are no prerequisites for BMB:3993. The course involves experience in an active biochemistry and molecular biology research lab, which must be arranged ahead of time with a supervising faculty member. Students may make arrangements directly with the faculty member, or they may request assistance from an undergraduate advisor. Credit earned in BMB:3993 does not count toward the major, but it does count toward the minimum of 120 s.h. required to graduate.

Before students register for BMB:4999 Advanced Undergraduate Biochemistry Research, they must have completed BMB:3120 Biochemistry and Molecular Biology I, BMB:3130 Biochemistry and Molecular Biology II, BMB:3140 Experimental Biochemistry, and BMB:3150 Development of Senior Research Project, with a grade of B-minus or higher in each course. Students are required to have prior research experience, such as in BMB:3993 Undergraduate Biochemistry Research, URES:3992 Undergraduate Research and Creative Projects, URES:3994 Undergraduate Research and Creative Projects, or HONR:3994 Honors Research Practicum, and permission of the instructor.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. They must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.33 in coursework for the major. They must earn 6 s.h. in BMB:4999 Advanced Undergraduate Biochemistry Research and present their research results as a written manuscript and in an oral presentation given at the Lata Undergraduate Research Symposium.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the biochemistry and molecular biology major.

Career Advancement

Biochemistry and molecular biology graduates with bachelor's degrees often work as research assistants in industry, government, academia, or health services; teach in secondary schools; or go on to advanced study in medicine, dentistry, or other areas. The program offers solid preparation for careers in biochemistry, medicine, biology, chemistry, dentistry, research, or related sciences. About one-third of biochemistry and molecular biology majors go on to study medicine; others enter graduate programs or professional degree programs.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: CHEM:1110 Principles of Chemistry I, CHEM:1120 Principles of Chemistry II, and two semesters of advanced math (e.g., Calculus I, Calculus II, or Biostatistics).

Before the fifth semester begins: BIOL:1411 Foundations of Biology, BIOL:1412 Diversity of Form and Function, CHEM:2210 Organic Chemistry I or CHEM:2230 Organic Chemistry I for Majors, CHEM:2220 Organic Chemistry II or CHEM:2240 Organic Chemistry II for Majors, and CHEM:2410 Organic Chemistry Laboratory or CHEM:2420 Organic Chemistry Laboratory for Majors.

Before the seventh semester begins: PHYS:1611 Introductory Physics I or PHYS:1511 College Physics I, PHYS:1612 Introductory Physics II or PHYS:1512 College Physics II, BMB:3120 Biochemistry and Molecular Biology I, BMB:3130 Biochemistry and Molecular Biology II, BMB:3140 Experimental Biochemistry, a science elective, and at least 90 s.h. earned toward the degree.

Before or during the eighth semester: BMB:4240 Biophysics and Advanced Biochemistry, a science elective, and all remaining coursework in the major, all remaining GE CLAS Core courses, and a minimum of 120 total s.h. to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biochemistry and Molecular Biology, BA

Course	Title	Hours
Academic Career		
Any Semester		
Students in good academic standing can switch from the BA to the BS degree program after completing one semester of organic chemistry (CHEM:2210 Organic Chemistry I or CHEM:2230 Organic Chemistry I for Majors).		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b, c]	4
MATH:1850 or MATH:1550 or MATH:1460	Calculus I [b, d] or Engineering Calculus I or Calculus for the Biological Sciences	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
CSI:1600	Success at Iowa	1
Elective course [e]		3
	Hours	**15-16**
Spring		
CHEM:1120	Principles of Chemistry II [b]	4
Major: biostatistics/calculus course [f]		3 - 4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [g]		3
Elective course [e]		2
	Hours	**15-17**
Second Year		
Fall		
BIOL:1411	Foundations of Biology [b]	4
CHEM:2210 or CHEM:2230	Organic Chemistry I or Organic Chemistry I for Majors	3
GE CLAS Core: Historical Perspectives [g]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
Elective course [e]		1
	Hours	**15-16**

Spring		
BIOL:1412	Diversity of Form and Function [b]	4
CHEM:2240 or CHEM:2220	Organic Chemistry II for Majors or Organic Chemistry II	3
CHEM:2410 or CHEM:2420	Organic Chemistry Laboratory or Organic Chemistry Laboratory for Majors	3
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
Elective course [e]		1
	Hours	**15-16**
Third Year		
Fall		
BMB:3120	Biochemistry and Molecular Biology I	3
PHYS:1611 or PHYS:1511	Introductory Physics I [b] or College Physics I	4
GE CLAS Core: Values and Society [g]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
Elective course [e]		2
	Hours	**16-17**
Spring		
BMB:3130	Biochemistry and Molecular Biology II	3
BMB:3140	Experimental Biochemistry	3
PHYS:1612 or PHYS:1512	Introductory Physics II [b] or College Physics II	4
GE CLAS Core: Literary, Visual, and Performing Arts [g]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
	Hours	**17-18**
Fourth Year		
Fall		
Major: advanced science elective [i]		3
Major: research, independent study, or elective course [e, j]		3
GE CLAS Core: International and Global Issues [g]		3
Elective course [e]		3
Elective course [e]		3
	Hours	**15**
Spring		
BMB:4240	Biophysics and Advanced Biochemistry	3
Major: advanced science elective [i]		3
Major: research, independent study, or elective course [e, j]		3
GE CLAS Core: Social Sciences [g]		3
Elective course [e]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**123-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Fulfills a major requirement and may fulfill a GE requirement.

c Enrollment in chemistry courses requires completion of a placement exam.

d Enrollment in math courses requires completion of a placement exam.

e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

f Choose from BIOS:4120, MATH:1560, MATH:1860, STAT:3510.

g GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

i Students are required to complete 6 s.h. in advanced science electives approved by BMB advisor.

j Students intending to earn advanced degrees in the biological or health sciences are advised to enroll in BMB:3993 or BMB:4999 for independent research. Consult with BMB advisor regarding appropriate coursework and sequence.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Biochemistry and Molecular Biology, BS

The curriculum for the BS with a major in biochemistry and molecular biology is identical to the BA degree in the first two years of study to maximize student flexibility.

Requirements

The Bachelor of Science with a major in biochemistry and molecular biology requires a minimum of 120 s.h., including at least 70 s.h. of work for the major. Students must maintain a grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

All students majoring in biochemistry and molecular biology are initially placed in the Bachelor of Arts degree program. Students in good academic standing can switch to the Bachelor of Science degree program after completing one semester of organic chemistry (CHEM:2210 Organic Chemistry I or CHEM:2230 Organic Chemistry I for Majors). Students who wish to change their degree program to the Bachelor of Science should contact the College of Liberal Arts and Sciences [clas-undergrad@uiowa.edu].

The biochemistry and molecular biology major for the Bachelor of Science degree is intended primarily for students planning careers in research. The BS program prepares students to pursue graduate degrees, such as an MS, PhD, or a combined MD/PhD, or to work as research technicians. The BS program requires 12 sh. or more in science and laboratory electives than the BA program.

Qualified students may graduate with honors in the biochemistry and molecular biology major; see "Honors in the Major" under Honors [p. 1866] in this section of the catalog.

The BS with a major in biochemistry and molecular biology requires the following coursework.

Requirements	Hours
Common Requirements	52-53
Additional Requirements	18

Common Requirements

Students complete the following during their first three years.

Course #	Title	Hours
All of these:		
BMB:3120 & BMB:3130	Biochemistry and Molecular Biology I and Biochemistry and Molecular Biology II	6
BMB:3140	Experimental Biochemistry	3
BMB:4240	Biophysics and Advanced Biochemistry	3
BIOL:1411 & BIOL:1412	Foundations of Biology and Diversity of Form and Function	8
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
CHEM:2210	Organic Chemistry I	3
or CHEM:2230	Organic Chemistry I for Majors	
CHEM:2220	Organic Chemistry II	3
or CHEM:2240	Organic Chemistry II for Majors	
CHEM:2410	Organic Chemistry Laboratory	3
or CHEM:2420	Organic Chemistry Laboratory for Majors	
MATH:1850	Calculus I	4
or MATH:1550	Engineering Calculus I	
or MATH:1460	Calculus for the Biological Sciences	
PHYS:1511	College Physics I	4
or PHYS:1611	Introductory Physics I	
PHYS:1512	College Physics II	4
or PHYS:1612	Introductory Physics II	
One of these:		
BIOS:4120	Introduction to Biostatistics	3
MATH:1560	Engineering Calculus II	4
MATH:1860	Calculus II	4
STAT:3510	Biostatistics	3

If students take PHYS:1612 Introductory Physics II, they must take the course with the lab component.

Additional Requirements

In addition to the common requirements listed, students must complete the following.

Course #	Title	Hours
One of these:		
CHEM:4430	Principles of Physical Chemistry	3
CHEM:4431	Chemical Thermodynamics	3
CHEM:4432	Quantum Mechanics and Chemical Kinetics	3
One of these options:		
BMB:4999	Advanced Undergraduate Biochemistry Research	6
Advanced laboratory courses		6
And:		
Advanced science electives as listed in the student handbook.		9

Students are encouraged to begin research by taking BMB:3993 Undergraduate Biochemistry Research, which has no prerequisites. The course involves experience in an active biochemistry and molecular biology research lab, which must be arranged ahead of time with a supervising faculty member. Students may make arrangements directly with the faculty member, or they may request assistance from an undergraduate advisor. Credit earned in BMB:3993 does not count toward the major, but it does count toward the minimum of 120 s.h. required to graduate.

Before students register for BMB:4999 Advanced Undergraduate Biochemistry Research, they must have completed BMB:3120 Biochemistry and Molecular Biology I, BMB:3130 Biochemistry and Molecular Biology II, BMB:3140 Experimental Biochemistry, and BMB:3150 Development of Senior Research Project, with a grade of B-minus or higher in each course. Students are required to have prior research experience, such as in BMB:3993 Undergraduate Biochemistry Research, URES:3992 Undergraduate Research and Creative Projects, URES:3994 Undergraduate Research and Creative Projects, or HONR:3994 Honors Research Practicum, and permission of the instructor. Students can only count 6 s.h. in BMB:4999 toward their requirements for the degree.

Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

Combined Programs

BS/PhD

The combined Bachelor of Science/Doctor of Philosophy in the biochemistry and molecular biology program permits students to transition into the PhD program during their senior year and to count 12 s.h. of credit toward both the BS and PhD requirements. The combined program provides a research-intensive experience and shortens the training time for students interested in pursuing independent biochemistry research careers. Students in the program typically receive financial support during the second half of their senior year and throughout their PhD study.

Students must be pursuing a Bachelor of Science with a major in biochemistry and molecular biology, and by the beginning of their senior year they must:

- have 108 s.h. of undergraduate credit;
- have a minimum grade-point average of 3.50;
- have completed four semesters of research experience (summer research counts as one semester); and
- have completed BMB:3120 Biochemistry and Molecular Biology I, BMB:3130 Biochemistry and Molecular Biology II, and BMB:3140 Experimental Biochemistry.

Students interested in the combined program should speak with their academic advisor and the biochemistry and molecular biology honors advisor during their first year or at the beginning of their sophomore year. Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. For more information, contact the Department of Biochemistry and Molecular Biology.

Honors

Honors in the Major

Students have the opportunity to graduate with honors in the major. They must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.33 in coursework for the major. They must earn 6 s.h. in BMB:4999 Advanced Undergraduate Biochemistry Research and present their research results as a written manuscript and in an oral presentation given at the Lata Undergraduate Research Symposium.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the biochemistry and molecular biology major.

Career Advancement

Biochemistry and molecular biology graduates with bachelor's degrees often work as research assistants in industry, government, academia, or health services; teach in secondary schools; or go on to advanced study in medicine, dentistry, or other areas. The program offers solid preparation for careers in biochemistry, medicine, biology, chemistry, dentistry, research, or related sciences. About one-third of biochemistry and molecular biology majors go on to study medicine; others enter graduate programs or professional degree programs.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: CHEM:1110 Principles of Chemistry I, CHEM:1120 Principles of Chemistry II, and two semesters of advanced math (e.g., Calculus I, Calculus II, or Biostatistics).

Before the fifth semester begins: BIOL:1411 Foundations of Biology, BIOL:1412 Diversity of Form and Function, CHEM:2210 Organic Chemistry I or CHEM:2230 Organic Chemistry I for Majors, CHEM:2220 Organic Chemistry II or CHEM:2240 Organic Chemistry II for Majors, and CHEM:2410 Organic Chemistry Laboratory or CHEM:2420 Organic Chemistry Laboratory for Majors.

Before the seventh semester begins: PHYS:1611 Introductory Physics I or PHYS:1511 College Physics I, PHYS:1612 Introductory Physics II or PHYS:1512 College Physics II, BMB:3150 Development of Senior Research Project, one semester of BMB:3993 Undergraduate Biochemistry Research for students planning to take BMB:4999 Advanced Undergraduate Biochemistry Research, BMB:3120 Biochemistry and Molecular Biology I, BMB:3130 Biochemistry and Molecular Biology II, BMB:3140 Experimental Biochemistry, two science electives, and at least 90 s.h. earned toward the degree.

Before or during the eighth semester: BMB:4240 Biophysics and Advanced Biochemistry or CHEM:4430 Principles of Physical Chemistry or CHEM:4431 Chemical Thermodynamics or CHEM:4432 Quantum Mechanics and Chemical Kinetics, a science elective, and at least 2–3 s.h. (total of 6 s.h.) of BMB:4999 Advanced Undergraduate Biochemistry Research. Enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a minimum of 120 of s.h. to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and

should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biochemistry and Molecular Biology, BS

Course	Title	Hours
Academic Career		
Any Semester		
Students in good academic standing can switch from the BA to the BS degree program after completing one semester of organic chemistry (CHEM:2210 Organic Chemistry I or CHEM:2230 Organic Chemistry I for Majors).		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b, c]	4
MATH:1460 or MATH:1850 or MATH:1550	Calculus for the Biological Sciences [c, d] or Calculus I or Engineering Calculus I	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
CSI:1600	Success at Iowa	1
Elective course [e]		3
	Hours	**15-16**
Spring		
CHEM:1120	Principles of Chemistry II [c]	4
Major: biostatistics/calculus course [f]		3 - 4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [g]		3
Elective course [e]		2
	Hours	**15-17**
Second Year		
Fall		
BIOL:1411	Foundations of Biology [c]	4
CHEM:2210 or CHEM:2230	Organic Chemistry I or Organic Chemistry I for Majors	3
GE CLAS Core: Historical Perspectives [g]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [h]		4 - 5
Elective course [e]		1
	Hours	**15-16**
Spring		
BIOL:1412	Diversity of Form and Function [c]	4
CHEM:2220 or CHEM:2240	Organic Chemistry II or Organic Chemistry II for Majors	3
CHEM:2420 or CHEM:2410	Organic Chemistry Laboratory for Majors or Organic Chemistry Laboratory	3
GE CLAS Core: World Languages Second Level Proficiency or elective course [h]		4 - 5
Elective course [e]		1
	Hours	**15-16**
Third Year		
Fall		
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3993	Undergraduate Biochemistry Research	3
PHYS:1611 or PHYS:1511	Introductory Physics I [c] or College Physics I	4
GE CLAS Core: Values and Society [g]		3
GE CLAS Core: World Languages Third Level Proficiency or elective course [h]		4 - 5
	Hours	**17-18**
Spring		
BMB:3130	Biochemistry and Molecular Biology II	3
BMB:3140	Experimental Biochemistry	3
BMB:3150	Development of Senior Research Project	2
PHYS:1612 or PHYS:1512	Introductory Physics II [c] or College Physics II	4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [h]		4 - 5
	Hours	**16-17**
Fourth Year		
Fall		
BMB:4999	Advanced Undergraduate Biochemistry Research [i]	3
CHEM:4431 or CHEM:4430 or CHEM:4432	Chemical Thermodynamics or Principles of Physical Chemistry or Quantum Mechanics and Chemical Kinetics	3
Major: advanced science elective [j]		3
GE CLAS Core: International and Global Issues [g]		3
GE CLAS Core: Literary, Visual, and Performing Arts [g]		3
	Hours	**15**
Spring		
BMB:4240	Biophysics and Advanced Biochemistry	3
BMB:4999	Advanced Undergraduate Biochemistry Research [i]	3
Major: advanced science elective [j]		3
Major: advanced science elective [j]		3
GE CLAS Core: Social Sciences [g]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**123-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.
c Fulfills a major requirement and may fulfill a GE requirement.
d Enrollment in math courses requires completion of a placement exam.
e Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.
f Choose from BIOS:4120, MATH:1560, MATH:1860, STAT:3510.
g GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
h Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.
i Consult with BMB advisor regarding appropriate coursework and sequence.
j Students are required to complete 9 s.h. in advanced science electives approved by BMB advisor.
k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Biochemistry and Molecular Biology, MS

Students admitted to graduate study in biochemistry and molecular biology pursue the Doctor of Philosophy.

Requirements

The Master of Science program in biochemistry and molecular biology requires a minimum of 30 s.h. of graduate credit, thesis research, and a thesis. See the PhD in biochemistry and molecular biology [p. 1870] in this section of the catalog for information about the graduate curriculum.

Admission

The department does not directly admit students to the master's program. Graduate students in biochemistry and molecular biology work toward a Doctor of Philosophy. Students who wish to leave or change PhD programs can instead matriculate with a master's degree if they have met the requirements.

Biochemistry and Molecular Biology, PhD

Learning Outcomes

- Identify significant research problems through critical examination of the scientific literature.
- Develop a research proposal that uses a scientific approach to test hypotheses or accomplish research goals.
- Gain broad expertise in their chosen field and develop critical thinking and quantitative skills to independently design, acquire, and interpret experimental data.
- Effectively communicate research findings to a broad audience in written and oral formats.
- Perform all aspects of research and communication with high ethical standards.
- Preparation for career options in academia, industry, government, or other fields.

Requirements

The Doctor of Philosophy in biochemistry and molecular biology requires a minimum of 72 s.h. of graduate credit (34 s.h. of coursework and 38 s.h. of research). Students must maintain a cumulative grade-point average of at least 3.00 to earn the degree. Qualified students interested in earning the Doctor of Medicine along with the PhD may apply to the Medical Scientist Training Program [p. 1901], which offers a combined MD/PhD program.

Students have the opportunity to tailor their curriculum with courses that enhance their educational goals. They take a combination of graduate-level courses that include a first-year laboratory research rotation course, and seminar courses.

The PhD in biochemistry and molecular biology requires the following coursework.

Core Curriculum

Course #	Title	Hours
BMB:5261	Research Techniques	1-6
BMB:5282	Seminar	0-2
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
Biophysical chemistry coursework		3
Four molecular medicine courses		6-8
Additional courses offered by the Department of Biochemistry and Molecular Biology and other departments, as appropriate for each student		

Typical Curriculum

First Year, Fall

Course #	Title	Hours
BMB:5240	Biophysics and Advanced Biochemistry	3
BMB:5261	Research Techniques	4
BMB:5282	Seminar	1
BMED:5207	Principles of Molecular and Cellular Biology	3

First Year, Spring

Course #	Title	Hours
BMB:5261	Research Techniques	4
BMB:5282	Seminar	1
MMED:6226/ ACB:6226/ MPB:6226	Cell Cycle Control	1
MMED:6227/ ACB:6227/ MPB:6227	Cell Fate Decisions	1
Electives		

Second Year, Fall

Course #	Title	Hours
BMB:5282	Seminar	2
BMB:7292	Research Biochemistry	arr.
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
Electives		

Second Year, Spring

Course #	Title	Hours
BMB:5282	Seminar	1
BMB:7292	Research Biochemistry	arr.
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
Electives		

Examples of Elective Coursework

Course #	Title	Hours
BMB:3110	Biochemistry	3
BMB:4310/ BME:4310	Computational Biochemistry	3
BME:2210	Bioimaging and Bioinformatics	4
BMED:5207	Principles of Molecular and Cellular Biology	3
MMED:6220/ ACB:6220/ MPB:6220	Mechanisms of Cellular Organization	3
PCOL:5204	Basic Biostatistics and Experimental Design	1
PCOL:6225	Growth Factor Receptor Signaling	1

Additional Requirements

Laboratory Rotations

Students rotate through at least three different laboratories during their first academic year; they enroll in BMB:5261 Research Techniques. The laboratory rotations are approximately ten weeks each. At the conclusion of each rotation, a student meets with an advisory committee of three faculty members. A student is required to present the research and training completed during that rotation. The advisory committee writes a short evaluation of the student's performance and assigns a grade for the laboratory work.

The evaluation and grade become part of the student's departmental record.

Teaching

Students participate in the formal teaching programs of the department for at least one semester. First-year students as well as students who are within a year of receiving their PhD degree are usually not asked to teach. Teaching may take a variety of forms, including tutoring, leading discussions and laboratory groups, correcting examinations, preparing teaching materials, and lecturing.

Thesis Research Proposal

During the fall semester of the second year, students in collaboration with their thesis advisor prepare a detailed thesis proposal that describes the proposed research to be conducted for the dissertation as part of BMB:5282 Seminar.

Comprehensive Examination

The comprehensive examination has two parts: a written proposal and an oral defense of the proposal. The examination must be taken before June 30 of the second year.

Written Report of Comprehensive Examination

Students receive their topic by March 1 and their written examination is submitted to their committee by April 22. The written proposal should have a cover page followed by no more than 20 pages. For more information, a detailed guide is located in the Department of Biochemistry and Molecular Biology Graduate Student Manual.

Oral Presentation of Comprehensive Examination

Questions during the oral examination may come from the examination proposal, the PhD thesis proposal, or other general areas of biochemistry and molecular biology. To pass the oral comprehensive examination, students must perform satisfactorily both in defense of the examination proposal and in answering general biochemistry and molecular biology questions that are germane to the proposal or that are important for a full understanding of the proposed experiments and their interpretation.

The Fifth-Semester Seminar

After successful completion of the comprehensive examination, usually the fall semester of the third year (the fifth semester), students update and revise the written PhD thesis proposal prepared during the fall semester of the second year (prior to the comprehensive examination), and present a seminar on the thesis research to the department at one of the weekly biochemistry and molecular biology workshops.

The Fourth-Year Workshop

In the fourth year, during fall or spring, students are asked to present at one of the weekly departmental workshops. The presentation is based on their research.

The Fifth-Year Retreat

The Department of Biochemistry and Molecular Biology holds a yearly retreat where students and faculty present their current research. Students in their fifth year may be asked to give an oral presentation at the retreat.

Final Examination

The five-member PhD thesis committee serves as an advisory body for the preparation of the thesis. This committee meets with students to review the material that is expected to be incorporated into the thesis. Although meetings of the candidates with the committee should be yearly, the candidates, thesis advisor, or the committee can request a meeting at any time. A final draft of the thesis must be given to all members of the committee two weeks before the final examination. The final examination takes the form of a seminar presented to the department. This presentation is announced according to Graduate College policy. Questions, comments, and discussion then follow. After the seminar, candidates meet with their committee for the final thesis defense. The PhD is not awarded until the thesis is signed. In some cases, revisions may be required.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in biochemistry and molecular biology in a combined degree program offered by the Department Biochemistry and Molecular Biology and the Carver College of Medicine. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

Applicants must have a baccalaureate degree from a regionally accredited U.S. college or university, or an equivalent degree from another country as determined by Admissions. Those who apply must have an undergraduate grade-point average of at least 3.00. Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Appropriate preparation includes one-year, college-level courses in organic and physical chemistry, biology, physics, and mathematics through calculus. Students are expected to have had one or more introductory courses in biochemistry.

Career Advancement

Graduates have secured a variety of career positions, including in academic institutions and the government, and as scientists, physicians, lecturers, and science educators. Some go on to pursue postdoctoral or additional training, and others land jobs in business and industry.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biochemistry and Molecular Biology, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
	Hours	**0**
First Year		
Fall		
BMB:5240	Biophysics and Advanced Biochemistry	3
BMB:5261	Research Techniques [d]	4
BMB:5282	Seminar	1
BMED:5207	Principles of Molecular and Cellular Biology	3
Elective course [e]		1
	Hours	**12**
Spring		
BMB:5261	Research Techniques [d]	4
BMB:5282	Seminar	1
MMED:6226	Cell Cycle Control [e]	1
MMED:6227	Cell Fate Decisions [e]	1
Elective course [e]		3
Elective course [e]		1
	Hours	**11**
Second Year		
Fall		
BMB:5282	Seminar	2
BMB:7292	Research Biochemistry	4
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
Biophysical chemistry course [e]		3
Molecular medicine course [e]		3
	Hours	**12**
Spring		
BMB:5282	Seminar	1
BMB:7292	Research Biochemistry	6
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
Molecular medicine course [e]		1 - 3
Elective course [e]		3
Exam: Doctoral Comprehensive Exam [f]		
	Hours	**11-13**
Third Year		
Fall		
BMB:7292	Research Biochemistry	6
Fifth-Semester Seminar Presentation		
	Hours	**6**
Spring		
BMB:7292	Research Biochemistry	6
	Hours	**6**
Fourth Year		
Any Semester		
Fourth-Year Workshop Presentation		
	Hours	**0**
Fall		
BMB:7292	Research Biochemistry	6
	Hours	**6**
Spring		
BMB:7292	Research Biochemistry	6
	Hours	**6**
Fifth Year		
Any Semester		
Fifth-Year Retreat		
	Hours	**0**
Fall		
BMB:7292	Research Biochemistry	1
Prospectus Defense		
	Hours	**1**
Spring		
GRAD:6003	Doctoral Final Registration	1
Exam: Doctoral Final Exam [g]		
	Hours	**1**
	Total Hours	**72-74**

a Students are also required to complete at least one semester of formal teaching experience as a TA.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d During the first academic year, students register for BMB:5261 and rotate through three different laboratories (approximately ten weeks each) unless they have satisfied this requirement in part by previous equivalent research experience. At the end of each laboratory rotation, the student will prepare a written report and present an oral summary of the research project to the Rotation Advisory Committee.

e Work with faculty advisor to determine appropriate graduate elective coursework and sequence.

f The comprehensive examination has two parts: a written proposal and an oral defense of the proposal. The examination must be taken before June 30 of the second year.

g Dissertation defense.

Cardiothoracic Surgery

Chair

- Kalpaj Parekh

Program Director

- Shahna Helmick

Undergraduate certificate: perfusion technology

Website: https://perfusion.medicine.uiowa.edu/

The University of Iowa cardiothoracic surgery program is the third oldest program of its kind in the United States. Since its establishment in 1948 as a division within the Department of Surgery, it is now its own department providing operative interventions for patients with diseases of the chest and performing a broad range of the most current and innovative surgical procedures.

Cardiothoracic surgery's facilities are located at University of Iowa Health Care. Each year cardiothoracic surgeons at the hospitals perform more than 500 adult and pediatric heart surgeries, including coronary bypasses, transplants, and placement of mechanical cardiac assist devices; minimally invasive procedures such as mitral valve replacement and epicardial lead placement; coronary artery bypass grafting using robotics; and more than 600 general thoracic surgeries with emphasis on esophageal and lung diseases.

The Perfusion Technology Program is a 20-month program of study. For more information about the Perfusion Technology Program, visit the Perfusion Technology Program website.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Perfusion Technology [p. 1875]

Residency

Iowa's cardiothoracic surgery residency program was established in 1948 and is fully accredited by the Accreditation Council for Graduate Medical Education (ACGME). It is the only cardiothoracic surgery training program in Iowa. One resident is accepted into the two-year fellowship program each year. Cardiothoracic surgery was approved by the ACGME to start a six-year integrated thoracic residency. Medical students begin the program after they graduate from medical school. A new resident enters the program each year.

Facilities

Cardiothoracic surgery has specialty laboratories in gastric motility, analytical chemistry, transplantation, tissue culture, surgical bacteriology, shock, and cardiac bypass. These facilities permit the study of experimental procedures such as heart valve replacement in large animals and heterotopic heart transplantation in mice and rats.

Courses

- Cardiothoracic Surgery Courses [p. 1873]
- Perfusion Technology Courses [p. 1873]

Cardiothoracic Surgery Courses

CTS:8401 Advanced Inpatient Subinternship in Cardiothoracic Surgery **arr.**
Participation in diagnosis, preoperative, operative, and postoperative care of thoracic and cardiac patients; attendance at division conferences; students assume responsibility and act as an intern; may concentrate interest in cardiac surgery or thoracic surgery; diagnosis and management of patients on an inpatient service under close supervision by an upper-level resident/fellow and faculty member.

CTS:8497 Research in Cardiothoracic Surgery **arr.**
Work on a short- or long-term research project arranged with instructor; may involve clinical material or laboratory; students organize and complete a project, finishing with a publishable manuscript.

CTS:8498 Cardiothoracic Surgery On Campus **arr.**
Clinical clerkship individually arranged by student with department approval.

CTS:8499 Cardiothoracic Surgery Off Campus **4 s.h.**
Individually arranged by student with approval of department to rotate outside of University of Iowa Health Care. Requirements: MD enrollment.

Perfusion Technology Courses

PERF:4161 Instrumentation in Perfusion Technology **3 s.h.**
Electrical circuitry, filters, pressure transducers, thermistors, cardiac output computers, fluid dynamics, intra-aortic balloon pumps, blood gas analyzers. Requirements: Perfusion Technology Program enrollment.

PERF:4162 Pathophysiology of Perfusion Technology **5 s.h.**
Hemostasis, acid base physiology, gas transfer, heart anatomy, heart embryology, congenital cardiac defects. Requirements: Perfusion Technology Program enrollment.

PERF:4163 Clinical Experience I **2 s.h.**
Perfusion in operating room: patient workup, observation, and reporting on extracorporeal setup, surgical procedure. Requirements: Perfusion Technology Program enrollment.

PERF:4164 Clinical Experience II **3 s.h.**
Continuation of PERF:4163; setup of extracorporeal circuit; ancillary duties of perfusionist. Requirements: Perfusion Technology Program enrollment.

PERF:4165 Clinical Experience III **12 s.h.**
Continuation of PERF:4164; management of cardiopulmonary bypass system. Requirements: Perfusion Technology Program enrollment.

PERF:4166 Clinical Experience IV **12 s.h.**
Continuation of PERF:4165; emphasis on supply maintenance, perfusion department management. Requirements: Perfusion Technology Program enrollment.

PERF:4167 Perfusion Seminar **1 s.h.**
Ethics in perfusion. Requirements: Perfusion Technology Program enrollment.

PERF:4168 Research in Perfusion 1 s.h.
From topic selection to manuscript. Requirements: Perfusion Technology Program enrollment.

PERF:4169 Clinical Experience V 12 s.h.
Continuation of PERF:4166. Requirements: Perfusion Technology Program enrollment.

PERF:4170 Principle and Practice of Perfusion Technology 6 s.h.
Hypothermia, hemodilution, left heart bypass, dialysis, ultrafiltration, membrane and bubbler oxygenation. Requirements: Perfusion Technology Program enrollment.

PERF:4171 Devices in Perfusion Technology 3 s.h.
Components of extracorporeal circuit; in vitro laboratory evaluation of components. Requirements: Perfusion Technology Program enrollment.

PERF:4172 Pharmacology for Perfusion I 2 s.h.
Basic principles of pharmacotherapeutics and pharmacologic interventions; focus on mechanism of drug actions in patient treatment.

PERF:4199 Pharmacology for Perfusion II 2 s.h.
Principles of pharmacotherapeutics and pharmacologic interventions; focus on mechanism of drug actions in patient treatment. Requirements: Perfusion Education Program enrollment.

Perfusion Technology, Certificate

Requirements

The undergraduate Certificate in Perfusion Technology requires 68 s.h. of credit. Students must maintain a grade-point average of at least 2.00 in work for the certificate. The certificate is a 21-month program that spans over five semesters. The program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Accreditation Committee for Perfusion Education (AC-PE). Students are awarded the certificate upon successful completion of the program, making them eligible to take the American Board of Cardiovascular Perfusion certification exam.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Three to five students are accepted annually and begin the program in the fall semester. During the first two semesters of the program, students pursue a core curriculum that provides a solid scientific base while the second year (three semesters) is reserved for the completion of an independent research project, clinical training in the operation of the heart-lung machine, and learning ancillary procedures such as blood salvaging, circulatory support, and artificial hearts.

The Certificate in Perfusion Technology requires the following coursework.

Course #	Title	Hours
PERF:4161	Instrumentation in Perfusion Technology	3
PERF:4162	Pathophysiology of Perfusion Technology	5
PERF:4163	Clinical Experience I	2
PERF:4164	Clinical Experience II	3
PERF:4165	Clinical Experience III	12
PERF:4166	Clinical Experience IV	12
PERF:4169	Clinical Experience V	12
PERF:4167	Perfusion Seminar (taken five times for 1 s.h. each)	5
PERF:4168	Research in Perfusion (taken five times for 1 s.h. each)	5
PERF:4170	Principle and Practice of Perfusion Technology	6
PERF:4171	Devices in Perfusion Technology	3
Total Hours		**68**

Admission

Admission to the program is based on the decision of the Admissions Committee. Decisions are based upon a combination of grade-point average, references, an essay, and interview scores.

For information about application materials, see Admissions on the Perfusion Technology Program website.

Applications must be submitted by Nov. 1.

Prerequisites

The following coursework is required before admission to the certificate program.

Requirements	Hours
Baccalaureate degree	
Anatomy (must include 1 s.h. of lab)	4
Biology (introduction or human biology); must include 1 s.h. of lab	8
Chemistry (must include 2 s.h. of lab)	8
Mathematics (waived if completed college calculus)	4
Physics (must include 1 s.h. of lab)	4
Physiology (must include 1 s.h. of lab)	4
Statistics	3

Dermatology

Chair

- Ali Jabbari

Faculty: https://dermatology.medicine.uiowa.edu/profile/

Website: https://dermatology.medicine.uiowa.edu/

The Department of Dermatology instructs MD students and trains dermatology residents in the care of patients with skin diseases. It also provides researchers with an opportunity to develop their skills in dermatology.

MD Training

The Department of Dermatology rotation is one of seven selective courses offered to third- and fourth-year medical students. Students spend two weeks in the clinic and attend several one-hour lectures. They see a good cross-section of patients, including those receiving primary or tertiary care at University of Iowa Health Care, Iowa River Landing, and VA Iowa City Health Care.

Varied electives are open to fourth-year MD students, including further clinical experience, dermatologic research, and special studies.

Courses

Dermatology Courses

DERM:8301 Clinical Dermatology **2 s.h.**
Basic dermatology; lectures, independent study, clinical experience. Requirements: third-year MD enrollment.

DERM:8401 Dermatology Elective **arr.**
Advanced clinical experience, dermatologic surgery, special assignments. Requirements: fourth-year MD enrollment.

DERM:8497 Research in Dermatology **arr.**
General principles of medical research; clinical or laboratory projects; individual study.

DERM:8498 Dermatology On Campus **arr.**
Clinical clerkship; individually arranged by student with departmental approval.

DERM:8499 Dermatology Off Campus **arr.**
Arranged by student with departmental approval.

Dietary

Executive Dean

- Patricia L. Winokur

Graduate degree: MCN

Website: https://uihealthcare.org/education/university-iowa-master-clinical-nutrition-program

The dietary program is committed to patient care through dietitian service, research, and education.

Graduate-level courses for the Master of Clinical Nutrition degree are administered by the Carver College of Medicine and the College of Public Health.

Programs

Graduate Program of Study

- Master of Clinical Nutrition [p. 1878]

Courses

Dietary Courses

DIET:9101 Advanced Medical Nutrition Therapy I 3 s.h.
Nutritional impact on health and disease as it relates to physiology and biochemistry with an emphasis on medical nutrition therapy and the relationship to various disease states. Requirements: enrollment in Master of Clinical Nutrition program.

DIET:9102 Advanced Medical Nutrition Therapy II 3 s.h.
Continuation of DIET:9101; review of the nutritional impact on health and disease as it relates to physiology and biochemistry with an emphasis on medical nutrition therapy and the relationship to various disease states. Requirements: enrollment in Master of Clinical Nutrition program.

DIET:9200 Nutrition Assessment 3 s.h.
Study of nutrition assessment methods including dietary intake, anthropometric and biochemical measures, as well as nutrition focused physical examination; utilization of nutrition care process including nutrition assessment, diagnosis, interventions, monitoring, and evaluation with individuals, groups, or populations. Requirements: enrollment in Master of Clinical Nutrition program.

DIET:9300 Critical Care and Nutrition Support 3 s.h.
Advanced enteral and parenteral nutrition in an acute care setting; indications, calculations, potential complications, and ethical consideration of nutrition support. Requirements: enrollment in Master of Clinical Nutrition program.

DIET:9400 Pediatric Nutrition 3 s.h.
Examination of physiological, biochemical, and nutritional aspects of disease processes relevant to infants and children up to 18 years of age; emphasis on evidence-based medical nutrition therapy for a variety of disease states. Requirements: enrollment in Master of Clinical Nutrition program.

DIET:9501 Supervised Experiential Learning I 3 s.h.
Supervised hands-on training at the bedside in inpatient units, and in outpatient clinics, communities, and food service management; completion of coursework specific to Registered Dietitian and Nutritionist (RDN) training while learning in field (e.g., ServSafe certification, diet meals, event planning, professional issues and trends). Requirements: enrollment in Master of Clinical Nutrition program.

DIET:9502 Supervised Experiential Learning II 3 s.h.
Supervised hands-on training at the bedside in inpatient units, and in outpatient clinics, communities, and food service management; completion of coursework specific to Registered Dietitian and Nutritionist (RDN) training while learning in field (e.g., legislative and regulatory issues, research seminar, clinical rounds, Commission on Dietetic Registration portfolio development, RDN licensure and credentialing). Requirements: enrollment in Master of Clinical Nutrition program.

DIET:9600 Management in Foods and Nutrition 3 s.h.
Application of the principles of health care management as it pertains to food and nutrition including budgeting, cost control, and financial analysis; clinical coding and billing; quality and performance improvement measures; human resource management; and operating plan development. Requirements: enrollment in Master of Clinical Nutrition program.

Master of Clinical Nutrition, MCN

The Master of Clinical Nutrition program inspires and educates students to be leaders in clinical nutrition through innovative and interprofessional graduate education as a Registered Dietitian Nutritionist (RDN).

The program is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics (AND).

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Requirements

The graduate Master of Clinical Nutrition (MCN) requires 36 s.h. of credit. Students must maintain a cumulative grade-point average of at least 2.50 in major coursework. The degree requires no thesis.

The MCN is a 20-month program of study. After successful completion of the program, students earn the degree and receive a verification statement that provides eligibility to take the Commission on Dietetic Registration (CDR) entry-level registration examination for dietitians.

The Master of Clinical Nutrition requires the following work.

First Year, Fall

Course #	Title	Hours
DIET:9101	Advanced Medical Nutrition Therapy I	3
DIET:9200	Nutrition Assessment	3
EPID:6360	Nutrition Intervention in Clinical Trials Research	2
EPID:6370	Nutrition Intervention in Research Lab	3

First Year, Spring

Course #	Title	Hours
DIET:9102	Advanced Medical Nutrition Therapy II	3
EPID:6330	Global Nutrition Policy	2
EPID:6350	Nutritional Epidemiology	2
HHP:6310	Advanced Sport and Exercise Nutrition	3

First Year, Summer

Course #	Title	Hours
DIET:9300	Critical Care and Nutrition Support	3

Second Year, Fall

Course #	Title	Hours
DIET:9501	Supervised Experiential Learning I	3
DIET:9600	Management in Foods and Nutrition	3

Second Year, Spring

Course #	Title	Hours
DIET:9400	Pediatric Nutrition	3
DIET:9502	Supervised Experiential Learning II	3

Supervised Experiential Learning

All supervised experiential learning occurs on campus at University of Iowa Health Care, with the exception of community nutrition which occurs in the greater Iowa City community. The rotation schedule is developed according to the following guidelines.

- Clinical dietetics (disordered eating, oncology, cardiology, critical care, pediatrics, and outpatient counseling): 21 weeks.
- Food service management (clinical management, food service, production, business and finance, patient services, and event planning): 8 weeks.
- Community nutrition: 5 weeks.

Admission

Applicants to the MCN program must either have completed a Didactic Program in Dietetics (DPD) or meet the following course requirements:

- have a baccalaureate degree from a regionally accredited institution in the United States;
- have a minimum cumulative grade-point average of at least 3.00 on a 4.00 scale;
- have health care or food service work experience in the field;
- submit three recommendation letters (one from a collegiate academic reference, one from a health care or food service experience supervisor, and one from anyone in an academic or work setting); and
- meet education requirements (see the following section, "Education Requirements").

Applicants whose first language is not English must submit official test scores to verify English proficiency. They can do this by submitting official test scores for the Test of English as a Foreign Language (TOEFL). In order to review an application, official TOEFL scores must be received from the Educational Testing Service. Only the IBT (internet-based test) is accepted. A minimum total score of 93 and a speaking score of 26 are necessary for entry into the program.

Education Requirements

Biological Sciences Coursework

- At least one semester of biology (animal or human) or general zoology.
- An animal, exercise, or human physiology course.
- An animal or human anatomy course.
- At least two additional courses in advanced biology or advanced physiology. Examples of courses include cell biology, genetics, immunology, microbiology, molecular biology, pharmacology, embryology, endocrinology, histology, or neuroscience.

Chemical Sciences Coursework

- At least one semester of inorganic chemistry.
- At least one semester of organic chemistry.
- An introductory or general biochemistry course.

Statistical Sciences Coursework

- A general statistics or biostatistics course.

Professional Coursework

- At least one nutrition course such as introductory nutrition, lifespan nutrition, advanced nutrition, or medical nutrition therapy.

Recency of Education Requirements

Additional courses in dietetics or a related area are required to update a degree that was completed five or more years prior to the current application deadline. The number of required credits is outlined as follows.

- 5–10 years (3 s.h. of medical nutrition therapy or clinical nutrition).
- 10 or more years (3 s.h. of medical nutrition therapy, 3 s.h. of physiology, 3 s.h. of biochemistry).

Application Process

Application should be made through the Master of Clinical Nutrition program. All materials for the application, including three recommendations and college transcripts, must be received by February 1.

If required, official Test of English as a Foreign Language (TOEFL) scores should be sent to the University of Iowa using institution code 6681.

The University of Iowa online application for admission requires a nonrefundable application fee of $60 for U.S. applicants and $100 for international applicants.

Career Development

The Master of Clinical Nutrition program prepares students to be competent as a registered dietitian nutritionist (RDN).

According to the Occupational Outlook Handbook released by the U.S. Department of Labor Statistics, the employment of registered dietitians and nutritionists is projected to grow 7% from 2023 to 2033, faster than the average for all occupations.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Doctor of Medicine

Professional degree: MD

Website: https://medicine.uiowa.edu/md/

The Doctor of Medicine is a professional degree awarded by the Carver College of Medicine. The college is accredited by the Liaison Committee on Medical Education of the American Medical Association and the Association of American Medical Colleges and meets the requirements of all state licensing boards. Its MD diploma admits the holder to all privileges granted to graduates of all medical colleges before such boards.

Programs

Professional Program of Study

Major

- Doctor of Medicine [p. 1881]

Academics Rules and Procedures

Student Promotion

The Carver College of Medicine has established promotion policies and procedures to ensure that each of its graduates has adequate skills, knowledge, judgment, ethical standards, and personal integrity to assume the responsibilities of a medical doctor. The student promotions committee, comprised of seven faculty members and two students, performs these duties with the cooperation, advice, and judgment of course directors, faculty members, students, and administrators.

The committee recommends specific actions to be taken when a student's skills, knowledge, judgment, or ethical behavior is in any way considered consistently marginal or unsatisfactory. Possible recommendations include dismissal of the student from the college, suspension for a specified period of time, requiring the student to repeat all or any part of the curriculum on academic probation, and allowing the student to continue on academic probation with a full or partial course load. The committee's recommendations are forwarded for action to the executive dean of the Carver College of Medicine.

Specific information about student promotion policies and procedures is available from the Office of Student Affairs and Curriculum and is online in the Student Handbook.

Leaves of Absence, Withdrawal, Reinstatement

The Carver College of Medicine has established policies regarding leaves of absence, dropping courses, withdrawal from the college, and reinstatement to the college. Information about each of these policies is available on the college's Office of Student Affairs and Curriculum website and is published annually in the Student Handbook.

Disputes and Complaints

Student complaints concerning the actions of faculty members or departments are pursued first through mechanisms established in the Carver College of Medicine. These procedures allow the greatest flexibility for all concerned in resolving a conflict. They are intended for situations such as grading disputes, alleged academic dishonesty, alleged dishonesty during a clinical rotation, alleged unethical or unprofessional conduct, and perceived discrimination or harassment.

Complaints regarding sexual harassment are handled confidentially in accordance with university policy and procedures; see the university's Sexual Harassment and Sexual Misconduct Policies.

For information about the established informal mechanisms, contact the Office of Student Affairs and Curriculum or see the Student Handbook.

Doctor of Medicine, MD

Website: https://medicine.uiowa.edu/md

Requirements

The Doctor of Medicine is a full-time, four-year program that prepares students to practice primary care medicine and to pursue further education and training in specialized areas of medicine. The program admits 152 new students each year. The MD curriculum is built on a triple-helix model whose three strands extend through all four years of medical school: the clinical and professional skills strand, the mechanisms of health and disease strand, and the medicine and society strand.

Clinical experiences begin during the first few weeks of medical school, and clinical clerkships start after just three semesters of preclinical instruction. By the end of the fifth semester, students have completed all of their core requirements and have the remaining three semesters to tailor their educational experience in preparation for their selected specialty.

Students complete in-depth clinical coursework and serve clinical clerkships primarily at University of Iowa Health Care, the VA Iowa City Health Care, and the Des Moines Area Medical Education Consortium. Students may also have opportunities to gain experience in private medical offices and community hospitals.

Students are required to pay a minimum of eight semesters of full-time tuition. At the conclusion of medical school, students will match into a residency program and complete their training in a chosen specialty.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Preclinical Curriculum (Phase I)

The first three semesters of the MD program present an integrated core of sciences basic to the study of medicine. They also introduce students to the foundations of clinical practice.

Coursework includes human anatomy, foundations of cellular life, clinical and professional skills (a three-course series), medicine and society (a three-course series), and mechanisms of health and disease (a five-course series).

Some elective courses are available to students during the first and second years, normally for 1 or 2 s.h. of credit. Topics include areas not specifically covered in the regular curriculum and areas related to medical practice and the role of the physician. Courses vary from year to year, but typical subject areas are global health issues, U.S. health care systems, and community health outreach.

The MD program's preclinical curriculum requires the following coursework.

First Semester

Course #	Title	Hours
ACB:8101	Medical Gross Human Anatomy	5
MED:8121	Clinical and Professional Skills I	3
MED:8122	Medicine and Society I	3
MED:8123	Foundations of Cellular Life	5
MED:8124	Mechanisms of Health and Disease I	8

Second Semester

Course #	Title	Hours
MED:8131	Clinical and Professional Skills II	4
MED:8132	Medicine and Society II	4
MED:8133	Mechanisms of Health and Disease II	7
MED:8134	Mechanisms of Health and Disease III	11

Third Semester

Course #	Title	Hours
MED:8221	Clinical and Professional Skills III	4
MED:8222	Medicine and Society III	4
MED:8223	Mechanisms of Health and Disease IV	10
MED:8224	Mechanisms of Health and Disease Keystone	7

Clinical Curriculum (Phase II and III)

Students complete one week of skills training in MED:8320 Transition to Clerkships prior to the start of clinical clerkships. The two-and-one-half-year clinical component of the medical curriculum is comprised of supervised hands-on clinical training at the bedside of inpatient units, in outpatient clinics, and in communities throughout the state. In contrast to the preclinical semesters, the clinical years vary according to a student's individual needs. This period of training begins in January of the second year with 44 weeks of core clerkships (Phase II). Students then enter various pathways where they complete a minimum of 10 weeks of electives, four weeks of critical medicine, one four-week subinternship, and 32 weeks of advanced electives (Phase III).

After completing the core clerkships, students must successfully complete Step 1 of the United States Medical Licensing Examination (USMLE) before they may be promoted to the pathways component of the curriculum. Students take Step 2 of the USMLE during Phase III of the MD program, and must pass Step 2 in order to graduate.

Primary venues for clinical training of medical students include University of Iowa Health Care, the VA Iowa City Health Care, and the Des Moines Area Medical Education Consortium. Students also participate in the family and community medicine clerkship, which is an off-campus rotation. Other courses may be assigned to off-campus sites.

The MD program's clinical curriculum requires the following clerkships and selectives.

Generalist Core (Phase II)

MD students complete the generalist core during the fourth and fifth semesters. It consists of the following 44 weeks of clerkships.

Course #	Title	Hours
Internal Medicine Block		
IM:8310	Internal Medicine (10 weeks)	10
Family Medicine/Pediatrics Block		
FAM:8302	Family and Community Medicine (6 weeks)	6
PEDS:8301	Clinical Pediatrics (6 weeks)	6
Obstetrics and Gynecology/Surgery Block		
OBG:8301	Clinical Obstetrics and Gynecology (6 weeks)	6
SURG:8301	Clinical Surgery (6 weeks)	6
Neurology/Psychiatry/Emergency Medicine Block		
EM:8301	Core Emergency Medicine (2 weeks)	2
NEUR:8301	Clinical Neurology (4 weeks)	4
PSYC:8301	Clinical Psychiatry (4 weeks)	4

Selectives

MD students complete 10 weeks of selectives chosen from the following.

Course #	Title	Hours
ANES:8301	Clinical Anesthesia (2 weeks)	2
DERM:8301	Clinical Dermatology (2 weeks)	2
OPHT:8301	Clinical Ophthalmology (2 weeks)	2
ORTH:8301	Clinical Orthopedics (2 weeks)	2
OTO:8301	Clinical Otolaryngology (2 weeks)	2
RAD:8301	Clinical Radiology (2 weeks)	2
URO:8301	Clinical Urology (2 weeks)	2

Advanced Required Clerkships (Phase III)

MD students complete the following required clerkships and other work during the three advanced clinical-year semesters. In addition to the clerkships, students complete training modules in advanced clinical topics that include MED:8470 Self-Directed Learning in Advanced Clinical Topics.

Requirements	Hours
Critical care medicine (4 weeks)	
Advanced inpatient subinternship (4 weeks)	
Advanced electives (total of 32 weeks)	

Combined Programs

Students must be admitted to both of the individual degree programs before they may be admitted to a combined degree program. Those interested in the combined programs must make arrangements with the appropriate departments and with the Carver College of Medicine associate dean for student affairs and curriculum.

MD/JD

The Carver College of Medicine and the College of Law offer the combined Doctor of Medicine/Juris Doctor program; see Juris Doctor, JD [p. 1833] in the catalog.

MD/MBA

The College of Medicine collaborates with the Tippie College of Business to offer the combined Doctor of Medicine/Master of Business Administration. For more information about the MBA, see the Iowa MBA in the Master of Business Administration, MBA [p. 1274] section of the catalog.

MD/MPH

The College of Medicine collaborates with the College of Public Health to offer the combined Doctor of Medicine/Master of Public Health program; see the Master of Public Health, MPH [p. 2092] in the catalog.

MD/PhD (Medical Scientist Training Program)

The Carver College of Medicine offers a combined MD/PhD program for students who are interested in a career that combines clinical and academic medicine with basic and clinical research; see the Medical Scientist Training Program [p. 1901] in the catalog.

Admission

The Carver College of Medicine participates in the American Medical College Application Service (AMCAS), a nonprofit centralized application processing service for applicants to U.S. medical schools. AMCAS applications are available for completion in May of the year preceding the beginning of the class for which the application is being made. Applicants are strongly encouraged to submit application materials by Oct. 15. The deadline for AMCAS submission is Nov. 1. All application materials are due by Dec. 15.

Secondary applications are extended to applicants meeting minimum qualifications.

Admitted applicants must have an official transcript from each college they have attended sent to University of Iowa Admissions.

Technical Standards for Admission and Retention

The College of Medicine seeks candidates who will be able to best serve the needs of society and strives to graduate skilled and effective physicians. To achieve this goal, the following principles and technical standards will be applied to candidates for admission and continuing students. Review the current Technical Standards on the Carver College of Medicine Admissions website.

Admission Requirements

Applicants for admission to the Carver College of Medicine must have a bachelor's degree, or they must be enrolled in a bachelor's degree program with the expectation of receiving their degree prior to enrollment. Applicants should refer to the Carver College of Medicine Admissions website for current admission requirements.

All students who enter the Carver College of Medicine are required to comply with the pre-entrance and annual health screening program developed by the University of Iowa Student Health in cooperation with University of Iowa Health Care; see Student Requirements and Forms on the Student Health website.

All registered Carver College of Medicine students are required to maintain health insurance (or an equivalent care plan) that satisfies minimum standards of coverage. Insurance coverage must be maintained continuously throughout each year of attendance at the University of Iowa.

Financial Support

The Carver College of Medicine's philosophy is that no student should be denied a medical education due to a lack of financial resources. The college's financial services staff actively seeks sources of aid so that every student interested in medical education will be able to finance that education.

Financial assistance is provided by the Carver College of Medicine primarily on the basis of demonstrated financial need. Although a limited number of collegiate or institutional grants are available for the most economically disadvantaged students, most aid is in the form of loans. Examples of federal loan programs are the Federal Direct Unsubsidized Stafford/ Ford Student Loan, the Federal Direct Grad PLUS loan, and the Primary Care Loan (PCL). Students may also qualify for collegiate loans or private loans to supplement their financial aid package.

In addition, the college supports scholarship and loan programs through permanent endowments and/or contributions from alumni and friends of the Carver College of Medicine. These funds are administered by the college's financial services staff and are awarded as a part of a student's total financial aid package. Funds to support short-term emergency loans are available for students with immediate financial need.

A small number of Dean's Scholarships are awarded by the college's admissions office to highly qualified candidates on the basis of their academic excellence, leadership abilities, and their potential to enrich the college. Dean's Scholarships are included in the recipient's overall financial aid package. About 15% of students enrolled in each class receive some level of Dean’s Scholarship.

The Carver College of Medicine has a fully integrated Financial Literacy Program, CCOMmon Cents, which provides medical students the knowledge, tools, and resources to better understand the financial aid process, to manage their student loans more effectively, to make better informed decisions, and to encourage students to minimize their educational debt whenever possible. This program also strives to help students reach their personal financial goals while pursuing their medical education.

To learn more about financial aid, contact the Carver College of Medicine Financial Services office.

Career Advancement

An interest in science, the healing arts, helping people, and medical research can lead to a great number of satisfying careers. For information about career options in health care, review the Road to Becoming a Physician on the College of Medicine website and the Occupational Outlook Handbook on the United States Department of Labor Bureau of Labor Statistics website.

Emergency Medicine

Chair

- Andrew Nugent

Faculty: https://medicine.uiowa.edu/emergencymedicine/profile

Website: https://medicine.uiowa.edu/emergencymedicine/

The Department of Emergency Medicine prepares new physicians to recognize and treat a variety of urgent and emergent conditions. The program fosters basic science and clinical research relevant to emergency medicine and is dedicated to the education and training of Emergency Medical Services (EMS) personnel through the Emergency Medical Services Learning Resources Center (EMSLRC).

Research

Research in the department is built on four research pillars: clinical, injury prevention, medical education, and health systems. Faculty members, graduate students, emergency medicine residents, medical students, and undergraduates are involved in research in a variety of projects and programs. Specific research interests include:

- rural regionalization and telemedicine;
- quality of care, efficiency, and cost-effectiveness of interhospital transport;
- prevention, diagnosis, and care of traumatic brain injury;
- off-road injury prevention;
- highway motor vehicle crash scene analysis;
- safe driving advocacy;
- simulation in medical education;
- improving access and quality of emergency care;
- decision-making processes for optimal drug selection in the emergency department;
- addiction medicine and harm reduction;
- toxicology;
- global health care access;
- interpersonal violence; and
- early risk stratification and prophylaxis in critical illness.

Patient Care

The Department of Emergency Medicine at University of Iowa Health Care and University of Iowa Stead Family Children's Hospital provides care for the most critically ill adults and children in a patient- and family-centered atmosphere. The department handles emergency cases in Iowa and from surrounding states.

Resources

The Emergency Department, located on the first floor of Roy J. Carver Pavilion, is a Level I Adult and Pediatric Trauma Center. It serves as a referral center for communities across Iowa.

MD Training

The two-week core emergency medicine experience is completed either at University of Iowa Health Care, Iowa City, or UnityPoint Health, Des Moines. This provides an initial opportunity to experience and learn emergency medicine. The advanced emergency medicine four-week clerkship at UI Health Care takes place sometime after the core year and provides an opportunity for a more in-depth emergency medicine experience. In both clerkships, a student acts as an integral member of the care team and experiences a wide variety of patient scenarios and clinical pathology.

Elective rotations for Doctor of Medicine students are available at several other sites throughout Iowa, including St. Luke's Hospital, Cedar Rapids; Great River Health, Burlington; MercyOne Waterloo Medical Center, Waterloo; Broadlawns Medical Center, Des Moines; and Genesis Health Group, Davenport. Students may also arrange an off-service elective independently with established residency programs throughout the United States.

Additionally, the program offers an annual introductory month to emergency medicine; advanced life support; Wilderness Medicine, a rotation that includes scenario and didactic training in wilderness medicinal skills with travel to areas such as Colorado; and a two- or four-week toxicology elective.

Residency

The emergency medicine faculty directs the Emergency Medicine Residency. The residency is a three-year program that prepares residents for careers in diverse areas of emergency medicine, from rural practice to academics. The program emphasizes critical care training and rotations in a wide variety of specialties. Part of the clinical component is spent at St. Luke's Hospital, Cedar Rapids.

Courses

Emergency Medicine Courses

EM:8301 Core Emergency Medicine 2 s.h.
Participation in direct patient care as part of a care team during emergency medicine clinical shifts; opportunity to perform supervised bedside procedures and call consults. Requirements: MD enrollment.

EM:8401 Advanced Life Support 4 s.h.
Experience managing acute threats to life—including trauma, respiratory failure, poisoning, sepsis, stupor/coma, and acute myocardial infarction (MI)—using Advanced Cardiovascular Life Support (ACLS) and Pediatric Advanced Life Support (PALS) courses and clinical manikin work with EMS staff. Requirements: completion of MD core clerkship year.

EM:8402 Emergency Medicine UIHC arr.
Preceptorship with residents and faculty; emphasis on principles of acute medicine; clinical shifts, case conferences, simulations, exams.

EM:8403 Wilderness Medicine 4 s.h.
Didactic and scenario training in physiology, diagnosis, and emergency treatment of heat- and cold-related illnesses, high altitude disorders, wilderness trauma, envenomations, and immersion injuries. Taught in wilderness areas. Requirements: completion of MD third year.

EM:8404 Emergency Medicine: St. Luke's, Cedar Rapids 4 s.h.
Preceptorship with full-time emergency department physicians; clinical shifts, case conferences, simulations, exams.

EM:8405 Rural Emergency Medicine at Burlington, Iowa 4 s.h.
In-depth clinical experience in a busy rural hospital emergency department under supervision of residency-trained emergency physicians; lectures, skill labs, projects.

EM:8406 Emergency Medicine Des Moines 4 s.h.
Participation in acute emergency care, management of acute illnesses, follow-up care when possible; Broadlawns Hospital, Des Moines.

EM:8407 Emergency Medicine Waterloo 4 s.h.
Participation in acute emergency care, management of acute illnesses, follow-up care when possible; Covenant Medical Center, Waterloo.

EM:8409 Introduction to Advanced Life Support 2 s.h.
Intensive program providing basic training in life support skills, experience in procedures common to inpatient hospital environment, and practice with simulated critical care scenarios; lectures, small group discussions, procedure labs, high-fidelity simulations, and self-directed online learning; students become certified in Advanced Cardiac Life Support (ACLS).

EM:8410 Medical Toxicology Sioux City 2,4 s.h.
Clerkship at the Iowa Poison Control Center; intense introduction to breadth and depth of medical toxicology; students work independently and concentrate on many different areas and interests; work with a multidisciplinary team of nurses, pharmacists, and physicians; activities may include reviewing and presenting active poisoned patient cases during daily rounds and opportunities to see toxicology patients at bedside; preparation and short presentation in any area of medical toxicology. Requirements: MD enrollment.

EM:8411 Medical Toxicology UIHC 2,4 s.h.
In-depth introduction to medical toxicology; how to recognize and treat various toxidromes and the most common toxicologic exposures; initial management steps for life-threatening toxicologic exposures; focus on basics of pathophysiology and pharmacology to understand how drugs affect patients, and critical assessment of laboratory and other data obtained on the poisoned patient.

EM:8412 Emergency Medicine Unity Point Des Moines 4 s.h.
Clinical shifts in emergency department and emergency medicine related didactics; advanced cardiovascular life support (ACLS), airway management, calling a consult/ communication, chest pain, toxicology, trauma, sepsis, ultrasound, febrile infant, headache, and psychobehavioral disorders.

EM:8413 Emergency Medicine Genesis Davenport 4 s.h.
Clinical shifts in emergency department and emergency medicine related didactics; advanced cardiovascular life support (ACLS), airway management, calling a consult/ communication, chest pain, toxicology, trauma, sepsis, ultrasound, febrile infant, headache, and psychobehavioral disorders.

EM:8497 Research in Emergency Medicine arr.
Medical research, clinical or laboratory projects; individual study.

EM:8498 Emergency Medicine On Campus arr.
Advanced knowledge, skills, and tools applied under supervision in a clinical setting.

EM:8499 Emergency Medicine Off Campus arr.
Preceptorship with residents and faculty; emphasis on principles of acute medicine; Liaison Committee on Medical Education (LCME) accredited off-campus site. Requirements: completion of MD third year and approval from UIHC Emergency Medicine clerkship director.

Family and Community Medicine

Chair

- Jeffrey D. Quinlan

Faculty: https://familymedicine.medicine.uiowa.edu/people

Website: https://familymedicine.medicine.uiowa.edu/

The Department of Family and Community Medicine is nationally recognized for excellence in patient care, teaching, and research. The department is dedicated to providing primary care for the citizens of Iowa, educating medical students, training resident physicians, providing continuing education, and creating new knowledge to improve primary care and health care delivery systems.

MD Training

The Department of Family and Community Medicine ensures that all graduates from the University of Iowa Carver College of Medicine students receive a well-rounded education to help them succeed in whatever specialty they may choose. All CCOM medical students complete a required clerkship in Family and Community Medicine during their core year. The department also offers a multitude of advanced electives for students interested in primary care as well as select opportunities for visiting medical students. Advanced elective rotations provide students with opportunities to engage with diverse Iowa communities through work in affiliated hospitals, connected facilities, and clerkships with selected family physicians across the state, as well as within the University of Iowa Health Care family medicine department and clinics. Students also have the opportunity for independent study during their advanced clerkships.

Residency

Family and Community Medicine Residency

The Department of Family and Community Medicine directs a three-year residency program whose graduates are eligible for certification by the American Board of Family Medicine. The residency program trains physicians to provide continuous and comprehensive medical care to patients and their families. Residents are educated in all areas of family and community medicine—adult medicine, maternal and child health, behavioral science, surgical specialties, and community medicine. Training emphasizes the value of wellness and preventive medicine as well as curative medicine.

The program is organized as a progressive educational experience. It consists of formal teaching and clinical experiences on assigned rotations, structured conferences, and patient care in the Family Medicine Clinic. As residents develop clinical skills, medical judgment, and competence, their patient responsibilities increase. Some patients at the Family Medicine Clinic are assigned to residents, who provide medical care under faculty supervision. Residents are responsible for their patients for the duration of the residency program.

Residents also learn the principles of practice management, including organizational and administrative decision-making, patient record and bookkeeping procedures, and chart auditing methodologies.

Residents are expected to take responsibility for their learning environment, to avail themselves of the department's diverse resources, and to collaborate with the faculty in order to have the best possible learning experience.

Family and Community Medicine–Psychiatry Residency

The Department of Family and Community Medicine and the Department of Psychiatry cosponsor the combined Family and Community Medicine–Psychiatry Residency program. The program's residents acquire broad-based training in both disciplines, including focused training in geriatrics and geriatric psychiatry, substance and alcohol abuse, diagnosis and treatment of depression, delirium, eating disorders, panic disorders, and neurotic and somatizing behavior. Graduates are eligible for certification by the American Board of Family Medicine and the American Board of Psychiatry and Neurology.

Facilities

The Department of Family and Community Medicine is located on the University of Iowa health sciences campus. Faculty offices are close to the Family Medicine Clinic, where patients are seen by appointment. The department also has community-based clinics in northeastern Iowa City, Coralville, Cedar Rapids, Muscatine, North Liberty, Riverside, and additional communities in the area.

Courses

Family and Community Medicine Courses

FAM:8005 Medical Education Community Orientation **0 s.h.**
Experience in a local health care delivery system away from the university setting, between first and second year of MD program.

FAM:8301 Preceptorship in Family Medicine **arr.**
One-on-one experience with a practicing physician; exposure to illnesses, conditions often seen in primary care; realistic background for evaluation of family medicine as a career alternative.

FAM:8302 Family and Community Medicine **6 s.h.**
One-on-one experience with a practicing physician; exposure to illnesses and conditions often seen in primary care; realistic background for evaluation of family medicine as a career alternative; clinical activities, work with community agencies and resources; didactic and conferences.

FAM:8401 Advanced Inpatient Subinternship in Family Medicine, University of Iowa **4 s.h.**
Inpatient aspects of family medicine's key components; experience on the family medicine inpatient service.

FAM:8402 University of Iowa Family Medicine Clerkship 2,4 s.h.
Work with family practice residents and staff in day-to-day delivery of primary medical care at Family Practice Center; experience in the Family Stress Clinic observing family-centered counseling; nursing home visits, work with departmental social worker and sports medicine specialist.

FAM:8403 Advanced Preceptorship in Family Medicine 2,4 s.h.
Experience in community practice of family medicine.

FAM:8405 Geriatrics Elective 2,4 s.h.
Experience in monitoring and evaluating health and functional status of patients age 65 and older in the UI Geriatric Assessment Clinic and community settings.

FAM:8406 Advanced Inpatient Subinternship in Family Medicine, Cedar Rapids 4 s.h.
Experience as a junior resident in all areas of inpatient family medicine, including maternity care, child and adolescent health, adult medicine.

FAM:8407 Clerkship in Family Medicine, Cedar Rapids 4 s.h.
Experience as a junior resident in all areas of family medicine, including maternity care, child and adolescent health, adult medicine.

FAM:8408 Family Medicine Clerkship, Broadlawns Hospital, Des Moines Family Health Center 4 s.h.
Clinical experience in inpatient and outpatient care.

FAM:8409 Advanced Inpatient Subinternship in Family Medicine, Iowa Lutheran 4 s.h.
Patient-oriented interactive experience in an inpatient family practice environment. Requirements: fourth-year MD enrollment.

FAM:8410 Family Medicine, Iowa Lutheran 4 s.h.
Requirements: fourth-year MD enrollment.

FAM:8411 Family Medicine Clerkship, Davenport 4 s.h.
Assignment to problems commonly seen in family practice office; supervision by residents and faculty for history and physical evaluation and diagnostic workups and treatment of each specific problem; exposure to acutely ill patients in services of medicine, surgery, obstetrics, pediatrics.

FAM:8412 Advanced Inpatient Subinternship in Family Medicine, Davenport 4 s.h.
Experience in inpatient family medicine; assessing and managing hospitalized patients, evaluating and treating patients in the emergency room, participating in call coverage with family medicine residents.

FAM:8413 Family Medicine Geriatrics, Davenport 4 s.h.
Geriatric, palliative, and end-of-life care issues; assessment of competency in evaluation and management of patients; interdisciplinary nature of geriatric and palliative care.

FAM:8415 Advanced Inpatient Subinternship in Family Medicine, Sioux City 4 s.h.
Experience as a junior resident in all areas of family medicine. Requirements: fourth-year MD enrollment.

FAM:8416 Family Medicine Clerkship, Sioux City 2,4 s.h.
Methods common in family practice medicine; participation in care of patients seen by family practice physicians and residents.

FAM:8417 Advanced Inpatient Subinternship in Family Medicine, Waterloo 4 s.h.
Experience working as a member of family practice inpatient team at Allen Memorial Hospital and Covenant Medical Center, following patients from admission through discharge.

FAM:8418 Family Medicine Clerkship, Waterloo 4 s.h.
Rotation at the Northeast Iowa Family Practice Center; work with patients from outpatient care through hospitalization; basic concepts of family practice, team concept in medical care.

FAM:8419 River Crossing Family Medicine Clerkship 2,4 s.h.
Experience providing patient care in a rural setting; continuity of care for patients of all ages. Requirements: fourth-year MD enrollment.

FAM:8420 Family Medicine, Mason City 2,4 s.h.
Work with family physicians on staff at Mercy or other affiliated community hospitals; management of all patients admitted by the family physicians, participation in care rendered by consultants; primary care experience in family practice office.

FAM:8421 Primary Care Sports Medicine 4 s.h.
Comprehensive, diverse, and educational experience in the field of sports medicine; clinical competence to diagnose and manage medical illnesses and injuries related to sports and exercise in varied patients, recreational and organized athletes, and teams. Requirements: MD enrollment.

FAM:8422 Family Medicine/Psychiatry Elective 2,4 s.h.
Integration of mental and physical health care across outpatient family medicine and outpatient psychiatry arenas. Requirements: MD enrollment.

FAM:8423 Family Medicine, Ames Student Health 4 s.h.
Primary care of late adolescent and young adult patients in a student health center setting; students work with family medicine and mental health providers to address health care needs of this population.

FAM:8424 Family Caregiving Transitions arr.
Students enhance clinical learning from caregiving experiences and increase empathy and patient communication skills; students also enhance personal understanding of, and growth through, caregiving responsibilities in periods of family health transitions.

FAM:8425 Advanced Inpatient Subinternship in Rural Family Medicine, Algona 4 s.h.
Rural hospital-based subinternship; students provide family medicine service alongside board-certified family physician faculty, performing all admissions on weekdays, rounding on hospitalized patients each day, and call responsibilities including deliveries and ER coverage.

FAM:8426 Disease Registry Management 4 s.h.
Use of electronic medical record-based disease registries to investigate care, identify areas for improvement, and optimize management of chronic disease at individual and/or population level.

FAM:8427 Maternity Care 4 s.h.
Experience in triaging of pregnant patients; students provide usual intrapartum and postpartum care, manage common intrapartum and postpartum complications, and provide care to newborn infants, healthy and ill. Requirements: MD enrollment.

FAM:8428 Caring for the Underserved 2 s.h.
Caring for a variety of medically underserved patient populations with cultural competency and compassion; participation in a variety of experiences with clinical and ancillary/allied services, and community agencies that specialize in providing services to these populations. Requirements: MD enrollment.

FAM:8429 Advanced Inpatient Subinternship in Family Medicine, Broadlawns 4 s.h.
Provides students with advanced training in the knowledge and skills that are foundational to the field of family medicine; through Broadlawns Medical Center in Des Moines. Requirements: MD enrollment.

FAM:8450 Continuity of Care - Family Medicine 4 s.h.
Longitudinal continuity of care experience for fourth-year MD students in an outpatient family medicine setting.

FAM:8496 Independent Studies arr.
Work with departmental researcher on investigation in family medicine, community medicine, health care delivery, health maintenance, and other areas.

FAM:8497 Research in Family Medicine arr.
Medical research, clinical or laboratory projects; individual study.

FAM:8498 Family Medicine On Campus arr.
Clinical clerkship; individually arranged by student with departmental approval.

FAM:8499 Family Medicine Off Campus arr.
Clerkships; may include community hospitals.

Free Radical and Radiation Biology

Director

- Andrean Burnett (Radiation Oncology)

Faculty: https://frrbp.medicine.uiowa.edu/people

Website: https://frrbp.medicine.uiowa.edu/

The Free Radical and Radiation Biology Program provides in-depth training and research experience in the physical, chemical, and biological effects of radiation. It also focuses on the metabolic production of free radicals and their role in biology and medicine.

Free radicals are of interest to researchers and clinicians due to their role in a variety of diseases and pathological states, including degenerative diseases of aging and cancer. Manipulation of free radical reactions and redox biology holds great promise for the future development of new therapies for a variety of human diseases. The Free Radical and Radiation Biology Program stresses the importance of these areas of research to basic science, translational research, and public health.

Undergraduate Education

Three courses offered by the Free Radical and Radiation Biology Program are open to University of Iowa undergraduate students: FRRB:3130 Introduction to Radiation Safety and Radiobiology; FRRB:4000 Special Topics: Advanced Undergraduates; and with instructor approval, FRRB:5000 Radiation Biology. Students looking for an overview of the biological effects of radiation, including the role of free radicals, will find FRRB:5000 especially appropriate.

Graduate Education

See Carver College of Medicine [p. 1843] and Graduate [p. 1682] College in the catalog for general information about study in medicine and graduate study at the university.

Postgraduate Training

Postdoctoral training is available by arrangement with the program's director and individual faculty members. Contact the Free Radical and Radiation Biology Program.

Facilities

The Free Radical and Radiation Biology Program is the home of the Radiation and Free Radical Research Core Lab (RFRRC). The lab operates radiation sources including an Xstrahl Small Animal Radiation Research Platform (SARRP) and a 5,000-Curie Cs-137 irradiator (Ionizing Radiation Services). Students and staff have access to additional core lab support through RFRRC, with services and expertise related to analytical chemistry (Electron Paramagnetic Resonance Services) and redox biology, biochemistry (Antioxidant Enzyme Services), and linear accelerators in the Department of Radiation Oncology.

The program has a number of radiation detectors and counters, including liquid scintillation counters. It also has ultraviolet/visible spectrophotometers; various types of equipment for densitometry, chromatography, and electrophoresis; modern tissue culture facilities; seahorse metabolic profiling instruments; molecular biology equipment, including thermal cyclers; an automatic cell counter and particle sizer; tissue culture facilities; Typhoon phosphorimager; high performance liquid chromatography (HPLC); electron spin resonance spectrometers; and nitric oxide analyzers. Visit Research Core on the program's website to learn more.

Courses

Free Radical and Radiation Biology Courses

FRRB:3110 Medical Physics I **1-3 s.h.**
Introduction to radiation used in clinical setting; fundamental physical units, measurements, principles, atomic structure and types of radiation; X-ray generating equipment, X-ray production, and its interaction with matter. Requirements: admission to free radical and radiation biology program or acceptance to radiation sciences therapy program, and maxillofacial or radiation oncology resident. Same as RSTH:3110.

FRRB:3130 Introduction to Radiation Safety and Radiobiology **1 s.h.**
Instruction on safe operation of radiation producing equipment and handling of radioactive materials; origin and/or derivation of certain formulae and techniques useful in radiation protection programs; regulatory agencies, regulations, and regulatory guides pertinent to student's field; emphasis on applied aspects of radiation protection; characteristics and biological effects of ionizing radiations, properties and uses of radioisotopes, medical applications, and biological basis for protection procedures. Requirements: enrollment in radiation sciences or nuclear medicine technology program. Same as RSP:3130.

FRRB:3215 Medical Physics II **0-3 s.h.**
Treatment units used in external radiation therapy; beam calculations, isodose distributions, brachytherapy, quality assurance and quality management, protection and safety. Prerequisites: RSTH:3110. Requirements: admission to free radical and radiation biology program or acceptance to radiation sciences therapy program. Same as RSTH:3215.

FRRB:4000 Special Topics: Advanced Undergraduates **arr.**
Readings and/or laboratory experience. Offered fall semesters.

FRRB:5000 Radiation Biology **4 s.h.**
Comprehensive study of molecular and biological effects of ionizing radiations with emphasis on biomedical therapeutic applications; mammalian radiobiology, contribution of metabolism to radiation effects, and therapeutic applications of radiation in cancer therapy. Offered fall semesters. Prerequisites: CHEM:2210 and BMB:3120. Requirements: college-level physics.

FRRB:5001 Research: Special Topics **arr.**

FRRB:6000 Seminar: Free Radical and Radiation Biology **1 s.h.**
Seminar presentations of cutting edge science in the field of free radical and radiation biology, given by experts in the field as well as trainees.

FRRB:6004 Research: Free Radical and Radiation Biology **arr.**
Representation of intensive laboratory-based studies in the field of free radical and radiation biology, determined by mutual agreement between faculty members sponsoring the research and consultation with graduate student.

FRRB:6006 Topics in Free Radical Biology and Medicine **1 s.h.**
Discussion and presentation of new literature reports in the field of free radical biology and medicine in journal club format.

FRRB:6008 Topics in Radiation and Cancer Biology **1 s.h.**
Emerging concepts in the biological effects of radiation and cancer biology; current topics in journal club format.

FRRB:7000 Redox Biology and Medicine **4 s.h.**
Chemistry of free radicals, related oxidants, and antioxidants; antioxidant (redox) enzymes—their structure, biochemical function, regulation, and function in redox biology; targets of oxidants—lipids, proteins, DNA; redox biology of health (infants to healthy aging) and disease (cancer, cardiovascular disease, diabetes, neurodegenerative diseases). Offered spring semesters of even years. Prerequisites: BMB:3120 or CHEM:2210.

FRRB:7001 Molecular and Cellular Biology of Cancer **3 s.h.**
Fundamental aspects of oncology at cellular and molecular levels; mechanisms of cancer initiation and progression, oncogene action, DNA damage and repair, carcinogenesis by radiation, chemicals, viruses; tumor immunology, anticancer therapies. Offered spring semesters. Prerequisites: BMED:5207. Requirements: strong basic science background. Same as CBIO:7001, PATH:7001.

Internal Medicine

Chair

- Upinder Singh

Faculty: https://medicine.uiowa.edu/internalmedicine/people

Website: https://medicine.uiowa.edu/internalmedicine/

Internal medicine is concerned with the diagnosis, prevention, and treatment of diseases of adults. The Department of Internal Medicine's educational, patient care, and research activities cover all facets of the discipline, including general internal medicine and primary care as well as the specialized areas of allergy and immunology, cardiology, clinical pharmacology, endocrinology and metabolism, gastroenterology and hepatology, hematology, oncology, blood and marrow transplant, infectious diseases, nephrology, pulmonary, critical care, occupational medicine, and rheumatology.

The department is committed to the complete spectrum of medical education, from didactic and clinical education of MD students to resident and fellowship training.

MD Training

Department of Internal Medicine faculty members bear a major share of teaching medical and physician assistant students in the preclinical curriculum. During the first year, faculty members participate in MED:8121 Clinical and Professional Skills I and MED:8131 Clinical and Professional Skills II, as well as MED:8122 Medicine and Society I and MED:8132 Medicine and Society II. They also participate in teaching MED:8124 Mechanisms of Health and Disease I, MED:8133 Mechanisms of Health and Disease II, and MED:8134 Mechanisms of Health and Disease III. Departmental faculty members are key contributors in the third semester, instructing MED:8221 Clinical and Professional Skills III, MED:8222 Medicine and Society III, MED:8223 Mechanisms of Health and Disease IV, and keystone courses.

During the core clinical clerkship year, the department's faculty members instruct students for 10 weeks in IM:8310 Internal Medicine at University of Iowa Health Care, Iowa River Landing, and the VA Iowa City Health Care, or in hospitals of the Des Moines Area Medical Education Consortium. Students actively participate as members of an inpatient ward team and/or specialty consult services, and in the evaluation and management of patients at outpatient internal medicine clinics in IM:8310.

During their advanced clerkship students may select a clinical experience to fit their own career goals from courses offered in general medicine, subspecialties, intensive care, and a subinternship program IM:8401 Advanced Inpatient Subinternship in Internal Medicine.

Residency

The department offers a three-year residency training program in internal medicine. In addition, most of the department's specialty divisions offer two- and three-year clinical and research fellowships, in which fellows develop special knowledge and skills relevant to their specialties. Fellows who hold doctoral degrees may be accepted to programs whose major focus is laboratory research.

Facilities

Teaching in the Department of Internal Medicine takes place in the Iowa City area at University of Iowa Health Care, Iowa River Landing, and the VA Iowa City Health Care, and in Des Moines at the VA Central Iowa Health Care and Iowa Methodist Medical Center.

Courses

Internal Medicine Courses

IM:8301 Inpatient Internal Medicine arr.
Development of knowledge, diagnostic and management skills vital to care of hospitalized patients; clinical responsibilities, educational conferences, independent study.

IM:8302 Outpatient Internal Medicine 3-4 s.h.
Development of knowledge, diagnostic and management skills in the outpatient clinical setting; clinical activities, discussion of problems, independent study.

IM:8310 Internal Medicine 10 s.h.
Development of knowledge, diagnostic, and management skills of vital signs in outpatient and inpatient clinical settings; clinical responsibilities, discussion of problems, educational conferences, independent study. Requirements: MD enrollment.

IM:8401 Advanced Inpatient Subinternship in Internal Medicine 4 s.h.
Student responsibility for evaluating, treating, and following patients admitted to inpatient general medicine services. Requirements: fourth-year MD enrollment.

IM:8410 Clinical Allergy Immunology arr.
Pathogenesis, diagnosis, and management of asthma and allergic and immunologic diseases; conducting and interpreting relevant specialized clinical and laboratory tests; emphasis on outpatients; formal and informal teaching sessions.

IM:8412 Clinical Cardiology arr.
Development of breadth and depth in diagnostic and therapeutic problems encountered in clinical cardiology; participation in evaluation and decisions regarding patients seen sometimes in the cardiovascular clinic, inpatient cardiology wards, and electrophysiology service.

IM:8413 Noninvasive Cardiovascular Assessment: EKG Interpretation and Experiences in Ultrasound 2 s.h.
Develop and further the confidence to read basic EKG patterns and rhythms critical to the primary care physician; these are the same objectives and methods as are stressed within the EKG portion of the transitions to clinical clerkships course; students are expected to refamiliarize themselves with this ICD material before beginning the course; students will learn by reading actual EKG's on their own with facilitation of learning by direct instructor feedback of their interpretation. Requirements: MD enrollment.

IM:8414 Clinical Endocrinology arr.
New patient evaluation, inpatient referral; returning patients in diabetes, endocrine clinics; complete patient evaluations, charts; participation in clinical conferences.

IM:8416 Clinical Gastroenterology arr.
Work in consultation service at University of Iowa Health Care or VA Iowa City Health Care; assistance in diagnostic procedures for patients examined as part of consultation service; participation in patient follow-up through weekly return clinic.

IM:8418 Hematology Oncology arr.
Diagnostic skills in hematology and oncology.

IM:8422 Clinical Infectious Disease arr.
Diagnosis, treatment, follow-up, study of patients with infectious diseases, under staff guidance; techniques of diagnostic microbiology; participation in conferences, teaching activities.

IM:8424 Medical Intensive Care Unit arr.

IM:8426 Pulmonary Disease arr.
Breadth, depth in diagnostic, therapeutic problems encountered in clinical pulmonary disease; evaluation of outpatients and inpatients under staff supervision; interpretation of special studies carried out in pulmonary function laboratory, fiberoptic bronchoscopy and brush biopsy of lung; exposure to diagnosis and management of acute respiratory failure in intensive care units at University of Iowa Health Care and VA Iowa City Health Care.

IM:8428 Nephrology arr.
Evaluation of patients from University of Iowa Health Care inpatient service, VA Iowa City Health Care and clinics; emphasis on early kidney disease and all varieties of hypertension.

IM:8434 Clinical Rheumatology arr.
Clinical features of rheumatic diseases, their differential diagnosis, and principles of management; patients from arthritis clinic, inpatient consultation service of University of Iowa Health Care and VA Iowa City Health Care.

IM:8435 Palliative Care 2,4 s.h.
Requirements: MD enrollment.

IM:8437 Multidisciplinary Cancer Care 2 s.h.
Basic concepts of cancer care; role of multidisciplinary team in care of cancer patients; development of attitudes, knowledge, and skills useful for entering a specialty that encounters patients with cancer. Requirements: MD enrollment.

IM:8446 Occupational Medicine 2,4 s.h.
First-hand experience in occupational medicine, focusing on the relationships between the health of workers, the physical, chemical, and social environments in the workplace, and the health effects of environmental exposures. Requirements: MD enrollment.

IM:8449 Editorial Writing for Medical Students 4 s.h.
Students understand and practice the skill of writing opinion editorials aimed at improving the public's understanding of health and health care; how to effectively engage a broad, non-medical audience through writing with the goal of producing an opinion editorial piece that could be submitted for publication to a local or national newspaper.

IM:8450 Continuity of Care in Outpatient Internal Medicine 4 s.h.
Experience with longitudinal continuity of care for patients in the outpatient setting; clinical and didactic exposure to broad spectrum of general internal medicine problems. Requirements: fourth-year MD enrollment.

IM:8451 Advanced Inpatient Subinternship in Internal Medicine, Des Moines arr.
Four-week rotation at Des Moines Medical Education Consortium; experience as a subintern in general internal medicine and the ICU. Requirements: fourth-year MD enrollment.

IM:8452 Advanced Inpatient Subinternship in Internal Medicine, VA Des Moines 4 s.h.
Rotation at the Veterans Affairs Central Iowa Health Care System; subinternship on general internal medicine ward. Requirements: fourth-year MD enrollment.

IM:8453 Critical Care Rotation, IMMC, ICU, DM 4 s.h.
Subinternship on medical critical care team, with daily rounds, teaching. Requirements: fourth-year MD enrollment.

IM:8454 General Medicine Hospitalist, Des Moines arr.
Principles of consultative medicine provided by general internists to non-internal medicine patients; how to assess perioperative risk for patients evaluated before surgery.

IM:8455 Public Health Medicine arr.
Participation in ongoing projects related to public health issues of acute disease; training and career opportunities in public health practice.

IM:8456 Clinical Cardiology Coronary Care Experience, Iowa Methodist, Des Moines arr.

IM:8457 Clinical Nephrology, Iowa Methodist, Des Moines 2,4 s.h.
Exposure to common nephrology problems, including acute renal failure, chronic renal failure, acid-base disorders, common electrolyte disorders.

IM:8460 Transitions to Internal Medicine Residency 2 s.h.
Hands-on, specialty-specific training beyond what is offered through current Carver College of Medicine curriculum; for students who are applying to internal medicine residency or programs requiring a transitional or preliminary medicine year. Requirements: MD enrollment.

IM:8495 Internal Medicine ICU Off Campus arr.
Experience as subintern in the ICU/MICU; daily rounds and teaching with medical critical care staff.

IM:8497 Research in Internal Medicine arr.
Medical research, clinical or laboratory projects; individual study.

IM:8498 Internal Medicine On Campus arr.

IM:8499 Internal Medicine Off Campus arr.

Medical Education Program

Executive Dean

- Patricia L. Winokur

Graduate degree: MME

Graduate certificate: medical education

Faculty: https://ocrme.medicine.uiowa.edu/about-ocrme/faculty-and-staff

Website: https://ocrme.medicine.uiowa.edu/

The purpose of the Medical Education Program is to develop a community of academic medical faculty with formal training in education who will create and sustain a culture of educational excellence within the Carver College of Medicine, University of Iowa Health Care, the University of Iowa, and in the medical education community. The program consists of the Master in Medical Education (MME) degree and the Certificate in Medical Education.

The program is coordinated through the Office of Consultation and Research in Medical Education (OCRME). Courses are taught by OCRME faculty, who also advise students in the program.

Programs

Graduate Programs of Study

- Master in Medical Education [p. 1894]
- Certificate in Medical Education [p. 1896]

Master in Medical Education, MME

Learning Outcomes

The Master in Medical Education program gives faculty members in health professions education the opportunity to specialize in the theory and practice of curriculum design, effective teaching, assessment, and other aspects of health professions education. Graduates of the program will be able to:

- design evidence-based education programs and materials with appropriate scope, sequence, and focus for intended learners;
- deliver effective instruction to individuals and small or large groups in classroom, laboratory, or clinical settings;
- evaluate the effectiveness of educational instruction, using both formative and summative methods;
- understand basic principles of educational measurement and apply these principles to health professions education;
- evaluate and choose different assessment methods to promote learning and assess learning progress and outcomes;
- understand basic principles of educational research and be able to interpret and use educational research;
- apply fundamental theories, designs, and methods of program evaluation to health professions education;
- identify current issues in health professions education and resources available for monitoring developments in the field;
- develop skills in reflection on past experience, including skills of self-awareness, self-analysis, and self-evaluation, that results in the ability to generate a new perspective or plan of action; and
- identify the evolving role of technology in health professions education and research.

Requirements

The Master in Medical Education (MME) requires 30 s.h. of graduate credit. The program is designed to prepare health professions faculty to educate health professionals. It is intended for Carver College of Medicine faculty members and professional staff as well as for University of Iowa resident physicians and fellows.

The MME may be completed in as few as two years or as many as five. Students may begin the program in fall semester, spring semester, or summer session. Some of the required courses are offered online, and required on-campus courses have evening meeting times.

The curriculum includes 24 s.h. of required courses and 6–9 s.h. of electives. Students must register for at least one course each academic year in order to maintain satisfactory progress toward the degree. The program's faculty provides substantial student advising and consultation.

During their first semester, students file a plan of study. Each student's plan must include a description of the student's goals, intended graduation date, and a list of courses the student plans to take each semester. The study plan must incorporate all of the courses required for the degree and must include any requests for transfer credit. The plan must be approved by the director of the MME program and by the student's advisor. Subsequent revisions of the plan must have the advisor's approval.

The Master in Medical Education requires the following coursework.

Course #	Title	Hours
MED:9701	Instructional Design and Technology	3
MED:9702	Clinical Teaching in Medical Education	3
MED:9703	Educational Research and Evaluation	3
MED:9711	Teaching Methods in Medical Education	3
MED:9712	Introduction to Educational Measurement in Medical Education	3
MED:9713	Assessment in Medical Education	3
MED:9714	Current Issues in Medical Education	3
MED:9720	Portfolio Project	3
Electives		6-9
Total Hours		**30-33**

Students who are not involved with clinical teaching may substitute another course for MED:9702 Clinical Teaching in Medical Education.

Students must have completed at least 18 s.h. before enrolling in MED:9720 Portfolio Project. In the portfolio, students integrate the materials they have developed over the course of the program into a document. Three faculty members review the project and evaluate the student's participation in the program.

Electives require approval of the student's advisor. They may include courses in the MME program as well as those offered by relevant departments and programs (e.g., College of Education, Tippie College of Business). Students should check with their advisors to determine which courses are at a graduate level.

Admission

Applicants should hold an MD degree and must have performed satisfactorily on the Medical College Admission Test (MCAT). Other applicants without an MD must hold an equivalent terminal degree (MSW, PharmD, PhD, etc.) and must have performed satisfactorily on an admission test equivalent to the MCAT (i.e., GRE).

Applicants whose first language is not English must submit official test scores to verify English proficiency. Applicants can verify English proficiency by submitting official test scores from the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS), or the Duolingo English Test (DET).

Application materials must include an official transcript showing medical coursework and medical degree, or equivalent for basic sciences applicants (current and former University of Iowa students do not need to request a UI transcript or transcripts previously submitted to the university); a letter of reference from the applicant's department chair and one additional letter of reference; and a 300–500 word essay describing the applicant's interest in

medical education and in the Master in Medical Education program.

To apply to the MME program, see Applications and Admissions on the Office of Consultation and Research in Medical Education (OCRME) website. Application materials should be submitted to the University of Iowa Admissions.

Application deadlines are:

- July 15 for fall semester entry;
- Nov. 15 for spring semester entry; and
- April 15 for summer session entry.

Medical Education, Graduate Certificate

Requirements

The graduate certificate program is designed to help health professions education faculty members, professional staff, residents, and fellows in the Carver College of Medicine and University of Iowa Health Care find new ways to enhance their scholarship and skills in teaching, curriculum design, and education assessment. The Certificate in Medical Education program involves the same courses as the Master in Medical Education (MME); however, it only requires 12 s.h. of graduate credit. Individuals who complete the certificate and then decide to earn the master's degree may count their certificate coursework toward the MME degree.

The Certificate in Medical Education requires the following coursework.

Methods

Course #	Title	Hours
One of these:		
MED:9701	Instructional Design and Technology	3
MED:9702	Clinical Teaching in Medical Education	3
MED:9711	Teaching Methods in Medical Education	3

Research and Measurement

Course #	Title	Hours
One of these:		
MED:9703	Educational Research and Evaluation	3
MED:9712	Introduction to Educational Measurement in Medical Education	3

Additional Courses

Course #	Title	Hours
Students choose courses from MME requirements		6

For additional courses that satisfy the certificate requirements, view Master in Medical Education (MME) [p. 1894] in this section of the catalog. Students may choose up to two electives to substitute for required courses.

Admission

Applicants should hold an MD degree and must have performed satisfactorily on the Medical College Admission Test (MCAT). Other applicants without an MD must hold an equivalent terminal degree (i.e., MSW, PharmD, PhD) and must have performed satisfactorily on an admission test equivalent to the MCAT (i.e., GRE).

Applicants whose first language is not English must submit official test scores to verify English proficiency. Applicants can verify English proficiency by submitting official test scores from the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS), or the Duolingo English Test (DET).

Application materials must include an official transcript showing medical coursework and medical degree, or equivalent for basic sciences applicants (current and former University of Iowa students do not need to request a UI transcript or transcripts previously submitted to the university); a letter of reference from the applicant's department chair and one additional letter of reference; and a 300–500 word essay describing the applicant's interest in medical education and in the Certificate in Medical Education program.

To apply to the certificate program, see Nondegree Seeking Students on the University of Iowa Admissions website. Application materials should be submitted to University of Iowa Admissions.

Application deadlines are:

- July 15 for fall semester entry;
- Nov. 15 for spring semester entry; and
- April 15 for summer session entry.

Medical Laboratory Science

Coordinator

- Gabriella Young

Undergraduate major: medical laboratory science (BS)

Website: https://mls.medicine.uiowa.edu/

Medical laboratory scientists and medical technologists perform the laboratory tests that provide health care practitioners with information vital for accurate diagnosis, proper treatment of disease, and assistance in monitoring the treatment of the disease. They are in demand in hospital, private, reference, and government laboratories; clinics; physicians' offices; and industrial, pharmaceutical, biological, veterinary, and environmental research laboratories. Medical laboratory scientists and medical technologists are highly skilled health team professionals who use complex procedures and instruments in their analysis. They possess a specialized set of knowledge and skills acquired through the completion of a formal twelve-month program of academic and clinical study in laboratory medicine.

Programs

Undergraduate Program of Study

Major

- Major in Medical Laboratory Science (Bachelor of Science) [p. 1898]

Medical Laboratory Science, BS

The Carver College of Medicine partners with various programs to offer the Bachelor of Science in medical laboratory science. The Kirkwood medical laboratory science program is currently seeking accreditation by the National Accrediting Agency for Clinical Laboratory Sciences. The Mercy program is fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences.

Undergraduate study in medical laboratory science is guided by the academic rules and procedures [p. 1844] outlined in the Carver College of Medicine section of the catalog.

The Carver College of Medicine partners with affiliated institutions that provide the medical laboratory science professional training programs; students in this major are not held to the University of Iowa in-residence requirement.

Affiliated Programs

- Kirkwood Community College
- Mercy College of Health Sciences

Expenses

Students are responsible for all tuition, textbooks, and other associated expenses during their time in one of the affiliated programs. Tuition is assessed by the affiliated learning institution or program.

Requirements

The Bachelor of Science with a major in medical laboratory science requires a minimum of 124 s.h., including preparatory study at the University of Iowa and the professional (clinical) program. Acceptance into the affiliated programs is competitive; see specific program websites for admission requirements.

Students who plan to pursue a BS degree in medical laboratory science at the University of Iowa enter the university as students in the College of Liberal Arts and Sciences, where they complete the preparatory coursework that is prerequisite to entering the major. Students then begin the professional program, which consists of both didactic lectures and clinical rotations. Students who successfully complete the professional requirements through one of the affiliated medical laboratory science programs graduate with a BS in medical laboratory science awarded by the University of Iowa.

To learn more about the professional programs, visit the medical laboratory science pages on the Mercy College of Health Sciences website or the medical laboratory technology page on the Kirkwood Community College website.

General Education Requirement

All students pursuing the BS in medical laboratory science complete at least 3 s.h. in each of these areas:

- Understanding Cultural Perspectives
- Historical Perspectives
- International and Global Issues (may be taken concurrently while at Kirkwood if attending UI first)
- Literary, Visual, and Performing Arts
- Rhetoric (minimum 4 s.h.)
- Natural Sciences, with lab component (minimum 4 s.h.)
- Natural Sciences, with or without lab component
- Quantitative or Formal Reasoning
- Social Sciences

See GE CLAS Core [p. 22] (College of Liberal Arts and Sciences) in the catalog for approved courses in the areas listed. GPA and individual course grade minimums may apply based on the clinical program students complete; see the following sections for more information.

Kirkwood Community College

Students in the Kirkwood program must maintain a cumulative grade-point average (GPA) of at least 2.00 in all courses for the major and in all University of Iowa courses. They must earn a grade of C (not C-minus) or higher in every course.

Students complete the prerequisite coursework in the first two years at the University of Iowa. Alternatively, students may choose to attend the Kirkwood program first and continue their studies at the University of Iowa. Some general education courses may be taken concurrently at the University of Iowa while completing coursework at Kirkwood.

Required Courses

Students take the following required courses at the University of Iowa. Students who begin at UI must complete all of the following before they may be admitted to the major in medical laboratory science, with the exception of five courses that may be taken concurrently with Kirkwood coursework. Enrollment in chemistry and mathematics courses requires completion of a placement exam. Courses may require prerequisites.

Course #	Title	Hours
All of these:		
BIOL:1411	Foundations of Biology	4
BIOL:1412	Diversity of Form and Function	4
BMB:3110	Biochemistry (may be taken concurrently while at Kirkwood if attending UI first)	3
CHEM:1110	Principles of Chemistry I	4
CHEM:1120	Principles of Chemistry II	4
CHEM:2210	Organic Chemistry I	3
HHP:2400	Fundamentals of Human Physiology	3
MATH:1005	College Algebra (or a math course [prefix MATH] numbered above 1005)	4
MICR:3147	Immunology and Human Disease (may be taken concurrently while at Kirkwood if attending UI first)	3
PATH:4201	Laboratory Management (may be taken concurrently while at Kirkwood if attending UI first)	3
SOC:1010	Introduction to Sociology	3-4
One of these:		
BAIS:1500	Business Computing Essentials	2

CS:1020	Principles of Computing (may be taken concurrently while at Kirkwood if attending UI first)	3
One of these:		
STAT:1020	Elementary Statistics and Inference	3
STAT:1030	Statistics for Business (preferred)	4

Students who begin at the University of Iowa must complete the following courses before admission to the major. Students who begin at Kirkwood Community College must satisfy the following but may be able to transfer equivalent courses.

Course #	Title	Hours
HHP:1400	Human Anatomy and Physiology	3
MICR:3164	Microbiology and Human Health	4

Mercy College of Health Sciences

Students in the Mercy College of Health Sciences (MCHS) program in Des Moines must maintain a cumulative grade-point average (GPA) of at least 2.50 in all courses for the major and in all University of Iowa courses.

Students in the Mercy College program complete the prerequisite coursework in the first three years at the University of Iowa and must pursue admission into the MCHS program for the fourth year.

Prerequisites for Admission to the Major, Mercy College

Students must:

- achieve a cumulative GPA of at least 2.50 on a 4.00 scale in all college-level coursework;
- achieve a cumulative GPA of at least 2.50 on a 4.00 scale in all college-level coursework in science, which includes biology, microbiology, zoology, chemistry, physics, mathematics, statistics, and related courses; and
- earn a grade of C (not C-minus) or higher in all required courses.

Students must complete the following coursework and be accepted into the program at MCHS before they may be admitted to the major in medical laboratory science.

Course #	Title	Hours
All of these:		
BIOL:1411 & BIOL:1412	Foundations of Biology and Diversity of Form and Function	8
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
CHEM:2210 & CHEM:2220	Organic Chemistry I and Organic Chemistry II	6
CHEM:2410	Organic Chemistry Laboratory	3
MATH:1005	College Algebra	4
MICR:2157 & MICR:2158	General Microbiology and General Microbiology Laboratory	5
One of these:		
HHP:1400	Human Anatomy and Physiology	3
HHP:2100 & HHP:2110	Human Anatomy and Human Anatomy Laboratory	4
HHP:2400 & HHP:2410	Fundamentals of Human Physiology and Human Physiology Laboratory	4
HHP:3105	Anatomy for Human Physiology	3
HHP:3115	Anatomy for Human Physiology With Lab	5
HHP:3500	Human Physiology	3
HHP:3550	Human Physiology With Laboratory	5
MICR:3147	Immunology and Human Disease	3

Coursework taken to meet the biology and chemistry requirements completed seven or more years before application may require updating. This is determined by the MCHS program chair.

Questions about the requirements should be directed to the Mercy College of Health Sciences.

Admission

Admission to the medical laboratory science professional programs is competitive; enrollment may be limited. Students must apply to the medical laboratory science program directly. Students interested in the Mercy College of Health Sciences program apply during the fall of their third year and begin the professional program following that year; students interested in the Kirkwood Community College program would typically apply during the second year to begin the professional program the following year.

Before beginning the professional program, students must complete all prerequisites and must have earned at least 58 s.h. of college credit for the Kirkwood Community College program or at least 88 s.h. of college credit for the Mercy College of Health Sciences program. Students satisfy the English and public speaking prerequisites by fulfilling the GE CLAS Core Rhetoric requirement. They must satisfy any English as a Second Language (ESL) requirements specified by the University of Iowa before beginning the professional program.

Students should consult with a Medical Laboratory Science Program advisor as early as possible to plan preclinical studies that meet all requirements.

Career Advancement

The demand for medical laboratory scientists is much greater than the number of people qualified to fill the positions, and graduates have numerous employment opportunities nationwide. They consistently find employment before or very soon after graduation.

Opportunities for advancement include positions such as lab manager, computer specialist, technical specialist, or sales/instrument representative. An advanced degree in basic sciences, medicine, hospital administration, or business can expand earning potential.

Graduates often enjoy diverse work environments, including labs in hospitals, research institutions, public health facilities, forensic units, pharmaceutical companies, or the armed forces. They have an impact in the field as integral members of health care teams, providing information essential for the treatment and prevention of disease.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Medical Scientist Training Program

Director

- Gordon F. Buchanan (Neurology)

Administrative Director

- Linda M. Varvel

Faculty: https://mstp.medicine.uiowa.edu/faculty

Website: https://mstp.medicine.uiowa.edu/

The Iowa Medical Scientist Training Program (MSTP) prepares trainees for careers in academic medicine, emphasizing basic and clinical research.

Combined Programs

MD/PhD

The combined Doctor of Medicine/Doctor of Philosophy program normally requires seven to eight years of continuous study. It provides an effective and efficient means to integrate graduate and clinical training, combining the scientific approach with clinical medicine.

Students register for MSTP:8515 Medical Scientist Training Program Topics every semester. The course focuses on a variety of topics relevant to training as a physician-scientist.

During the first three semesters of the program, trainees take coursework in the basic sciences fundamental to the study of medicine and complete experiences that introduce mechanisms of health and disease, and principles of clinical practice; see Doctor of Medicine [p. 1880] in the catalog. This early training provides broad exposure to the language and organizing concepts that form the foundation for a career as a physician-scientist. Trainees also begin the research component of the graduate phase of the program during this time, through summer laboratory MSTP:8511 Medical Scientist Training Program Research rotations, enrollment in MSTP:8513 Sitting in the Middle: Physician Scientist 101, research presentations by MSTP faculty and students, and a student-sponsored seminar series. Trainees participate in Conversations in Research, in which MSTP faculty members discuss their research and career interests, and they attend MSTP Grand Rounds, a forum for patient-based discussions that emphasizes how science and medicine intersect.

During the fourth and fifth semesters, trainees enroll in core clinical clerkships, in which they gain broad exposure to the spectrum of human disease and experience direct patient care before they enter the graduate phase of training.

After completing core clerkships and United States Medical Licensing Examination Step 1 and 2 examinations, trainees select a PhD thesis mentor and begin research. This happens in the spring of their third year. They also enroll in a graduate department or interdisciplinary graduate program to begin their scientific training in the fall of their fourth year.

The focus of the graduate years of study is engagement in academic and research experiences that promote the trainees' development into independent investigators. Clinical contact is maintained during this phase of training through participation in seminar programs, MSTP Grand Rounds, and MSTP:8512 Medical Scientist Training Program Clinical Connections, a course that provides the opportunity for mentored clinical experiences.

Upon completing the PhD dissertation, trainees return to the Carver College of Medicine's MD curriculum to complete the advanced clinical clerkship requirements for the MD/PhD combined program. During this phase, trainees bring sophistication in the scientific approach to problem-solving that they apply to human disease. They renew and develop clinical skills acquired in their early training and reinforce their understanding of the scientific basis of disease through continued participation in MSTP Grand Rounds. Upon completion of the clinical curriculum, trainees are awarded the MD and PhD degrees.

Most graduates of the program elect to enter residency programs in clinical medicine and embark on careers as medical school faculty members in clinical disciplines with opportunities for basic and applied research. Other graduates accept academic appointments in basic science departments and spend a major part of their professional activity in biomedical research and teaching.

Admission

Applicants must meet the requirements for admission to the MD program in the Carver College of Medicine; see Admission [p. 1882] in the Doctor of Medicine section of the catalog. They also must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants should have completed the requirements for a bachelor's degree at an accredited academic institution. In addition to outstanding academic credentials, including strength in biological, physical, and mathematical sciences, they must demonstrate aptitude for and commitment to scientific research through productive research experience during their undergraduate years or after. Admission normally is made for entry to the first year of the program, but applicants already enrolled in the Carver College of Medicine may request admission with advanced standing.

Application

The Carver College of Medicine participates in the American Medical College Application Service (AMCAS). Program applicants should select MD/PhD Program-Type on their AMCAS application and instruct AMCAS to forward their credentials to the Carver College of Medicine (IA131). Applications should be submitted as early as possible to allow careful review by the admissions committees of the Medical Scientist Training Program (MSTP) and the Carver College of Medicine.

All candidates must take the Medical College Admission Test (MCAT), according to Carver College of Medicine requirements. The Graduate Record Exam (GRE) General Test is not required for admission.

Application to the Graduate College is not required before acceptance to the MSTP. Trainees admitted to the program receive assistance with Graduate College enrollment.

Financial Support

Trainees receive a stipend and full tuition support from a National Institutes of Health Medical Scientist Training Program training grant to the University of Iowa, supplemented by other institutional and individual awards.

Students in the graduate phase of training receive support from their graduate departments or interdisciplinary programs and their research advisors. The program office also helps selected trainees apply for competitive national awards for outstanding academic and research achievement.

Courses

Medical Scientist Training Program Courses

MSTP:7270 Medical Scientist Training Program Principles of Scholarly Integrity **1 s.h.**
Training in responsible conduct of research; student/mentor responsibilities; authorship and reviewing; plagiarism and falsification/fabrication of data; intellectual property; fiscal, institutional, societal conflicts of interest; treatment of human and animal subjects; data handling. Requirements: Medical Scientist Training Program enrollment.

MSTP:8511 Medical Scientist Training Program Research **arr.**
Research experience. Requirements: Medical Scientist Training Program enrollment.

MSTP:8512 Medical Scientist Training Program Clinical Connections **arr.**
Experience with physician-scientist preceptor in medical interviewing, physical examination, patient presentation through direct patient interaction. Requirements: Medical Scientist Training Program graduate phase enrollment.

MSTP:8513 Sitting in the Middle: Physician Scientist 101 **1 s.h.**
Physician scientists have a unique role in the processes of medical research and patient care. Students study a variety of topics crucial to becoming an effective physician scientist, including critical interpretation of medical literature, time management, imposter syndrome, data presentation, and interactions with patients.

MSTP:8514 Grant Writing Basics: A Focus on Predoctoral Applications **1 s.h.**
Introduction to practical and conceptual aspects of grant-writing process, with the goal of completing an NIH F30-like grant; encourages critical thinking about significance, innovation, and experimental design; relate critical information and study design in concise and clear language; practical concepts of grant writing such as specific aims, experimental design, and the grant review process; trainees will present their research ideas, establishing opportunities to give and receive scientific criticism. Requirements: Medical Scientist Training Program enrollment.

MSTP:8515 Medical Scientist Training Program Topics **1 s.h.**
Workshops and speakers; focus on a variety of topics including wellness, research presentations, professional development, and on-going faculty research partnerships. Requirements: Medical Scientist Training Program enrollment.

Microbiology and Immunology

Chair

- Li Wu

Director, Undergraduate Studies

- Aloysius J. Klingelhutz

Director, Graduate Studies

- Craig D. Ellermeier

Undergraduate major: microbiology (BS)

Undergraduate minor: microbiology

Graduate degrees: MS in microbiology; PhD in microbiology

Faculty: https://microbiology.medicine.uiowa.edu/profile/leadership

Website: https://microbiology.medicine.uiowa.edu/

Study in the Department of Microbiology and Immunology is dedicated to the branch of biological sciences that investigates the smallest living things: microbes that include bacteria, archaea, fungi, algae, protozoa, and viruses. It is coupled with immunology that includes the study of the protective responses of higher organisms to disease-causing microbes and cancers, and mistakes in immune function. Microbiology and immunology often interact in humans through the microbiome, those microbes that live with humans on their skin and mucosal surfaces, and yet must be restricted from causing diseases by the immune system.

Microbiology and immunology are at the forefront of the modern biological revolution. Microbes are experimental subjects of choice for examining genetic and biological phenomena because of their small size, rapid growth rate, relative simplicity, and variety of characteristics that allow them to cause many kinds of infections and alter normal body functions. Immunology often makes use of microbes and cancer cells to study the critical and complex human responses to eliminate microbes and cancers. A significant portion of contemporary biochemical research employs microbiological and immunological methods.

Current research is making theoretical and practical advances concerning microbes that infect animals, including humans, and the immune response to those microbes; the use of comparative genomics, gene expression profiling, and recombinant DNA methods to analyze biological processes and generate valuable products, such as antibiotics and antibodies; genetics and regulation of metabolic processes; and the genetics and regulation of the immune response, including characterization of mechanisms used by microbes to signal one another and characterization of interactions between different types of immune cells and their targets.

The Department of Microbiology and Immunology offers an undergraduate major and a minor, and graduate majors leading to an MS and a PhD, and determines the curricula for those programs. Undergraduates majoring in microbiology receive their degrees (Bachelor of Science) from the College of Liberal Arts and Sciences and are governed by that college's undergraduate academic policies. The graduate degrees are awarded by the Graduate College.

Programs

Undergraduate Programs of Study

Major

- Major in Microbiology (Bachelor of Science) [p. 1906]

Minor

- Minor in Microbiology [p. 1912]

Graduate Programs of Study

- Master of Science in Microbiology [p. 1913]
- Doctor of Philosophy in Microbiology [p. 1914]

Facilities

The Department of Microbiology and Immunology is situated on the University of Iowa health sciences campus, where it shares the Bowen Science Building with the departments of Anatomy and Cell Biology, Biochemistry and Molecular Biology, Molecular Physiology and Biophysics, and Neuroscience and Pharmacology. Laboratory space and modern equipment are available for teaching and research.

Courses

Microbiology and Immunology Courses

MICR:2157 General Microbiology 3 s.h.
Principles of bacterial and viral diversity, structure, genetics, physiology, and metabolism in contexts of molecular biology, immunology, infectious disease, and environmental microbiology; for students majoring in microbiology and biology-related fields and students pursuing health professions and research-focused graduate programs. Prerequisites: BIOL:1411 and CHEM:1110.

MICR:2158 General Microbiology Laboratory 2 s.h.
Practice of basic techniques commonly used today for study of easy-to-grow microorganisms; variety of individual and group lab activities that challenge students to apply observations about bacteria and viruses. Corequisites: MICR:2157, if not taken as a prerequisite.

MICR:3145 Honors in Microbiology Thesis Preparation 1 s.h.
Guidance and constructive criticism on written and oral presentation of honors research project; submission of thesis introduction; multiple presentations and updates of research project in preparation for final oral presentation at departmental Undergraduate Research Symposium; for honors in the major students and taken final semester before graduation. Prerequisites: MICR:4171.

MICR:3147 Immunology and Human Disease 3 s.h.
Important principles and key concepts in immunology with a focus on the involvement of the immune system in disease pathogenesis; overview of innate and adaptive immune systems and their functions at cellular and molecular levels. Prerequisites: BIOL:1412 with a minimum grade of C or MICR:2157 with a minimum grade of C.

MICR:3159 Bacteria and Human Disease 3 s.h.
Infection and replication strategies of diverse bacteria with an emphasis on how host-pathogen interactions facilitate disease and pathogenesis. For students interested in microbiology or other biological sciences including epidemiology and/or health-related occupations. Prerequisites: MICR:2157 with a minimum grade of C.

MICR:3162 Bacterial Physiology and Cell Biology 2 s.h.
Bacterial physiology and its consequences for health and disease; examines the structure, metabolism, growth, and regulatory mechanisms of bacteria, focusing on how they acquire energy and nutrients to live and reproduce. Students will integrate biochemistry, genetics, and cell biology to gain an appreciation for the fundamental processes that drive bacterial life and discuss how these fundamental life processes dictate interactions with the microbial world. Prerequisites: MICR:2157 with a minimum grade of C.

MICR:3164 Microbiology and Human Health 4 s.h.
Microbiology for nursing, pharmacy, and certain other health professions. Prerequisites: (BIOL:1411 or BIOL:1140 or BIOL:1141 with a minimum grade of C) and (CHEM:1070 or CHEM:1110 with a minimum grade of C).

MICR:3165 Genetics of Bacterial Pathogens Lab and Discussion 3 s.h.
Use of bacterial genetics and molecular biology techniques and methodologies to study bacteria which cause human disease; development of skills in data analysis and presentation, reading scientific literature, and writing scientific abstracts; for students interested in microbiology or other biological sciences, epidemiology, and/or health-related occupations. Prerequisites: MICR:2157 with a minimum grade of C and MICR:2158 with a minimum grade of C. Corequisites: MICR:3159 or MICR:3170, if not taken as a prerequisite.

MICR:3168 Viruses and Human Disease 3 s.h.
Infection and replication strategies of viruses with an emphasis on human disease; for microbiology majors as well as students interested in pre-medicine, biological sciences, epidemiology, and/or other health-related occupations. Prerequisites: BIOL:1412 with a minimum grade of C or MICR:2157 with a minimum grade of C. Recommendations: basic understanding of molecular biology and immunology.

MICR:3170 Bacterial Genetics 3 s.h.
Genetics of bacteria and bacteriophages including classical, molecular, and genome-wide approaches. Prerequisites: BIOL:2512 with a minimum grade of C or MICR:2157 with a minimum grade of C.

MICR:3177 Virology Discussion 2 s.h.
Students read, present, and discuss papers from virology literature that address classic and current issues in virology research. Students will learn how to critically evaluate and present methods and results from virology research papers. Prerequisites: MICR:3168 with a minimum grade of C.

MICR:3178 Virology Laboratory 2 s.h.
Practical approaches to studying viruses; basic techniques in virology including virus detection, virus growth measurement, and virus genetics; introduction to bioinformatic analysis of virus genomes and infections. Prerequisites: MICR:2157 with a minimum grade of C and MICR:2158 with a minimum grade of C. Corequisites: MICR:3168 (if not taken as a prerequisite).

MICR:3182 From Data to Discovery: Hands-On Code-Free Computational Biology 2 s.h.
Learning and applying user-friendly and coding-free computational tools to analyze and manipulate protein structures, analyze large datasets of DNA and protein sequences, and utilize machine learning algorithms to computationally address biological questions. Prerequisites: BIOL:1411 with a minimum grade of C and CHEM:1110 with a minimum grade of C. Recommendations: major in biomedical science-related field.

MICR:4161 Undergraduate Research in Microbiology arr.
Experimental research under faculty supervision. Prerequisites: BIOL:1411.

MICR:4171 Honors Undergraduate Research in Microbiology arr.
Experimental research under faculty supervision. Prerequisites: BIOL:1411. Requirements: microbiology major, junior or senior standing, 3.33 overall GPA, and 3.33 GPA in microbiology courses.

MICR:4175 Topics in Parasitism 1 s.h.
Molecular and immunologic mechanisms by which bacteria, viruses, and protozoa cause human diseases; based on manuscript readings and/or student presentations. Requirements: junior or higher standing in microbiology or related discipline, and current or prior research in a microbiology and immunology laboratory.

MICR:5218 Microscopy for Biomedical Research arr.
Basic microscopy methods for research including optics, preparation, and analysis of biomedical specimens; light, fluorescence, confocal, transmitting electron, scanning electron, atomic force microscopes, elemental analysis; immunochemistry and stereology techniques; individualized laboratory instruction. Prerequisites: BIOL:2723. Same as ACB:5218, BIOL:5218.

MICR:5264 Directed Study in Microbiology arr.
Advanced-level experimental research or teaching under faculty supervision.

MICR:5875 Perspectives in Biotechnology 1 s.h.
Topics related to careers in biotechnology with an emphasis on preparing graduate students for careers outside of academia; discussions led by a series of guest speakers from leading biotech industries; understanding the societal impact of basic research; participation in round-table discussions; and presentation of student research findings. Requirements: graduate standing and good academic standing in a participating department supported by the Predoctoral Training Program in Biotechnology. Same as BMB:5875, CBE:5875, CEE:5875, CHEM:5875, PHAR:5875.

MICR:6201 Graduate Immunology 3 s.h.
Immune cell ontogeny, activation, and function of T lymphocytes and B lymphocytes; innate immune effector mechanisms; major histocompatibility complex; antigen presentation; thymocyte positive and negative selection; signaling of T lymphocytes and B lymphocytes; emphasis on experimental methods for analysis of these processes and how they have led to current advanced concepts in immunology. Prerequisites: MICR:3147 or MICR:6247. Requirements: for IMMU:6201—college biology, general chemistry, and introductory immunology courses; for MICR:6201—courses in college biology, genetics, general chemistry, and introductory immunology. Recommendations: for IMMU:6201—courses in biochemistry and genetics; for MICR:6201—biochemistry course. Same as IMMU:6201.

MICR:6247 Graduate Immunology and Human Disease 4 s.h.
Important principles and key concepts in immunology with a focus on the involvement of the immune system in disease pathogenesis; overview of innate and adaptive immune systems and their functions at cellular and molecular levels; learning enhanced by case-based, small-group discussion and writing exercises. Same as IMMU:6247.

MICR:6250 Mechanisms of Parasitism Journal Club 1 s.h.
Reviews of recent publications in molecular parasitology research and thesis research by training grant or journal club students; for students pursuing graduate thesis research in microbiology or a related discipline. Same as MMED:6250.

MICR:6255 Graduate Experimental Approaches to Molecular Microbiology 2 s.h.
Exposure to common experimental approaches through examination of primary literature and facilitated discussions on application of those approaches to advance scientific inquiry. Requirements: microbiology graduate standing.

MICR:6259 Graduate Bacteria and Human Disease 3-4 s.h.
Infection and replication strategies of diverse bacteria with an emphasis on human disease and interactions with the host and environment.

MICR:6262 Graduate Bacterial Physiology and Cell Biology 2 s.h.
Bacterial physiology and its consequences for health and disease; examines the structure, metabolism, growth, and regulatory mechanisms of bacteria, focusing on how they acquire energy and nutrients to live and reproduce. Students will integrate biochemistry, genetics, and cell biology to gain an appreciation for the fundamental processes that drive bacterial life and discuss how these fundamental life processes dictate interactions with the microbial world.

MICR:6265 Introduction to Grant Writing 2 s.h.
How to think and write like scientists and become familiar with the elements of a research proposal; writing a grant proposal modeled on a National Institutes of Health Exploratory/ Developmental Research Grant Award (NIH R21); students critique proposals written by other students; faculty read proposals and provide constructive criticism; lectures describe elements of a grant proposal and strategies for effective writing. Requirements: enrollment in microbiology graduate program, or enrollment in a graduate program training in a microbiology and immunology department laboratory, or enrollment in a biological science graduate program and not working in a microbiology and immunology department laboratory for thesis project.

MICR:6267 Graduate Viruses and Human Disease 3 s.h.
Infection and replication strategies of viruses with an emphasis on human disease. Recommendations: concurrent enrollment in MICR:6269.

MICR:6268 Biology and Pathogenesis of Viruses 2 s.h.
Molecular biology of animal DNA and RNA viruses, viral immunology and pathogenesis, and interaction of these viruses with eukaryotic cells; mechanisms of viral latency, persistence, cellular transformation, oncogenesis; virology literature. Prerequisites: MICR:3168 or MICR:6267.

MICR:6269 Graduate Virology Discussion 1 s.h.
Discussion of primary virology literature from a range of topics, may include techniques used for studying viruses, viral entry and replication, evasion of immune responses by viruses, vaccines, and viral pathogenesis; short presentations; development of specific aims for a mock grant proposal on a virology-related topic. Recommendations: completion of a virology course.

MICR:6270 Graduate Bacterial Genetics 3 s.h.
Genetics of bacteria and bacteriophages including classical, molecular, and genome-wide approaches.

MICR:6282 Graduate From Data to Discovery: Hands-On Code-Free Computational Biology 2 s.h.
Learning and applying user-friendly and coding-free computational tools to analyze and manipulate protein structures, analyze large datasets of DNA and protein sequences, and utilize machine learning algorithms to computationally address biological questions.

MICR:6310 Biology of Bacteria and Interactions With the Host 2 s.h.
Discussion of primary literature based on molecular biology of bacteria, bacterial pathogenesis, bacterial gene regulation and stress responses, bacterial cell biology, bacterial behaviors, antimicrobial resistance, interaction of bacteria with host cells, interactions of bacteria with immune system; how bacteria adapt to different environments, including in a eukaryotic host or complex polymicrobial community. Requirements: microbiology graduate standing. Recommendations: MICR:6270 or MICR:6259.

MICR:7207 Advanced Topics in Immunology 3 s.h.
In-depth analysis of selected areas. Prerequisites: IMMU:6201 or MICR:6201. Same as IMMU:7221.

MICR:7261 Graduate Research in Microbiology arr.
Requirements: microbiology graduate standing.

MICR:7263 Graduate Student Research Seminar 1 s.h.
Presentation of thesis work in progress. Requirements: microbiology graduate standing.

MICR:7265 Topics in Virology Literature 1 s.h.
Papers of current interest in primary virology literature.

MICR:8230 Dental Microbiology 3 s.h.
Medical microbiology: bacteriology, immunology, pathogenic bacteriology, virology, mycology, parasitology. Requirements: DDS enrollment.

MICR:8402 Teaching Elective in Microbiology 2 s.h.
Expand knowledge and understanding in medical education by preparing and implementing five teaching interactions with year two medical and physician assistant students (M2/PA2) during the microbiology lab portion of MED:8223. Students can also develop interactive classroom exercises or sessions to improve memory and develop critical analysis skills. Requirements: MD standing and enrollment in teaching distinction track.

Microbiology, BS

Microbiology is an excellent major for undergraduate students who want a strong general education with an emphasis on an important and interesting branch of biological sciences.

Majoring in microbiology offers many benefits, including the following.

- Diverse career opportunities: Microbiology opens doors to various fields such as healthcare, environmental science, biotechnology, and research.
- Medical advancements: Microbiologists play a crucial role in developing new treatments and diagnostic tools, contributing to public health.
- Environmental impact: Studying microbiology helps in understanding and solving environmental issues, such as pollution and climate change.
- Biotechnology innovations: Microbiologists are at the forefront of creating new biotechnological applications, including biofuels and pharmaceuticals.
- Food safety: Ensuring the safety and quality of food products is another important area where microbiologists make significant contributions.

Requirements

The Bachelor of Science with a major in microbiology requires a minimum of 120 s.h., including 60–65 s.h. of work for the major, depending on the track. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. Courses for the major may not be taken pass/nonpass. Students must also complete the College of Liberal Arts and Sciences GE CLAS Core [p. 22].

Students must complete at least 12 s.h. of the required 18–19 s.h. in Department of Microbiology and Immunology courses at the University of Iowa.

The major in microbiology can be pursued on either a pre-medicine or a scholar track.

Students in the pre-medicine track complete admission requirements for the Carver College of Medicine and for most colleges of medicine as an integral part of the completion of their major requirements. This track is recommended for pre-medical, pre-dental, and pre-pharmacy students.

Students in the scholar track pursue a curriculum with streamlined organic chemistry and physics requirements and expanded microbiology and immunology courses, including advanced laboratory and global health studies coursework. The scholar track is recommended for students interested in pursuing graduate training or in developing a career as a microbiologist.

Students may shift from one track to the other during their program of study.

The BS with a major in microbiology requires the following coursework.

Pre-Medicine Track

Students in the pre-medicine track complete the following coursework.

Requirements	Hours
Supporting Coursework	42-43
Microbiology and Immunology Courses	18
Advanced Elective Coursework	3

Pre-Medicine Track, Supporting Coursework

Course #	Title	Hours
All of these:		
BIOL:1411 & BIOL:1412	Foundations of Biology and Diversity of Form and Function	8
BMB:3120 & BMB:3130	Biochemistry and Molecular Biology I and Biochemistry and Molecular Biology II	6
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
CHEM:2210 & CHEM:2220	Organic Chemistry I and Organic Chemistry II	6
CHEM:2410	Organic Chemistry Laboratory	3
One of these:		
BIOS:4120	Introduction to Biostatistics	3
MATH:1460	Calculus for the Biological Sciences	4
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4
STAT:3510/ IGPI:3510	Biostatistics	3
One of these sequences:		
PHYS:1511 & PHYS:1512	College Physics I and College Physics II	8
PHYS:1611 & PHYS:1612	Introductory Physics I and Introductory Physics II	8

Pre-Medicine Track, Microbiology and Immunology Courses

Students earn a minimum of 18 s.h. in Department of Microbiology and Immunology courses from the following.

Course #	Title	Hours
Both of these:		
MICR:2157	General Microbiology (required with a grade of C or higher)	3
MICR:2158	General Microbiology Laboratory (required with a grade of C or higher)	2
Three of these:		
MICR:3147	Immunology and Human Disease	3
MICR:3159	Bacteria and Human Disease	3
MICR:3168	Viruses and Human Disease	3
MICR:3170	Bacterial Genetics	3
At least 4 s.h. from these:		
MICR:3145	Honors in Microbiology Thesis Preparation	1
MICR:3162	Bacterial Physiology and Cell Biology	2

MICR:3165	Genetics of Bacterial Pathogens Lab and Discussion	3
MICR:3177	Virology Discussion	2
MICR:3178	Virology Laboratory	2
MICR:3182	From Data to Discovery: Hands-On Code-Free Computational Biology	2
MICR:4161	Undergraduate Research in Microbiology	arr.
MICR:4171	Honors Undergraduate Research in Microbiology	arr.
MICR:4175	Topics in Parasitism	1
MICR:5264	Directed Study in Microbiology	arr.

A maximum of 4 s.h. earned in either MICR:4161 Undergraduate Research in Microbiology or MICR:4171 Honors Undergraduate Research in Microbiology may be counted toward the major. However, students earning honors in the major must complete 6 s.h. in MICR:4171 Honors Undergraduate Research in Microbiology; see Honors [p. 1908] in this section of the catalog.

Pre-Medicine Track, Advanced Elective Coursework

Course #	Title	Hours
At least 3 s.h. from these:		
BIOL:2512	Fundamental Genetics	4
BIOL:2723	Cell Biology	3
BIOL:3172	Evolution	4
BIOL:3212/ IGPI:3212	Bioinformatics for Beginners	3
BIOL:3314/ IGPI:3314	Genomics	3
BIOL:4213/ GENE:4213/ IGPI:4213	Bioinformatics	2,4
CPH:2230	Finding Patient Zero: The Exploration of Infectious Disease Transmission and Pandemic Threats	3
GHS:2000/ ANTH:2103	Introduction to Global Health Studies	3
GHS:2320/ ANTH:2320	Origins of Human Infectious Disease	3
PCOL:3101	Pharmacology I: A Drug's Fantastic Journey	3
PCOL:3102	Pharmacology II: Mechanisms of Drug Action	3
Additional microbiology and immunology courses (prefix MICR) numbered MICR:3145 to MICR:5264, excluding MICR:3164		

Scholar Track

Students in the scholar track complete the following coursework.

Requirements	Hours
Supporting Coursework	35-40
Microbiology and Immunology Courses	19
Advanced Elective Coursework	6

Scholar Track, Supporting Coursework

Course #	Title	Hours
All of these:		
BIOL:1411 & BIOL:1412	Foundations of Biology and Diversity of Form and Function	8
BMB:3120 & BMB:3130	Biochemistry and Molecular Biology I and Biochemistry and Molecular Biology II	6
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
CHEM:2210	Organic Chemistry I	3
One of these:		
PHYS:1400	Basic Physics	4
PHYS:1400 & PHYS:1409	Basic Physics and Basic Physics Lab (PHYS:1400 taken for 3 s.h. and PHYS:1409 taken for 1 s.h.)	4
PHYS:1511 & PHYS:1512	College Physics I and College Physics II	8
One of these:		
BIOS:4120	Introduction to Biostatistics	3
MATH:1460	Calculus for the Biological Sciences	4
MATH:1550	Engineering Calculus I	4
MATH:1850	Calculus I	4
STAT:3510/ IGPI:3510	Biostatistics	3
One of these:		
GHS:2000/ ANTH:2103	Introduction to Global Health Studies	3
GHS:2320/ ANTH:2320	Origins of Human Infectious Disease	3

Scholar Track, Microbiology and Immunology Courses

Students earn a minimum of 19 s.h. in Department of Microbiology and Immunology courses from the following.

Course #	Title	Hours
Both of these:		
MICR:2157	General Microbiology (required with a grade of C or higher)	3
MICR:2158	General Microbiology Laboratory (required with a grade of C or higher)	2
One of these:		
MICR:3165	Genetics of Bacterial Pathogens Lab and Discussion	3
MICR:3178	Virology Laboratory	2
MICR:4161	Undergraduate Research in Microbiology (must be taken for at least 2 s.h.)	arr.
MICR:4171	Honors Undergraduate Research in Microbiology (must be taken for at least 2 s.h.)	arr.

At least three of these:		
MICR:3147	Immunology and Human Disease	3
MICR:3159	Bacteria and Human Disease	3
MICR:3168	Viruses and Human Disease	3
MICR:3170	Bacterial Genetics	3

Students fulfill the remainder of the 19 s.h. with additional microbiology and immunology courses (prefix MICR) selected from the following.

Course #	Title	Hours
MICR:3145	Honors in Microbiology Thesis Preparation (required for honors in microbiology)	1
MICR:3162	Bacterial Physiology and Cell Biology	2
MICR:3165	Genetics of Bacterial Pathogens Lab and Discussion	3
MICR:3177	Virology Discussion	2
MICR:3178	Virology Laboratory	2
MICR:3182	From Data to Discovery: Hands-On Code-Free Computational Biology	2
MICR:4161	Undergraduate Research in Microbiology	arr.
MICR:4171	Honors Undergraduate Research in Microbiology	arr.
MICR:4175	Topics in Parasitism	1
MICR:5264	Directed Study in Microbiology	arr.

A maximum of 4 s.h. earned in either MICR:4161 Undergraduate Research in Microbiology or MICR:4171 Honors Undergraduate Research in Microbiology may be counted toward the major. However, students earning honors in the major must complete 6 s.h. in MICR:4171 Honors Undergraduate Research in Microbiology; see Honors [p. 1908] in this section of the catalog.

Scholar Track, Advanced Elective Coursework

Course #	Title	Hours
6 s.h. from these:		
BIOL:2512	Fundamental Genetics	4
BIOL:2723	Cell Biology	3
BIOL:3172	Evolution	4
BIOL:3212/ IGPI:3212	Bioinformatics for Beginners	3
BIOL:3314/ IGPI:3314	Genomics	3
BIOL:4213/ GENE:4213/ IGPI:4213	Bioinformatics	2,4
BMB:3310/ CBIO:3310/ MMED:3310	Practical Data Science and Bioinformatics	3
CPH:2230	Finding Patient Zero: The Exploration of Infectious Disease Transmission and Pandemic Threats	3
GHS:2000/ ANTH:2103	Introduction to Global Health Studies (if not taken as supporting coursework option)	3
GHS:2320/ ANTH:2320	Origins of Human Infectious Disease (if not taken as supporting coursework option)	3
PCOL:3101	Pharmacology I: A Drug's Fantastic Journey	3
PCOL:3102	Pharmacology II: Mechanisms of Drug Action	3
Additional microbiology and immunology course (prefix MICR) numbered MICR:3145 or above, excluding MICR:3164 and MICR:5875		

Honors

Honors in the Major

Students majoring in microbiology (either track) have the opportunity to graduate with honors in the major. They must maintain a cumulative University of Iowa grade-point average (GPA) of at least 3.33 and a GPA of at least 3.33 in work for the major. To graduate with honors in the microbiology major, students must complete an additional 3 s.h. of coursework in microbiology and immunology beyond that required for the major. This must include 6 s.h. in MICR:4171 Honors Undergraduate Research in Microbiology that introduces them to experimental research. The final semester before graduation, students must complete MICR:3145 Honors in Microbiology Thesis Preparation, and must successfully present written and oral presentations of their research projects.

More information on honors in Microbiology can be found here.

University of Iowa Honors Program

In addition to honors in the major, students have opportunities for honors study and activities through membership in the University of Iowa Honors Program. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not required to earn honors in the microbiology major.

Career Advancement

Graduates find employment opportunities in government, hospitals, public health laboratories, research laboratories, and industrial laboratories (food, dairy, chemical, pharmaceutical, and biotechnology companies). Those who pursue advanced degrees have more advanced career opportunities in these same areas, with greater responsibilities and higher salaries, as well as in college and university teaching.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Before the third semester begins: BIOL:1411 Foundations of Biology, CHEM:1110 Principles of Chemistry I, CHEM:1120 Principles of Chemistry II, and an approved calculus or biostatistics course.

Before the fifth semester begins: BIOL:1412 Diversity of Form and Function, CHEM:2210 Organic Chemistry I, MICR:2157 General Microbiology, and MICR:2158 General Microbiology Laboratory.

Before the seventh semester begins: seven more courses in the major and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: another 10–12 s.h. of coursework.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining required GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Microbiology, BS

- Pre-Medicine Track [p. 1909]
- Scholar Track [p. 1910]

Pre-Medicine Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b, c]	4
MATH:1460	Calculus for the Biological Sciences [c, d, e]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
CSI:1600	Success at Iowa	1
Elective course [f]		3
	Hours	**15-16**
Spring		
BIOL:1411	Foundations of Biology [c, g]	4
CHEM:1120	Principles of Chemistry II	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [h]		3
	Hours	**14-15**
Second Year		
Fall		
BIOL:1412	Diversity of Form and Function	4
CHEM:2210	Organic Chemistry I	3
GE CLAS Core: Historical Perspectives [h]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [f, i]		4 - 5
Elective course [f]		2
	Hours	**16-17**
Spring		
CHEM:2220	Organic Chemistry II	3
MICR:2157	General Microbiology [g, j]	3
MICR:2158	General Microbiology Laboratory [g, j]	2
GE CLAS Core: International and Global Issues [h]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [f, i]		4 - 5
	Hours	**15-16**
Third Year		
Fall		
BMB:3120	Biochemistry and Molecular Biology I	3
CHEM:2410	Organic Chemistry Laboratory	3
PHYS:1611 or PHYS:1511	Introductory Physics I or College Physics I	4
Major: microbiology and immunology course (MICR:3147 Immunology and Human Disease or MICR:3168 Viruses and Human Disease or MICR:3182 Applied Computational Biology recommended) [j]		2 - 3
Major: microbiology and immunology course (MICR:4161 Undergraduate Research in Microbiology recommended) [j]		1
GE CLAS Core: World Languages Third Level Proficiency or elective course [f, i]		4 - 5
	Hours	**17-19**
Spring		
BMB:3130	Biochemistry and Molecular Biology II	3
PHYS:1512 or PHYS:1612	College Physics II or Introductory Physics II	4
Major: microbiology and immunology course (MICR:3159 Bacteria and Human Disease or MICR:3162 Bacterial Physiology and Cell Biology recommended) [j]		2 - 3
GE CLAS Core: Literary, Visual, and Performing Arts [h]		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [f, i]		4 - 5
	Hours	**16-18**
Fourth Year		
Fall		
Major: microbiology and immunology course (MICR:3170 Bacterial Genetics or MICR:3178 Virology Laboratory recommended) [j]		2 - 3
Major: microbiology and immunology course [j]		2 - 3
Major: advanced elective course [k]		3

GE CLAS Core: Social Sciences [h]	3
Elective course [f]	3
Elective course [f]	2
Hours	**15-17**
Spring	
Major: microbiology and immunology course [j]	2 - 3
Major: microbiology and immunology course [j]	2 - 3
GE CLAS Core: Values and Society [h]	3
Elective course [f]	4
Elective course [f]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]	
Hours	**14-16**
Total Hours	**122-134**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c Fulfills a major requirement and may fulfill a GE requirement.

d Other course options include BIOS:4120, MATH:1550, MATH:1850, STAT:3510; selecting a course that satisfies the Quantitative or Formal Reasoning GE requirement is recommended.

e Enrollment in math courses requires completion of a placement exam.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Students must earn a grade of C or higher in BIOL:1411, or in MICR:2157 and MICR:2158, in order to take more advanced Department of Microbiology and Immunology courses.

h GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

i Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

j Students must complete at least 18 s.h. of microbiology and immunology courses including the following: MICR:2157 and MICR:2158; three courses (9 s.h.) from MICR:3147, MICR:3159, MICR:3168, MICR:3170; additional departmental courses (4 s.h., prefix MICR) to satisfy remaining hours. See the General Catalog for list of approved courses. Some courses are not offered every semester, so check MyUI for availability.

k See the General Catalog for list of approved courses.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Scholar Track

Course	Title	Hours
Academic Career		
Any Semester		
GE CLAS Core: Sustainability [a]		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [b, c]	4
MATH:1460	Calculus for the Biological Sciences [c, d, e]	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
Elective course [f]		2
CSI:1600	Success at Iowa	1
	Hours	**14-15**
Spring		
BIOL:1411	Foundations of Biology [c, g]	4
CHEM:1120	Principles of Chemistry II	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE CLAS Core: Understanding Cultural Perspectives [h]		3
Elective course [f]		2
	Hours	**16-17**
Second Year		
Fall		
CHEM:2210	Organic Chemistry I	3
MICR:2157	General Microbiology [g, i]	3
MICR:2158	General Microbiology Laboratory [g, i]	2
GE CLAS Core: Literary, Visual, and Performing Arts [h]		3
GE CLAS Core: World Languages First Level Proficiency or elective course [j]		4 - 5
	Hours	**15-16**
Spring		
BIOL:1412	Diversity of Form and Function	4
Major: microbiology and immunology course (MICR:3159 Bacteria and Human Disease or MICR:3162 Bacterial Physiology and Cell Biology recommended) [l]		2 - 3
GE CLAS Core: International and Global Issues [h]		3
GE CLAS Core: World Languages Second Level Proficiency or elective course [j]		4 - 5
Elective course [f]		2
	Hours	**15-17**
Third Year		
Fall		
BMB:3120	Biochemistry and Molecular Biology I	3

GHS:2320 or GHS:2000	Origins of Human Infectious Disease [k] or Introduction to Global Health Studies	3
MICR:4161	Undergraduate Research in Microbiology [i, l]	2
Major: microbiology and immunology course (MICR:3147 Immunology and Human Disease or MICR:3168 Viruses and Human Disease or MICR:3182 Applied Computational Biology recommended) [i]		2 - 3
GE CLAS Core: World Languages Third Level Proficiency or elective course [j]		4 - 5
	Hours	**14-16**
Spring		
BMB:3130	Biochemistry and Molecular Biology II	3
MICR:4161	Undergraduate Research in Microbiology [i, l]	2
Major: microbiology and immunology course (MICR:3165 Genetics of Bacterial Pathogens Lab/ Disc recommended) [i]		3
PHYS:1400	Basic Physics [m]	4
GE CLAS Core: World Languages Fourth Level Proficiency or elective course [j]		4 - 5
	Hours	**16-17**
Fourth Year		
Fall		
MICR:4161	Undergraduate Research in Microbiology [i, l]	2
Major: microbiology and immunology course (MICR:3170 Bacterial Genetics or MICR:3178 Virology Laboratory recommended) [i]		2 - 3
Major: advanced elective course [n]		3
GE CLAS Core: Historical Perspectives [h]		3
Elective course [f]		3
Elective course [f]		2
	Hours	**15-16**
Spring		
MICR:3177	Virology Discussion [i]	2
MICR:4161	Undergraduate Research in Microbiology [i, l]	2
Major: advanced elective course (if needed) [n]		3
GE CLAS Core: Values and Society [h]		3
GE CLAS Core: Social Sciences [h]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [o]		
	Hours	**16**
	Total Hours	**121-130**

a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

b Enrollment in chemistry courses requires completion of a placement exam.

c Fulfills a major requirement and may fulfill a GE requirement.

d Other course options include BIOS:4120, MATH:1550, MATH:1850, STAT:3510; selecting a course that satisfies the Quantitative or Formal Reasoning GE requirement is recommended.

e Enrollment in math courses requires completion of a placement exam.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Students must earn a grade of C or higher in BIOL:1411, or in MICR:2157 and MICR:2158, in order to take more advanced Department of Microbiology and Immunology courses.

h GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

i Students must complete at least 19 s.h. of microbiology and immunology courses including the following: MICR:2157 and MICR:2158; one course (2-3 s.h.) from MICR:3165, MICR:3178, MICR:4161, MICR:4171; three courses (9 s.h.) from MICR:3147, MICR:3159, MICR:3168, MICR:3170; additional departmental courses (2-4 s.h., prefix MICR) to satisfy remaining hours. See the General Catalog for list of approved courses. Some courses are not offered every semester, so check MyUI for availability.

j Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.

k GHS:2320 is typically offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

l Consult academic advisor for guidance and approval of research project. A maximum of 4 s.h. earned in MICR:4161 may be counted toward the major.

mAlternatively, students may take both PHYS:1511 and PHYS:1512. PHYS:1400 can also be completed for 3 s.h. if taken with PHYS:1409.

n See the General Catalog for list of approved courses.

o Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Microbiology, Minor

Requirements

The undergraduate minor in microbiology requires a minimum of 15 s.h. in Department of Microbiology and Immunology courses (prefix MICR), including 12 s.h. in courses considered advanced for the minor taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Courses numbered MICR:3147 and above are considered advanced for the minor, excluding MICR:3164.

Students may count a maximum of 2 s.h. earned in MICR:4161 Undergraduate Research in Microbiology or MICR:4171 Honors Undergraduate Research in Microbiology toward the minor.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Microbiology, Minor

Course	Title	Hours
Academic Career		
Any Semester		
Students must maintain a GPA of at least 2.00 in all courses for the microbiology minor and in all UI courses for the minor.		
Coursework in the microbiology minor may not be taken pass/nonpass.		
	Hours	**0**
First Year		
Fall		
CHEM:1110	Principles of Chemistry I [a, b]	4
	Hours	**4**
Spring		
BIOL:1411	Foundations of Biology [c]	4
	Hours	**4**
Second Year		
Fall		
MICR:2157	General Microbiology [d]	3
MICR:2158	General Microbiology Laboratory [e]	2
	Hours	**5**
Spring		
Minor: advanced microbiology course (prefix MICR) [f]		3
	Hours	**3**
Third Year		
Fall		
Minor: advanced microbiology course (prefix MICR) [f]		3
	Hours	**3**
Spring		
Minor: advanced microbiology course (prefix MICR) [f]		3
	Hours	**3**
Fourth Year		
Fall		
Minor: advanced microbiology course (prefix MICR) [f]		3
	Hours	**3**
	Total Hours	**25**

a Prerequisite for BIOL:1411, which is a prerequisite for all advanced microbiology courses.
b Enrollment in chemistry courses requires completion of a placement exam.
c Prerequisite for all advanced microbiology courses.
d Prerequisite with a grade of C or higher for most advanced microbiology courses.
e Prerequisite with a grade of C or higher for advanced microbiology laboratory courses.
f Courses numbered MICR:3147 and above are considered advanced for the minor, excluding MICR:3164.

Microbiology, MS

Learning Outcomes

Graduates will be able to:

- demonstrate detailed knowledge in their area of specialization;
- master the analytical/methodological and critical thinking skills needed to evaluate and conduct research in their areas of specialization;
- demonstrate their ability to design and conduct original research in their chosen fields of specialization;
- teach college-level courses in their areas of specialization; and
- communicate in both the written and oral form in a clear and effective manner.

Requirements

The Master of Science program in microbiology requires a minimum of 30 s.h. of graduate credit. Students must maintain a UI cumulative grade-point average of at least 2.80 to earn the degree. They are required to earn a minimum of 12 s.h. in microbiology courses chosen from three of the department's four subdisciplines: bacteriology, parasitology, immunology, and virology. They may substitute a course they have already taken (at the University of Iowa or elsewhere) for a course requirement, with the MS advisory committee's approval.

Additional course requirements depend on students' interests and the advice of the thesis committee. Students must write a thesis based on their own research and defend it satisfactorily in an oral examination. No more than 9 s.h. of credit for thesis research may be counted toward the 30 s.h. required for the degree.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. They should have a cumulative grade-point average of at least 3.00 and must have completed courses in biology, chemistry (inorganic and organic), mathematics including calculus, and physics. Those admitted with deficiencies must complete the relevant coursework during their first year of graduate study. Admission is determined through a review and formal vote by the primary microbiology faculty.

Students interested in the MS program in microbiology require a microbiology faculty sponsor and approval of the microbiology graduate admission or graduate advisory committee.

Microbiology, PhD

Graduate study in microbiology is designed to help students become highly qualified in microbiology research and teaching. PhD students develop expertise in research in a specific area of microbiology and/or immunology.

Faculty members have strengths in bacteriology, parasitology, immunology, and virology. Areas of research include cellular microbiology, molecular virology and immunology, bacterial biochemistry and physiology, bacterial and viral pathogenesis, and molecular parasitology. Working in the laboratory of their PhD advisor, students learn to define and experimentally investigate scientific questions and to conduct original research in preparation for positions in academia, government, and industry.

Learning Outcomes

Graduates will be able to:

- demonstrate detailed knowledge in their area of specialization;
- master the analytical/methodological and critical thinking skills needed to evaluate and conduct research in their areas of specialization;
- demonstrate their ability to design and conduct original research in their chosen fields of specialization;
- teach college-level courses in their areas of specialization; and
- communicate in both the written and oral form in a clear and effective manner.

Requirements

The Doctor of Philosophy in microbiology requires a minimum of 72 s.h. of graduate credit, including at least 12 s.h. of graded coursework. Students must maintain a UI cumulative grade-point average of at least 3.00 to earn the degree. Qualified students interested in earning the Doctor of Medicine (MD) along with the PhD may apply to the Medical Scientist Training Program [p. 1901], which offers a combined MD/PhD program.

Students have the opportunity to tailor their curriculum with courses that enhance their educational goals. They take a combination of graduate-level courses that include seminar courses.

The PhD in microbiology requires the following coursework.

Core Curriculum

Course #	Title	Hours
MICR:6255	Graduate Experimental Approaches to Molecular Microbiology	2
MICR:6265	Introduction to Grant Writing	2
MICR:7263	Graduate Student Research Seminar	1
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0

Additional courses offered by the Department of Microbiology and Immunology and other departments, as appropriate for each student

Students enroll for a minimum of 8 additional s.h., which can be selected from the following.

Course #	Title	Hours
MICR:6201/ IMMU:6201	Graduate Immunology	3
MICR:6247/ IMMU:6247	Graduate Immunology and Human Disease	4
MICR:6259	Graduate Bacteria and Human Disease	4
MICR:6267	Graduate Viruses and Human Disease	3
MICR:6268	Biology and Pathogenesis of Viruses	2
MICR:6270	Graduate Bacterial Genetics	3
MICR:6310	Biology of Bacteria and Interactions With the Host	2
MICR:7265	Topics in Virology Literature	1

Examples of Elective Coursework

Course #	Title	Hours
BIOL:4386	Introduction to Scientific Computing for Biologists	3
BMED:5207	Principles of Molecular and Cellular Biology	3
MMED:6220/ ACB:6220/ MPB:6220	Mechanisms of Cellular Organization	3

Additional Requirements

Laboratory Rotations

Graduate students rotate through two to three different laboratories during their first academic year. The laboratory rotations are approximately ten weeks each. At the conclusion of each rotation, a student meets with the rotation mentor for an exit interview and an evaluation of the student's performance. This evaluation becomes part of the student's departmental record. The student is also required to present the research completed during the rotation in the graduate seminar course.

Teaching

Graduate students participate in the formal teaching activities of the department for at least two semesters. First-year students as well as students who are within a year of receiving the PhD typically are not asked to teach. Teaching may take a variety of forms, including tutoring, leading discussions and laboratory groups, correcting examinations, preparing teaching materials, and lecturing.

Comprehensive Examination

The comprehensive examination is designed to measure a student’s ability to write and defend a research proposal. The format of this proposal follows guidelines for R21 research proposals outlined by the National Institutes of Health (NIH). Guidance, in the design of these proposals, is provided by the director of graduate studies and the student’s comprehensive examination committee.

Written Examination

During the spring semester of the second year, a student prepares a detailed research proposal. The topic of the research proposal is determined in collaboration with the advisor and the comprehensive examination committee. A detailed guide can be found in the Graduate Program in Microbiology Graduate Student Handbook on the Department of Microbiology and Immunology website.

Oral Examination

Questions during the oral examination may come from the examination proposal, coursework, or other general areas of microbiology. In order to pass the comprehensive examination, a student must satisfactorily defend the written research proposal and answer questions of general microbiology that are germane to the proposal or that are important for a full understanding of the proposed experiments and their interpretation.

Final Examination

The PhD thesis committee serves as an advisory body for the preparation of the thesis. This committee meets with the student to review the material that is expected to be incorporated into the thesis. Although meetings of the candidate with the committee should be yearly, the candidate, thesis advisor, or the committee can request a meeting at any time. A final draft of the thesis must be given to all members of the committee two weeks before the final examination. The final examination takes the form of a seminar presented to the department. This presentation is announced according to the Graduate College policy. Questions, comments, and discussion will follow. After the seminar, the candidate meets with the committee for the final thesis defense. The PhD is not awarded until the thesis is signed by the committee members and the department chair. In some cases, revisions may be required.

Combined Programs

PhD/MD

Students may work toward the MD degree and a PhD in microbiology in a combined degree program offered by the Department of Microbiology and Immunology and the Carver College of Medicine. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. They should have a cumulative grade-point average of at least 3.00 and have completed courses in biology, chemistry (inorganic and organic), mathematics including calculus, and physics. Those admitted with deficiencies in certain areas may be required to complete the relevant coursework during their first year of graduate study. Admission is determined through a review, interview, and formal vote of the admission committee.

Career Advancement

Graduates typically pursue research or teaching positions.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Microbiology, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
Graduate College program GPA of at least 3.00 is required. [d]		
	Hours	**0**
First Year		
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
MICR:6247	Graduate Immunology and Human Disease	4
MICR:6255	Graduate Experimental Approaches to Molecular Microbiology	2
MICR:6259	Graduate Bacteria and Human Disease	4
MICR:6267	Graduate Viruses and Human Disease	3
MICR:7261	Graduate Research in Microbiology	1
MICR:7263	Graduate Student Research Seminar	1
	Hours	**15**
Spring		
MICR:6201	Graduate Immunology	3
MICR:6268	Biology and Pathogenesis of Viruses	2
MICR:6310	Biology of Bacteria and Interactions With the Host	2
MICR:7261	Graduate Research in Microbiology	5
MICR:7263	Graduate Student Research Seminar	1
Elective course		2
	Hours	**15**
Second Year		
Fall		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
MICR:6265	Introduction to Grant Writing	2
MICR:6270	Graduate Bacterial Genetics	3
MICR:7261	Graduate Research in Microbiology	5
MICR:7263	Graduate Student Research Seminar	1
MICR:7265	Topics in Virology Literature	1
Elective course		3
	Hours	**15**

Spring		
Exam: Doctoral Comprehensive Exam		
MICR:6268	Biology and Pathogenesis of Viruses	2
MICR:6310	Biology of Bacteria and Interactions With the Host	2
MICR:7261	Graduate Research in Microbiology	6
MICR:7263	Graduate Student Research Seminar	1
Elective course		4
	Hours	**15**
Third Year		
Fall		
MICR:7261	Graduate Research in Microbiology	1
MICR:7263	Graduate Student Research Seminar	1
	Hours	**2**
Spring		
MICR:7261	Graduate Research in Microbiology	1
MICR:7263	Graduate Student Research Seminar	1
	Hours	**2**
Fourth Year		
Fall		
MICR:7261	Graduate Research in Microbiology	1
MICR:7263	Graduate Student Research Seminar	1
	Hours	**2**
Spring		
MICR:7261	Graduate Research in Microbiology	1
MICR:7263	Graduate Student Research Seminar	1
	Hours	**2**
Fifth Year		
Fall		
MICR:7261	Graduate Research in Microbiology	1
MICR:7263	Graduate Student Research Seminar	1
	Hours	**2**
Spring		
MICR:7261	Graduate Research in Microbiology	1
MICR:7263	Graduate Student Research Seminar	1
Exam: Doctoral Final Exam [e]		
	Hours	**2**
	Total Hours	**72**

a Graduate students participate in the formal teaching activities of the department for at least two semesters.

b Graduate students rotate through two to three different laboratories during their first academic year.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

e Program seminar followed by the dissertation defense.

Molecular Physiology and Biophysics

Chair

- Kevin P. Campbell

Executive Associate Chair

- W. Scott Moye-Rowley

Faculty: https://physiology.medicine.uiowa.edu/profile/

Website: https://physiology.medicine.uiowa.edu/

The Department of Molecular Physiology and Biophysics participates in interdisciplinary graduate programs, including the Medical Scientist Training Program [p. 1901], a combined MD/PhD program offered by the Graduate College and the Carver College of Medicine, and it provides instruction in molecular physiology and biophysics for MD, DDS, and other health professions students. The department also conducts a co-op exchange, a vigorous training program that gives undergraduate students the opportunity to develop as independent researchers in preparation for graduate studies.

The department's principal research areas include cell biology, genetics, endocrinology, neuroscience, and membrane physiology and biophysics. The unifying theme is the understanding of signal transduction mechanisms involved in regulating function at the cellular and molecular levels.

Research

Faculty research interests in the Department of Molecular Physiology and Biophysics encompass molecular and cellular endocrinology, cellular and developmental neurophysiology, and membrane structure and function. Within these, there are multiple areas of interest, including hormone receptors, reproductive endocrinology, signal transduction, regulation of gene expression, synaptic transmission, neuronal differentiation, membrane ion channels, regulation of excitability, and cardiovascular electrophysiology and regulation. Experimental models currently being investigated include rodents, yeast, Drosophila, and cultured cell lines from a variety of species.

Facilities

Two floors of the Bowen Science Building are devoted to research and teaching in the Department of Molecular Physiology and Biophysics. Department faculty members also occupy laboratory facilities in the Medical Education Research Facility, Pappajohn Biomedical Discovery Building, and the Carver Biomedical Research Building. In addition to specialized equipment in faculty research laboratories, the department provides equipment for fluorescence microscopy, isotope analysis, cell culture, and molecular biology. It also has access to the university network and the multimedia education facilities. Additional resources are available at the Hardin Library for the Health Sciences.

Courses

Molecular Physiology and Biophysics Courses

MPB:4199 Research, Independent Study **arr.**
Recommendations: closed to molecular physiology and biophysics graduate students.

MPB:5153 Graduate Physiology **4 s.h.**
Principles of human physiology, organ systems, cell function. Offered fall semesters. Requirements: grades of C- or higher in BIOL:1411 and CHEM:2210 and CHEM:2220, and graduate standing.

MPB:5200 Medical Physiology Online **5 s.h.**
Fundamental principles of cellular membranes, muscle, sensory organs, motor neurological systems, autonomic nervous systems, cardiovascular, pulmonary, renal, gastrointestinal, endocrine, and reproductive systems; interdependence of organ systems to maintain a normal physiological state using clinical correlates as applied to humans; basic physiological principles that establish a solid foundation for future pathophysiological and pharmacological concepts. Recommendations: medical, dental, physician assistant, nurse anesthesia, physical therapy, or graduate standing.

MPB:5201 Advanced Physiology Online **3 s.h.**
Examination of cellular and organ systems of medical physiology; fundamental principles of cellular membranes including muscle, sensory organs, motor neurological systems, autonomic nervous system, cardiovascular, pulmonary, renal, gastrointestinal, endocrine, and reproductive physiology; emphasis on interdependence of organ systems to maintain a normal physiological state (homeostasis) using clinical correlates as applied to humans; basic physiological principles that establish a solid foundation for future pathophysiological and pharmacological concepts.

MPB:5241 Neuromuscular Diseases: Case-Based Seminar **1 s.h.**

MPB:6220 Mechanisms of Cellular Organization **3 s.h.**
Current understanding of basic cell biological processes; key experiments that led to guiding insights; mechanisms that cells use for compartmentalization and how those mechanisms are regulated; biogenesis of major organelles (e.g., mitochondria, peroxisomes, nucleus, secretory/endocytic membrane system); functions of cytoskeleton in cell motility, organelle motility, and cell division. Prerequisites: BMB:3130. Same as ACB:6220, MMED:6220.

MPB:6226 Cell Cycle Control **1 s.h.**
Cell cycle regulation, DNA damage-dependent cell cycle regulation, redox-dependent cell cycle regulation, cellular senescence. Same as ACB:6226, MMED:6226.

MPB:6227 Cell Fate Decisions **1 s.h.**
Cellular fate decisions including signal integration, terminal differentiation in development, mechanisms of embryonic stem cell gene regulation/cellular reprogramming, cell death paradigms, and cell death in development and cancer. Same as ACB:6227, MMED:6227.

MPB:6265 Neuroscience Seminar **0-1 s.h.**
Research presentations. Same as ACB:6265, BIOL:6265, NSCI:6265, PSY:6265.

MPB:6302 Research Physiology and Biophysics **arr.**
Requirements: molecular physiology and biophysics graduate standing.

MPB:7402 Thesis arr.
Requirements: molecular physiology and biophysics PhD candidacy.

MPB:8115 Human Physiology for Dental Students 4 s.h.
Principles of human physiology, organ systems, cell function. Offered fall semesters. Requirements: grades of C- or higher in BIOL:1411, CHEM:2210, and CHEM:2220; and DDS enrollment.

Neurology

Chair

- George B. Richerson

Faculty: https://neurology.medicine.uiowa.edu/profile/

Website: https://neurology.medicine.uiowa.edu/

Neurology is the branch of medical science concerned with diagnosis and management of disorders of the brain, spinal cord, peripheral nervous system, and muscle.

The Department of Neurology's hallmark is its history of carefully integrating patient care, scientific investigation, and the education of medical, postdoctoral, and graduate students. The department also offers research opportunities in various fields of neuroscience including neuropsychology, neuroimaging, and neuroanatomy to PhD students in neuroscience and psychology.

Research

The faculty's investigative interests center on cognitive neuroscience, degenerative diseases, cerebrovascular disease, neurogenetics, neuromuscular diseases, electrophysiological correlates of central and peripheral nervous system disease, growth factors in the nervous system, control and regulation of autonomic functions, neuro-ophthalmology, movement disorders, epilepsy, and pain management. For more information see the Department of Neurology website.

The new Iowa Center for Neurodegeneration, housed in the Department of Neurology and affiliated with the Iowa Neuroscience Institute, will concentrate on combating neurodegenerative diseases such as Alzheimer’s disease, Parkinson’s disease, dementia, and amyotrophic lateral sclerosis (ALS).

MD Training

The department provides clinical and clinical research training to second-, third-, and fourth-year MD students.

Residency

The Department of Neurology offers an active, four-year approved residency program that qualifies physician trainees for board certification in neurology. Experience in clinical electrophysiology, pediatric neurology, psychiatry, and neuropathology is part of this training.

Courses

Neurology Courses

NEUR:5365 Seminar: Neuropsychology and Neuroscience arr.
Clinical neuropsychology and cognitive neuroscience: cutting-edge research from scientific journals, case presentations in clinical neuropsychology, and current research. Same as NSCI:5365, PSY:5365.

NEUR:7235 Neurobiology of Disease 3 s.h.
Broad, thematic understanding of disease mechanisms in neurobiological disorders. Prerequisites: ACB:6252. Same as NSCI:7235.

NEUR:8301 Clinical Neurology 2,4 s.h.
Experience in clinical neurology through ward work and case-based conferences linked to required reading; focus on neurologic examination, diagnosis of neurologic problems.

NEUR:8401 Advanced Inpatient Neurology 2,4 s.h.
Experience and management of patients with seizure disorders, headache, cerebrovascular diseases; conferences, clinical rounds; two weeks on each inpatient service for a total of four weeks. Prerequisites: NEUR:8301.

NEUR:8402 Advanced Outpatient Neurology 2,4 s.h.
Experience in evaluation, management of patients with various neurologic diseases; four weeks in clinic patient care. Prerequisites: NEUR:8301.

NEUR:8404 Advanced Inpatient Subinternship in Neurology 4 s.h.
Care of patients with acute and serious neurological diseases, management of patients with varied cerebrovascular diseases; treatment of acute brain disease, comorbid medical diseases, medical and neurological complications that occur among patients with stroke; clinical assessments of patients, writing orders and clinical notes, contribution to rounds; close communication with patients, families, and colleagues; assignment to evening calls for emergency visits and consultations.

NEUR:8497 Research in Neurology arr.
Medical research, clinical or laboratory projects; individual study.

NEUR:8498 Neurology On Campus arr.

NEUR:8499 Neurology Off Campus arr.

Neuroscience and Pharmacology

Chair

- Edwin "Ted" G. Abel

Faculty: https://neuroscience-pharmacology.medicine.uiowa.edu/people

Website: https://neuroscience-pharmacology.medicine.uiowa.edu/

The Department of Neuroscience and Pharmacology drives breakthroughs in the scientific understanding of neurological, metabolic/obesity, and cancer-related diseases, develops innovative treatments, and educates the next generation of leaders in the pharmacological sciences.

The department's mission is supported by dedicated faculty mentors and the centers and institutes they participate in, including the Holden Comprehensive Cancer Center, the Abboud Cardiovascular Research Center, the UI Fraternal Order of Eagles Diabetes Research Center, and the Iowa Neuroscience Institute. Students at all levels (undergraduate, graduate, professional, and postdoctoral scholar) work side-by-side with faculty to explore the basic mechanisms of disease and drug action while also performing meaningful, translational research. Through cutting-edge research facilities, highly applicable coursework, and a collaborative environment, the department provides students with the skills and expertise needed to succeed in the field.

Programs

Graduate Programs of Study

- Master of Science in Pharmacology
- Doctor of Philosophy in Pharmacology

Students interested in doctoral studies in pharmacology should apply under the umbrella program in Biomedical Science [p. 1698] (select pharmacology subprogram). Direct applications to the MS and PhD in pharmacology are not currently being considered.

Courses

Neuroscience and Pharmacology Courses

PCOL:2220 Drug Use and Abuse 3 s.h.
Effects of common drugs on the body and how they occur; consumer education in easy-to-understand language; basic principles of pharmacology and toxicology; drugs that work on specific systems including antibiotics, oral contraceptives, sedatives, stimulants, hallucinogens, narcotics, steroids, diabetes drugs, and cancer drugs; for students with little to no science background. Offered spring semesters. GE: Natural Sciences without Lab.

PCOL:3101 Pharmacology I: A Drug's Fantastic Journey 3 s.h.
Introduction to basic pharmacological principles by following a drug's journey from its site of administration to its site of elimination; common mechanisms by which drugs affect the body and mechanisms underlying drug actions on two primary body systems—nervous and cardiovascular; structured learning environment bolstered by highly interactive application sessions where students apply course material via collaborative work on problem sets/activities; for students interested in medicine, pharmacy, research, and industry. Offered fall semesters. Prerequisites: (CBE:3205 or BIOL:1411) and CHEM:1110. Recommendations: additional higher-level biology and chemistry courses helpful.

PCOL:3102 Pharmacology II: Mechanisms of Drug Action 3 s.h.
Expansion of basic pharmacological concepts and further exploration of how they are applied to define a drug's actions on the body; students continue their exploration of the body by discussing various disorders including neuropsychiatric and immune disorders, cancer, diabetes, and microbial infections in conjunction with current treatments; structured learning environment bolstered by highly interactive discussion sessions where students learn to apply course material via collaborative work on problem sets/activities; for students interested in medicine, pharmacy, research, and industry. Offered spring semesters. Prerequisites: PCOL:3101. Recommendations: additional higher-level courses in biology and chemistry helpful.

PCOL:4199 Undergraduate Research in Neuroscience and Pharmacology arr.
Experimental research under faculty supervision in department laboratories.

PCOL:5130 Basic Concepts in Pharmacology 3 s.h.
Introduces pharmacological principles underlying drug absorption, distribution, and metabolism and how these principles affect drug dosing and drug receptor interactions. Explore two of the following four receptor/signaling systems commonly affected by drugs: growth factors, neurotransmitters, ion channels, or steroid and G protein-coupled receptors. Offered spring semesters.

PCOL:5135 Principles of Pharmacology 1 s.h.
Basic pharmacological principles underlying drug absorption, drug distribution throughout the body, drug metabolism, and drug elimination; how these processes determine drug dosing and the means by which dosing parameters are characterized; drug receptor interactions and their quantitation. Offered spring semesters.

PCOL:5136 Pharmacogenetics and Pharmacogenomics 1 s.h.
Impact of genetic variation on the actions and metabolism of drugs; database search techniques to identify variants. Offered spring semesters. Recommendations: PCOL:5135, and undergraduate or graduate biochemistry and/or genetics.

PCOL:5137 Neurotransmitters 1 s.h.
Mechanisms of neurotransmission focusing on mechanisms of synthesis, regulation of release, mechanisms of action, means of degradation, and CNS pathways for major neurotransmitters; disease states involving various neurotransmitter systems. Offered spring semesters.

PCOL:5204 Basic Biostatistics and Experimental Design 1 s.h.
Overview of theory of experimental design and data analysis in biological sciences; types of analyses available for common types of data generated in biomedical sciences; review of statistical methods used in published studies; cursory coverage of mathematical computations involved in various analytical tests. Offered fall semesters.

PCOL:6015 Topics in Pharmacology and Neuroscience 1 s.h.
Recent advances in pharmacology, neuropharmacology, developmental neurobiology, neuroendocrinology, and related neurosciences.

PCOL:6080 Pharmacology Seminar 1 s.h.

PCOL:6090 Graduate Research in Pharmacology arr.

PCOL:6099 Special Topics in Pharmacology arr.

PCOL:6203 Pharmacology for Graduate Students 5 s.h.
Pharmacology of all major drugs in use today; discussion of basic principles underlying drug actions and disposition; physiology, biochemistry, and pathophysiology of specific organ systems; how various drugs impact these systems; how drugs are used to treat disorders of each system; major adverse effects of drugs and how those occur; differences among drugs within each drug group. Offered fall semesters. Prerequisites: BMED:5207 and MPB:5153.

PCOL:6204 Pharmacology for Health Sciences: Nurse Anesthetist 5 s.h.
Pharmacology of all major drugs in use today; discussion of basic principles underlying drug actions and disposition; physiology, biochemistry, and pathophysiology of specific organ systems; how various drugs impact these systems; how drugs are used to treat disorders of each system; major adverse effects of drugs and how those occur; differences among drugs within each drug group. Offered fall semesters. Prerequisites: MPB:5200 and NURS:6000. Requirements: enrollment in Anesthesia Nursing Program.

PCOL:6207 Ion Channel Pharmacology 1 s.h.
Heuristic, semiquantitative approach to concepts in ion channel physiology and pharmacology; up-to-date physical principles, classification, and structure/function relationships for major voltage-gated ion channels that facilitate application of abstract concepts to physiological, pharmacological, and general biological problems. Offered spring semesters.

PCOL:6211 Steroid and G Protein-coupled Receptors 1 s.h.
Structure-function relationships of small molecular weight of steroid hormone receptors and G protein-coupled receptors. Special emphasis on the molecular mechanisms of signaling for both receptor families.

PCOL:6225 Growth Factor Receptor Signaling 1 s.h.
Mechanisms of signaling by growth factors; cytokines and related molecules that regulate cell proliferation, development, differentiation, and survival; emphasis on molecular mechanisms of signaling and relevance of these signaling processes to various human diseases. Offered fall semesters.

PCOL:6250 Advanced Problem Solving in Pharmacological Sciences 1 s.h.
Discussion of methodologies, strategies, and approaches commonly used to solve pharmacological sciences problems; use of interpersonal problem-solving skills to develop experimental study plans for solving contemporary scientific problems in pharmacology.

Neurosurgery

Chair

- Matthew A. Howard

Faculty: https://medicine.uiowa.edu/neurosurgery/profile/

Website: https://medicine.uiowa.edu/neurosurgery/

The Department of Neurosurgery provides an experience oriented toward patient care and basic research concerning diseases and the physiology of the nervous system. Students develop awareness of neurosurgery's role in treating head and spine trauma, vascular disorders, brain and spinal cord tumors, pain and peripheral nerve abnormalities, degenerative spine pathology, and surgical treatment of epilepsy and movement disorders.

Clinical courses are designed around patient-centered discussions interwoven with operating room experiences. Lectures and conferences are scheduled on specific topics.

Faculty

Neurosurgery faculty strengths are centered in the physiology of spinal cord trauma, epilepsy, auditory brain function and pain, primary brain tumor genetics, central nervous system tissue culture, spinal column biomechanics, and movement disorders. The department has expertise in clinical management across the spectrum of central nervous system diseases.

MD Training

The department provides third- and fourth-year MD students with access to special expertise in selected topics of investigation regarding the central nervous system and to a clinical course through special arrangements with the faculty.

Facilities

Multiple, fully equipped laboratory space is available to support scientific research of the central nervous system. Faculty and technical assistance is available in all laboratories.

Courses

Neurosurgery courses are open only to MD and qualified associated health sciences students.

Neurosurgery Courses

NSG:8401 Subinternship in Neurosurgery 4 s.h.
Advanced clinical clerkship in neurological surgery; emphasis on diagnosis and operative management of surgical neurological disease.

NSG:8497 Research in Neurological Surgery arr.
Laboratory investigation of spinal cord injury, spinal column biomechanics and instrumentation, electrophysiology of pain, epilepsy and hearing, molecular genetics and physiology of brain tumors.

NSG:8498 Neurosurgery On Campus arr.
Clinical clerkship; individually arranged by student with departmental approval.

NSG:8499 Neurosurgery Off Campus arr.
Arranged by student with department approval.

Nuclear Medicine Technology

Director

- Jay J. Smith

Director, Medical

- Yusuf Menda

Director, Technical

- Daniel Petersen

Undergraduate major: nuclear medicine technology (BS)

Website: https://medicine.uiowa.edu/radsci/programs/nuclear-medicine-technology

Nuclear medicine technologists are professionals in a medical specialty that uses radioactive tracers for diagnostic, therapeutic, and research purposes. Technologists provide direct patient care and generally are employed in hospitals and clinics. They work hand in hand with nuclear medicine physicians, health physicists, radiopharmacists, and radiochemists as an integral part of a highly trained specialty team.

In addition to using sophisticated detectors and computers to trace the movement and localization of radioactive tracers in the human body, nuclear medicine technologists have responsibilities that include radiation safety, quality control testing, radiopharmaceutical preparation and administration, and general patient care.

The Nuclear Medicine Technology Program is fully accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT). Nuclear medicine technology is one of two undergraduate majors in the field of medical imaging offered by the Carver College of Medicine; see Radiation Sciences [p. 1966] in the catalog.

The Carver College of Medicine is located on the University of Iowa health sciences campus, which includes University of Iowa Health Care, one of the nation's largest university-owned teaching hospitals. For information about the college's academic programs and resources, see Carver College of Medicine [p. 1843] in the catalog.

Programs

Undergraduate Program of Study

Major

- Major in Nuclear Medicine Technology (Bachelor of Science) [p. 1925]

Courses

Nuclear Medicine Technology Courses

RSNM:3120 Nuclear Medicine and PET Clinical Procedures I **3 s.h.**
Introduction to medical specialty of nuclear medicine and molecular imaging; basic theories of radiation protection, radiation physics and nuclear medicine instrumentation, radiopharmacy, nuclear medicine and positron emission tomography (PET) clinical procedures, professional standards of nuclear medicine technologist. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3121 Nuclear Medicine Technology Clinical Internship I **3 s.h.**
Hands-on clinical experience working with patients and performing routine nuclear medicine diagnostic imaging procedures under direct supervision of qualified clinical instructors. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3131 Radiopharmaceuticals **3 s.h.**
Introduction to radiopharmaceuticals; emphasis on physical, chemical, and biologic properties and their clinical use; fundamental aspects of radiopharmaceuticals including characteristics, preparation, quality control, and clinical use. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3132 Radiation Safety and Regulations in Nuclear Medicine **1 s.h.**
Continuation of RSP:3130; geared towards students enrolled in the nuclear medicine technology program.

RSNM:3140 Foundations in Nuclear Medicine and PET **1 s.h.**
Foundational instruction in the math and chemistry associated with radiopharmacy and instrumentation in the nuclear medicine technology profession, such as positron emission tomography (PET). Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3220 Nuclear Medicine and PET Clinical Procedures II **3 s.h.**
Proper execution of nuclear medicine and positron emission tomography (PET) procedures from a technical point of view; published protocols and procedures specific to University of Iowa Health Care; routine setup, common errors, artifact identification, computer processing protocols, and patient care concerns identified for each procedure; review of human anatomy, physiology, and pathology germane to understanding and proper execution of nuclear medicine procedures. Prerequisites: RSNM:3120. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3221 Nuclear Medicine Technology Clinical Internship II **3 s.h.**
Progressive responsibility working with patients and performing nuclear medicine and PET clinical procedures under direct supervision of qualified clinical instructors. Prerequisites: RSNM:3121. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3231 Nuclear Medicine Instrumentation 3 s.h.
Instruments used in medical imaging to generate and detect ionizing radiation (i.e., SPECT/CT and PET/CT scanners, dose calibrators, well counters, survey meters); focus on instrument quality control testing. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3320 Foundations in Nuclear Medicine Instrumentation 2 s.h.
Instruction in physics and statistics associated with nuclear medicine and positron emission tomography (PET) instrumentation. Prerequisites: RSNM:3220. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3321 Nuclear Medicine Technology Clinical Internship III 4 s.h.
Progressive responsibility working with patients and performing nuclear medicine and PET clinical procedures under direct supervision of qualified clinical instructors. Prerequisites: RSNM:3221. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:4121 Nuclear Medicine Technology Clinical Internship IV 4 s.h.
Progressive responsibility working with patients and performing nuclear medicine and PET clinical procedures under direct supervision of qualified clinical instructors. Prerequisites: RSNM:3321. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:4221 Nuclear Medicine Technology Clinical Internship V 5 s.h.
Progressive responsibility working with patients and performing nuclear medicine and PET clinical procedures under direct supervision of qualified clinical instructors. Prerequisites: RSNM:4121. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:4222 Nuclear Medicine Technology Capstone and Certification Exam Preparation 5 s.h.
Students prepare to take the Nuclear Medicine Technology Certification Board (NMTCB) and American Registry of Radiologic Technologists (ARRT) national certification exams. Requirements: Nuclear Medicine Technology Program enrollment.

Nuclear Medicine Technology, BS

Undergraduate study in nuclear medicine technology is guided by the academic rules and procedures outlined under Undergraduate Rules and Procedures [p. 1844] in the Carver College of Medicine section of the catalog.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Requirements

The Bachelor of Science in nuclear medicine technology requires a minimum of 120 s.h. of credit. Work for the degree includes a set of courses that are prerequisite to entering the major, 60 s.h. of coursework in the major, and elective coursework sufficient to complete the minimum of 120 s.h. required for graduation. Registered nuclear medicine technologists interested in earning a Bachelor of Science degree by distance education should see the Radiation Sciences RT to BS (Online) [p. 1985] section of the catalog.

Accepted students enter the professional program, the nuclear medicine technology major, and the Carver College of Medicine the following fall semester. Students must maintain an overall cumulative, UI, and semester grade-point average (GPA) of at least 2.00. Students must also earn a grade of C or higher in each course required for the major. Upon successful completion of the program, they earn a Bachelor of Science degree and are eligible to apply for the nuclear medicine technology national certification examinations.

The program strongly advises students entering the university to pursue a course of study that is applicable to another major, most commonly biochemistry, biology, chemistry, or microbiology, so that if they are not admitted to the Nuclear Medicine Technology Program, they still may complete a major and earn a bachelor's degree.

Students who have declared a nuclear medicine technology interest but have not yet applied and been accepted to the Carver College of Medicine major are advised by the University of Iowa Academic Advising Center. After they have been accepted to the nuclear medicine technology program, they are advised by the Radiation Sciences Office of Student Affairs.

The Bachelor of Science in nuclear medicine technology requires the following coursework.

Prerequisites to the Nuclear Medicine Technology Major

Students must complete the following prerequisite courses and must have earned 60 s.h. of college credit with an overall cumulative GPA of at least 2.50 and a UI GPA of at least 2.00. Additionally, they must earn a 2.00 term GPA in the spring semester immediately preceding the start of the nuclear medicine major.

Course #	Title	Hours
Rhetoric		
RHET:1030	Rhetoric: Writing and Communication	4-5
Chemistry With Laboratory		
CHEM:1110	Principles of Chemistry I	4
Anatomy With Laboratory		
One of these:		
HHP:2100 & HHP:2110	Human Anatomy and Human Anatomy Laboratory	4
HHP:3115	Anatomy for Human Physiology With Lab	5
Physiology With Laboratory		
One of these:		
HHP:2400 & HHP:2410	Fundamentals of Human Physiology and Human Physiology Laboratory	4
HHP:3500 & HHP:2410	Human Physiology and Human Physiology Laboratory	4
HHP:3550	Human Physiology With Laboratory	5
Physics		
One of these:		
PHYS:1400	Basic Physics	3-4
PHYS:1511	College Physics I	4
Psychology		
PSY:1001	Elementary Psychology	3
Mathematics		
One of these:		
MATH:1020	Elementary Functions	4
MATH:1440	Mathematics for the Biological Sciences	4
A more advanced mathematics course		
Medical Terminology		
CLSA:3750	Medical and Technical Terminology	2

Culture, Society, and the Arts

Students complete two courses for 3 s.h. each in two of these areas (total of 6 s.h.).

- Understanding Cultural Perspectives
- Historical Perspectives
- International and Global Issues
- Literary, Visual, and Performing Arts
- Values and Society

See GE CLAS Core [p. 22] (College of Liberal Arts and Sciences) in the catalog for approved courses in the areas listed.

Coursework in the Major

Students admitted to the nuclear medicine technology major spend two years in a clinical curriculum that is organized in accordance with the Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT) Accreditation Standards for Nuclear Medicine Technologist Education. They complete coursework in the following areas: radiopharmacy, radiation safety and radiobiology, patient care, nuclear medicine and positron emission tomography (PET) procedures, radiation physics and instrumentation, quality management, healthcare administration, medical and professional ethics, research methodology, emotional intelligence, magnetic resonance imaging (MRI), and computed tomography (CT). Practical

clinical rotations focus on nuclear medicine, PET and CT imaging, nuclear medicine therapy, clinical radiopharmacy, nuclear medicine computer applications, and quantification of radioactivity in vivo and in vitro.

Students must earn a grade of C or higher in each course required for the major.

Course #	Title	Hours
RSNM:3120	Nuclear Medicine and PET Clinical Procedures I	3
RSNM:3121	Nuclear Medicine Technology Clinical Internship I	3
RSNM:3131	Radiopharmaceuticals	3
RSNM:3132	Radiation Safety and Regulations in Nuclear Medicine	1
RSNM:3140	Foundations in Nuclear Medicine and PET	1
RSNM:3220	Nuclear Medicine and PET Clinical Procedures II	3
RSNM:3221	Nuclear Medicine Technology Clinical Internship II	3
RSNM:3231	Nuclear Medicine Instrumentation	3
RSNM:3320	Foundations in Nuclear Medicine Instrumentation	2
RSNM:3321	Nuclear Medicine Technology Clinical Internship III	4
RSNM:4121	Nuclear Medicine Technology Clinical Internship IV	4
RSNM:4221	Nuclear Medicine Technology Clinical Internship V	5
RSNM:4222	Nuclear Medicine Technology Capstone and Certification Exam Preparation	5
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSCT:4130	Computed Tomography Physical Principles and QC	4
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
RSP:3210	Medical Ethics and Law	2
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSP:4110	Research Methodology for Radiation Sciences	3
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
Total Hours		**60**

Admission

Admission to the nuclear medicine technology major is competitive and selective; acceptance into the major is not guaranteed. Students who wish to enter the major must first be admitted to the University of Iowa as College of Liberal Arts and Sciences (CLAS) students with a nuclear medicine technology interest.

As CLAS students, there are two application options for the nuclear medicine technology professional program. Early acceptance is an option for students who will have at least 30 s.h. and half of the prerequisite courses completed by the end of the spring semester of the year in which they are applying. Standard acceptance is an option for students who will have all of the prerequisite courses, including 60 s.h., completed by the end of the spring semester of the year in which they are applying. Students must apply to the nuclear medicine technology professional program by Jan. 15. Standard acceptance applications will be considered for the upcoming fall; early acceptance applications will be considered for the following fall. See Apply on the Radiation Sciences Program website. Transfer students are encouraged to apply in early November to allow time for transfer course articulation.

The Nuclear Medicine Technology Program accepts a maximum of eight students per year. Applications are due by January 15 and the class is selected by early March. The program begins each fall semester and lasts two years.

Applicants for admission to the University of Iowa whose first language is not English are strongly encouraged to complete the University of Iowa English Proficiency Evaluation and satisfy the university's English Proficiency Requirements before they apply to a professional program. Students must have permission to register for a full academic load before they may be admitted to the Nuclear Medicine Technology Program.

The nuclear medicine technology major requires students to complete a minimum of two years of a high school world language, or college-level coursework deemed by the university as equivalent, prior to admission.

For additional information on UI admission requirements, contact the University of Iowa Admissions.

Recommended Pre-Major Courses

The Nuclear Medicine Technology Program recommends that before students submit an application to the program and the major, they job-shadow a professional who works in nuclear medicine and positron emission tomography (PET) and gain hands-on patient care experience.

The following courses are recommended prior to the Nuclear Medicine Technology Program application.

Course #	Title	Hours
All of these:		
CHEM:1120	Principles of Chemistry II	4
PSY:1010	Your Brain Unlocked: Learning About Learning	1
RSP:1100	Introduction to the Radiation Sciences	1
STAT:1020	Elementary Statistics and Inference	3
One of these:		
BIOL:1140	Human Biology: Nonmajors	4
HHP:1400	Human Anatomy and Physiology	3
One of these:		

BAIS:1500	Business Computing Essentials	2
CS:1020	Principles of Computing	3

Career Advancement

The Nuclear Medicine Technology Program has a stellar record of job placement. Graduates typically work as nuclear medicine technologists, beginning as entry-level staff at hospitals or clinics. With experience, many earn advanced degrees in areas such as radiation biology, health physics, or medicine. Some work in the private sector as sales or marketing specialists in nuclear medicine.

Graduates also find career opportunities in education as instructors, coordinators, or program directors; and in administration, industry, or research and development. Those pursuing government-related jobs might find positions as regulatory agency inspectors or radiation safety officers. See the Occupational Outlook Handbook for nuclear medicine technologists on the United States Department of Labor Bureau of Labor Statistics website for career information and outlook.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Nuclear Medicine Technology, BS

Course	Title	Hours
Academic Career		
Any Semester		
Students apply to the Nuclear Medicine Technology BS program through a selective process. Acceptance is not guaranteed. [a]		
Students must earn a grade of C or higher in all RS** courses.		
The Nuclear Medicine Technology professional program is two years in duration.		
	Hours	**0**
First Year		
Any Semester		
Recommended: job shadowing a professional who works in nuclear medicine and positron emission tomography (PET) and hands-on patient care experience.		
	Hours	**0**
Fall		
RSP:1100	Introduction to the Radiation Sciences [b]	1
HHP:1400 or BIOL:1140	Human Anatomy and Physiology [c] or Human Biology: Nonmajors	3 - 4
PSY:1001	Elementary Psychology	3
RHET:1030	Rhetoric: Writing and Communication	4
GE: General Education course (HP, IGI, LVPA, UCP or VS) [d]		3
Admission Application: students may be eligible to apply for early acceptance (due January 15) [e]		
	Hours	**14-15**
Spring		
CLSA:3750	Medical and Technical Terminology	2
Anatomy with Laboratory course [f]		4 - 5
MATH:1020 or MATH:1440	Elementary Functions [g] or Mathematics for the Biological Sciences	4
GE: General Education course (HP, IGI, LVPA, UCP or VS) [d]		3
Elective course		3
	Hours	**16-17**
Second Year		
Fall		
CHEM:1110	Principles of Chemistry I [h]	4
CS:1020 or BAIS:1500	Principles of Computing [b] or Business Computing Essentials	2 - 3
PHYS:1511 or PHYS:1400	College Physics I or Basic Physics	3 - 4
PSY:1010	Your Brain Unlocked: Learning About Learning [b]	1
Elective course		3
Elective course		2
Admission Application: begin preparing materials for the Nuclear Medicine Technology professional program application (due January 15) [e]		
	Hours	**15-17**
Spring		
CHEM:1120	Principles of Chemistry II [b]	4
Physiology with Laboratory course [i]		4 - 5
STAT:1020	Elementary Statistics and Inference [b]	3
Elective course		3
Elective course		2
	Hours	**16-17**
Third Year		
Any Semester		
The curriculum shown in the third and fourth years on this plan begins upon acceptance into the Carver College of Medicine Nuclear Medicine Technology professional program.		
	Hours	**0**
Fall		
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSNM:3120	Nuclear Medicine and PET Clinical Procedures I	3
RSNM:3121	Nuclear Medicine Technology Clinical Internship I	3
RSNM:3132	Radiation Safety and Regulations in Nuclear Medicine	1
RSNM:3140	Foundations in Nuclear Medicine and PET	1
RSP:2120	Patient Care for the Radiation Sciences	3

RSP:3130	Introduction to Radiation Safety and Radiobiology	1
	Hours	**15**
Spring		
RSNM:3220	Nuclear Medicine and PET Clinical Procedures II	3
RSNM:3221	Nuclear Medicine Technology Clinical Internship II	3
RSNM:3131	Radiopharmaceuticals	3
RSP:3210	Medical Ethics and Law	2
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
	Hours	**13**
Summer		
RSNM:3320	Foundations in Nuclear Medicine Instrumentation	2
RSNM:3321	Nuclear Medicine Technology Clinical Internship III	4
	Hours	**6**
Fourth Year		
Fall		
RSCT:4130	Computed Tomography Physical Principles and QC	4
RSNM:3231	Nuclear Medicine Instrumentation	3
RSNM:4121	Nuclear Medicine Technology Clinical Internship IV	4
RSP:4110	Research Methodology for Radiation Sciences	3
	Hours	**14**
Spring		
RSNM:4221	Nuclear Medicine Technology Clinical Internship V	5
RSNM:4222	Nuclear Medicine Technology Capstone and Certification Exam Preparation	5
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
Exam: Upon completion of the program students are eligible to apply to take certification exams.		
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**12**
	Total Hours	**121-126**

a The Academic Advising Center advises Nuclear Medicine Technology Interest students on prerequisite course planning. Students are advised for success, based on academic strength, not necessarily for a four year plan. Prerequisites may take more than two years to complete.

b This course is recommended not required.

c One of these courses is strongly recommended to prepare for the anatomy and physiology courses.

d Students must complete 6 s.h. by taking 3 s.h. courses from two of the following areas: Historical Perspectives, International and Global Issues, Literary, Visual, and Performing Arts, Understanding Cultural Perspectives, or Values and Society.

e See the Radiation Sciences website and your academic advisor for detailed application instructions and deadlines.

f Choose either HHP:3115, or HHP:2100 and HHP:2110.

g Enrollment in math courses requires completion of a placement exam.

h Enrollment in chemistry courses requires completion of a placement exam.

i Choose from HHP:3550, HHP:2400 and HHP:2410, or HHP:3500 and HHP:2410.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Obstetrics and Gynecology

Chair

- Christian Pettker

Professional degree: MM

Faculty: https://medicine.uiowa.edu/obgyn/profile/?appointment=PRIMARY&category=&query=&page=1&size=10

Website: https://medicine.uiowa.edu/obgyn/

Faculty in the Department of Obstetrics and Gynecology contribute to a wide spectrum of educational programs. A six-week core clerkship is taken by all Carver College of Medicine medical students. Subinternships are offered in high-risk obstetrics (maternal-fetal medicine) and gynecologic oncology. Advanced electives are offered in reproductive endocrinology and infertility, family planning, night float, and urogynecology. Approximately 12 physician assistant (PA) students also complete a one-month rotation within the department as part of their training.

The Accreditation Council for Graduate Medical Education (ACGME) accredited fellowship programs are urogyn (urogynecology), gynecologic oncology, maternal-fetal medicine (high-risk obstetrics), and reproductive endocrinology and infertility.

MD Training

Courses supported by the Department of Obstetrics and Gynecology are designed to give medical students a comprehensive survey of female reproductive medicine. This is accomplished through a variety of didactic lectures, outpatient clinical assignments, inpatient experiences, and surgery.

The clerkship OBG:8301 Clinical Obstetrics and Gynecology supports students in developing the core knowledge, skills, and attitudes needed to provide basic obstetric, gynecology, and/or primary health care to female patients.

The department offers medical students a variety of advanced electives that provide training in specialty areas of obstetrics and gynecology.

Residency

The department also offers a four-year obstetrics and gynecology residency. Upon completion, graduates are eligible to register and take the written and oral examinations leading to certification by the American Board of Obstetrics and Gynecology.

Residents are assigned to the various subspecialty divisions and clinical services of the department. They care for hospital inpatients and outpatients with training in normal and abnormal obstetrics, gynecologic surgery, office gynecology, ultrasound, reproductive endocrinology, gynecologic oncology, urogynecology, and family planning, as well as a variety of minimally invasive and endoscopic procedures.

Courses

Obstetrics and Gynecology Courses

OBG:8301 Clinical Obstetrics and Gynecology arr.
Proficiency in evaluation and management of core women's health care relating to reproductive tract; history taking, physical examination, laboratory and imaging assessment of obstetric and/or gynecological patients; application of current concepts to well women's health care and to management of diseases and pathologies; outpatient and inpatient obstetrics and gynecology; family planning, screening, and early detection of cancer and other diseases.

OBG:8401 Advanced Inpatient Subinternship in High Risk Antepartum Obstetrics arr.
Experience in evaluating new patients in a high-risk obstetric clinic; continuing antepartum care; ordering diagnostic studies and following the course of complicated patients admitted to obstetric ward; assisting in diagnostic and therapeutic procedures (e.g., fetal heart rate testing, amniocentesis, ultrasonography, intrauterine fetal transfusion).

OBG:8402 Advanced Inpatient Subinternship in Gynecologic Oncology arr.
Experience on a gynecologic oncology service, including operating room, inpatient and outpatient care; team management approach to gynecologic cancer patients, treatment and follow-up of invasive gynecologic malignancies, etiology and risk factors for gynecologic neoplasias, pre- and postoperative evaluation and treatment of surgical management of gynecologic neoplasis.

OBG:8403 Reproductive Endocrinology arr.
Experience evaluating new and returning patients in the Reproductive Endocrinology and Infertility Clinic; participation in preoperative, operative, and inpatient postoperative care; advanced gynecologic ultrasonography and in vitro fertilization services.

OBG:8405 Urogynecology Advanced Elective 4 s.h.
Experience as active member of urogynecology clinical team, participating in clinical care activities including outpatient clinic, outpatient procedures, inpatient surgery, hospital care; presentation to team on topic chosen by student.

OBG:8407 Family Planning 4 s.h.
Experience with family planning clinical activities at several different local sites, including outpatient procedures. Requirements: MD enrollment.

OBG:8409 Obstetrics and Gynecology Night Float 4 s.h.
Four week rotation; students are paired with a night resident with primary responsibility for inpatients on gynecology services; when not actively engaged, students participate in resident team work on labor/delivery/recovery (LDR), gaining obstetrics (OB) procedural competency as well as assisting with management of inpatients and consultations as delegated by night chief and/or staff call physician; students and night resident generally perform initial assessment of emergency department or inpatient consults/admissions under immediate supervision of the fellow and/or faculty; students carry out plans discussed at evening sign-out for inpatient gynecology services. Requirements: MD enrollment.

OBG:8410 Translational Science in Reproductive Health 4 s.h.
Exposure to and education in basic and applied translational research in reproductive sciences, obstetrics, gynecology, and developmental biology/perinatal programming; direct involvement with Department of Obstetrics and Gynecology ongoing research efforts. Requirements: MD enrollment.

OBG:8450 Continuity of Care in Outpatient Obstetrics and Gynecology 4 s.h.
Experience with gynecologist in longitudinal clinical experience for the academic year; students paired with faculty member to see patients in weekly clinic and provide clinical care to defined patient population.

OBG:8451 Obstetrics and Gynecology Scientific Writing 4 s.h.
Advanced medical students gain experience with the process of scientific publication; manuscript preparation, scientific communication, editorial duties, and publication process through the lens of journal editor and manuscript author. Requirements: MD enrollment.

OBG:8497 Research in Obstetrics and Gynecology arr.
Medical research, clinical or laboratory projects; individual study.

OBG:8498 Obstetrics and Gynecology On Campus arr.

OBG:8499 Obstetrics and Gynecology Off Campus arr.

Master of Midwifery, MM

The Master of Midwifery (MM) program of study is under development. More information is forthcoming.

Ophthalmology and Visual Sciences

Chair

- Keith D. Carter

Professional certificate: orthoptics

Faculty: https://eye.medicine.uiowa.edu/profile/

Website: https://eye.medicine.uiowa.edu/

Ophthalmology is a medical and surgical specialty concerned with the diagnosis and treatment of diseases of the eye and its surrounding structures. The Department of Ophthalmology and Visual Sciences combines postgraduate training with research and patient care in all aspects of the visual sciences. Subspecialties represented in the department include cataract surgery, comprehensive ophthalmology, cornea and external diseases, contact lens and refraction services, genetics and molecular biology, glaucoma, laser refractive surgery, neuro-ophthalmology, oculoplastic surgery, ocular echography, ocular pathology, ocular vascular diseases, optometric services, pediatric ophthalmology and adult strabismus, vitreoretinal disorders, and vision rehabilitation.

Continuing Education

The department sponsors clinical conferences open to community ophthalmologists in Iowa and surrounding states where physicians can earn continuing medical education credits. The department also sponsors an annual alumni meeting with participation by nationally and internationally recognized ophthalmologists and vision scientists.

Programs

Professional Program of Study

Certificate

- Certificate in Orthoptics [p. 1933]

MD Training

MD Student Training, Graduate Education

The department offers clinical and research training to MD students. A three-year residency program with clinical experience in the ophthalmic subspecialties is offered to physician trainees. Graduates qualify for the written and oral examinations leading to certification by the American Board of Ophthalmology. Postgraduate fellowships of one to two years are available for qualified ophthalmologists in most subspecialty areas.

Facilities

The department maintains research laboratories for cell biology, biochemistry, morphology, tumor diagnosis, pathology, electrophysiology, pupillography, molecular biology, and vascular disease. Clinical facilities in ophthalmology are available at University of Iowa Health Care in the Pomerantz Family Pavilion, the University of Iowa Stead Family Children's Hospital in the Pediatric Specialty Clinic, the Iowa River Landing, the VA Iowa City Health Care, and the VA Central Iowa Health Care in Des Moines. The department also manages outreach programs in other communities. The John and Marcia Carver Nonprofit Genetic Testing Laboratory, dedicated to providing affordable testing for rare eye diseases, is associated with the department.

Courses

Ophthalmology and Visual Sciences Courses

OPHT:8008 Corneal Medical Student Research Fellowship **0 s.h.**
One-year, full-time membership in established research laboratory in the Department of Ophthalmology or collaborating laboratory. Requirements: MD enrollment.

OPHT:8301 Clinical Ophthalmology **2 s.h.**
All aspects of clinical ophthalmology; clinical experience, lectures, case presentations; clinical duties with staff, residents, and faculty in University of Iowa Health Care and VA Iowa City Health Care ophthalmology clinics. Requirements: MD enrollment.

OPHT:8401 Cornea and Anterior Segment of the Eye **4 s.h.**
Common diseases of eyelid, conjunctiva, and cornea.

OPHT:8402 Elective in Neuro-Ophthalmology **4 s.h.**
Visual, ocular motor dysfunction due to neurologic disease; patient work-up, readings, neuro-ophthalmology rounds.

OPHT:8403 Molecular Ophthalmology **4 s.h.**
Use of recombinant DNA, tissue culture, protein electrophoresis in study of inherited eye diseases.

OPHT:8404 Elective in Ocular Pathology **4 s.h.**
Pathophysiology of eye disease.

OPHT:8405 Advanced Ophthalmology - Veterans Affairs **4 s.h.**
Opportunity for in-depth clinical experience in assessment and management of ophthalmology patients; students serve on the VA Iowa City Health Care ophthalmology team and see outpatients and emergency room visits alongside residents and faculty.

OPHT:8406 Plastic and Reconstructive Surgery **4 s.h.**
Topics in ophthalmic plastic and reconstructive surgery.

OPHT:8497 Research in Ophthalmology **arr.**
Medical research, clinical or laboratory projects; individual study.

OPHT:8498 Ophthalmology On Campus **arr.**

OPHT:8499 Ophthalmology Off Campus **arr.**

Orthoptics, Professional Certificate

Requirements

The professional Certificate in Orthoptics is a postgraduate certificate program. The orthoptic fellowship is offered by the Department of Ophthalmology and Visual Sciences. A baccalaureate degree is required for application.

Orthoptics is an allied health profession and clinical science pertaining to the study of eye movements, visual function, and binocular cooperation. An orthoptist is an eye muscle specialist who works under the supervision of an ophthalmologist.

The majority of the 24-month training period is spent in a clinical setting. At the completion of the training period, candidates take written and practical board examinations administered by the American Orthoptic Council.

The first four to six weeks are spent reviewing general anatomy and physiology and learning the basic anatomy, physiology, and terminology of the eye. Students are introduced to patient examination initially by observation of physicians and orthoptists, and gradually build up their exam skills as each new technique is learned. Over the first six months, optics and principles of strabismus (eye misalignment) and amblyopia (lazy eye) are taught in depth.

In the second six months of training, students expand their knowledge of basic orthoptic and ophthalmologic principles and apply them to a more complete patient examination and diagnostic skills.

The remaining months are spent examining patients in clinic, mastering examination techniques, and differential diagnosis as well as becoming proficient in the interpretation of diagnostic tests. At this stage, orthoptic students participate in the prescription of specific types of nonsurgical therapy. Each week, time is reserved for ophthalmic and orthoptic lectures, personal study time, or testing.

Contact the Department of Ophthalmology and Visual Sciences for information about the Certificate in Orthoptics.

Orthopedics and Rehabilitation

Chair

- J. Lawrence Marsh

Graduate degree: MS in athletic training

Faculty: https://orthopedics.medicine.uiowa.edu/profile/our-leadership

Website: https://orthopedics.medicine.uiowa.edu/

The Department of Orthopedics and Rehabilitation offers a Master of Science degree in athletic training as well as a training program for residents. The department offers multiple education programs that include medical student education, orthopedic resident education, postgraduate education, and graduate athletic trainer education.

Programs

Graduate Program of Study

- Master of Science in Athletic Training [p. 1938]

Residency

The department offers a five-year integrated clinical program for postgraduate trainees, in which interns and residents participate simultaneously in inpatient and outpatient care, surgery, and sciences related to the neuromusculoskeletal system.

Trainees enter this program directly from medical school through the National Residency Matching Program.

During the first year, trainees gain experience not only in clinical orthopedics but also in surgical specialties, intensive care, radiology, and surgical skills.

During years two through five, residents gain experience in the diagnosis and management of adult and pediatric orthopedic disorders, including joint reconstruction; trauma, including multisystem trauma; surgery of the spine, including disk surgery, spinal trauma, and deformities; hand and foot surgeries; athletic injuries and orthopedic rehabilitation; orthopedic oncology, including metastatic disease; and amputations as well as post-amputation care and nonoperative outpatient diagnosis and care, including all orthopedic anatomic areas.

Facilities

The Department of Orthopedics and Rehabilitation is housed in the John Pappajohn Pavilion of University of Iowa Health Care and has an active service in the VA Iowa City Health Care. The department's facilities include 48 orthopedic beds, 10 outpatient clinics, inpatient and outpatient operating rooms, a specialty library, a specialty radiology unit, and physical therapy and rehabilitation facilities. Its specialty clinics deal with virtually every orthopedic disorder known, including, but not limited to scoliosis, club feet, congenital dislocated hip, neuromuscular disease, metabolic disease, amputation, neoplasm, trauma, and neck, back, hip, foot, knee, and hand problems. Physicians in the outpatient clinic see approximately 280 patients per day and over 70,000 patients per year. Approximately 7,000 surgeries are performed each year.

The department's Sports Medicine Clinic provides MRI, X-ray, and physical therapy services, and a full range of nonoperative orthopedic ambulatory care services.

Laboratories

The orthopedics laboratories deal with problems in these major subject areas.

Biochemistry

The biochemistry of proteoglycans, collagens, and matrix proteins, both normal and altered in musculoskeletal disorders.

Biomechanics

Problems of the upper extremity; biomechanics of the spine, hip, and gait; total joint replacements (in conjunction with the College of Engineering [p. 1514]).

Bone Healing

Provides research toward better ways to heal bones.

Cell and Molecular Biology

Studies of normal bone, cartilage, tendon, muscle, and tissues altered by experiment and disease.

Courses

- Orthopedics and Rehabilitation Courses [p. 1934]
- Athletic Training Courses [p. 1935]

Orthopedics and Rehabilitation Courses

ORTH:8301 Clinical Orthopedics **arr.**

ORTH:8402 Advanced Inpatient Subinternship in Orthopedics: Trauma **4 s.h.**
Requirements: fourth-year MD enrollment.

ORTH:8403 Advanced Inpatient Subinternship in Orthopedics: Adult Hip/Knee Reconstruction **4 s.h.**
Opportunity to enhance clinical skills by taking intern-level responsibility for management of a limited number of orthopedic patients; proficiency in perioperative patient assessment and management, including assisting in procedures and using laboratory diagnosis and radiologic studies pertinent to one faculty member's clinical practice.

ORTH:8404 Introduction to Physical Medicine and Rehabilitation **2 s.h.**
Management of a wide range of common acute and chronic neuro-musculoskeletal pain conditions (shoulder, back, knee pain) to more devastating neuromuscular injuries (spinal cord injuries, brain injury, strokes, amputations). Requirements: MD enrollment.

ORTH:8405 Advanced Physical Medicine and Rehabilitation **4 s.h.**
Management of a wide range of common acute and chronic neuro-musculoskeletal pain conditions (shoulder, back, or knee pain) to more devastating neuromuscular injuries (spinal cord injuries, brain injury, strokes, amputations); students work-up individual patients in outpatient clinics and perform inpatient consultations at subintern level. Prerequisites: ORTH:8404. Requirements: MD enrollment.

ORTH:8407 Orthopedics: Adult Hip/Knee Reconstruction 4 s.h.
Development of in-depth skill in physical diagnosis and approach to diseases of the musculoskeletal system; increase ability to establish a differential list of problems to recommend appropriate solutions to each problem and assist in management of problem and solution.

ORTH:8408 Orthopedics: Trauma 4 s.h.
Development of in-depth skills in physical diagnosis and approach to diseases of the musculoskeletal system; increase ability to establish a differential list of problems to recommend appropriate solutions to each problem and assist in management of problem and solution.

ORTH:8409 Orthopedics: Pediatrics 4 s.h.
Development of in-depth skill in physical diagnosis and approach to diseases of the musculoskeletal system; increase ability to establish a differential list of problems to recommend appropriate solutions to each problem and assist in management of problem and solution.

ORTH:8410 Orthopedics: Sports Medicine 4 s.h.
Development of in-depth skill in physical diagnosis and approach to diseases of the musculoskeletal system; increase ability to establish a differential list of problems to recommend appropriate solutions to each problem and assist in management of problem and solution.

ORTH:8411 Orthopedics: Hand/Wrist/Elbow 4 s.h.
Development of in-depth skill in physical diagnosis and approach to diseases of the musculoskeletal system; increase ability to establish a differential list of problems to recommend appropriate solutions to each problem and assist in management of problem and solution.

ORTH:8412 Orthopedics: Spine 4 s.h.
Development of in-depth skill in physical diagnosis and approach to diseases of the musculoskeletal system; increase ability to establish a differential list of problems to recommend appropriate solutions to each problem and assist in management of problem and solution.

ORTH:8413 Orthopedics: Oncology/Tumor 4 s.h.
Development of in-depth skill in physical diagnosis and approach to diseases of the musculoskeletal system; increase ability to establish a differential list of problems to recommend appropriate solutions to each problem and assist in management of problem and solution.

ORTH:8414 Orthopedics: Veterans Affairs 4 s.h.
Participation in the Veterans Affairs service general orthopedics; development of in-depth skill in physical diagnosis and approach to diseases of the musculoskeletal system; increase ability to establish a differential list of problems to recommend appropriate solutions to each problem and assist in management of problem and solution.

ORTH:8415 Orthopedics: Foot/Ankle 4 s.h.
Development of in-depth skill in physical diagnosis and approach to diseases of the musculoskeletal system; increase ability to establish a differential list of problems to recommend appropriate solutions to each problem and assist in management of problem and solution.

ORTH:8416 Physical Medicine and Rehabilitation Acute Inpatient Rehab, Iowa Rehabilitation Hospital 2 s.h.
Physical medicine and rehabilitation clerkship; participation in daily clinical activities including inpatient rounds, interdisciplinary team meetings, observation of a variety of therapy sessions, and inpatient consults.

ORTH:8417 Orthopedics: Shoulder/Elbow 4 s.h.
Development of in-depth skill in physical diagnosis and approach to diseases of the musculoskeletal system; increase ability to establish a differential list of problems, recommend appropriate solutions to each problem, and assist in the management of problems and solutions. Requirements: MD enrollment.

ORTH:8497 Research in Orthopedics arr.
Medical research, clinical or laboratory projects; individual study.

ORTH:8498 Orthopedics On Campus arr.
Requirements: fourth-year MD enrollment.

ORTH:8499 Orthopedics Off Campus arr.
Requirements: fourth-year MD enrollment.

Athletic Training Courses

AT:1010 Exploring Athletic Training 1 s.h.
Exploration of professional preparation for athletic trainers; application, career opportunities, professional organizations, awareness of basic athletic training principles; topics include emergency care, preventative strategies, injury evaluation, and rehabilitation techniques; for students interested in applying to the MS in athletic training program. Requirements: undergraduate major in health and human physiology or enrollment in pre-athletic training program.

AT:1200 CPR and First Aid for Health Care Professions 2 s.h.
Advanced CPR and first aid with automated external defibrillator (AED); opportunity for certification at Basic Life Support (BLS) level through the American Heart Association; satisfies first aid and CPR requirement for athletic training program application; for pre-health care professions majors.

AT:3060 Advanced Anatomy for Athletic Training 4 s.h.
Extremities and relevant body cavity anatomy; anatomical terminology, anatomical relationships of human body, 3D view of anatomy, clinical relevance of anatomy; basic science lectures, radiologic imaging discussions, introduction to clinically relevant anatomy, gross anatomy dissection laboratories, small group learning and teaching, and computer-assisted resources.

AT:4000 Foundations of Athletic Training Practice 3 s.h.
Introduction to athletic training; basic components of a prevention program; injury/illness assessment process including general injury classifications, medical terminology, and patient documentation skills); anatomical basis and technical aspects of applying clinical proficiencies relating to orthopedic applications in the care and prevention of injuries relating to physically active individuals including taping, wrapping, and pad fabrication; basic evaluation skills including goniometric measurements, manual muscle testing, and anatomical palpations.

AT:4075 Medical Emergency Techniques 2 s.h.
Educational competencies and clinical proficiencies; focus on emergency medical practice in athletic training using current evidence-based interventions for medical, orthopedic, and environmental emergencies; knowledge of Emergency Medical Service (EMS) system and role athletic trainers play in the acute-care process; emergency pharmacological interventions and other advanced care skills.

AT:4125 Clinical Experience I 3 s.h.
Integration of clinical competencies through a supervised field experience in athletic training to link theory with practice; exposure of athletic training students to real-life situations relating to evaluation and management of patient injuries/illnesses; development and application of critical thinking skills; first in a four-part series.

AT:4200 Orthopedic Pathology and Clinical Examination I 4 s.h.
Pathomechanics, clinical examination, diagnosis, and appropriate basic treatment plans for orthopedic injuries to the lower extremity and spine; application of theories and skill practice through real-patient interactions and documentation; surgical observation and physician interactions; first in a two-part series.

AT:4250 Orthopedic Pathology and Clinical Examination II 4 s.h.
Pathomechanics, clinical examination, diagnosis, and appropriate basic treatment plans for orthopedic injuries to the upper extremity, head, and C-spine; application of theories and skill practice through real-patient interactions and documentation; surgical observation and physician interactions; second in a two-part series. Prerequisites: AT:4200.

AT:4300 Therapeutic Interventions 3 s.h.
Introduction to theory, application, and treatment of orthopedic conditions using common therapeutic modalities; application of evidence-based research in planning, implementation, documentation, and evaluation of the efficacy of each therapeutic modality in treatment of injuries and illnesses of patients involved in physical activity; emphasis on indications, contraindications, and precautions; integration of patient-based outcome measures to aid in appropriate clinical decision-making.

AT:4375 Nutrition for Athletic Training 2 s.h.
Interaction between nutrition, exercise, and athletic performance; biomechanical and physiological aspects of nutrition and exercise; nutrition for training and competition; impact of nutrition on healing processes, nutritional supplements, and ergogenic aids; nutritional aspects of body composition and weight control; demonstration of ability to plan and implement proper sport nutrition.

AT:4400 Rehabilitation Techniques 3 s.h.
Rehabilitation for athletic trainers based on theory and principles of therapeutic exercise using current evidence-based concepts; focus on pathology and mechanics of exercise therapy in treatment of musculoskeletal injuries; use of mechanical exercise equipment, stressing safety and use of proper body mechanics during exercise, as well as indications and contraindications for different exercises.

AT:4450 Applied Rehabilitation Concepts 3 s.h.
Functional, scientific approach to designing strength and conditioning programs for various populations; testing protocols used for measuring fitness, body composition, flexibility, strength, power, speed, and endurance; evaluation of posture and workplace ergonomics; manual therapy theory and techniques for orthopedic injuries, indications and contradictions, skill development in soft tissue assessment, application of manual and tool-assisted techniques; review of resistance training and program prescription based on literature. Prerequisites: AT:4400.

AT:4525 Clinical Experience II 4 s.h.
Integration of clinical competencies through a supervised field experience in athletic training to link theory with practice; exposure of athletic training students to real-life situations relating to evaluation and management of patient injuries/illnesses; development and application of critical thinking skills; second of a four-part series. Prerequisites: AT:4125.

AT:5000 Pathology and Assessment of Non-Orthopedic Conditions 3 s.h.
Introduction to recognition, assessment, and appropriate intervention or referral strategies for non-orthopedic conditions and disabilities; pathophysiology at cellular, organ, and total body levels applied in each organ system; systems may include cardiovascular, pulmonary, renal, dermatologic, reproductive, endocrine, neurologic, and gastrointestinal; additional topics include gender and pediatric pathology, ENT/ophthalmology, abdominal evaluation, and common contagious illnesses.

AT:5075 Diagnostic Imaging and Lab Studies 1 s.h.
Common diagnostic tests and radiological techniques used commonly by medical community in assessment and diagnosis of common orthopedic and non-orthopedic conditions; students gain knowledge and skills to identify anatomy, pathology, and proper terminology used by health care professionals when discussing diagnostic tests/results; coverage of multiple biological systems and organs of the human body to understand indications, contraindications, and clinical implications for each technique.

AT:5200 Pathophysiology and Pharmacology in Sports Medicine 2 s.h.
Pharmacologic applications for injury/illness sustained by various physically active populations; therapeutic drug classifications, indications, contraindications, interactions of medications, drug testing in sport, and relevant governing regulations; emphasis on drugs commonly used for orthopedic injuries, common conditions and illnesses, mental health and their effects on sport performance, and tissue healing.

AT:6100 Research in Athletic Training 2 s.h.
Identification of an athletic training problem/issue and examination through theories and research; analysis of literature and derivation of evidence-based concepts for clinical decision-making and data-informed practice; use of appropriate academic writing style; differentiation between quantitative and qualitative research; critically responding to research dilemma in a way that aligns professional ethics and values; first in a two-part series.

AT:6125 Clinical Experience III 6 s.h.
Complete professional immersive clinical experience; integration of basic and complex clinical competencies through a supervised clinical experience in athletic training to link theory with practice; exposure of athletic training students to real-life situations relating to evaluation and management of patient injuries/illnesses; development and application of critical thinking skills; third in a four-part series. Prerequisites: AT:4525.

AT:6200 Administration and Leadership 2 s.h.
Overview of organization and administration of athletic training services; topics include organizational structures, human resources, information management, budget and finance, risk management, legal and ethical considerations in health care, purchasing and maintenance of equipment and facilities, and development of policies and procedures for daily operation of athletic training services.

AT:6250 Applied Research in Athletic Training 1 s.h.
Application of research models to athletic training topics; use of appropriate academic writing style; application of basic statistical measures to address clinical problems; continuation and completion of research projects from AT:6100; culminates with dissemination of research findings; second in a two-part series. Prerequisites: AT:6100.

AT:6300 Psychosocial Recognition and Referral 2 s.h.
Psychological factors relative to injury, rehabilitation, and performance; strategies for identifying problems, intervening, and making referrals especially related to psychological disorders, decreased performance, and health/substance abuse; exploration of various theories and models of cultural competence through the lens of sports medicine; students examine and analyze roles of cultural differences including cultural attitudes, beliefs, and expectations as they pertain to effective health care in diverse settings.

AT:6400 Seminar in Athletic Training 2 s.h.
Review of knowledge, skills, and abilities for successful pursuit of athletic training Board of Certification (BOC) credential and processes to obtain employment; résumé development and interviewing skills; emphasis on regulation of practice; professional and ethical responsibilities contributing to practice of athletic training; creation of a professional development plan.

AT:6450 Advanced Topics in Athletic Training 1 s.h.
Investigation and discussion of current events and advanced topics in athletic training and related health professions; evaluation of current professional and legislative issues in athletic training; discussions vary depending on current relevant topics.

AT:6525 Clinical Experience IV 5 s.h.
Integration of clinical competencies through a supervised clinical experience in athletic training to link theory with practice; exposure of athletic training students to real-life situations relating to evaluation and management of patient injuries/illnesses; development and application of critical thinking skills; last in a four-part series. Prerequisites: AT:6125.

Athletic Training, MS

Athletics trainers are health care professionals who render service or treatment under the direction of, or in collaboration with, a physician in accordance with their education and training and the states' statutes, rules, and regulations. Services provided by athletic trainers include injury and illness prevention, wellness promotion and education, emergent care, examination and clinical diagnosis, therapeutic intervention, and rehabilitation of injuries and medical conditions.

Students who want to become certified athletic trainers may earn the MS or pursue the combined program as they earn the BS in exercise science and the MS in athletic training. See the BS in exercise science [p. 522] (College of Liberal Arts and Sciences) in the catalog.

The University of Iowa is accredited by the Commission on Accreditation of Athletic Training Education (CAATE).

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Upon graduation, students will:

- communicate effectively among health care providers, patients, and all other stakeholders in their delivery of health care;
- practice with professionalism and integrity adhering to the Code of Ethics outlined by the National Athletic Trainers' Association (NATA) and the Code of Professional Responsibility by the Board of Certification (BOC);
- demonstrate cognitive and psychomotor competence and clinical proficiency based on clinically relevant research in the following BOC Practice Analysis content areas—injury and illness prevention and wellness promotion; examination, assessment, and diagnosis; immediate and emergency care; therapeutic intervention; and health care administration and professional responsibility;
- demonstrate critical thinking to effectively solve problems in a variety of dynamic athletic training environments;
- demonstrate growth in cultural competence among health care providers, patients, and all other stakeholders in their delivery of health care; and
- demonstrate a Kaizen philosophy in their learning and professional practice.

Requirements

The Master of Science program in athletic training requires 62 s.h. of coursework. Students must maintain a Graduate College program grade-point average of at least 3.00 and must earn a grade of C-minus or higher in all major coursework.

The program involves two full years, including summer sessions, of concentrated didactic and clinical experiences that lead to eligibility for the Board of Certification examination.

The MS in athletic training requires the following work.

Course #	Title	Hours
AT:3060	Advanced Anatomy for Athletic Training	4
AT:4000	Foundations of Athletic Training Practice	3
AT:4075	Medical Emergency Techniques	2
AT:4125	Clinical Experience I	3
AT:4200	Orthopedic Pathology and Clinical Examination I	4
AT:4250	Orthopedic Pathology and Clinical Examination II	4
AT:4300	Therapeutic Interventions	3
AT:4375	Nutrition for Athletic Training	2
AT:4400	Rehabilitation Techniques	3
AT:4450	Applied Rehabilitation Concepts	3
AT:4525	Clinical Experience II	4
AT:5000	Pathology and Assessment of Non-Orthopedic Conditions	3
AT:5075	Diagnostic Imaging and Lab Studies	1
AT:5200	Pathophysiology and Pharmacology in Sports Medicine	2
AT:6100	Research in Athletic Training	2
AT:6125	Clinical Experience III	6
AT:6200	Administration and Leadership	2
AT:6250	Applied Research in Athletic Training	1
AT:6300	Psychosocial Recognition and Referral	2
AT:6400	Seminar in Athletic Training	2
AT:6450	Advanced Topics in Athletic Training	1
AT:6525	Clinical Experience IV	5
Total Hours		**62**

Admission

Admission to the Master of Science program is competitive with a limited number of students admitted for each cohort. Applicants are expected to meet technical standards, pass a background check, and comply with health and safety standards, including vaccination requirements. Students are required to provide their own transportation to all clinical experiences and are responsible for all costs they incur during travel, including parking and gas.

To be considered for the Master of Science program in athletic training, applicants must:

- have completed a BA or BS degree at an accredited institution in the United States, or have completed a bachelor's degree from a Board of Certification for the Athletic Trainer International Arrangement (IA) country;
- have completed 30 s.h. at the University of Iowa if a transfer student;

- complete 80 s.h. of undergraduate coursework at the University of Iowa if an Undergraduate to Graduate (U2G) student;
- have a cumulative undergraduate grade-point average (GPA) of at least 3.00 or a cumulative GPA of at least 3.25 in the Undergraduate to Graduate (U2G) combined program; and
- complete or be in progress with required prerequisite coursework with a grade of C or higher in biology, chemistry, physics, human anatomy, human physiology, exercise physiology, general psychology, biomechanics or kinesiology, nutrition, and statistics or research methods (see the course list that follows).

To apply, submit the following to the Athletic Training Centralized Application Service (ATCAS):

- official and unofficial transcripts;
- contact information of two references, one from a medical professional and one from an academic professional;
- statement of purpose and career goals; and
- current CPR certification obtained within one year—must be Basic Life Support (BLS or professional rescuer level.

Recommended materials:

- Coursework in medical terminology, introductory coursework in athletic training, public health, motor learning, or additional psychology coursework.
- Observation hours under an athletic trainer.

Community college coursework is accepted as well as online coursework from accredited universities. AP and CLEP coursework may satisfy course requirements if listed on a college transcript.

Students must earn a grade of C or higher in these prerequisite courses.

Course #	Title	Hours
Biology (preferred human biology; with or without lab)		3
Biomechanics or kinesiology		3
Chemistry (with or without lab)		3
Exercise physiology		3
Human anatomy (may be taken combined with human physiology; two semesters minimum, if combined)		3
Human physiology (may be taken combined with human anatomy; two semesters minimum, if combined)		3
Nutrition (general or sport)		3
Physics (with or without lab)		3
Psychology (general psychology is required; additional psychology coursework recommended)		3
Statistics or research methods		3

Applications will be forwarded to the Graduate College by the program director. Students will be notified to set up a University of Iowa account and pay the supplemental fee ($60 if offered an interview; $100 for international students).

Applications are reviewed immediately upon submission. Interested students should submit their application materials as soon as possible to ensure a spot is available. Priority admission deadline is Dec. 1 with a standard admission deadline of March 1. Following the March 1 deadline, applications will be accepted continuously until program capacity is met. A waitlist will be used once the cohort is full. A virtual interview is required. Coursework begins during the summer session.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

If formally admitted, students must:

- submit to a background check;
- complete HIPAA and BBP training;
- complete the program technical standards form;
- submit current vaccination records;
- submit current physical examination; and
- provide final course grades and GPA.

These additional forms will be sent directly to the program director upon acceptance.

Admission Deferral Policy

In rare cases, a student may need to defer their admission to the program. These requests will be approved on a case-by-case basis by the program director. The one-time option to defer is good for up to one year beyond the original matriculation date. A student does not have to pay the Graduate College application fee again if they opt to defer. An applicant's data will be transferred to the new session through the graduate admissions office only at the request/approval of the program director. Depending on the situation, the student may need to submit additional/repeat application documents.

Career Advancement

Athletic trainers have opportunities for employment in many areas. They include career options in:

- public and private secondary schools, colleges and universities, professional and Olympic sports;
- youth leagues, municipal and independently owned youth sports facilities;
- physician offices;
- rural and urban hospitals, hospital emergency rooms, urgent and ambulatory care centers;
- clinics with specialties in sports medicine, cardiac rehabilitation, medical fitness, wellness, and physical therapy;
- occupational health departments in commercial settings, which include manufacturing, distribution, and offices to assist with ergonomics;
- police and fire departments, academies, municipal departments, and branches of the military; and
- performing arts areas, including professional and collegiate-level dance and music settings.

Otolaryngology–Head and Neck Surgery

Chair

- Marlan R. Hansen

Website: https://otolaryngology.medicine.uiowa.edu/

The Department of Otolaryngology–Head and Neck Surgery is one of the most comprehensive otolaryngology departments in the world. Founded in 1922, it is among the oldest in the United States. *U.S. News & World Report* has consistently ranked the department's program among the top 10 in the nation.

The department's chief focus areas are education and training, patient care, and research. MD students in the Carver College of Medicine, residents, and fellows benefit from a faculty dedicated to providing thorough training in all aspects of otolaryngology and patient care. Patients in the otolaryngology clinic enjoy access to comprehensive care in any of five subspecialties: pediatric otolaryngology, otology/neurotology, general otolaryngology and rhinology, head and neck oncology, and facial plastic and reconstructive surgery. University of Iowa faculty members from ophthalmology and visual sciences and radiation oncology hold joint appointments in otolaryngology, adding depth to the department's resources.

The department is home to prominent research programs in cleft palate and other craniofacial defects, head and neck oncology, cochlear implants, and molecular genetics. It also offers fellowships in otology/neurotology, pediatric otolaryngology, and head and neck oncology.

The department is located at University of Iowa Health Care.

Fellowships

The Department of Otolaryngology–Head and Neck Surgery offers a two-year fellowship in otology/neurotology and a one-year fellowship in pediatric otolaryngology, which are accredited by the Accreditation Council for Graduate Medical Education. It also offers a one-year fellowship in head and neck oncology accredited by the Advanced Training Council of the American Head and Neck Society.

The otology/neurotology fellowship program accepts one applicant every two years. Otology fellows spend a minimum of 20 months in clinical service. They attend all otology/neurotology clinics and neurotology cases in the operating room and are responsible for inpatient service. They also have one day of dedicated research time each week.

The pediatric otolaryngology fellowship program accepts one applicant each year. Fellows spend a year in clinical service, where they have the opportunity to train with all pediatric otolaryngology faculty members.

One applicant is accepted as a head and neck oncology fellow each year. Training is largely clinical, allowing fellows the opportunity to participate in a variety of procedures, ranging from skull base resection to laryngeal rehabilitation. Fellows routinely perform 35 to 45 free-tissue transfers during one year of training. They also complete a clinical and/or basic science research project relating to head and neck oncology.

Residency

The Department of Otolaryngology–Head and Neck Surgery offers a residency program accredited by the Accreditation Council for Graduate Medical Education. The program has two tracks: a five-year clinical track and a seven-year research track. Five applicants are accepted each year, three to the clinical track and two to the research track.

The clinical track provides five years of concentrated clinical study and application in all aspects of otolaryngology. Residents begin their training with a five-week intensive basic science course divided into an anatomy component and a 100-hour lecture series. The anatomy component includes a supervised cadaver dissection, and the lecture series details the study of otolaryngology and related disciplines. Residents also complete two research rotations in order to explore research areas that interest them.

The research track is a combined clinical research program designed for residents interested in an otolaryngology research career. After an internship year, residents complete two years of research followed by four years of clinical training. The interaction of clinicians and basic scientists from several departments affords residents the opportunity to be involved in a wide spectrum of current research in areas such as electrophysiology of the auditory system, the genetics of head and neck cancer, and gene therapy.

Courses

Otolaryngology–Head and Neck Surgery Courses

OTO:8199 Foundations of Otolaryngology **arr.**
Supervised cadaver head and neck dissection, with 14 areas in detail. Two weeks.

OTO:8301 Clinical Otolaryngology **2 s.h.**

OTO:8401 Subinternship in Otolaryngology **arr.**

OTO:8402 Advanced Otolaryngology **4 s.h.**
Students become proficient in physical examination of the head and neck; increase their ability to diagnose, evaluate, and manage common disorders of the ears, nose, and throat; and work in outpatient clinic, on inpatient services, and in operating room.

OTO:8497 Research in Otolaryngology **arr.**
Medical research, clinical or laboratory projects; individual study.

OTO:8498 Otolaryngology On Campus **arr.**

OTO:8499 Otolaryngology Off Campus **arr.**
Arranged by student with department approval.

Pathology

Chair

- Nitin J. Karandikar

Director, Clinical Functions

- Brad Seaton

Graduate degree: MS in pathology

Faculty: https://pathology.medicine.uiowa.edu/our-people

Website: https://pathology.medicine.uiowa.edu/

The Department of Pathology offers education and training for a broad range of students, from undergraduates through postgraduate fellows and researchers. It provides basic pathology courses to health sciences students, a clinical training program for medical laboratory scientists, a Master of Science program in pathology, residency training programs leading to American Board of Pathology certification in anatomic pathology and clinical pathology, fellowship training in pathology subspecialties, and postdoctoral research training in cellular and molecular pathology.

Undergraduate Education

Pathology courses are a major component of the university's program in Medical Laboratory Science, a Bachelor of Science program that trains medical laboratory scientists; see Medical Laboratory Science [p. 1897] in the catalog.

Postgraduate Training

The Department of Pathology offers postgraduate clinical fellowship programs in hematopathology, transfusion medicine, clinical microbiology, cytopathology, neuropathology, molecular genetic pathology, and surgical pathology for physicians who have completed residency training in pathology. These fellowships consist of one to two years of diagnostic work and research.

The department provides postdoctoral research training in immunology, neuropathology, apoptosis, cancer biology, and clinical microbiology as well as in other areas of cellular and molecular pathology. These positions are open to individuals who have earned a PhD or an MD degree.

Programs

Graduate Programs of Study

- Master of Science in Pathology [p. 1943]
- Experimental pathology subprogram for the Doctor of Philosophy in Biomedical Science

Students interested in doctoral studies in experimental pathology should apply under the umbrella program in Biomedical Science [p. 1698] (select experimental pathology subprogram).

MD Training

The department provides five to seven 12-month fellowships for MD students (pathology externship), for students interested in careers as pathologists, and the Emory Warner Fellowship, a full-time research position in a facet of experimental pathology. It also offers clerkships for MD students in all areas of anatomical and clinical pathology.

Residency

The department offers 20 residency positions in pathology, which provide up to four years of training. Patients at University of Iowa Health Care and the VA Iowa City Health Care are integral to the residency programs.

Residents gain experience in systematic rotation through varied laboratory services, including surgical pathology, autopsy pathology, neuropathology, dermatopathology, cytology, clinical chemistry, clinical microbiology, hematology, immunopathology, molecular pathology, and transfusion medicine. They also have the opportunity to pursue one or two years of additional fellowship training in many pathology subspecialties. To learn more, see Education on the Department of Pathology website.

Facilities

The Department of Pathology is well-equipped to carry out the sophisticated technology of modern cellular and molecular pathology. It administers more than 90,000 square feet of clinical laboratories at University of Iowa Health Care and has individual research and core facility laboratories, including histopathology and laser capture microscopy for cellular and molecular pathology research, in the Medical Research Center, Medical Laboratories, and at the VA Iowa City Health Care. Also available are Carver College of Medicine research facilities for nucleic acid chemistry, hybridoma production, flow cytometry, ultrastructural studies, protein structure, image analysis, electron spin resonance, mass spectroscopy, nuclear magnetic resonance, and laboratory animal care.

Courses

Pathology Courses

PATH:4151 MLS Program Registration **0 s.h.**
Requirements: admission to Medical Laboratory Science Program.

PATH:4201 Laboratory Management **3 s.h.**
Core principles of laboratory management in the current field of clinical laboratory science including basic principles and organizational structure, human resources, finance, and laboratory operations. Develop knowledge of the concepts and principles of lab management and apply these concepts to real-life situations. Requirements: minimum overall GPA of 2.00.

PATH:5270 Pathogenesis of Major Human Diseases **3 s.h.**
Critical analysis of pathogenesis models in a series of major human diseases; clinical presentation, analysis of cellular and molecular events leading to the disease, discussion of key papers. Offered spring semesters. Same as IGPI:5270, MMED:5270.

PATH:5461 Introduction to Morphology in Research **1 s.h.**
Introduction to the histologic examination of organs and tissues utilizing human and/or animal examples; organ identification, comparative morphology, use of histologic techniques (e.g., stains).

PATH:6220 Seminar in Pathology **1 s.h.**
Current research and literature. Requirements: pathology graduate standing.

PATH:7001 Molecular and Cellular Biology of Cancer 3 s.h.
Fundamental aspects of oncology at cellular and molecular levels; mechanisms of cancer initiation and progression, oncogene action, DNA damage and repair, carcinogenesis by radiation, chemicals, viruses; tumor immunology, anticancer therapies. Offered spring semesters. Prerequisites: BMED:5207. Requirements: strong basic science background. Same as CBIO:7001, FRRB:7001.

PATH:7211 Research in Pathology arr.
Basic aspects of pathology or clinical patient material; emphasis on experimental design, methods, literature review, obtaining formal answers to specific questions. Requirements: MD enrollment or graduate standing.

PATH:8007 Medical Student Fellowships in Pathology (Externships) 0 s.h.
First-hand experience in autopsy, surgical and clinical pathology, teaching, and research to further understanding of disease mechanisms, normal and pathologic anatomy, laboratory use.

PATH:8008 Warner Fellowship in Experimental Pathology 0 s.h.
One-year, full-time membership in established research laboratory in the Department of Pathology or collaborating laboratory. Requirements: MD enrollment.

PATH:8133 Introduction to Human Pathology for Graduate Students 2-4 s.h.
Human disease; basic disease processes, organ-related and multisystem diseases; case analysis. Offered fall semesters.

PATH:8302 Pathology 2 s.h.
Introduction to pathology in the medical field. Requirements: MD enrollment.

PATH:8401 Autopsy Pathology Clerkship arr.

PATH:8402 Hematopathology Clerkship arr.

PATH:8403 Surgical Pathology Clerkship arr.

PATH:8404 Transfusion Medicine arr.

PATH:8405 Clinical Microbiology 2,4 s.h.
Students rotate through bacteriology, molecular microbiology, mycology, mycobacteriology, and virology while participating in clinical and technical activities.

PATH:8497 Research in Pathology arr.
Medical research, clinical or laboratory projects; individual study with department approval.

PATH:8498 Pathology On Campus arr.

PATH:8499 Pathology Off Campus arr.

Pathology, MS

The MS program in pathology prepares postbaccalaureate science majors for a range of biomedical careers. Graduate-level coursework provides students with a foundation in cellular and molecular biology, as well as specialized knowledge in pathobiology. A laboratory-intensive thesis project equips trainees with cutting-edge research skills. Students typically complete the program in two and one-half years.

Learning Outcomes

Graduates will be able to:

- demonstrate subject matter expertise in basic cell and molecular biology, biostatistics, and pathobiology/ mechanisms of human disease;
- understand and apply scientific methods allowing for the appropriate development and testing of hypotheses, problem solving, and utilization of current literature and contemporary laboratory approaches;
- understand and apply the need to conduct research using a team-based approach, including ongoing input from the thesis mentor and committee as well as peers within the laboratory and departmental environment;
- understand and apply the key principles of carrying out research and interpreting results using the highest ethical standards; and
- acquire the ability to effectively communicate research goals, approaches, and results using both written and oral means.

Requirements

The Master of Science program in pathology requires a minimum of 30 s.h. of graduate credit, including 21 s.h. of coursework and 9 s.h. of research leading up to the thesis. Students must maintain a Graduate College program grade-point average of at least 2.75.

The MS in pathology requires the following coursework.

Required Coursework

Course #	Title	Hours
All of these:		
PATH:5270/ IGPI:5270/ MMED:5270	Pathogenesis of Major Human Diseases	3
PATH:6220	Seminar in Pathology (taken two semesters for 1 s.h. each)	2
BIOS:4120	Introduction to Biostatistics	3
BMED:5207	Principles of Molecular and Cellular Biology	3
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0

Required coursework results in a basic understanding of molecular and cellular biology, a basic understanding of biostatistics, and an advanced understanding of pathobiology and mechanisms of human disease.

Electives

The remaining graduate-level coursework consists of electives focused on the area or topic related to a student's thesis project. The elective courses are offered by a range of departments on the biomedical campus.

Thesis

The thesis project is carried out under the guidance of the mentor and thesis committee. The committee is composed of a student's mentor and two additional faculty members. In general, the thesis consists of four chapters with the first being a concise review of the literature; the second, materials and methods; and the last two, a scholarly description of the project results. The thesis must be defended before the committee prior to final approval.

For more information, view the Master of Science in Pathology on the Department of Pathology website.

Admission

Applicants must have a bachelor's degree in a science discipline from a regionally accredited American college or university, or an equivalent degree from another country as determined by University of Iowa Admissions. Applicants must also have a minimum grade-point average of 3.00 on a 4.00 scale, or the international equivalent as determined by Admissions. In addition, laboratory-based research experience is highly desired. Graduate Record Examination (GRE) General Test scores are not required to apply.

A subset of applicants will be selected for interviews, conducted either in person or virtually. Admission decisions are determined based on academic performance, research experience, letters of recommendation, personal statements, and interviews.

Students who are applying must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Career Advancement

The MS program in pathology is designed for graduates to advance into research assistant or research scientist positions in academic and private sector laboratories, or to be competitive for advanced degree programs such as the PhD, MBA, or MD.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Pathology, MS

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. must be graduate level coursework. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 2.75 is required. [c]		
	Hours	**0**
First Year		
Fall		
BMED:5207	Principles of Molecular and Cellular Biology	3
PATH:7211	Research in Pathology	2
Elective course [d]		3
	Hours	**8**
Spring		
BIOS:4120	Introduction to Biostatistics	3
PATH:5270	Pathogenesis of Major Human Diseases	3
PATH:6220	Seminar in Pathology	1
PATH:7211	Research in Pathology	2
	Hours	**9**
Second Year		
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
PATH:7211	Research in Pathology	2
Elective course [d]		4
	Hours	**6**
Spring		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
PATH:6220	Seminar in Pathology	1
PATH:7211	Research in Pathology	1
Elective course [d]		3
	Hours	**5**
Third Year		
Fall		
PATH:7211	Research in Pathology	2
Final Exam [e]		
	Hours	**2**
	Total Hours	**30**

a Must include 21 s.h. of graduate level coursework, including electives focused on the area or topic related to a student's thesis project, and 9 s.h. of research leading to thesis; graduate transfer credits allowed upon approval.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Work with faculty advisor to determine appropriate graduate elective coursework and sequence.

e Thesis defense.

Physical Therapy and Rehabilitation Science

Chair

- Richard K. Shields

Graduate degrees: DPT; MA in physical rehabilitation science; PhD in physical rehabilitation science

Faculty: https://pt.medicine.uiowa.edu/our-people

Website: https://pt.medicine.uiowa.edu/

Physical therapists provide services to people with and without impairments, functional limitations, disabilities, or pain from activity, age, injury, disease, and/or surgery. The mission of the Department of Physical Therapy and Rehabilitation Science is to prepare a clinical and scientific workforce that leads patients, health systems, and a diverse society toward greater health. The department achieves this mission by cultivating excellence in education and clinical practice, discovering and disseminating new knowledge, and developing leaders who serve the profession and society.

The department's guiding principles are articulated through their priorities, focusing on creative people, operational efficiency, innovative discovery, and offering a high-value education. Their team of faculty, staff, and students use these priorities to organize and develop annual goals and strategies to address rapid changes in education, research, and healthcare. These priorities are designed to stimulate continual reflection and discussion about present and future needs to advance the profession, University of Iowa Health Care, the Carver College of Medicine, and the University of Iowa. The Department of Physical Therapy and Rehabilitation Science is located in the Carver College of Medicine on the University of Iowa health sciences campus.

Programs

Graduate Programs of Study

- Doctor of Physical Therapy [p. 1951]
- Master of Arts in Physical Rehabilitation Science [p. 1950]
- Doctor of Philosophy in Physical Rehabilitation Science [p. 1954]

Facilities

The department has state-of-the-art independent research laboratories and is well-equipped for classroom and laboratory instruction and innovative research. The department's state-of-the-art research facilities include the Movement and Rehabilitation Laboratory and a spinal cord research laboratory at University of Iowa Health Care, the Human Movement Control/Performance Laboratory, the Neurobiology of Pain Laboratory, the Neuromuscular Biomechanics Laboratory, the Human Integrative and Cardiovascular Physiology Laboratory, the Applied Neuroplasticity Laboratory, the Human Performance and Clinical Outcomes Laboratory, and the Movement, Imaging, and Rehabilitation Laboratory.

Courses

Physical Therapy and Rehabilitation Science Courses

PTRS:5100 Professional Issues and Ethics 1 s.h.
Contemporary issues in clinical practice and professional development; legal and ethical perspectives on human rights, ethical theory and principles for analyzing and acting on ethical problems; professional and peer relationships.

PTRS:5101 Introduction to Physical Therapy Practice 2 s.h.
Professional development of physical therapists; evolution of profession; analysis of current role in health care and public health with respect to societal health challenges; patient management terminology including medical terminology and language utilized in the *Guide to Physical Therapist Practice*; concepts of enablement models and disablement models, including World Health Organization's *International Classification of Functioning, Disability and Health* model in the biopsychosocial model of health; introduction to evidence-based practice principles.

PTRS:5102 Principles of Physical Therapy I 2 s.h.
Patient management skills: fostering therapeutic alliance, history taking, systems review, positioning, draping, transfers, body mechanics, assisted gait, wheelchairs, and negotiation of architectural barriers.

PTRS:5103 Principles of Physical Therapy II 2 s.h.
Continuation of PTRS:5102; expansion of existing skills and provides new learning experiences in documentation, assessment of joint range of motion/goniometry, manual muscle testing, preambulatory intervention strategies, gait analysis; musculoskeletal, neuromuscular, and integumentary systems review. Prerequisites: PTRS:5102.

PTRS:5131 Therapeutic Physical Agents 2 s.h.
Theoretical and practical applications for safe, effective use of physical agents (superficial and deep heat, cold, hydrotherapy), electrotherapeutic modalities (biofeedback, NMES, TENS, iontophoresis); massage and soft tissue mobilization; emphasis on problem solving, clinical decision-making.

PTRS:5144 Interprofessional Education I: Team-Based Approach to Health Care 1 s.h.
Learn the foundations of interprofessional, team-based health care practice; orientation to interprofessionalism and population health; learn about peer professions and process a simulated patient case. Assignments provide opportunities for reflection on professional roles and interprofessional teamwork.

PTRS:5201 Musculoskeletal Therapeutics I 3 s.h.
Musculoskeletal techniques and biomechanical principles applied to assessment and evaluation of common orthopedic problems of the spine; problem solving, case-study approach to clinical methods, skill acquisition.

PTRS:5205 Health Promotion and Wellness 3 s.h.
Overview of health promotion, fitness, and wellness strategies, including information on levels of health promotion, risk assessment, applied physiology (skeletal muscle, energy metabolism, and physiological responses to exercise), exercise testing and training guidelines, body composition assessment, and development of individual weight management and exercise training programs; classroom and laboratory experiences.

PTRS:5206 Cardiopulmonary Therapeutics 3 s.h.
Cardiorespiratory anatomy, physiology, and application of basic concepts, techniques in management of patients with acute and chronic cardiac, pulmonary disorders; laboratories.

PTRS:5209 Surface Anatomy 1 s.h.
Laboratory teaching activities that parallel the human anatomy course; observation, palpation, and problem solving skills; upper- and lower-limb, head and neck, thorax, and abdomen.

PTRS:5210 Kinesiology and Pathomechanics 4 s.h.
Normal and pathological movement based on understanding of muscle mechanics, segment and joint mechanics, muscle function; instructor- and student-centered learning experiences; integrative human movement system laboratories.

PTRS:5212 Human Pathology for the Physical Therapist 3 s.h.
Students gain a cursory understanding of the physiologic mechanisms of human health and pathologic mechanisms of disease; emphasis on morphologic changes of cells and tissues, identification of causes of change (etiology), mechanisms of development (pathogenesis), and clinical manifestations of specific disease processes; influence of disease and medical diagnosis on physical therapy practice and physical therapy diagnosis.

PTRS:5215 Applied Clinical Medicine 2 s.h.
Pathological disorders frequently encountered by physical therapists in clinical practice, addressed by physicians and health professionals who are not physical therapists; physical therapy management.

PTRS:5235 Case-Based Learning I 1 s.h.
Small group case study seminars and simulated patient instructor learning experiences; clinical problems coordinated with concurrent courses; student-centered, problem-based learning format with emphasis on evidence-based practice objectives. First in a two-course sequence.

PTRS:5236 Case-Based Learning II 1 s.h.
Small-group case study seminars and simulated patient instructor learning experiences; clinical problems coordinated with concurrent courses taken in curriculum; student centered, problem-based learning format; emphasis on evidence-based practice objectives. Second in a two-part series of integrated courses. Prerequisites: PTRS:5235.

PTRS:5790 Integrated Clinical Education in Physical Therapy I 1 s.h.
Integrated clinical experiences in area physical therapy clinics; overview of diverse nature of practice through half-day experiences; basic skills in examination, intervention, and documentation.

PTRS:5791 Integrated Clinical Education in Physical Therapy II 1 s.h.
Continuation of PTRS:5790; integrated clinical experiences in area physical therapy clinics; overview of diverse nature of practice through full-day clinical experiences; basic skills in examination, intervention, and documentation. Prerequisites: PTRS:5790. Requirements: Doctor of Physical Therapy program enrollment.

PTRS:6120 Physical Therapy Management and Administration I 2 s.h.
The changing U.S. health care system; physical therapy services across continuum of care, reimbursement to health care providers, mechanisms for controlling costs while providing quality care; clinical vignettes, small group problem solving.

PTRS:6121 Physical Therapy Management and Administration II 1 s.h.
Principles of management in physical therapy practice; historical perspective, current health care environment; business principles; marketing, managing risk, medical/legal concerns, professional and personal growth and development.

PTRS:6122 Psychosocial Aspects of Patient Care 1 s.h.
Emotional reactions to illness/trauma; social determinants of health; recognition of mental illness in physical therapy examination and intervention; psychosocial aspects of disability as they relate to patient-physical therapist interaction; effective communication strategies; cultural competence in professional behavior and patient care.

PTRS:6133 Pain Mechanisms and Treatment 1-2 s.h.
Introduction to basic science mechanisms, assessment, and management of pain; basic science mechanism involved in transmission and perception of painful stimuli after tissue injury, assessment and physical therapy management of pain; emphasis on scientific principles and published literature to support treatment techniques.

PTRS:6134 Physical Therapy Management of Integumentary System 2 s.h.
Overview of physical therapy examination and management of the integumentary system; wound pathology, diagnosis associated with the integumentary system, inflammation and repair, examination and reexamination techniques, documentation, clinical decision-making, lecture and laboratory formats; interventions, including patient/client information, physical agents, electrotherapy, wound dressing.

PTRS:6143 Selected Topics in Physical Therapy Practice 2 s.h.
Specialty area of practice including wheelchair seating and prescription, pelvic health, home assessment, durable medical equipment (DME) recommendations, and geriatrics; topics dictated by changing needs of health care and the profession; emphasis on clinical decision-making, synthesis and evaluation of information with respect to first-year physical therapy curriculum.

PTRS:6145 Interprofessional Education II: Communication, Teaching, and Learning 1 s.h.
Practical skills for effective communication, teaching, and learning in contemporary interprofessional practice. Learning experiences include workshop-based training in teaching, culminating in opportunities to teach functional anatomy to year-one medical students. Hone therapeutic communication skills, including patient education, and work as teams to select and administer appropriate neuromusculoskeletal examination techniques. Interact with clinicians from peer professions; explore fundamentals of co-treatment and effective interprofessional communication.

PTRS:6170 Management of People With Prosthetic and Orthotic Needs 2 s.h.
Physical therapy management and assessment of patients in need of prosthetic and orthotic devices; principles and components of prosthetic and orthotic design and use.

PTRS:6172 Radiology/Imaging for Physical Therapists 2 s.h.
Basic principles and procedures for acquisition and interpretation of radiology and imaging in clinical practice and research; plain film radiographs, CT, MRI, other common imaging modalities; case-based, multidisciplinary approach.

PTRS:6173 Differential Diagnosis in Physical Therapy 2 s.h.
Use of physical therapy examination and evaluation skills to diagnose physical therapy problems; focus on use of good clinical decision-making skills when analyzing a patient's history and administering physical therapy tests and measures to confirm or rule out differential diagnoses; components of the medical examination; importance of collaboration between therapists and other health professionals; interactive case studies presented by clinical experts.

PTRS:6176 Pharmacology for Physical Therapists 3 s.h.
Contemporary pharmacology; overview of basic pharmokinetic and pharmacodynamic principles; relation of drug therapy to therapeutic interventions provided by physical therapists; small group clinical case presentations.

PTRS:6200 Pediatric Physical Therapy 2 s.h.
Preparation for physical therapy practice in pediatric settings using interdisciplinary family-centered practice; normal and abnormal development, standardized assessment, service-delivery settings, interventions, management strategies specific to pediatrics.

PTRS:6202 Musculoskeletal Therapeutics II 3 s.h.
Pathology, assessment, management of orthopedic disorders of the upper quarter; problem-solving approach to evaluation and management of patients with musculoskeletal conditions. Prerequisites: PTRS:5201.

PTRS:6203 Musculoskeletal Therapeutics III 4 s.h.
Pathology, assessment, management of orthopedic disorders of the lower quarter; problem-solving approach to evaluation and management of patients with musculoskeletal conditions. Prerequisites: PTRS:6202.

PTRS:6204 Progressive Functional Exercise 2 s.h.
Therapeutic exercise options (e.g., isometrics, isotonics, isokinetics, plyometrics, endurance exercises, stretching exercises) and training principles; application to functional activities, including those of daily living, work, recreation, and sport; laboratory component.

PTRS:6224 Activity-Based Neural and Musculoskeletal Plasticity in Health Care 4 s.h.
Examination of neural, muscular, and skeletal plasticity to increased and decreased use in normal and pathological states (chronic inactivity, obesity, metabolic syndromes, orthopedic and neurological injuries); principles of genetic regulation with physical activity including underlying mechanisms contributing to acute and chronic adaptations of muscle, spinal circuitry, and supra-spinal centers; integration of movement control concepts through contemporary papers evaluating short and long latency reflexes, posture and balance control, spasticity, and motor learning in individuals with acute and chronic perturbations to the nervous system.

PTRS:6225 Neuromuscular Therapeutics 3 s.h.
Evidence-based application of clinical neuroscience, motor control, and learning principles to practice of neurological physical therapy; approaches to evaluation and therapeutic intervention for clients with adult-onset neurological conditions, with emphasis on examination, developing a diagnosis, clinical decision-making, and prescribing interventions that help clients accomplish goals. Prerequisites: PTRS:6224.

PTRS:6237 Community Outreach and Engagement I 1 s.h.
Outreach and engagement activities with individuals and organizations in the community; students select service learning experiences from current community partners, or may suggest their own idea, and develop their individual learning goals for these experiences; discussion and written assignments focus on reflection of student experiences with persons who are different than themselves, and on social responsibility, advocacy, and professionalism in the field of physical therapy; first in a two-course series.

PTRS:6238 Community Outreach and Engagement II 1 s.h.
Outreach and engagement activities with individuals and organizations in the community; students select from current community partners, or may suggest their own idea, and develop their individual learning goals for these experiences; discussion and written assignments focus on reflection about student experiences with persons who are different than themselves, and on social responsibility, advocacy, and professionalism in the field of physical therapy; second in a two-course series. Prerequisites: PTRS:6237.

PTRS:6250 Critical Inquiry I: Evidence-Based Practice 2 s.h.
Topics relevant to evidence-based practice and research design; identification of appropriate questions for research and clinical applications, location and evaluation of available evidence, identification of issues that affect validity of research designs, interpretation of basic statistical analyses.

PTRS:6251 Critical Inquiry II: Rehabilitation Research 2 s.h.
Experience conducting group research projects under faculty supervision; data collection and analysis, manuscript preparation, oral defense of research findings during a formal poster presentation. Prerequisites: PTRS:6250.

PTRS:6252 Critical Inquiry III: Clinical Application 1 s.h.
Principles and procedures learned in PTRS:6250 and PTRS:6251 applied to a clinical setting; students write and present a case report with an evidence-based practice focus, using a clinical case from their final internships. Prerequisites: PTRS:6251. Requirements: Physical Therapy and Rehabilitation Science program enrollment.

PTRS:6253 Functional Neuroanatomy arr.
Basic principles of neuroanatomy and neurophysiology; emphasis on human central nervous system; laboratory emphasis on anatomical study of spinal cord and brain. Offered spring semesters. Requirements: physical therapy and rehabilitation science enrollment or graduate standing. Same as ACB:6252.

PTRS:6792 Integrated Clinical Education in Physical Therapy IV 1 s.h.
Two-week, full-time clinical experience in physical therapy clinics under guidance of physical therapists; theory and practice of physical therapy procedures, competence building in basic skills. Prerequisites: PTRS:6793. Requirements: Doctor of Physical Therapy Program enrollment.

PTRS:6793 Integrated Clinical Education in Physical Therapy III 3 s.h.
Six-week, full-time clinical education experience in a rural health environment. Prerequisites: PTRS:5791. Requirements: Doctor of Physical Therapy program enrollment.

PTRS:6794 Terminal Clinical Education in Physical Therapy I 4 s.h.
Nine week, full-time clinical education experience divided among various settings; development of competence in independent examination, evaluation, and treatment of patients under supervision of clinical faculty. Prerequisites: PTRS:6792. Requirements: Doctor of Physical Therapy program enrollment.

PTRS:6795 Terminal Clinical Education in Physical Therapy II 4 s.h.
Nine-week, full-time clinical education experience divided among various settings; development of competence in independent examination, evaluation, and treatment of patients under supervision of clinical faculty. Prerequisites: PTRS:6794. Requirements: Doctor of Physical Therapy program enrollment.

PTRS:6796 Terminal Clinical Education in Physical Therapy III 4 s.h.
Nine-week, full-time clinical education experience divided among various settings; development of competence in independent examination, evaluation, and treatment of patients under supervision of clinical faculty. Prerequisites: PTRS:6795. Requirements: Doctor of Physical Therapy program enrollment.

PTRS:7812 Biomedical Instrumentation and Measurement 3 s.h.
Introduction to biomedical instrumentation and measurement; understanding sources of error and noise in biomedical research applications; basic circuit analysis, calibration of measurement tools, A/D conversion, digital filtering; lab components. Offered fall semesters of even years.

PTRS:7820 Seminar in Rehabilitation Science 1 s.h.
Exploration of research related to rehabilitation science; lectures by faculty, graduate students, and guest scholars with expertise in areas relevant to rehabilitation science (e.g., neuroscience, physiology, medicine, engineering, pharmacology, integrated physiology).

PTRS:7826 Scientific Writing in Rehabilitation Science 2 s.h.
Knowledge of and experience related to scientific writing, critical review of scientific literature, publication in the biomedical sciences, thesis/dissertation writing, grant writing, scientific presentation, writing used in academic and scientific careers.

PTRS:7875 Analysis of Activity-Based Neural and Musculoskeletal Plasticity 3 s.h.
Examination of neural, muscular, and skeletal plasticity to increased/decreased use in normal and pathological states (chronic inactivity, obesity, metabolic syndromes, orthopedic and neurological injuries); genetic regulation with physical activity and underlying mechanisms contributing to acute and chronic adaptations of muscle, spinal circuitry, and supra-spinal centers; integration of movement control concepts through contemporary papers evaluating short and long latency reflexes, posture and balance control, spasticity, and motor learning in individuals with acute and chronic perturbations to the nervous system; individual research projects.

PTRS:7880 Teaching Practicum arr.
Individual instruction, observation, experimentation in teaching, guidance, analysis of evaluation processes in Physical Therapy and Rehabilitation Science.

PTRS:7884 Practicum in Research arr.
Laboratory experiences connected with investigative process; individual instruction, observation, activities in methodological development, data acquisition, data analysis aspects of research.

PTRS:7895 Advanced Seminar in Rehabilitation Science arr.
Current status of research for biological, mechanical, psychological components pertinent to cardiopulmonary, musculoskeletal, neuromuscular areas of rehabilitation science; preparation for comprehensive exam.

PTRS:7899 Introduction to Pain: Overview of Theories, Concepts, and Mechanisms 1 s.h.
Overview of pain concepts and mechanisms; general overview of pain, models of pain, peripheral and central mechanisms, and pain inhibition. Requirements: prior neuroscience course.

PTRS:7900 Rehabilitation Research Capstone Project arr.
Specific phases of the research process; development of a research question and associated hypotheses, collection and analysis of data, interpretation and discussion of the information's meaning; presentation to sponsoring mentor's laboratory/program, and written document.

PTRS:7901 Clinical Correlates of Pain: Syndromes and Management 1 s.h.
Common pain conditions and management of pain using an interdisciplinary focus; lectures by University of Iowa Hospitals and Clinics clinicians on a variety of acute and chronic pain conditions and management approaches. Requirements: prior neuroscience course.

PTRS:7902 Molecular, Cellular, and Neural Mechanisms of Pain 2 s.h.
Basic science mechanisms of pain and pain modulation; understanding molecular basis for pain in nociceptive afferents (peripheral sensitization), underlying molecular and neuronal mechanisms of central processing of pain (central sensitization), cortical pain processing, animal and human experimental pain models; readings from past and current literature. Prerequisites: PTRS:7899. Requirements: prior neuroscience course.

PTRS:7903 Rehabilitation Management of Pain 1 s.h.
Basic principles of rehabilitation for pain control including education, exercise, and electrophysical modalities; evidence-based approach to rehabilitation covering mechanisms of action and clinical effectiveness; case studies. Prerequisites: PTRS:7899 and PTRS:7901.

PTRS:7925 Independent Study arr.
Problem-solving experience in physical therapy; commensurate with student's interest, ability.

PTRS:7927 Research in Rehabilitation Science arr.
Placement of physical therapy on sound scientific base; therapy; initiation, refinement, establishment of methods in physical therapy evaluation, treatment; direct clinical and laboratory approach, philosophical treatise, or research proposal.

PTRS:7930 Critical Thinking in Neuro-Mechanical Systems arr.
Problem solving experience in neuro-mechanical systems, commensurate with student interest, ability.

PTRS:7931 Critical Thinking in Pain arr.
Problem solving experience in pain, commensurate with student interest, ability.

PTRS:7932 Critical Thinking in Biomechanics and Human Performance Assessment **arr.**
Problem solving experience in biomechanics and human performance assessment, commensurate with student interest, ability.

PTRS:7933 Critical Thinking in Activity-Based Plasticity **arr.**
Problem solving experience in movement control/human performance, commensurate with student interest, ability.

PTRS:7934 Critical Thinking in Neural Plasticity **arr.**
Problem solving experience in neural plasticity, commensurate with student interest, ability.

PTRS:7935 Critical Thinking in Movement Science **arr.**
Problem solving experience in movement science, commensurate with student interest; ability.

PTRS:7936 Critical Thinking in Cardiovascular Physiology **arr.**
Problem solving experience in cardiovascular physiology, commensurate with student interest, ability.

PTRS:7990 Thesis: Rehabilitation Science **arr.**
Investigative process: formulation of problem, literature search and analysis, procedure for collecting data, data analysis, organization and writing of thesis proposal, thesis.

Physical Rehabilitation Science, MA

The Master of Arts in physical rehabilitation science is granted to students working toward the Doctor of Philosophy in physical rehabilitation science.

Learning Outcomes

Graduates will be prepared for research appointments that emphasize research in rehabilitation science. They will possess:

- theoretical and scientific knowledge to perform basic, applied, or clinical-level original research that leads to scientific presentations, publication in peer-reviewed journals, and competition for extramural funding through scientific grant writing; and
- breadth of knowledge in exercise physiology, biomechanics, neuroscience, or motor control specialty areas as they relate to impairment, functional limitation, and disability.

Requirements

The Master of Arts in physical rehabilitation science is awarded to students pursuing knowledge about the underlying science of rehabilitation. The MA degree does not prepare students to practice physical therapy. Students often work toward the Doctor of Philosophy in physical rehabilitation science with the goal of promoting scholarship in the field. See the PhD in physical rehabilitation science [p. 1954] in this section of the catalog.

Doctor of Physical Therapy, DPT

The Doctor of Physical Therapy (DPT) is the entry-level professional degree for physical therapists. Based on the number of outstanding applicants, approximately 50 students are annually enrolled in the DPT program.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Graduates will be prepared to:

- examine, evaluate, treat, and prevent impairments, functional limitations, and disabilities;
- maintain and promote fitness, health, and quality of life; and
- ensure availability, accessibility, and excellence in the delivery of physical therapy services to patients/clients.

As essential participants in the health care delivery system, graduates will be:

- prepared to assume leadership roles in prevention and health maintenance programs, in the provision of rehabilitation services, and in professional and community organizations; and
- able to play important roles in developing health policy and appropriate standards as well as assessing clinical outcomes for the various elements of physical therapy practice.

Requirements

The Doctor of Physical Therapy requires a minimum of 104 s.h. and is completed in two and a half years. Students must maintain a Graduate College program grade-point average of at least 3.00.

The Doctor of Physical Therapy Program at the University of Iowa is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE). Satisfactory completion of the professional program qualifies candidates to take the National Physical Therapy Exam for licensure to practice. The minimum passing score on the exam is the same in all jurisdictions.

The Doctor of Physical Therapy degree requires the following coursework.

First Year, Summer

Course #	Title	Hours
PTRS:5101	Introduction to Physical Therapy Practice	2
PTRS:5102	Principles of Physical Therapy I	2
PTRS:5205	Health Promotion and Wellness	3

First Year, Fall

Course #	Title	Hours
PTRS:5100	Professional Issues and Ethics	1
PTRS:5103	Principles of Physical Therapy II	2
PTRS:5209	Surface Anatomy	1
PTRS:5210	Kinesiology and Pathomechanics	4
PTRS:5212	Human Pathology for the Physical Therapist	3
PTRS:5235	Case-Based Learning I	1
PTRS:5790	Integrated Clinical Education in Physical Therapy I	1
ACB:5108	Human Anatomy	5

First Year, Spring

Course #	Title	Hours
PTRS:5131	Therapeutic Physical Agents	2
PTRS:5144	Interprofessional Education I: Team-Based Approach to Health Care	1
PTRS:5201	Musculoskeletal Therapeutics I	3
PTRS:5206	Cardiopulmonary Therapeutics	3
PTRS:5215	Applied Clinical Medicine	2
PTRS:5236	Case-Based Learning II	1
PTRS:5791	Integrated Clinical Education in Physical Therapy II	1
PTRS:6253	Functional Neuroanatomy	4

Second Year, Summer

Course #	Title	Hours
PTRS:6120	Physical Therapy Management and Administration I	2
PTRS:6143	Selected Topics in Physical Therapy Practice	2
PTRS:6176	Pharmacology for Physical Therapists	3
PTRS:6793	Integrated Clinical Education in Physical Therapy III	3

Second Year, Fall

Course #	Title	Hours
PTRS:6122	Psychosocial Aspects of Patient Care	1
PTRS:6134	Physical Therapy Management of Integumentary System	2
PTRS:6145	Interprofessional Education II: Communication, Teaching, and Learning	1
PTRS:6170	Management of People With Prosthetic and Orthotic Needs	2
PTRS:6200	Pediatric Physical Therapy	2
PTRS:6202	Musculoskeletal Therapeutics II	3

PTRS:6224	Activity-Based Neural and Musculoskeletal Plasticity in Health Care	4
PTRS:6237	Community Outreach and Engagement I	1
PTRS:6250	Critical Inquiry I: Evidence-Based Practice	2
One of these (with advisor approval):		1
PTRS:7930	Critical Thinking in Neuro-Mechanical Systems	1
PTRS:7931	Critical Thinking in Pain	1
PTRS:7932	Critical Thinking in Biomechanics and Human Performance Assessment	1
PTRS:7933	Critical Thinking in Activity-Based Plasticity	1
PTRS:7934	Critical Thinking in Neural Plasticity	1
PTRS:7935	Critical Thinking in Movement Science	1
PTRS:7936	Critical Thinking in Cardiovascular Physiology	1

Second Year, Spring

Course #	Title	Hours
PTRS:6121	Physical Therapy Management and Administration II	1
PTRS:6133	Pain Mechanisms and Treatment	2
PTRS:6172	Radiology/Imaging for Physical Therapists	2
PTRS:6173	Differential Diagnosis in Physical Therapy	2
PTRS:6203	Musculoskeletal Therapeutics III	4
PTRS:6204	Progressive Functional Exercise	2
PTRS:6225	Neuromuscular Therapeutics	3
PTRS:6238	Community Outreach and Engagement II	1
PTRS:6251	Critical Inquiry II: Rehabilitation Research	2
PTRS:6792	Integrated Clinical Education in Physical Therapy IV	1

Third Year, Summer

Course #	Title	Hours
PTRS:6794	Terminal Clinical Education in Physical Therapy I	4

Third Year, Fall

Course #	Title	Hours
PTRS:6252	Critical Inquiry III: Clinical Application	1
PTRS:6795	Terminal Clinical Education in Physical Therapy II	4
PTRS:6796	Terminal Clinical Education in Physical Therapy III	4

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. They must have completed a baccalaureate degree and all prerequisite coursework from an accredited institution in the United States, or anticipate completing the degree before enrolling in the DPT program. They must have a cumulative grade-point average (GPA) of at least 3.00 and must have completed the following prerequisite coursework, preferably with a GPA of at least 3.00.

All applicants must take the Graduate Record Examination (GRE) General Test. They must take the test early enough for their scores to be received prior to the application deadline.

Prerequisite Science Courses

All science courses should include the appropriate laboratory instruction, if available. The prerequisite courses must be taken for a letter grade. Credit awarded through advanced placement testing may be applied to the prerequisites as indicated below.

Biological Sciences

8 s.h. of introductory biology courses plus one advanced biology course, or AP biology credit plus 8 additional s.h. of biology including at least one advanced biology course, equivalent to 12 s.h.

Physiology

A systemic human physiology course, preferably with a lab component, equivalent to 3 s.h., or a two-course sequence of anatomy and physiology, preferably with a lab component, equivalent to 6 s.h., can fulfill the physiology and anatomy prerequisites.

Anatomy

Human or comparative vertebrate anatomy, preferably with a lab component, equivalent to 3 s.h., or a two-course sequence of anatomy and physiology, preferably with a lab component, equivalent to 6 s.h., can fulfill the physiology and anatomy prerequisites.

Physics

A complete introductory series equivalent to 8 s.h.

Chemistry

A complete introductory series equivalent to 8 s.h.

Psychology

The equivalent of 6 s.h. of psychology courses, or AP psychology credit plus one additional psychology course beyond the introductory level.

Mathematics

A college-level mathematics course at the level of trigonometry or higher, equivalent to 3 s.h., or AP credit.

Statistics

A statistical methods course equivalent to 3 s.h.

Applications

Applications are submitted online through the Physical Therapist Centralized Application Service (PTCAS). PTCAS

allows applicants to use a single application and one set of materials to apply to multiple physical therapy programs. Once the application portfolio is complete with PTCAS, they will forward it to the University of Iowa.

See Application Timeline on the Department of Physical and Rehabilitation Therapy website for the application timeline.

The physical therapy admissions committee requests personal, on-campus interviews. Since the number of students admitted into each class is limited, not all who apply for admission are invited for an interview.

Background Checks

Enrollment in the Doctor of Physical Therapy program is contingent on a successful criminal background check. Drug screening may be required for some clinical rotations. These costs are the responsibility of the applicant.

Expenses

Applicants admitted to the DPT program must make an advance tuition payment which is forfeited if the applicant does not enroll. In addition to paying University of Iowa tuition and fees plus departmental fees, students are assessed laboratory fees for the human anatomy and neuroanatomy courses and are responsible for purchasing supplies, such as lab coats. Students are also responsible for all costs associated with professional development and clinical experiences.

All students are required to comply with the pre-entry and periodic health screening program developed by Student Health in cooperation with University of Iowa Health Care. All costs incurred for the health screenings are the student's responsibility. Students are also required to have health insurance.

Career Advancement

The employment outlook for physical therapy graduates is strong. Opportunities exist for professional practice in inpatient, outpatient, and community-based organizations. These include general or specialized hospitals, programs for children with disabilities, private physical therapy clinics, extended care facilities, nursing homes, community and governmental agencies, rehabilitation centers, the armed forces, foreign service, home health agencies, school systems, fitness centers, and athletic facilities. Teaching and research positions also are available as well as options for successful self-employment.

Physical therapists report a very high level of job satisfaction, driven both by prevalent employment opportunities and social interaction.

Physical Rehabilitation Science, PhD

Through coursework and participation in research, the Doctor of Philosophy program in physical rehabilitation science emphasizes the development of an individual's expertise as a researcher in rehabilitation science.

Learning Outcomes

Graduates who complete the program are prepared for academic appointments that emphasize research, scholarship, and teaching. They possess:

- theoretical and scientific knowledge to perform basic, applied, or clinical-level original research that leads to scientific presentations, publication in peer-reviewed journals, and competition for extramural funding through scientific grant writing;
- breadth of knowledge in exercise physiology, biomechanics, neuroscience, or motor control specialty areas as they relate to impairment, functional limitation, and disability; and
- theoretical and practical skills required for college or university teaching at the professional entry and advanced graduate levels.

Requirements

The Doctor of Philosophy in physical rehabilitation science requires a minimum of 72 s.h. of graduate credit. Students must maintain a UI cumulative grade-point average of at least 3.00.

The program is designed to advance a student's ability to independently develop and carry out research that establishes the scientific basis for the prevention, evaluation, and treatment of impairments, functional limitations, and disability. The curriculum is flexible enough to accommodate research focusing on basic, applied, or clinical studies in the rehabilitation sciences. Students have access to the program's research laboratories (see Facilities [p. 1945] in this section of the catalog).

Curriculum

Students and their faculty advisors develop an individualized study plan. A preliminary study plan is developed within the first year of study for full-time students and within the second year of study for part-time students; a final plan is submitted to the Graduate College when the PhD comprehensive examination is scheduled.

To ensure breadth of knowledge, all students complete specific core, research, and scientific specialty area content courses. Elective courses are selected to provide in-depth study of the specialty; they are complemented by an advanced seminar course specific to a student's specialty and taken in preparation for the comprehensive examination.

Students must satisfactorily complete the comprehensive examination, which is taken after all required coursework is completed. Doctoral study culminates with 12 s.h. of thesis research and an oral examination.

General Core Requirement

PhD students must complete the following core requirements. In addition to the following courses, the Collaborative Institutional Training Initiative (CITI)—online, web-based training—must be completed before a student enrolls in BMED:7270 and BMED:7271.

Course #	Title	Hours
All of these:		
PTRS:7812	Biomedical Instrumentation and Measurement	3
PTRS:7820	Seminar in Rehabilitation Science (taken twice for 1 s.h. each)	2
PTRS:7880	Teaching Practicum	arr.
BIOS:5120/ IGPI:5120/ STAT:5610	Regression Modeling and ANOVA in the Health Sciences	3
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II	0
PSQF:7385/ CSED:7385/ EDTL:7385/ EPLS:7385/ GRAD:7385	Teaching and Learning in Higher Education	3
One of these:		
BIOS:4120	Introduction to Biostatistics	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Research Requirement

Students complete at least 27 s.h. from the following. The capstone course PTRS:7900 is recommended but not required for students who enter the program with a master's or doctoral-level degree; however, it is required for students who enter with a bachelor's degree.

Course #	Title	Hours
PTRS:7826	Scientific Writing in Rehabilitation Science	2
PTRS:7884	Practicum in Research	arr.
PTRS:7895	Advanced Seminar in Rehabilitation Science	arr.
PTRS:7900	Rehabilitation Research Capstone Project	arr.
PTRS:7927	Research in Rehabilitation Science	arr.
PTRS:7930	Critical Thinking in Neuro-Mechanical Systems	arr.
PTRS:7931	Critical Thinking in Pain	arr.
PTRS:7932	Critical Thinking in Biomechanics and Human Performance Assessment	arr.
PTRS:7933	Critical Thinking in Activity-Based Plasticity	arr.
PTRS:7934	Critical Thinking in Neural Plasticity	arr.
PTRS:7935	Critical Thinking in Movement Science	arr.
PTRS:7936	Critical Thinking in Cardiovascular Physiology	arr.

PTRS:7990	Thesis: Rehabilitation Science	arr.

Specialty Content Requirement

Students must complete at least 9 s.h. in their scientific specialty area. Students may choose courses from the following list, but other courses suited to a student's background knowledge and interest area are considered.

Course #	Title	Hours
Anatomy and Cell Biology		
ACB:8401	Advanced Human Anatomy	arr.
Epidemiology		
EPID:6900	Design of Intervention and Clinical Trials	3
Health and Human Physiology		
HHP:6130	Advanced Skeletal Muscle Physiology	1,3
HHP:6150	Advanced Clinical Exercise Physiology	1,3
HHP:6300	Motor Control Seminar	1
HHP:6410	Advanced Integrative Physiology of Exercise	1,3
HHP:6460	Advanced Cardiovascular Physiology	1,3
HHP:6470	Advanced Physiology of Aging	1,3
Neuroscience		
NSCI:7235/ NEUR:7235	Neurobiology of Disease	3
Nursing		
NURS:3460	Professional Role II: Research	3
Occupational and Environmental Health		
OEH:4310	Occupational Ergonomics: Principles	3
Pharmacology		
PCOL:5137	Neurotransmitters	1
PCOL:6207	Ion Channel Pharmacology	1
PCOL:6250	Advanced Problem Solving in Pharmacological Sciences	1
Physical Therapy		
PTRS:5210	Kinesiology and Pathomechanics	4
PTRS:5206	Cardiopulmonary Therapeutics	3
PTRS:6224	Activity-Based Neural and Musculoskeletal Plasticity in Health Care	4
PTRS:6250	Critical Inquiry I: Evidence-Based Practice	2
PTRS:6251	Critical Inquiry II: Rehabilitation Research	2
PTRS:6253	Functional Neuroanatomy	arr.
PTRS:7875	Analysis of Activity-Based Neural and Musculoskeletal Plasticity	3
PTRS:7899	Introduction to Pain: Overview of Theories, Concepts, and Mechanisms	1
PTRS:7901	Clinical Correlates of Pain: Syndromes and Management	1
PTRS:7902	Molecular, Cellular, and Neural Mechanisms of Pain	2
PTRS:7903	Rehabilitation Management of Pain	1

Admission

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations. They should have a cumulative grade-point average of at least 3.00 and scores at or above the 50th percentile for each section of the Graduate Record Exam (GRE) General Test. A minimum of two years of clinical experience may be considered highly desirable, depending on the research interest area.

Application materials must include a complete Graduate College application form, test scores, transcripts, three letters of recommendation, and a statement of purpose.

Personal interviews are required of all applicants selected for consideration by the admissions committee. On-campus interviews are preferred, but telephone interviews may be substituted when necessary. Approximately 20 students are enrolled in the PhD program each year.

Career Advancement

The PhD program trains students to obtain positions as professors and researchers in rehabilitation science.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Physical Rehabilitation Science, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Any Semester		
STAT:4143 or BIOS:4120	Introduction to Statistical Methods or Introduction to Biostatistics	3
	Hours	**3**
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I [b]	0
PTRS:7812	Biomedical Instrumentation and Measurement [c]	3
PTRS:7820	Seminar in Rehabilitation Science [d]	1
Research course [e]		3

Research course [e]		2
	Hours	**9**
Spring		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II [b]	0
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
PTRS:7820	Seminar in Rehabilitation Science [d]	1
Research course [e]		3
	Hours	**7**
Second Year		
Any Semester		
PSQF:7385	Teaching and Learning in Higher Education	3
PTRS:7880	Teaching Practicum	1
	Hours	**4**
Fall		
Research course [e]		3
Specialty Content course [f]		3
Specialty Content course [f]		3
	Hours	**9**
Spring		
Research course [e]		3
Specialty Content course [f]		3
	Hours	**6**
Third Year		
Any Semester		
Comprehensive Exam		
	Hours	**0**
Fall		
Research course [e]		3
Research course [e]		3
Research course [e]		3
Research course [e]		3
	Hours	**12**
Spring		
Research course [e]		3
Research course [e]		3
Research course [e]		3
Research course [e]		1
	Hours	**10**
Fourth Year		
Fall		
PTRS:7990	Thesis: Rehabilitation Science [e]	6
	Hours	**6**
Spring		
PTRS:7990	Thesis: Rehabilitation Science [e]	6
Final Exam [g]		
	Hours	**6**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Online, web-based training on the Collaborative Institutional Training Initiative (CITI) must be completed before enrolling in BMED:7270 and BMED:7271.

c Typically offered during fall semesters of even years.

d Take twice for a total of 2 s.h.

e At least 27 s.h. of research content courses are required, but students typically take more to fulfill degree requirements. The capstone course PTRS:7900 is recommended but not required for students who enter the program with a master's or doctoral-level degree; however, it is required for students who enter with a bachelor's degree. Work with faculty advisor to determine appropriate research coursework and sequence.

f Students must complete at least 9 s.h. in their scientific specialty area; work with faculty advisor to determine appropriate graduate coursework and sequence.

g Dissertation defense.

Physician Assistant Studies and Services

Chair

- David P. Asprey

Director

- Anthony E. Brenneman

Director, Administrative and Student Services

- Thomas M. O'Shea

Director, Clinical Education

- Carol S. Gorney

Director of Didactic Education

- Marc F. Doobay

Director of Research and Evaluation

- Theresa E. Hegmann

Medical Director

- Jason K. Wilbur

Graduate degree: MPA

Faculty: https://medicine.uiowa.edu/pa/physician-assistant-program-faculty

Website: https://medicine.uiowa.edu/pa/

The physician assistant profession is one of the newest and most exciting in health care. Physician assistants (PAs) are licensed to practice medicine with physician supervision in most states. Some states are granting independent practice status to PAs nationally. They are responsible for making medical decisions and providing a broad range of diagnostic and therapeutic services.

In the traditional office setting, PAs see patients, obtain histories, perform physical examinations, and order necessary laboratory and/or radiological studies. Based on this information, the PA establishes a diagnosis, develops an appropriate management plan, and initiates treatment that may include prescribing medications. The physician is consulted as needed and remains ultimately responsible for the care provided by the physician/PA team. PAs also are involved in both patient and community health education.

The Department of Physician Assistant Studies and Services is located on the University of Iowa health sciences campus, which includes University of Iowa Health Care, one of the nation's largest university-owned teaching hospitals.

Programs

Graduate Program of Study

- Master of Physician Assistant Studies [p. 1960]

Courses

Physician Assistant Studies and Services Courses

PA:8212 Fundamentals of EKG and ACLS for Physician Assistant Students 2 s.h.
Theory and practice with basic analysis of EKG strips and interpretation, including rhythm disturbances; completion of American Heart Association's Advanced Cardiac Life Support (ACLS) program.

PA:8213 Fundamentals of Radiology for Physician Assistant Students 1 s.h.
Theory and practice for interpretation of radiographs including general radiology, body, chest, musculoskeletal, pediatrics, and neurology. Requirements: enrollment in physician assistant studies and services.

PA:8214 Fundamentals of Clinical Laboratory Medicine for Physician Assistant Students 1 s.h.
Theory and practice of selected clinical laboratory techniques and procedures; emphasis on effective utilization of clinical laboratory in diagnosis and management of disease states. Requirements: enrollment in physician assistant studies and services.

PA:8301 Seminar for Physician Assistant Students 1 s.h.
Professional issues that affect the physician assistant's practice of medicine.

PA:8302 Physician Assistant Professional and Clinical Skills 2 s.h.
Hands-on experience and activities; suturing, injections, prescription and order writing, medical records, patient confidentiality, Iowa Law governing physician assistant practice, motivational interviewing, toddler and disability exams.

PA:8303 Physician Assistant Senior Capstone 1 s.h.
Demonstration of strong clinical knowledge base and proficiency in basic clinical problem solving; focus on student's ability to think logically and critically, integrate and synthesize knowledge, access evidence-based medical resources, document patient care appropriately, apply clinical knowledge, and demonstrate professional behavior. Requirements: enrollment in physician assistant studies and services.

PA:8304 Emergency Medicine for Physician Assistant Students arr.
Obtaining and recording pertinent historical data, obtaining indicated laboratory studies, assessing the results, arriving at a diagnosis, formulating a treatment plan, implementing appropriate therapy.

PA:8305 Gynecology for Physician Assistant Students 4 s.h.
Opportunity to develop proficiency in history and physical exams of gynecological patients; outpatient, family planning, gynecological cancer, concepts of diagnostic techniques and therapy.

PA:8306 Family Practice I for Physician Assistant Students 4 s.h.
Obtaining and recording complete history and physical exams; formulation of differential diagnosis and problem list; ordering, obtaining, and interpreting lab and diagnostic studies; implementation of therapeutic procedures and treatment plans.

PA:8307 Family Practice II for Physician Assistant Students 4 s.h.
Opportunity to participate in delivery of ambulatory primary care; at a different site from PA:8306.

PA:8308 General Surgery for Physician Assistant Students 4-6 s.h.
Preparation for work as an assistant to the generalist; outpatient and inpatient surgical services, including surgical procedures and management of postoperative course.

PA:8309 Internal Medicine for Physician Assistant Students 4,6 s.h.
Eliciting a medical history, doing a pertinent physical exam, obtaining indicated lab studies, assessment of results, formulation of management plan, and implementation of appropriate therapy for common internal medicine problems.

PA:8310 Pediatrics for Physician Assistant Students arr.
Knowledge and skills required for providing appropriate medical care to infants, children, and adolescents; initiation and promotion of interpersonal relationships.

PA:8311 Psychiatry for Physician Assistant Students 4 s.h.
Training in history and physical exams of psychiatry patients, including individual and family therapy, vocational testing and guidance, development of interviewing skills.

PA:8312 Long-Term Care for Physician Assistant Students arr.
Development of clinical knowledge and skill in diagnosing, treating, and performing procedures for patients of long-term care settings; knowledge of relevant conditions.

PA:8322 Obstetrics for Physician Assistant Students arr.
Proficiency in physical exam of OB patients; applying concepts of diagnostic techniques and therapy; following patients' course, including labor, delivery, and postpartum care.

PA:8325 Pediatric Elective for Physician Assistant Students arr.
Experience working with children and adolescents.

PA:8326 Radiology Elective for Physician Assistant Students arr.
Proficiency in systematic evaluation of normal and abnormal routine radiologic examinations; listing indications for special exam procedures, including details of prepping the patient.

PA:8329 Psychiatry Elective for Physician Assistant Students arr.
Training in evaluation and treatment of psychiatry patients.

PA:8330 Surgery Elective for Physician Assistant Students arr.
Experience in a wide range of surgical problems, procedures, and treatments, including diagnosis, care and treatment, and postoperative courses of surgical patients.

PA:8331 Surgery Elective (Transplant/Organ Retrieval) for Physician Assistant Students arr.
Extensive experience in care of patients with end-stage organ failure; evaluation of potential transplant candidates, participation in surgical procedures on transplant service.

PA:8335 Internal Medicine Elective for Physician Assistant Students arr.
Training in varied internal medicine problems; recognition, appropriate treatment.

PA:8337 Internal Medicine (EKG) Elective for Physician Assistant Students arr.
Experience reading electrocardiograms, interpreting cardiac arrhythmias, performing and evaluating EKG stress tests.

PA:8338 Internal Medicine (Gastroenterology) Elective for Physician Assistant Students arr.
Experience with a wide range of gastrointestinal pathology; history and physical exams of gastrointestinal diagnostic procedures, follow-up care of patients through outpatient clinics.

PA:8340 Internal Medicine (Geriatrics) Elective for Physician Assistant Students arr.
Familiarity with broad spectrum of medical conditions among the elderly; experience in history and physical exams, diagnosis of geriatric patients along with follow-up visits.

PA:8341 Internal Medicine (Pulmonary) Elective for Physician Assistant Students arr.
Development of basic clinical knowledge and skills for diagnosis, treatment, and management of pulmonary diseases.

PA:8342 Internal Medicine (Palliative Care/Hospice) Elective for Physician Assistant Students arr.
Work on a hospice care team performing evaluation, treatment, and education of patients with terminal illnesses; dealing with the prospect of death.

PA:8346 Family Practice Elective for Physician Assistant Students arr.
Proficiency in delivering ambulatory primary care.

PA:8347 Gynecology Elective (Women's Health) for Physician Assistant Students arr.
Experience in annual gynecologic exams, PAP screening, gynecology problems, contraception issues, STD screening and counseling, common gynecologic procedures.

PA:8348 Migrant Health Elective for Physician Assistant Students arr.
Basic clinical knowledge and skills for diagnosis, treatment, and prevention of diseases, injuries, and conditions related to environmental exposure in migrant worker populations.

PA:8349 Occupational Medicine Elective for Physician Assistant Students arr.
Basic clinical knowledge and skills for diagnosis, treatment, and prevention of work-related diseases, injuries, and conditions related to environmental exposure.

PA:8353 International Medicine for Physician Assistant Students arr.
Basic clinical knowledge and skills for diagnosis, treatment, and prevention of diseases, injuries, and conditions relevant to international medicine.

PA:8355 Gynecologic Oncology Elective for Physician Assistant Students arr.
Experience developing diagnostic skills in clinical gynecologic oncology, learning methods of staging specific cancers; and assisting in therapy and outpatient management of patients with varied cancers.

PA:8357 Physician Assistant Transitions to Clinical Rotations 1 s.h.
Additional didactic and hands-on skills essential for preparation prior to core and elective clinical rotations. Requirements: enrollment in physician assistant studies and services.

PA:8358 Internal Medicine (Endocrinology) Elective for Physician Assistant Students arr.
Basic clinical knowledge and skills for diagnosis treatment and management for common endocrinology diseases.

PA:8360 Physician Assistant Summer Clinicals 6 s.h.
Clinical course for physician assistant students during their second summer session.

PA:8361 Physician Assistant Remediation and Self Study arr.
Completion of remediation or self-study program requirements.

PA:8362 Independent Study for Physician Assistant Students arr.
Students work on alternative experiences to supplement coursework and/or clinical experiences throughout various areas of the physician assistant program; self-guided experiences with faculty supervision.

PA:8363 Primary Care Academic Rotation arr.
Additional academic opportunities that enhance previous experiences gained in a clinical setting; emphasis on student participation in direct activities to supplement primary care experiences with observation and simulation activities as needed to provide a balanced experience in meeting course objectives.

PA:8364 Emergency Medicine Elective for Physician Assistant Students 2,4,6,8,10 s.h.
Training in varied emergency medicine problems; recognition and appropriate treatments.

Master of Physician Assistant Studies, MPA

The Master of Physician Assistant Studies (MPA) program emphasizes primary care medicine, particularly family medicine. It also offers elective clinical rotations in selected medical subspecialties. Students who complete the program are eligible to take the National Certifying Examination for Primary Care Physician Assistants, which they must complete successfully in order to register as physician assistants in the United States.

The Department of Physician Assistant Studies and Services is accredited by the Accreditation Review Commission on Education for the Physician Assistant and is a member of the Physician Assistant Education Association.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Requirements

The Master of Physician Assistant Studies (MPA) requires a minimum of 114 s.h. of credit. The curriculum spans 28 months and consists of a didactic phase and a clinical phase. The program begins in August.

The Master of Physician Assistant Studies requires the following work.

Didactic Curriculum

The MPA program's didactic phase is built on a triple-helix model whose three strands consist of clinical and professional skills (CAPS), mechanisms of health and disease (MOHD), and medicine and society (MAS). The strands are interwoven, assuring that their material is integrated and revisited throughout the didactic phase so that students' understanding and mastery of the material deepens progressively.

The didactic curriculum consists of the following courses.

Human Anatomy and Foundations of Life

Course #	Title	Hours
ACB:8101	Medical Gross Human Anatomy	5
MED:8123	Foundations of Cellular Life	5

Clinical and Professional Skills

The clinical and professional skills (CAPS) strand provides students with the knowledge, skills, and attitudes required for professional development and clinical excellence, including the sense of inquiry and lifelong habits of skill acquisition, self-assessment, and reflective practice. CAPS features developmental learning through increasingly challenging experiences across the curriculum, repeated practice opportunities, observation and feedback, and self-directed learning and reflection. CAPS requires the following three courses.

Course #	Title	Hours
MED:8121	Clinical and Professional Skills I	3
MED:8131	Clinical and Professional Skills II	4
MED:8221	Clinical and Professional Skills III	4

Mechanisms of Health and Disease

The mechanisms of health and disease (MOHD) strand focuses on multisystem mechanisms. MOHD requires the following five courses.

Course #	Title	Hours
MED:8124	Mechanisms of Health and Disease I	8
MED:8133	Mechanisms of Health and Disease II	7
MED:8134	Mechanisms of Health and Disease III	11
MED:8223	Mechanisms of Health and Disease IV	10
MED:8224	Mechanisms of Health and Disease Keystone	7

Medicine and Society

The medicine and society (MAS) strand teaches students about disease prevention, health promotion services, public health, epidemiology, health services organizations and delivery, and community dimensions of medical practice. MAS requires the following three courses.

Course #	Title	Hours
MED:8122	Medicine and Society I	3
MED:8132	Medicine and Society II	4
MED:8222	Medicine and Society III	4

Summer Curriculum

The summer curriculum consists of a six-week summer session that includes didactic workshop material in cardiology and radiology. Students complete a two-week introduction to clinical medicine before beginning the clinical rotations. The summer curriculum requires the following four courses.

Course #	Title	Hours
PA:8212	Fundamentals of EKG and ACLS for Physician Assistant Students	2
PA:8213	Fundamentals of Radiology for Physician Assistant Students	1
PA:8301	Seminar for Physician Assistant Students	1
PA:8302	Physician Assistant Professional and Clinical Skills	2

Clinical Curriculum

The program's second phase concentrates on clinical education. Students complete four weeks of didactic workshops and rotations and a 36-week core of required primary care clinical rotations, including general internal medicine, surgery, family medicine, pediatrics, emergency medicine, gynecology, and psychiatry in affiliated hospitals throughout the United States and select international locations. Students then select eight weeks of electives,

which may include rotations such as geriatrics, cardiology, dermatology, and orthopedics.

The primary care clinical rotations are designed to provide instruction and experience in caring for patients in a way that enables students to integrate the knowledge, skills, behaviors, and attitudes they learned in the program's didactic phase. Clinical training is provided at University of Iowa Health Care, the VA Iowa City Health Care, the VA Central Iowa Health Care System, Broadlawns Medical Center in Des Moines, and other affiliated hospitals throughout Iowa. In elective rotations, students gain additional clinical experience through placement with selected preceptors involved in office-based practices, typically in medically underserved rural areas.

Students also complete a master's degree project as part of the clinical curriculum.

Required Clinical Rotation

The following clinical rotations are required.

Course #	Title	Hours
PA:8304	Emergency Medicine for Physician Assistant Students	4
PA:8305	Gynecology for Physician Assistant Students	4
PA:8306	Family Practice I for Physician Assistant Students	4
PA:8307	Family Practice II for Physician Assistant Students	4
PA:8308	General Surgery for Physician Assistant Students	6
PA:8309	Internal Medicine for Physician Assistant Students	6
PA:8310	Pediatrics for Physician Assistant Students	4
PA:8311	Psychiatry for Physician Assistant Students	4

Elective Clinical Rotations

Students select elective clinical rotations from one of the following general categories. Subspecialties for the clinical rotations are included with each general category. Registration in the subspecialty area may vary based on availability from year to year.

Course #	Title	Hours
PA:8325	Pediatric Elective for Physician Assistant Students (Subspecialty areas: allergy, bone marrow transplant, cardiology, gastroenterology, genetics, neonatal intensive care (NICU), neonatology, orthopedics, pulmonary, and psychiatry)	arr.
PA:8326	Radiology Elective for Physician Assistant Students	arr.
PA:8329	Psychiatry Elective for Physician Assistant Students	arr.
PA:8330	Surgery Elective for Physician Assistant Students (Subspeciality areas: burn, cardiothoracic, neurology, surgical neonatal intensive care (SNICU), transplant and organ retrieval)	arr.
PA:8335	Internal Medicine Elective for Physician Assistant Students (Subspecialty areas: alternative medicine, cardiology, correctional medicine, dermatology, endocrinology, gastroenterology, genetics, gynecological oncology, hospice, infectious disease, interventional radiology, medical intensive care unit (MICU), migrant health, nephrology, neurology, obstetrics, ophthalmology, oncology, orthopedics, otolaryngology/ear, nose, throat, palliative care, pulmonary, rheumatology, and urology)	arr.
PA:8337	Internal Medicine (EKG) Elective for Physician Assistant Students	arr.
PA:8346	Family Practice Elective for Physician Assistant Students	arr.
PA:8347	Gynecology Elective (Women's Health) for Physician Assistant Students	arr.
PA:8353	International Medicine for Physician Assistant Students	arr.
PA:8364	Emergency Medicine Elective for Physician Assistant Students (Subspecialty areas: occupational health, toxicology, urgent care, and wilderness medicine)	2,4,6,8,10

Admission

Applicants must:

- be citizens or permanent residents of the United States;
- hold a baccalaureate degree from an accredited institution in the United States (the degree does not have to be completed at the time of admission, but must be conferred prior to the start of the program; international students will have their credentials reviewed for degree completion and equivalency);
- have a minimum cumulative grade-point average (GPA) of 3.00 on a 4.00 scale;
- have a minimum overall science GPA of 3.20 on a 4.00 scale or a science GPA of at least 3.20 on a 4.00 scale on the most recent 40 s.h. of college-level, science-based coursework (science courses are subject to department approval);
- have completed the prerequisite courses no more than 10 years before they apply and all courses must be taken for letter grades (see "Prerequisite Science Courses");

- have completed a minimum of 1,000 hours of direct patient health care experience by Dec. 31 of the application year (hours subject to departmental approval and applicants can be awarded between 0–100% of hours completed);
- submit three letters of recommendation—one must be from a collegiate academic reference and one must be from a health care supervisor (shadowing experience does not count, but may be used for the third recommendation letter);
- meet the admission requirements of the Graduate College (see the Manual of Rules and Regulations on the Graduate College website);
- be able to meet the program's technical standards (see "Technical Standards" below).

Prerequisite Science Courses

Applicants must have completed preparatory science courses in biological, chemical, and statistical sciences. Prerequisite courses can be in progress at the time of admission unless stated otherwise. Science-based courses are subject to the approval by the Department of Physician Assistant Studies and Services.

Biological Science

These courses are required.

- An introductory biology or zoology course sequence (minimum of a two-semester sequence unless otherwise approved).
- An animal, exercise, or human physiology course.
- A minimum of three additional upper-level biological science courses. To qualify as upper level, the biological science courses must require a prerequisite course to enroll. Courses that have been used to satisfy this requirement include cell biology, cell physiology, endocrinology, genetics, histology, immunology, microbiology, molecular biology, neurobiology, pharmacology, and other related disciplines.

Chemical Science

These courses are required.

- An introductory chemistry course sequence (a minimum of a two-semester sequence, unless otherwise approved).
- At least one semester of organic chemistry (must be at a higher level than a survey of organic chemistry course).
- At least one semester of biochemistry (must be at a higher level than a survey of biochemistry course and be completed at the time of application).

Statistical Science

This course is required.

- Any course with a statistical focus, such as a general, introductory, psychological, or business statistics course; or biostatistics; or a qualitative research methods course.

Satisfaction of the basic admission requirements does not ensure acceptance to the program. The admission committee selects the applicants it considers best qualified. The admission committee requests interviews with the most qualified applicants.

Technical Standards

Individuals admitted to the Department of Physician Assistant Studies and Services must possess the capability to complete the entire curriculum and earn the Master of Physician Assistant Studies degree. The curriculum requires demonstrated proficiency in a variety of cognitive, problem-solving, manipulative, communicative, and interpersonal skills. For more information, view the University of Iowa Carver College of Medicine Technical Standards for Admission and Retention on the Department of Physician Assistant Studies and Services website.

Application Timeline and Process

Applications are accepted from the end of April to Oct. 1 for entry into the program the following August. Applicants must apply through the Central Application Service for Physician Assistants (CASPA).

The admission committee prefers that the majority of prerequisite course requirements be completed by the Oct. 1 application deadline.

All materials must be received and verified by CASPA, and all additional information requested by the Physician Assistant Studies and Services Program submitted by the Oct. 1 deadline.

All final decisions related to admission deadlines, processes, and decisions are up to the department administrator, in collaboration with the admission committee.

Career Advancement

Physician assistants work in a variety of settings, including medical offices, hospital emergency rooms, nursing homes, rural satellite clinics, health maintenance organizations, and patients' homes.

Psychiatry

Chair

- Peggy C. Nopoulos

Website: https://psychiatry.medicine.uiowa.edu/

The Department of Psychiatry teaches MD students, principally during their third year, and trains resident physicians for academic and clinical careers in psychiatry.

Research

Department of Psychiatry staff members are involved in genetic and family studies of psychiatric disorders and research in genetic and biological psychiatry, neurochemistry, neuroimaging, neurophysiology, neuropsychiatry, psychosocial aspects of behavior, and neuroinvasive brain stimulation.

The department's students and residents have many research opportunities in psychiatry and in the basic science areas of neurochemistry, neurophysiology, and electrophysiology. The clinical areas of psychology, child psychiatry, and psychotherapy also offer opportunities for research and further study to a limited number of students.

Residency

The department offers a four-year training program approved by the Residency Review Committee of the American Medical Association. Training experiences are available at University of Iowa Health Care and at the VA Iowa City Health Care. Additional experiences are available at affiliated institutions: Broadlawns Medical Center in Des Moines, the Iowa Medical and Classification Center at Oakdale, the Mid-Eastern Iowa Community Mental Health Center in Iowa City, and the Independence Mental Health Institute (Iowa Department of Human Services).

The department also offers an approved two-year residency in child psychiatry. Fellowships in consult/liaison psychiatry and addiction medicine are available after residency training.

Courses

Psychiatry Courses

PSYC:8301 Clinical Psychiatry **4 s.h.**
Requirements: third-year MD enrollment.

PSYC:8401 Adult Psychiatry **arr.**
Requirements: MD enrollment.

PSYC:8402 Child Psychiatry **arr.**
Roles of child psychiatry as a consultation service. Requirements: MD enrollment.

PSYC:8403 Adult Outpatient Psychiatry and Psychotherapy **2,4 s.h.**
Diagnostic assessment, evaluation, treatment of psychiatric patients; exposure to both psychotherapeutic, psychopharmacologic treatments. Requirements: MD enrollment.

PSYC:8404 Women's Wellness and Counseling Service **4 s.h.**
Experience evaluating and treating women with mental illness, with some emphasis on practitioner's autonomy; four-week rotation. Requirements: psychiatry clerkship.

PSYC:8405 Advanced Inpatient Subinternship in Medical Psychiatry **4 s.h.**
Hands-on experience in evaluation and treatment of patients with combined medical and psychiatric disease; decisions regarding appropriate consultations, diagnostic tests, treatment; etiology and pathophysiology. Requirements: MD enrollment.

PSYC:8408 Advanced Inpatient Subinternship in Mood/Psychotic Disorders **4 s.h.**
Subinternship in adult psychiatry; experiences that maximize autonomy and responsibility; inpatient rotation focuses on one subspecialty area (psychotic disorders or mood disorders); emphasis on substantial medical comorbidity; assess and address medical and psychiatric needs of assigned patients in a collaborative and integrative fashion; assess and manage patients independently at the level of a psychiatry intern, reporting directly to the attending; call is required; didactic curriculum focuses on critical appraisal of medical literature. Prerequisites: PSYC:8301. Requirements: fourth-year MD enrollment.

PSYC:8409 Eating Disorders **2,4 s.h.**
Inpatient rotation; emphasis on co-occurring psychiatric and comorbid medical conditions associated with eating disorders; patient assessment and management at an advanced level; direct patient care and engagement in clinical decision-making for complex patients with substantial comorbidity; call is required; student experience maximizes autonomy and responsibility; didactic curriculum; focus on critical appraisal of relevant medical literature. Prerequisites: PSYC:8301. Requirements: fourth-year MD enrollment.

PSYC:8410 Intellectual Disability **2,4 s.h.**
In-depth two week clinical experience in the interdisciplinary approach to assessment and management of individuals with intellectual disability. Requirements: MD enrollment.

PSYC:8411 Substance Use **2,4 s.h.**
In-depth clinical experience in assessment and management of individuals with alcohol and drug abuse. Requirements: MD enrollment.

PSYC:8412 Emergency Psychiatry **2,4 s.h.**
In-depth clinical experience in assessment and management of acute psychiatric illness under supervision of faculty with expertise in care within this setting; clinical experiences centered in emergency department at University of Iowa Health Care. Prerequisites: PSYC:8301. Requirements: third- or fourth-year MD enrollment.

PSYC:8413 The Thriving Physician **2 s.h.**
Two-week elective for medical students in their clinical years; designed to promote awareness, wellbeing, compassion, and career satisfaction through contemplative practices and the integration of concepts of positive psychology into daily living; through readings, discussions, and experiential activities, physicians-in-training will learn how to engage in reflective personal and professional self-care; classes will be half-day in length with time outside of class dedicated to practicing and incorporating skills into everyday activities. Requirements: MD enrollment.

PSYC:8414 Consultation Psychiatry **2,4 s.h.**
Opportunity for in-depth clinical experience in psychiatric assessment and management of general medical and surgical patients; elective clerks serve on consultation-liaison psychiatry teams at University of Iowa Health Care and the VA Iowa City Health Care; may include opportunities for outpatient work in relevant settings (e.g., emergency psychiatry, outpatient clinics providing integrated psychiatric and medical care). Requirements: MD enrollment.

PSYC:8415 Geriatric Inpatient Psychiatry 4 s.h.
Rotation in Department of Psychiatry specialized inpatient geriatric psychiatry unit; students work under faculty and resident supervision.

PSYC:8417 Advanced Psychiatry, Des Moines, IA 4 s.h.
Medical students choose from several different options to become familiar with the practice of psychiatry in community hospital settings in the Des Moines area; evaluation and management of patients across lifespan and in subspecialty settings. Requirements: MD enrollment.

PSYC:8450 Continuity of Care in Psychiatry 4 s.h.
Experience in Psychiatry Continuity of Care Clinic; maximizes autonomy and responsibility in an outpatient continuous care setting. Requirements: fourth-year MD enrollment.

PSYC:8497 Research in Psychiatry arr.
Experience and training in practical application of scientific methodology; work with research project at psychiatric service or affiliated cooperating research centers.

PSYC:8498 Psychiatry On Campus arr.
Arranged by student with departmental approval. Requirements: MD enrollment.

PSYC:8499 Psychiatry Off Campus arr.
Requirements: MD enrollment.

Radiation Oncology

Chair

- Bryan G. Allen

Director, Physician Residency Program

- Kristin A. Plichta

Director, Medical Physics Residency Program

- Joël St-Aubin

Faculty: https://radiationoncology.medicine.uiowa.edu/profile/

Website: https://radiationoncology.medicine.uiowa.edu/

Radiation oncology specializes in the delivery of radiation treatments for cancer patients. It includes treatments with linear accelerators as well as isotopes and temporary and permanent surgically implanted sources. Radiation oncologists also use these methods to treat some benign diseases, such as Graves' ophthalmopathy and trigeminal neuralgia. Treatments often employ stereotactic CT-image-guided and MR-image-guided techniques.

The Department of Radiation Oncology is dedicated to educating undergraduate and graduate students, MD and other health professions students, and residents. Its faculty members provide instruction for Doctor of Philosophy students in the Free Radical and Radiation Biology Program [p. 1889] through their participation in FRRB:3110 Medical Physics I, FRRB:3215 Medical Physics II, FRRB:5000 Radiation Biology, FRRB:7000 Redox Biology and Medicine, and FRRB:7001 Molecular and Cellular Biology of Cancer.

The department's professional staff provides training in radiation therapy technology for undergraduate students in the Radiation Sciences Program [p. 1966] by teaching RSTH:3120 Radiation Therapy Clinical Internship I, RSTH:3225 Radiation Therapy Clinical Internship II, RSTH:3325 Radiation Therapy Clinical Internship III, RSTH:4125 Radiation Therapy Clinical Internship IV, and RSTH:4225 Radiation Therapy Clinical Internship V.

The department also offers specialized research projects and sponsors postdoctoral students in biology, physics, and clinical disciplines by arrangement with the instructor or mentor. Frequently, students from the departments of Biomedical Engineering and Electrical and Computer Engineering are involved.

Residency

The department provides a four-year physician residency training program in radiation oncology that includes clinical care and education. It also has a two-year residency program in medical physics.

MD students can elect a four-week radiation oncology rotation and/or a two-week multidisciplinary cancer care elective. Nursing students, dental residents, and fellows in gynecologic oncology, breast cancer, and in adult and pediatric hematology and oncology complete rotations in the department.

Courses

Radiation Oncology Courses

RADO:8401 Radiation Oncology for Medical Students **4 s.h.**
Integration of clinical oncology, physics, and cancer biology; clinical work with faculty mentors; experience in clinical evaluation, technical physics, biological application.

RADO:8497 Research in Radiation Oncology **arr.**
Medical research, clinical or laboratory projects; individual study.

RADO:8498 Radiation Oncology On Campus **arr.**
Arranged by student with department approval.

RADO:8499 Radiation Oncology Off Campus **arr.**
Arranged by student with department approval.

Radiation Sciences

Director, Baccalaureate Degrees in the Radiation Sciences and Director, Radiologic Technology

- Holly Bonfig-Becker

Director, Student Affairs and Associate Director, Baccalaureate Degrees in the Radiation Sciences

- Jennifer J. Maiers

Director, Diagnostic Medical Sonography

- Stephanie Ellingson

Director, Radiation Therapy

- Jared L. Stiles

Undergraduate major: radiation sciences (BS)

Website: https://medicine.uiowa.edu/radsci/

Radiation sciences professionals work with physicians to gather accurate patient information for diagnosis, treatment, and/or research of disease and injury. They provide direct patient care, produce quality images, and deliver treatment using a variety of radiation sources. The radiation sciences professional must apply knowledge, skill, and mature judgment while operating complex equipment safely and efficiently. Strong communication, organizational, and patient care skills are essential for a successful career in radiation sciences.

The University of Iowa's radiation sciences educational programs are designed to provide students with opportunities for intellectual, professional, and social growth. Students learn with faculty members and instructors who are committed to radiation sciences education.

Radiation sciences is one of two undergraduate majors in the field of medical imaging offered by the Carver College of Medicine. It encompasses radiologic technology, breast imaging, computed tomography, magnetic resonance imaging, cardiovascular interventional, diagnostic medical sonography, and radiation therapy programs. The other undergraduate major in medical imaging is nuclear medicine technology; see Nuclear Medicine Technology [p. 1923] in the catalog.

The Carver College of Medicine is located on the University of Iowa health sciences campus, which includes University of Iowa Health Care, one of the nation's largest university-owned teaching hospitals. For information about the college's academic programs and resources, see Carver College of Medicine [p. 1843] in the catalog.

UI Health Care and the Carver College of Medicine have a proud academic tradition of preparing students for successful careers in the radiation sciences. Today, that tradition continues through its strong curriculum, quality clinical experience, and commitment to undergraduate education in the creation of images and treatment of patients using highly sophisticated equipment and techniques.

The Carver College of Medicine, in partnership with the Department of Radiology, is committed to equal access and, consistent with its academic mission and standards, strives to achieve excellence through the advancement of diversity. The Carver College of Medicine recognizes and values all aspects of human difference, defining diversity in the broadest sense. Its programs strive to create a welcoming culture.

Programs

Undergraduate Program of Study

Major

- Major in Radiation Sciences (Bachelor of Science) [p. 1976]

Courses

- Breast Imaging Courses [p. 1966]
- Cardiovascular Interventional Courses [p. 1967]
- Computed Tomography Courses [p. 1968]
- Diagnostic Medical Sonography Courses [p. 1968]
- Magnetic Resonance Courses [p. 1971]
- Radiation Sciences Courses [p. 1971]
- Radiation Therapy Courses [p. 1972]
- Radiologic Technology Courses [p. 1973]

Breast Imaging Courses

RSBI:3310 Patient Care for Breast Imaging 3 s.h.
Foundation for providing high-quality patient care during breast imaging exams and procedures; patient communication, assessment, and treatment options including surgical, nonsurgical, and reconstruction. Requirements: acceptance to radiation sciences RT degree track or ARRT primary certification in radiography.

RSBI:3315 Breast Imaging Clinical Internship I 2 s.h.
Breast imaging clinical internship practicum at UI Health Care; rotation through department imaging rooms; competency and objective-based education with required clinical performance evaluations; participation in routine and advanced breast imaging exams; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:3225. Requirements: radiation sciences major.

RSBI:4110 Breast Imaging Procedures and Analysis 3 s.h.
Breast imaging exams including technique, image evaluation, and positioning. Prerequisites: RSBI:3310. Requirements: acceptance to radiation sciences RT/BI track or ARRT primary certification in radiography.

RSBI:4115 Breast Imaging Clinical Internship II 4 s.h.
Breast imaging clinical internship scheduled at University of Iowa Health Care; rotation through department imaging rooms; competency and objective-based education with required clinical performance evaluations; experience facilitated by breast imaging technologists, radiologists, residents, and clinical coordinator; participation in routine and advanced breast imaging exams; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSBI:3315. Requirements: radiation sciences major.

RSBI:4120 Anatomy and Pathology for Breast Imaging 2 s.h.
Anatomy, localization terminology, histology, and cytology; pathology including mammographic appearance and reporting terminology; benign, high risk, and malignant conditions and their mammographic appearances.

RSBI:4130 Breast Imaging Acquisitions and Principles 2 s.h.
Physics and hardware used in obtaining exams in breast imaging; equipment operations including design characteristics of mammography units, digital acquisition, display, and informatics.

RSBI:4210 Breast Imaging Advanced Procedures and Analysis 3 s.h.
Advanced breast imaging modalities including breast sonography, breast MRI, sentinel node mapping, and interventional procedures. Prerequisites: RSBI:4110.

RSBI:4215 Breast Imaging Clinical Internship III 4 s.h.
Breast imaging clinical internship scheduled at University of Iowa Health Care; rotation through department imaging rooms; competency and objective-based education with required clinical performance evaluations; experience facilitated by breast imaging technologists, radiologists, residents, and clinical coordinator; participation in routine and advanced breast imaging exams; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSBI:4115.

RSBI:4220 Quality Control in Breast Imaging 3 s.h.
Quality control aspects related to breast imaging; quality assurance and evaluation including accreditation, certification, and Mammography Quality Standards Act (MQSA) regulations; quality control including mammographers tests and digital quality control tests; medical physicist test including general quality control tests and quality control tests specific to digital imaging and tomosynthesis. Prerequisites: RSBI:4130.

RSBI:4308 Breast Imaging Practicum 1-6 s.h.
Breast imaging clinical internship scheduled at University of Iowa Health Care; rotation through department imaging rooms; competency and objective-based education with required clinical performance evaluations; experience facilitated by breast imaging technologists, radiologists, residents, and clinical coordinator; participation in routine and advanced breast imaging exams; performance expectations become progressively higher as students gain experience and skills. Requirements: admission to Radiation Sciences RT to BS online track.

Cardiovascular Interventional Courses

RSCI:4110 Vascular Anatomy 3 s.h.
Normal arterial and venous anatomy of the circulatory system illustrated through angiographic, magnetic resonance imaging (MRI), and computed tomography (CG) images; common variants. Prerequisites: ACB:3110 or HHP:2100 or HHP:3105 or HHP:3115.

RSCI:4120 CVI Principles 4 s.h.
Imaging and accessory equipment for vascular interventional and cardiac interventional procedures; imaging equipment quality control; fundamental principles of vascular and cardiac procedures; patient preparation and care, radiation safety, contrast medium, pharmacology, and sedation. Requirements: acceptance to BS radiation science RT/CVI track or ARRT primary RT certification.

RSCI:4130 Electrocardiogram and Hemodynamics 3 s.h.
ECG analysis, hemodynamic principles and waveform analysis, cardiac output, vascular resistance, calculations of stenotic valves. Prerequisites: ACB:3110 or HHP:2100 or HHP:3105 or HHP:3115.

RSCI:4140 CVI Peripheral Procedures and Pathology 3 s.h.
Angiographic and interventional procedures of the abdomen, thorax, and upper and lower extremities; associated pathologies. Prerequisites: RSCI:4110. Corequisites: RSCI:4120, if not taken as a prerequisite. Requirements: RSCI:4110 or three months CVI experience.

RSCI:4150 CVI Neurology and Nonvascular Procedures and Pathology 3 s.h.
Angiographic and interventional procedures of the head and neck; associated pathologies. Prerequisites: RSCI:4110. Corequisites: RSCI:4120, if not taken as a prerequisite. Requirements: RSCI:4110 or three months CVI experience.

RSCI:4160 CVI Cardiac Procedures and Pathology 4 s.h.
Cardiac diagnostic and interventional procedures; associated pathologies. Prerequisites: RSCI:4110. Corequisites: RSCI:4120 and RSCI:4130, if not taken as prerequisites. Requirements: RSCI:4110 or three months CVI experience.

RSCI:4170 CVI Clinical Internship III 4 s.h.
Cardiac-interventional clinical time scheduled at University of Iowa Health Care; rotations in adult cardiac, electrophysiology, and pediatric catheterization; competency and objective-based education provided with clinical performance evaluations and constructive feedback from CI staff and clinical coordinator; clinical coordinator facilitates schedules, rotations, learning objectives, evaluations, and competencies. Prerequisites: RSCI:4180. Corequisites: RSCI:4130 and RSCI:4160, if not taken as prerequisites. Requirements: acceptance to BS radiation sciences RT/CVI track.

RSCI:4180 CVI Clinical Internship II 4 s.h.
Vascular-interventional clinical time scheduled at University of Iowa Health Care; labs specialize in peripheral, neuro- and non-vascular procedures; competency and objective-based education; clinical performance evaluations providing constructive feedback from VI staff and clinical coordinator; clinical coordinator facilitates schedules, rotations, learning objectives, evaluations, and competencies. Prerequisites: RSCI:4190. Corequisites: RSCI:4140 and RSCI:4150, if not taken as prerequisites. Requirements: acceptance to BS radiation sciences RT/CVI track.

RSCI:4190 CVI Clinical Internship I 2 s.h.
Introduction to VI and CI labs including basic set up, equipment, and procedures; preparation to spend more concentrated time in each area for future internships; provides 192 hours of clinical experience over a 12-week period. Prerequisites: RSRT:3225. Requirements: acceptance to radiation sciences RT/CVI degree track or CVI clinical internship.

RSCI:4308 Cardiovascular Interventional Practicum 1-6 s.h.
Cardiac-interventional (CI) clinical time scheduled at University of Iowa Health Care; rotations in adult cardiac, electrophysiology, and pediatric catheterization; competency and objective-based education provided with clinical performance evaluations and constructive feedback from CI staff and clinical coordinator; clinical coordinator facilitates schedules, rotations, learning objectives, evaluations, and competencies. Requirements: admission to Radiation Sciences RT to BS online track.

Computed Tomography Courses

RSCT:4100 Sectional Anatomy for Imaging Sciences 3 s.h.
Sectional anatomy identifiable on computed tomography and magnetic resonance imaging, including transverse, coronal, and sagittal planes. Prerequisites: ACB:3110 or HHP:2100 or HHP:3105 or HHP:3115.

RSCT:4105 Computed Tomography Clinical Internship I 2 s.h.
Clinical internship scheduled at University of Iowa Health Care; rotation through CT scanners, 3D lab, and radiation therapy departments; competency and objective-based education with required clinical performance evaluations; clinical coordinator facilitates schedules, rotations, learning objectives, evaluations, and competencies; experience facilitated by CT technologists, radiologists, residents, and coordinator; participation in routine and advanced CT scans; performance expectations become progressively higher as student gains experience and skills. Prerequisites: RSRT:3225. Requirements: acceptance to BS radiation sciences RT/CT track.

RSCT:4115 Computed Tomography Clinical Internship II 4 s.h.
CT scanners, 3D lab, and radiation therapy department rotation at University of Iowa Health Care; competency and objective-based education with required clinical performance evaluations; clinical coordinator facilitates schedule, rotations, learning objectives, evaluations, and competencies; experience facilitated by CT technologists, radiologists, residents, and coordinator; participation in routine and advanced CT scans; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSCT:4105.

RSCT:4120 Computed Tomography Procedures I 4 s.h.
Computed tomography procedures of the head, neck, thorax, mediastinum, abdomen, and pelvis; positioning techniques, patient preparation, monitoring and care, indications and contraindications for procedures; contrast media usage; basic protocol information with adjustments to tailor procedures for patient's indications; brief units on patient care relevant to CT; CT parameters and equipment. Corequisites: RSCT:4100. Requirements: acceptance to BS radiation sciences RT/CT track or ARRT primary certification in radiologic technology, nuclear medicine, or radiation therapy.

RSCT:4125 Computed Tomography Procedures II 4 s.h.
Imaging information in musculoskeletal exams, 3D reconstruction, CTAs; cardiac; CT arthrography, PET/CT, SPECT/CT, virtual colonoscopy; procedure indications and contraindications, patient and room preparation, positioning techniques, contrast media usage, and scan parameters; basic protocol information and how to tailor procedures to a patient's indications; information in common pathological conditions found in CT images and protocol appearance variations. Prerequisites: RSCT:4120. Corequisites: RSCI:4110, if not taken as a prerequisite.

RSCT:4130 Computed Tomography Physical Principles and QC 4 s.h.
Physical principles and instrumentation; historical development and evolution of CT; characteristics of radiation, beam attenuation, linear attenuation coefficients, tissue characteristics, Hounsfield numbers, data acquisition, image manipulation techniques, tube configuration, collimation design and function, detectors, image quality factors, functions of CT computer and array processor; image processing and display examined from data acquisition through postprocessing and archiving; radiation protection practices and QC. Requirements: acceptance to BS radiation sciences RT/CT degree track or ARRT primary certification in radiologic technology, nuclear medicine, or radiation therapy.

RSCT:4215 Computed Tomography Clinical Internship III 4 s.h.
CT scanners, 3D lab, and radiation therapy department rotation at University of Iowa Health Care; competency and objective-based education with required clinical performance evaluations; clinical coordinator facilitates schedule, rotations, learning objectives, evaluations, and competencies; experience facilitated by CT technologists, radiologists, residents, and coordinator; participation in routine and advanced CT scans; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSCT:4115.

RSCT:4308 Computed Tomography Practicum 1-6 s.h.
Computed Tomography (CT) scanners, 3D lab, and radiation therapy department rotation at University of Iowa Health Care; competency and objective-based education with required clinical performance evaluations; clinical coordinator facilitates schedule, rotations, learning objectives, evaluations, and competencies; experience facilitated by CT technologists, radiologists, residents, and coordinator; participation in routine and advanced CT scans; performance expectations become progressively higher as students gain experience and skills. Requirements: admission to Radiation Sciences RT to BS online track.

Diagnostic Medical Sonography Courses

RSMS:3100 Cardiac Sonography I 3 s.h.
Anatomy and physiology of cardiovascular system imaged sonographically; proper sonographic imaging techniques, normal anatomy, exam protocol, and proper instrument settings; pathology and pathophysiology of common conditions related to adult cardiovascular system. Prerequisites: RSMS:3110 with a minimum grade of C.

RSMS:3101 Cardiac Sonography I Lab 2 s.h.
Laboratory-based learning and simulation experience involving basic sonographic adult cardiac imaging and clinical history analysis; students perform sonographic exams utilizing scanning simulation to develop skills in sonographic anatomy recognition, scan plane orientation, transducer manipulation, instrumentation, and exam protocols. Prerequisites: RSMS:3111 with a minimum grade of C. Corequisites: RSMS:3100.

RSMS:3110 Foundations of Sonography 3 s.h.
Sonography history, ergonomics, terminology, image orientation; basic theories of sound waves, echo production, transducers, equipment operation, body imaging, Doppler, hemodynamics.

RSMS:3111 Foundations of Sonography Lab 1 s.h.
Sonography history, ergonomics, terminology, image orientation; basic theories of sound waves, echo production, transducers, equipment operation, body imaging, Doppler, and hemodynamics. Corequisites: RSMS:3110.

RSMS:3115 Diagnostic Medical Sonography Clinical Internship I 1 s.h.
Introductory clinical experience in health care setting developing a basic understanding of sonography clinical environment and professional practice standards; applying patient care techniques and developing professional communication skills.

RSMS:3120 Abdominal Sonography I 3 s.h.
Embryology, anatomy, and physiology of various abdominal structures imaged sonographically; abdominal vasculature, hepatobiliary system, pancreas, urinary system, adrenals, spleen, male anatomy; proper sonographic imaging techniques, including appearance of normal anatomy, imaging protocol, proper instrument settings. Prerequisites: RSMS:3110 with a minimum grade of C.

RSMS:3121 Abdominal Sonography I Lab 1 s.h.
Laboratory-based learning and simulation experience in sonographic abdominal imaging; students perform exams utilizing scanning simulation to develop skills in sonographic anatomy recognition, scan plane orientation, transducer manipulation, instrumentation, and exam protocols. Prerequisites: RSMS:3111 with a minimum grade of C. Corequisites: RSMS:3120.

RSMS:3130 Obstetrical and Gynecological Sonography I 3 s.h.
Embryology, anatomy, and physiology of the female reproductive system and developing fetus; proper sonographic imaging techniques, including appearance of normal anatomy, imaging protocol, proper instrument settings. Prerequisites: RSMS:3110 with a minimum grade of C.

RSMS:3131 Obstetrical and Gynecological Sonography I Lab 1 s.h.
Laboratory-based learning and simulation experience involving basic sonographic obstetrical and gynecological imaging and clinical history analysis; students perform sonographic exams utilizing scanning simulation to develop skills in sonographic anatomy recognition, scan plan orientation, transducer manipulation, instrumentation, and exam protocols. Prerequisites: RSMS:3111 with a minimum grade of C. Corequisites: RSMS:3130.

RSMS:3140 Vascular Sonography I 3 s.h.
Anatomy and physiology of peripheral and cerebral vascular systems; analysis of hemodynamics, Doppler waveforms, pressure measurements, plethysmography, sonographic appearance, scanning techniques; evaluation of pathology and pathophysiology common to the lower extremity arterial and venous systems, and cerebrovascular system. Prerequisites: RSMS:3110 with a minimum grade of C.

RSMS:3141 Vascular Sonography I Lab 1 s.h.
Laboratory-based learning and simulation experience involving basic vascular sonographic imaging and clinical history analysis; students perform non-imaging vascular physiologic tests and sonographic exams utilizing scanning simulation to develop skills in sonographic anatomy recognition, scan plane orientation, transducer manipulation, instrumentation, and exam protocols. Prerequisites: RSMS:3111 with a minimum grade of C. Corequisites: RSMS:3140.

RSMS:3150 Cardiac Physiology and Hemodynamics 3 s.h.
Analysis of cardiac physiology and hemodynamics related to sonography; correlation with Doppler application in cardiovascular imaging, ECG, auscultation, cardiac catheterization; advanced and developing imaging techniques.

RSMS:3205 Cardiac Sonography II 3 s.h.
Sonographic evaluation of advanced pathophysiology of human heart; sonographic appearance, imaging techniques, and exam modification. Prerequisites: RSMS:3100.

RSMS:3206 Cardiac Sonography II Lab 1 s.h.
Laboratory-based learning and simulation experience involving the application of advanced sonographic cardiac imaging and clinical history analysis. Prerequisites: RSMS:3101. Corequisites: RSMS:3205.

RSMS:3215 Diagnostic Medical Sonography Clinical Internship II 3 s.h.
Application of basic skills of sonographic imaging and physiologic vascular testing in the health care setting.

RSMS:3230 Sonography Principles, Physics, and Instrumentation 3-4 s.h.
Physical principles of sound waves, their applications to imaging of the human body, operation and physical characteristics of various ultrasound transducers, method by which the sound wave is converted into a visual image, instrumentation components and their functions, Doppler principles, image artifacts, advanced hemodynamics, and spectral Doppler waveform analysis. Prerequisites: RSMS:3110.

RSMS:3231 Sonography Principles, Physics, and Instrumentation Lab 1 s.h.
Laboratory-based learning and simulation experience in the application of sonographic imaging emphasizing physics principles, instrumentation, and quality assurance testing. Corequisites: RSMS:3230.

RSMS:3240 Abdominal Sonography II 3 s.h.
Pathology and pathophysiology of abdominal and superficial structures imaged sonographically; interventional sonographic procedures; post-procedure protocol; associated clinical and laboratory findings; imaging techniques, analysis of findings, and documentation of pathology. Prerequisites: RSMS:3120.

RSMS:3250 Obstetrical and Gynecological Sonography II 3 s.h.
Sonographically related pathological and abnormal congenital conditions of gynecology and obstetrics, infertility, assisted reproductive therapy, invasive procedures in obstetrics and gynecology, postpartum complications and maternal-fetal bonding; clinical findings, laboratory studies, and prognosis correlated with sonographic findings; appropriate image analysis and documentation of pathology. Prerequisites: RSMS:3130.

RSMS:3260 Breast Sonography 2 s.h.
Embryology, anatomy, physiology, and pathophysiology of the breast as it relates to sonographic imaging; proper sonographic imaging techniques, including appearance of normal anatomy, imaging protocol, proper instrument settings; sonographic findings of diseases involving the breast.

RSMS:3270 Vascular Sonography II 3 s.h.
Pathology and pathophysiology of complex diseases of the peripheral, cerebral, and abdominal vascular systems evaluated sonographically; associated clinical findings; techniques in physiologic, nonimaging tests, and duplex sonography; analysis of findings and documentation of pathology. Prerequisites: RSMS:3140.

RSMS:3300 Pediatric Sonography 3 s.h.
Anatomy, sonographic anatomy, pathophysiology, sonographic appearance, and Doppler correlation of disorders affecting the pediatric population, including abdominal, musculoskeletal, peripheral vascular, and cerebrovascular systems, neonatal brain and spinal cord.

RSMS:3305 Pediatric Cardiac Sonography 3 s.h.
Anatomy, sonographic anatomy, pathophysiology, sonographic appearance, and Doppler correlation of disorders affecting the pediatric cardiac population; associated clinical findings; techniques in sonographic imaging, analysis of findings, and documentation of pathology. Prerequisites: RSMS:3205. Requirements: completion of or current enrollment in a diagnostic medical sonography program.

RSMS:3306 Pediatric Cardiac Sonography Laboratory 1 s.h.
Laboratory-based learning and simulation experience involving basic sonographic pediatric cardiac imaging and clinical history analysis; students perform sonographic exams utilizing scanning simulation to develop skills in sonographic anatomy recognition, scan plane orientation, transducer manipulation, instrumentation, and exam protocols. Corequisites: RSMS:3305. Recommendations: completion of or current enrollment in a diagnostic medical sonography program.

RSMS:3315 Diagnostic Medical Sonography Clinical Internship III 3 s.h.
Application of sonographic imaging and physiologic vascular testing skills in health care setting; students develop competency in basic exams.

RSMS:3325 Abdominal Sonography II Lab 1 s.h.
Laboratory-based learning and simulation utilizing computer-aided learning and scanning simulation to develop skills in interventional sonographic procedures with real-time ultrasound guidance; advanced abdominal and superficial structure imaging; exploring case studies; image analysis in identifying pathologies and differential diagnoses. Prerequisites: RSMS:3121.

RSMS:3376 Vascular Sonography II Lab 1 s.h.
Laboratory-based learning and simulation experience to develop skills in advanced sonographic imaging of the vascular system and performance of advanced nonimaging vascular physiologic tests; analysis of findings and documentation of pathology. Prerequisites: RSMS:3141.

RSMS:4110 Advanced Sonography 3 s.h.
Exploration of advanced sonographic imaging techniques and new technologies. Prerequisites: (RSMS:3240 with a minimum grade of C and RSMS:3250 with a minimum grade of C and RSMS:3270 with a minimum grade of C) or (RSMS:3205 with a minimum grade of C and RSMS:3270 with a minimum grade of C).

RSMS:4111 Advanced Sonography Lab 1 s.h.
Laboratory-based learning and simulated application of advanced sonographic imaging techniques and new technologies. Prerequisites: (RSMS:3325 with a minimum grade of C and RSMS:3376 with a minimum grade of C) or (RSMS:3206 with a minimum grade of C and RSMS:3376 with a minimum grade of C). Corequisites: RSMS:4110.

RSMS:4115 Diagnostic Medical Sonography Clinical Internship IV 5 s.h.
Application of sonographic imaging and physiologic vascular testing skills in the health care setting; students develop competency in high-level procedures. Prerequisites: RSMS:3315 with a minimum grade of C and RSMS:3376 with a minimum grade of C.

RSMS:4120 Advanced Cardiac Sonography 3 s.h.
Advanced cardiac sonographic imaging techniques, quantifications, and new technologies; analysis of applications and limitations of imaging techniques. Prerequisites: RSMS:3205 with a minimum grade of C and RSMS:3270 with a minimum grade of C.

RSMS:4121 Advanced Cardiac Sonography Lab 1 s.h.
Laboratory-based learning and simulated application of advanced cardiac sonographic imaging techniques, quantifications, and new technologies. Prerequisites: RSMS:3206 with a minimum grade of C. Corequisites: RSMS:4120.

RSMS:4210 Fetal Cardiac Sonography 3 s.h.
Anatomy, sonographic anatomy, pathophysiology, sonographic appearance, and Doppler correlation of disorders affecting the fetal cardiac population; associated clinical findings; techniques in sonographic imaging, analysis of findings, and documentation of pathology. Prerequisites: RSMS:4110. Recommendations: sonography students, sonographers, and physicians with foundational knowledge in routine screening fetal heart sonographic evaluation.

RSMS:4215 Diagnostic Medical Sonography Clinical Internship V 5 s.h.
Application of sonographic imaging and physiologic vascular testing skills in health care setting; students develop advanced skills. Prerequisites: RSMS:4115 with a minimum grade of C and RSMS:4110 with a minimum grade of C and RSMS:4111 with a minimum grade of C.

RSMS:4220 Multidisciplinary Capstone Seminar 3 s.h.
Case-based learning; students analyze and synthesize data, determine proper course of action, and evaluate outcomes; preparation for professional work environment. Prerequisites: RSMS:4110.

RSMS:4230 Musculoskeletal Sonography 3 s.h.
Anatomy, sonographic anatomy, pathophysiology, sonographic appearance, and Doppler correlation of disorders affecting the musculoskeletal system; associated clinical findings; techniques in sonographic imaging, analysis of findings, and documentation of pathology. Prerequisites: RSMS:4110. Recommendations: sonography students, sonographers, physicians, and other health professionals with foundational knowledge in sonographic imaging.

Magnetic Resonance Imaging Courses

RSMR:4110 Fundamentals for the MRI Technologist 3 s.h.
Caregiving skills specific to patients undergoing MRI examinations, including techniques in effectively communicating for safety and comfort; maintaining patient and personnel safety; patient preparation, monitoring, and venipuncture; technologist's role in a wide variety of MRI examinations and patient conditions. Requirements: acceptance to BS radiation sciences RT/MRI track or ARRT primary certification in radiologic technology, nuclear medicine, sonography, or radiation therapy.

RSMR:4120 MRI Procedures I 4 s.h.
Imaging techniques related to central nervous and musculoskeletal systems; specific clinical applications; available coils and their use; considerations in imaging parameters; specific choices in protocols and positioning criteria; anatomical structures and the plane that best demonstrates anatomy; signal characteristics of normal and abnormal structures; information on common pathological conditions found in MRI images and protocol appearance variations. Prerequisites: RSCT:4100 and RSMR:4110. Requirements: concurrent registration in RSMR:4110, if not taken as a prerequisite; or three months MRI experience.

RSMR:4130 MRI Procedures II 4 s.h.
MRI techniques related to neck, thorax, breast, abdomen, and pelvis; specific clinical applications; available coils and their use; considerations in imaging parameters; specific choices in protocols and positioning criteria; information on common pathological conditions found in MRI images and protocol appearance variations. Prerequisites: RSMR:4120.

RSMR:4140 MRI Acquisition and Principles I 3 s.h.
Physics and hardware used in obtaining a magnetic resonance signal, including magnetism, NMR signal production, tissue characteristics, spatial localization, pulse sequencing, imaging parameters and options, and special applications; exploration of skills useful in maximizing MR image quality. Prerequisites: RSMR:4110. Requirements: concurrent registration in RSMR:4110, if not taken as a prerequisite; or three months MRI experience.

RSMR:4150 MRI Acquisition and Principles II 3 s.h.
Advanced MRI techniques; MR angiography and further investigation of fast image acquisition sequences; overview of MR magnets, installation, operation, and facility design; computers and digital image acquisition as they apply to MR; outline of quality assurance procedures. Prerequisites: RSMR:4140.

RSMR:4160 MRI Clinical Internship I 2 s.h.
Application of magnetic resonance imaging skills in health care setting; development of competency in high-level procedures and protocols. Prerequisites: RSRT:3225. Corequisites: RSMR:4110, if not taken as a prerequisite. Requirements: acceptance to BS radiation sciences RT/MRI track.

RSMR:4170 MRI Clinical Internship II 4 s.h.
MRI clinical internship scheduled at University of Iowa Health Care; rotation through each MRI department scanning room; competency and objective-based education with required clinical performance evaluations; clinical preceptor facilitates schedules, rotations, learning objectives, evaluations, and competencies; experience facilitated by MRI technologists, radiologists, residents, and preceptor; participation in routine and advanced MRI scans; performance expectations become progressively higher as student gains experience and skills. Prerequisites: RSMR:4160. Corequisites: RSMR:4140, if not taken as a prerequisite. Requirements: acceptance to BS radiation sciences RT/MRI track.

RSMR:4175 MRI Clinical Internship III 4 s.h.
Rotation through MRI department scanning rooms at University of Iowa Health Care; competency and objective-based education with required clinical performance evaluations; clinical preceptor facilitates schedules, rotations, learning objectives, evaluations, and competencies; experience facilitated by MRI technologists, radiologists, residents, and preceptor; participation in routine and advanced MRI scans; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSMR:4170.

RSMR:4308 Magnetic Resonance Imaging Practicum 1-6 s.h.
Rotation through MRI department scanning rooms at University of Iowa Health Care; competency and objective-based education with required clinical performance evaluations; clinical preceptor facilitates schedules, rotations, learning objectives, evaluations, and competencies; experience facilitated by MRI technologists, radiologists, residents, and preceptor; participation in routine and advanced MRI scans; performance expectations become progressively higher as students gain experience and skills. Requirements: admission to Radiation Sciences RT to BS online track.

Radiation Sciences Courses

RSP:1100 Introduction to the Radiation Sciences 1 s.h.
Exploration of radiation sciences field (radiologic technology, nuclear medicine and PET, diagnostic medical sonography, radiation therapy, computed tomography, magnetic resonance imaging, cardiovascular interventional); introduction to basic principles and modalities associated with the field in preparation for application to radiation sciences or nuclear medicine technology major.

RSP:2110 Pathology for Radiation Sciences 2 s.h.
Broad overview of common human diseases for the radiation sciences professional. Emphasis on disease prevalence, morbidity and mortality, risk factors, diagnosis, treatment, and prevention strategies. Fundamental vocabulary and concepts, basic disease processes, and the role of medical imaging and therapy in the diagnosis and treatment of disease are explored.

RSP:2120 Patient Care for the Radiation Sciences 3 s.h.
Foundation for providing care to clients during radiographic examinations; taking medical histories, basic life support, medical emergencies, vital sign assessment, body mechanics, infection control, sterile techniques, intravenous equipment, administration; advance concepts in client assessment and monitoring, including evaluation and monitoring of clients in pain, and clients in acute and chronic states of illness; communication techniques, role playing. Requirements: acceptance to radiation science degree track.

RSP:3130 Introduction to Radiation Safety and Radiobiology 1 s.h.
Instruction on safe operation of radiation producing equipment and handling of radioactive materials; origin and/or derivation of certain formulae and techniques useful in radiation protection programs; regulatory agencies, regulations, and regulatory guides pertinent to student's field; emphasis on applied aspects of radiation protection; characteristics and biological effects of ionizing radiations, properties and uses of radioisotopes, medical applications, and biological basis for protection procedures. Requirements: enrollment in radiation sciences or nuclear medicine technology program. Same as FRRB:3130.

RSP:3210 Medical Ethics and Law 2 s.h.
Introduction to ethical reasoning and problem solving; integration of knowledge about patient care and ethical/legal issues which occur in process of providing care; ethical principles of autonomy, beneficence, justice, nonmaleficence, paternalism, Patient's Bill of Rights, resolving moral dilemmas; legal principles of malpractice, intentional torts, negligence. Requirements: radiation science or nuclear medicine technology major.

RSP:3220 Radiation Sciences Quality Management and Health Care Administration 2 s.h.
Introduction to quality management and health care administration topics relevant for the radiation sciences professional. Students are introduced to quality improvement tools, methodologies utilized in healthcare projects, health care economics, coding, and reimbursement. Students learn how medical informatics and artificial intelligence impact the field of medical imaging and therapy.

RSP:4110 Research Methodology for Radiation Sciences 3 s.h.
Introduction to research concepts and methods for the radiation science professional. Requirements: radiation sciences or nuclear medicine technology major.

Radiation Therapy Courses

RSTH:3100 Introduction to Radiation Therapy 2 s.h.
Introduction to cancer as a disease; defining methods to treat cancer with emphasis on radiation therapy; simulation, planning, and treatment delivery of radiation therapy. Requirements: acceptance to radiation sciences therapy program.

RSTH:3101 Introduction to Radiation Therapy Lab 1 s.h.
Provides students with the fundamental concepts and techniques used in radiation therapy. Students will gain knowledge and hands-on experience with radiation therapy equipment and procedures, learning how to safely and effectively deliver radiation treatments. Key topics include patient safety and communication, treatment room orientation, patient positioning, imaging, workflow, and radiation safety.

RSTH:3110 Medical Physics I 1-3 s.h.
Introduction to radiation used in clinical setting; fundamental physical units, measurements, principles, atomic structure and types of radiation; X-ray generating equipment, X-ray production, and its interaction with matter. Requirements: admission to free radical and radiation biology program or acceptance to radiation sciences therapy program, and maxillofacial or radiation oncology resident. Same as FRRB:3110.

RSTH:3120 Radiation Therapy Clinical Internship I 3 s.h.
Student rotations through different radiation therapy related areas; assist, practice, and test radiation therapy principles learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Requirements: acceptance to radiation sciences therapy program.

RSTH:3132 Radiobiology in Radiation Therapy 1 s.h.
Continuation of RSP:3130; geared towards students enrolled in the radiation therapy program.

RSTH:3205 Principles of Radiation Therapy I 3 s.h.
Didactic and laboratory work in principles of radiation therapy; historic and current aspects of cancer treatment; role of radiation therapist; patient care, treatment delivery accessories, tumor localization treatment delivery protocols. Prerequisites: RSTH:3100. Requirements: enrollment in radiation sciences therapy program.

RSTH:3206 Principles of Radiation Therapy I Lab 1 s.h.
Provides students with the fundamental knowledge and techniques used in radiation therapy. Students gain hands-on experience with radiation therapy equipment and treatment procedures, learning how to safely and effectively deliver radiation treatments covered in the didactic portion of the course. Additionally, students learn about topics related to radiation physics, treatment planning, patient positioning, special procedures, patient education, and chart checks. Prerequisites: RSTH:3100.

RSTH:3215 Medical Physics II 0-3 s.h.
Treatment units used in external radiation therapy; beam calculations, isodose distributions, brachytherapy, quality assurance and quality management, protection and safety. Prerequisites: RSTH:3110. Requirements: admission to free radical and radiation biology program or acceptance to radiation sciences therapy program. Same as FRRB:3215.

RSTH:3225 Radiation Therapy Clinical Internship II 3 s.h.
Student rotations through different radiation therapy related areas; assist, practice, and test radiation therapy principles learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSTH:3120. Requirements: acceptance to radiation sciences therapy program.

RSTH:3325 Radiation Therapy Clinical Internship III 4 s.h.
Student rotations through different radiation therapy related areas; assist, practice, and test radiation therapy principles learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSTH:3225. Requirements: acceptance to radiation sciences therapy program.

RSTH:4105 Principles of Radiation Therapy II 2 s.h.
Evaluation and management of neoplastic disease using knowledge in arts and sciences; critical thinking and basis of ethical clinical decision-making; epidemiology, etiology, detection, diagnosis, patient condition, treatment and prognosis of neoplastic disease. Prerequisites: RSTH:3205. Requirements: enrollment in radiation sciences therapy program.

RSTH:4125 Radiation Therapy Clinical Internship IV 4 s.h.
Student rotations through different radiation therapy related areas; assist, practice, and test radiation therapy principles learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSTH:3325. Requirements: acceptance to radiation sciences therapy program.

RSTH:4225 Radiation Therapy Clinical Internship V 5 s.h.
Student rotations through different radiation therapy related areas; assist, practice, and test radiation therapy principles learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSTH:4125. Requirements: acceptance to radiation sciences therapy program.

RSTH:4230 Radiation Therapy Capstone 3 s.h.
Professional development; review of concepts. Prerequisites: RSTH:4105. Requirements: acceptance to radiation sciences therapy program.

Radiologic Technology Courses

RSRT:2120 Radiologic Technology Clinical Internship I 1 s.h.
Student rotations through different radiography-related areas of University of Iowa Health Care; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Requirements: acceptance to radiation sciences RT/CT, CVI, or MRI degree track.

RSRT:2130 Radiographic Procedures I 2 s.h.
Introduction to radiographic positioning principles; technical and positioning information needed to perform radiographic imaging of chest and abdomen on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions. Corequisites: RSRT:2140 and RSRT:2141.

RSRT:2140 Radiographic Analysis I 1 s.h.
Introduction to radiographic analysis principles; technical, positioning, and analysis information needed to evaluate images of chest and abdomen on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions. Corequisites: RSRT:2130 and RSRT:2141.

RSRT:2141 Radiographic Procedures and Analysis I Lab 1 s.h.
Introduction to radiographic procedures and analysis principles; technical, positioning, and analysis information needed to evaluate images of the chest and abdomen on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions; lab bridges didactic and clinical learning. Corequisites: RSRT:2130 and RSRT:2140.

RSRT:2225 Radiologic Technology Clinical Internship II 3 s.h.
Student rotation through different radiography-related areas of University of Iowa Health Care; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:2120.

RSRT:2230 Radiographic Procedures II 3 s.h.
Technical and radiographic positioning information needed to perform images of upper and lower extremity; emphasis on quality patient care and adaptation to a variety of client conditions. Prerequisites: RSRT:2130.

RSRT:2240 Radiographic Analysis II 2 s.h.
Radiographic procedure and image analysis information needed to evaluate images of upper and lower extremity and shoulder; emphasis on quality patient care and adaptation to a variety of client conditions; labs. Prerequisites: RSRT:2140.

RSRT:2241 Radiographic Procedures and Analysis II Lab 1 s.h.
Introduction to radiographic procedures and analysis principles; technical, positioning, and analysis information needed to evaluate images of upper and lower extremity and skull on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions; lab bridges didactic and clinical learning. Corequisites: RSRT:2230 and RSRT:2240.

RSRT:2250 Radiographic Fluoroscopic Procedures 2 s.h.
Technical, radiographic positioning, and analysis information needed to perform radiographic procedures that utilize fluoroscopy; emphasis on quality patient care and adaptation to a variety of client conditions. Prerequisites: RSRT:2130 and RSRT:2140.

RSRT:2251 Radiographic Fluoroscopic Procedures Lab 1 s.h.
Introduction to technical, radiographic positioning, and analysis information needed to perform radiographic procedures that utilize fluoroscopy; emphasis on quality patient care and adaptation to a variety of client conditions; lab bridges didactic and clinical learning. Corequisites: RSRT:2250.

RSRT:2325 Radiologic Technology Clinical Internship III 3 s.h.
Student rotation through different radiography-related areas of University of Iowa Health Care; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:2225.

RSRT:3110 Radiographic Analysis III 1 s.h.
Introduction to radiographic analysis principles; technical, positioning, and analysis information needed to evaluate images of hip, pelvis, spine, thorax, and skull on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions. Corequisites: RSRT:3111 and RSRT:3120.

RSRT:3111 Radiographic Procedures and Analysis III Lab 1 s.h.
Introduction to radiographic procedures and analysis principles; technical, positioning, and analysis information needed to evaluate images of hip, pelvis, spine, thorax, and skull on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions; lab bridges didactic and clinical learning. Corequisites: RSRT:3110 and RSRT:3120.

RSRT:3120 Radiographic Procedures III 2 s.h.
Introduction to radiographic positioning principles; technical and positioning information needed to perform radiographic imaging of hip, pelvis, spine, thorax, and skull on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions. Prerequisites: RSRT:2230 and RSRT:2240. Corequisites: RSRT:3110 and RSRT:3111.

RSRT:3125 Radiologic Technology Clinical Internship IV 4 s.h.
Student rotation through different radiography-related areas of University of Iowa Health Care; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:2325.

RSRT:3132 Radiation Safety in Radiologic Technology 1 s.h.
Continuation of RSP:3130; geared towards students enrolled in the radiologic technology program.

RSRT:3140 Radiographic and Digital Imaging 3 s.h.
Factors that govern and influence production of radiographic image; X-ray and scatter production; patient interactions; function of kVp, mAs, and distance as applied to contrast and spatial resolution; practical issues concerning automatic exposure control and grid usage.

RSRT:3141 Radiographic and Digital Imaging Lab 1 s.h.
Introduction to factors that govern and influence production of radiographic image; X-ray and scatter production; patient interactions; function of kilovoltage peak (kVp), milli-ampere-second (mAs), and distance as applied to contrast and spatial resolution; practical issues concerning automatic exposure control and grid usage; labs for practice and application of theoretical principles associated with production of quality images. Corequisites: RSRT:3140.

RSRT:3220 Emotional Intelligence for the Health Care Professional 2 s.h.
Introduction to emotional intelligence; scientific background for why emotional intelligence exists and exploring its applications to the health care setting; connection of emotional intelligence to interactions that occur between health care professional and their patients, patient families, and coworkers.

RSRT:3225 Radiologic Technology Clinical Internship V 3 s.h.
Student rotation through different radiography-related areas of University of Iowa Health Care; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:3125.

RSRT:3230 Radiographic Physics and Imaging Equipment 3 s.h.
Characteristics of atomic structure, electricity, and X-ray machines; properties of X-rays and their interaction with matter; measurement of radiation exposure; construction principles and theories of operation of specialized imaging equipment, including fundamentals of acquisition for imaging intensification, geometric tomography, mobile/portable radiography, and magnification principles.

RSRT:3231 Radiographic Physics and Imaging Equipment Lab 1 s.h.
Introduction to characteristics of atomic structure, electricity, and X-ray machines; properties of X-rays and their interaction with matter; measurement of radiation exposure; construction principles and theories of operation of specialized imaging equipment including fundamentals of acquisition for imaging intensification, geometric tomography, mobile/portable radiography, and magnification principles; labs for practice and application of theoretical principles. Corequisites: RSRT:3230.

RSRT:3325 Radiologic Technology Clinical Internship VI 2 s.h.
Student rotation through different radiography-related areas of University of Iowa Health Care; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:3225.

RSRT:4125 Radiologic Technology Clinical Internship VII 1 s.h.
Student rotation through different radiography-related areas of University of Iowa Health Care; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:3325.

RSRT:4225 Radiologic Technology Clinical Internship VIII 1 s.h.
Student rotation through different radiography-related areas of University of Iowa Health Care; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:4125.

RSRT:4230 Radiologic Technology Capstone and Certification Exam Preparation 2 s.h.
Certification exam preparation; preparation and distribution of detailed written outlines of exam content; series of content-specific quizzes, midterm, and final "mock board" exam to evaluate student learning and preparedness for taking the American Registry of Radiologic Technologists (ARRT) national certification exams; professional preparation; for students in final semester of program. Requirements: enrollment in radiation sciences RT/BI, CT, CVI, or MRI program.

Radiation Sciences, BS

The Radiation Sciences Program offers two paths toward completing the major:

- an on-campus program in radiologic technology, diagnostic medical sonography, or radiation therapy for students who have not completed a radiation sciences modality; or
- an online program for registered radiologic technologists and nuclear medicine technologists who would like to earn a Bachelor of Science degree by distance education.

Undergraduate study in radiation sciences is guided by the academic rules and procedures outlined under Undergraduate Rules and Procedures [p. 1844] in the Carver College of Medicine section of the catalog.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Requirements

The Bachelor of Science with a major in radiation sciences requires a minimum of 120 s.h. Work for the on-campus degree includes a set of courses that are prerequisite to entering the radiation sciences major, completion of one of eight radiation sciences professional programs, and elective coursework sufficient to complete the minimum of 120 s.h. required for graduation. Students must complete the radiation sciences professional program at the University of Iowa. Registered radiologic technologists interested in earning the degree through distance education should see RT to BS (Online) [p. 1985] in this section of the catalog.

Admission to the radiation sciences major is competitive and selective; acceptance into a professional program or the major is not guaranteed. Students who wish to enter the major must first be admitted to the University of Iowa as College of Liberal Arts and Sciences (CLAS) students with a radiation sciences interest. As CLAS students, they must apply to the radiation sciences professional program of their choice by Jan. 15 of the year in which they wish to enter; see Apply on the Radiation Sciences Program website. Transfer students are encouraged to apply in early November to allow time for transfer course articulation. Accepted students enter a professional program, the radiation sciences major, and the Carver College of Medicine the following fall semester.

Applicants for admission to the University of Iowa whose first language is not English are strongly encouraged to complete the University of Iowa English Proficiency Evaluation and satisfy the university's English Proficiency Requirements before they apply to a professional program. Students must have permission to register for a full academic load before they may be admitted to a radiation sciences professional program.

The radiation sciences major requires students to complete a minimum of two years of a high school world language prior to admission.

For additional information on UI admission requirements, contact University of Iowa Admissions.

First-year and transfer applicants admitted to the College of Liberal Arts and Sciences as radiation sciences interest students must complete all courses that are prerequisites to the radiation sciences major (including approved transfer equivalents) by June 1 before they may begin one of the radiation sciences professional programs and enter the major. The only exception to this deadline is that the physics course required for the diagnostic medical sonography program may be completed in the summer session. Prerequisite courses vary slightly depending on which professional program a student wishes to enter.

Students who have declared a radiation sciences interest but have not yet applied and been accepted to a professional program are advised at the University of Iowa Academic Advising Center. After they have been accepted to a professional program, they are advised by the Radiation Sciences Office of Student Affairs.

Upon successful completion of the professional program, students are eligible to apply for national certification exams for their program's specialty area(s). Once they have completed the professional program and all other requirements for graduation, they are granted a Bachelor of Science degree.

The Bachelor of Science with a major in radiation sciences requires the following coursework.

Prerequisites to the Radiation Sciences Major

Students must complete the following prerequisite courses (28–33 s.h.) by the end of the spring semester before they enter the program and the major. Students may complete physics for the sonography program in the summer. Additionally, students must have earned an overall cumulative college grade-point average (GPA) of at least 2.50, a UI GPA of at least 2.00, and a 2.00 term GPA in the spring/summer semesters immediately preceding the start of the professional program. Students who wish to enter either of the two-year professional programs (radiologic technology or radiation therapy) must complete a total of 60 s.h. of college coursework, including the following prerequisites, by the end of the spring semester before they enter the program and the major.

Students are advised for success based on academic strength, not necessarily for a four-year plan. Prerequisite courses for the three-year professional programs (multi-credentialed radiologic technology and diagnostic medical sonography) may take more than one year to complete. Prerequisite courses for the radiologic technology and radiation therapy professional programs may take more than two years to complete.

Rhetoric

Course #	Title	Hours
This course:		
RHET:1030	Rhetoric: Writing and Communication	4

Anatomy

Course #	Title	Hours
One of these:		
HHP:2100	Human Anatomy	3
HHP:3105	Anatomy for Human Physiology	3
HHP:3115	Anatomy for Human Physiology With Lab	5

Physiology

Course #	Title	Hours
One of these:		
HHP:2400	Fundamentals of Human Physiology	3
HHP:3500	Human Physiology	3
HHP:3550	Human Physiology With Laboratory	5

Physics

Course #	Title	Hours
Students interested in diagnostic medical sonography or radiation therapy programs complete one of these:		
PHYS:1400	Basic Physics	3-4
PHYS:1511	College Physics I	4

Quantitative or Formal Reasoning

Course #	Title	Hours
One of these:		
MATH:1020	Elementary Functions	4
MATH:1440	Mathematics for the Biological Sciences	4

Psychology

Course #	Title	Hours
This course:		
PSY:1001	Elementary Psychology	3

Medical Terminology

Course #	Title	Hours
This course:		
CLSA:3750	Medical and Technical Terminology	2

Culture, Society, and the Arts

Two courses for 3 s.h. each in two of these areas.

- Understanding Cultural Perspectives
- Historical Perspectives
- International and Global Issues
- Literary, Visual, and Performing Arts
- Values and Society

See GE CLAS Core [p. 22] (College of Liberal Arts and Sciences) in the catalog for approved courses in the areas listed.

Recommended Pre-Major Work

The Radiation Sciences Program recommends that before students submit an application to a radiation sciences professional program and the major, they job-shadow a professional who works in their area of interest and gain hands-on patient care experience. Each professional program lists recommended courses that may be completed in addition to the required courses.

Electives

In order to earn the minimum of 120 s.h. required for graduation, students may need to complete elective coursework in addition to the prerequisite coursework listed and one of the professional programs in medical imaging. They should plan their elective courses in consultation with their advisor.

Radiation Sciences Professional Programs

Students must complete one of the following on-campus radiation sciences professional programs at University of Iowa Health Care:

- radiologic technology [p. 1979];
- radiologic technology and breast imaging [p. 1979];
- radiologic technology and cardiovascular interventional [p. 1979];
- radiologic technology and computed tomography [p. 1979];
- radiologic technology and magnetic resonance imaging [p. 1979];
- diagnostic medical sonography and cardiac/vascular [p. 1977];
- diagnostic medical sonography and general/vascular [p. 1977]; or
- radiation therapy [p. 1984].

Each program offers modality-specific didactic and supervised clinical education courses. Graduates of the professional programs and associated internships are eligible to apply for one or more certification exams.

The diagnostic medical sonography programs span three years, the radiation therapy program spans two years, and the radiologic technology programs span two or three years. Each program begins in the fall.

Admission to all radiation sciences professional programs is competitive; each program accepts a limited number of students and acceptance is not guaranteed.

Students participating in clinical rotations at non-UI Health Care facilities as part of their professional program are required to meet the immunization and testing requirements of those facilities in addition to those required at UI Health Care locations.

Diagnostic Medical Sonography

A diagnostic medical sonographer is a skilled professional who uses high-frequency sound wave equipment to create diagnostic images and data that assist health care professionals in their diagnosis of patients with disease. Ultrasound imaging is used on many parts of the body, including the abdomen, heart, blood vessels, and the developing fetus of a pregnant person. When determining normal and abnormal findings, the sonographer must demonstrate sectional anatomy through transducer manipulation. The sonographer uses independent judgment in recognizing the need to extend the scope of the study according to the diagnostic findings. The sonographer spends extended time with the patient obtaining a thorough history of symptoms, explaining the exam, answering questions, and performing the exam.

Each of the radiation sciences diagnostic medical sonography (DMS) degree tracks consists of two professional programs —DMS and cardiac and vascular sonography or DMS and general and vascular sonography. Each of these three-year programs is selective and competitive; acceptance is not guaranteed. Students must satisfy all UI admission

requirements, complete all prerequisites, and be accepted into the diagnostic medical sonography professional program following an application and selection process; see Diagnostic Medical Sonography on the Radiation Sciences Program website.

Diagnostic Medical Sonography and Cardiac and Vascular Sonography

The diagnostic medical sonography program in cardiac and vascular sonography provides a multispecialty education in cardiac (echocardiography) and vascular sonography (ultrasound imaging). Students learn about sonographic imaging and evaluation, hemodynamics and Doppler evaluation, sonography equipment, sectional anatomy, pathology, patient care, medical ethics, emotional intelligence, research methodologies, and quality management. They become proficient in using sonographic imaging equipment and in performing cardiac and vascular sonographic procedures, including invasive procedures, emergency exams, and 3D imaging. They also participate in supervised clinical education. An elective course and lab in pediatric cardiac sonography and an elective course in fetal cardiac sonography are available.

Upon completing the program, graduates are eligible to apply for the national certification exams in diagnostic medical sonography in the specialty areas of cardiac (echocardiography) and vascular technology.

Students who have completed all prerequisite courses by June 1 (except physics, which may be completed in the summer session) are eligible to apply to this three-year program. Application deadline is Jan. 15. Up to eight students are accepted into this track each year, which begins in the fall.

DMS and Cardiac and Vascular Sonography, Required Courses

Upon acceptance into the diagnostic medical sonography and cardiac and vascular professional program, students will complete required courses and internships during their second, third, and fourth years.

Course #	Title	Hours
All of these:		
RSCI:4110	Vascular Anatomy	3
RSCI:4130	Electrocardiogram and Hemodynamics	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSMS:3100	Cardiac Sonography I	3
RSMS:3101	Cardiac Sonography I Lab	2
RSMS:3110	Foundations of Sonography	3
RSMS:3111	Foundations of Sonography Lab	1
RSMS:3115	Diagnostic Medical Sonography Clinical Internship I	1
RSMS:3140	Vascular Sonography I	3
RSMS:3141	Vascular Sonography I Lab	1
RSMS:3150	Cardiac Physiology and Hemodynamics	3
RSMS:3205	Cardiac Sonography II	3
RSMS:3206	Cardiac Sonography II Lab	1
RSMS:3215	Diagnostic Medical Sonography Clinical Internship II	3
RSMS:3230	Sonography Principles, Physics, and Instrumentation	3
RSMS:3231	Sonography Principles, Physics, and Instrumentation Lab	1
RSMS:3270	Vascular Sonography II	3
RSMS:3315	Diagnostic Medical Sonography Clinical Internship III	3
RSMS:3376	Vascular Sonography II Lab	1
RSMS:4110	Advanced Sonography	3
RSMS:4111	Advanced Sonography Lab	1
RSMS:4115	Diagnostic Medical Sonography Clinical Internship IV	5
RSMS:4120	Advanced Cardiac Sonography	3
RSMS:4121	Advanced Cardiac Sonography Lab	1
RSMS:4215	Diagnostic Medical Sonography Clinical Internship V	5
RSMS:4220	Multidisciplinary Capstone Seminar	3
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3210	Medical Ethics and Law	2
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSP:4110	Research Methodology for Radiation Sciences	3
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
Electives		
RSMS:3305	Pediatric Cardiac Sonography	3
RSMS:3306	Pediatric Cardiac Sonography Laboratory	1
RSMS:4210	Fetal Cardiac Sonography	3

Diagnostic Medical Sonography and General and Vascular Sonography

The diagnostic medical sonography program in general and vascular sonography provides a multispecialty education in obstetrical, abdominal, and vascular sonography (ultrasound imaging). Students learn about sonographic imaging and evaluation, hemodynamics and Doppler evaluation, sonography equipment, sectional anatomy, pathology, patient care, medical ethics, emotional intelligence, research methodologies, and quality management. They become proficient in using sonographic imaging equipment and in performing obstetrical and gynecological, abdominal, and vascular sonographic procedures, including invasive procedures, emergency exams, pediatric sonography, and 3D imaging. They also participate in supervised clinical

education. An elective course in breast sonography and fetal cardiac sonography is available.

Upon completing the program, graduates are eligible to apply for the national certification exams in diagnostic medical sonography in the specialty areas of obstetrics and gynecology, abdomen, and vascular technology.

Students who will have completed all prerequisite courses by June 1 (except physics, which may be completed in the summer session) are eligible to apply to this three-year program. Application deadline is Jan. 15. Up to 12 students are accepted into this track each year, which begins in the fall.

DMS and General and Vascular Sonography, Required Courses

Upon acceptance into the diagnostic medical sonography and general and vascular professional program, students will complete required courses and internships during their second, third, and fourth years.

Course #	Title	Hours
All of these:		
RSCI:4110	Vascular Anatomy	3
RSCI:4130	Electrocardiogram and Hemodynamics	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSMS:3110	Foundations of Sonography	3
RSMS:3111	Foundations of Sonography Lab	1
RSMS:3115	Diagnostic Medical Sonography Clinical Internship I	1
RSMS:3120	Abdominal Sonography I	3
RSMS:3121	Abdominal Sonography I Lab	1
RSMS:3130	Obstetrical and Gynecological Sonography I	3
RSMS:3131	Obstetrical and Gynecological Sonography I Lab	1
RSMS:3140	Vascular Sonography I	3
RSMS:3141	Vascular Sonography I Lab	1
RSMS:3215	Diagnostic Medical Sonography Clinical Internship II	3
RSMS:3230	Sonography Principles, Physics, and Instrumentation	3
RSMS:3231	Sonography Principles, Physics, and Instrumentation Lab	1
RSMS:3240	Abdominal Sonography II	3
RSMS:3250	Obstetrical and Gynecological Sonography II	3
RSMS:3270	Vascular Sonography II	3
RSMS:3300	Pediatric Sonography	3
RSMS:3315	Diagnostic Medical Sonography Clinical Internship III	3
RSMS:3325	Abdominal Sonography II Lab	1
RSMS:3376	Vascular Sonography II Lab	1
RSMS:4110	Advanced Sonography	3
RSMS:4111	Advanced Sonography Lab	1
RSMS:4115	Diagnostic Medical Sonography Clinical Internship IV	5
RSMS:4215	Diagnostic Medical Sonography Clinical Internship V	5
RSMS:4220	Multidisciplinary Capstone Seminar	3
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3210	Medical Ethics and Law	2
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSP:4110	Research Methodology for Radiation Sciences	3
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
Electives		
RSMS:3260	Breast Sonography	2
RSMS:4210	Fetal Cardiac Sonography	3

DMS Recommended Pre-Major Work

The following courses are recommended prior to DMS program application.

Course #	Title	Hours
All of these:		
RSP:1100	Introduction to the Radiation Sciences	1
PSY:1010	Your Brain Unlocked: Learning About Learning	1
STAT:1020	Elementary Statistics and Inference	3
One of these:		
BIOL:1140	Human Biology: Nonmajors	4
HHP:1400	Human Anatomy and Physiology	3
One of these:		
BAIS:1500	Business Computing Essentials	2
CS:1020	Principles of Computing	3

Radiologic Technology

A radiologic technologist is a healthcare professional who specializes in the imaging of human anatomy for diagnosis and treatment. Radiographers prepare patients for the imaging exams, move patients into the correct position for their imaging, and operate specialized equipment. Radiographers work in many different settings including hospitals, medical labs, doctor offices, and outpatient centers. Areas of specialization include bone densitometry, cardiac interventional radiography (CI), computed tomography (CT), magnetic resonance imaging (MRI), mammography, radiography, and vascular interventional radiography (VI).

The radiation sciences radiologic technology degree tracks consist of five professional programs. Up to 25 students are accepted into the radiologic technology program each year.

- Radiologic Technology [p. 1980]
- Radiologic Technology and Breast Imaging [p. 1980]
- Radiologic Technology and Cardiovascular Interventional [p. 1981]
- Radiologic Technology and Computed Tomography [p. 1982]
- Radiologic Technology and Magnetic Resonance Imaging [p. 1983]

Each of these two- or three-year programs is selective and competitive; acceptance is not guaranteed. Students must satisfy all UI admission requirements, complete all prerequisites, and be accepted into a radiologic technology professional program following an application and selection process; see Radiologic Technology on the Radiation Sciences Program website.

Radiologic Technology

The radiologic technology (RT) program provides education in pathology, radiation biology, radiation protection, patient care, sectional anatomy, emotional intelligence, medical ethics, medical research, quality management, and health care administration. Students learn about radiographic procedures, imaging and evaluations, imaging equipment, quality assurance, and clinical education in radiography. Clinical education takes place in a variety of medical imaging sites and includes day, evening, and weekend obligations at clinical locations that are geographically dispersed.

Upon completion of the program, graduates are eligible to apply for the national certification exam in radiography.

Students who will have completed a total of 60 s.h., including prerequisite courses by June 1, are eligible to apply to this program. Students typically apply to this two-year program during their second year and begin in fall of their junior year. Application deadline is Jan. 15.

Radiologic Technology, Required Courses

Upon acceptance into this radiologic technology professional program, students will complete required courses and internships during their third and fourth years.

Course #	Title	Hours
All of these:		
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSP:1100	Introduction to the Radiation Sciences	1
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
RSP:3210	Medical Ethics and Law	2
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSP:4110	Research Methodology for Radiation Sciences	3
RSRT:2120	Radiologic Technology Clinical Internship I	1
RSRT:2130	Radiographic Procedures I	2
RSRT:2140	Radiographic Analysis I	1
RSRT:2141	Radiographic Procedures and Analysis I Lab	1
RSRT:2225	Radiologic Technology Clinical Internship II	3
RSRT:2230	Radiographic Procedures II	3
RSRT:2240	Radiographic Analysis II	2
RSRT:2241	Radiographic Procedures and Analysis II Lab	1
RSRT:2250	Radiographic Fluoroscopic Procedures	2
RSRT:2251	Radiographic Fluoroscopic Procedures Lab	1
RSRT:2325	Radiologic Technology Clinical Internship III	3
RSRT:3110	Radiographic Analysis III	1
RSRT:3111	Radiographic Procedures and Analysis III Lab	1
RSRT:3120	Radiographic Procedures III	2
RSRT:3125	Radiologic Technology Clinical Internship IV	4
RSRT:3132	Radiation Safety in Radiologic Technology	1
RSRT:3140	Radiographic and Digital Imaging	3
RSRT:3141	Radiographic and Digital Imaging Lab	1
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
RSRT:3225	Radiologic Technology Clinical Internship V	3
RSRT:3230	Radiographic Physics and Imaging Equipment	3
RSRT:3231	Radiographic Physics and Imaging Equipment Lab	1
RSRT:4230	Radiologic Technology Capstone and Certification Exam Preparation	2

Radiologic Technology and Breast Imaging

Students participate in the radiologic technology curriculum as previously stated for the first two years.

The breast imaging (BI) component provides didactic education in patient care procedures, pathology, anatomy, imaging procedures and analysis, Mammography Quality Standards Act (MQSA) quality control, and image acquisition principles. Students become acquainted with imaging equipment, study quality assurance, and participate in supervised clinical education in radiography and breast imaging.

Upon completion of the program, graduates are eligible to apply for the national certification exams in radiography and mammography.

Students who will have completed all prerequisite courses by June 1 are eligible to apply to this program. Students typically apply to this three-year program during their first year and begin in the fall of their sophomore year. Application deadline is Jan. 15.

Radiologic Technology and Breast Imaging, Required Courses

Upon acceptance into the radiologic technology and breast imaging professional program, students will complete required courses and internships during their second, third, and fourth years.

Course #	Title	Hours
All of these:		
RSBI:3310	Patient Care for Breast Imaging	3
RSBI:3315	Breast Imaging Clinical Internship I	2
RSBI:4110	Breast Imaging Procedures and Analysis	3
RSBI:4115	Breast Imaging Clinical Internship II	4
RSBI:4120	Anatomy and Pathology for Breast Imaging	2
RSBI:4130	Breast Imaging Acquisitions and Principles	2
RSBI:4210	Breast Imaging Advanced Procedures and Analysis	3
RSBI:4215	Breast Imaging Clinical Internship III	4
RSBI:4220	Quality Control in Breast Imaging	3
RSCI:4110	Vascular Anatomy	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
RSP:3210	Medical Ethics and Law	2
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSP:4110	Research Methodology for Radiation Sciences	3
RSRT:2120	Radiologic Technology Clinical Internship I	1
RSRT:2130	Radiographic Procedures I	2
RSRT:2140	Radiographic Analysis I	1
RSRT:2141	Radiographic Procedures and Analysis I Lab	1
RSRT:2225	Radiologic Technology Clinical Internship II	3
RSRT:2230	Radiographic Procedures II	3
RSRT:2240	Radiographic Analysis II	2
RSRT:2241	Radiographic Procedures and Analysis II Lab	1
RSRT:2250	Radiographic Fluoroscopic Procedures	2
RSRT:2251	Radiographic Fluoroscopic Procedures Lab	1
RSRT:2325	Radiologic Technology Clinical Internship III	3
RSRT:3110	Radiographic Analysis III	1
RSRT:3111	Radiographic Procedures and Analysis III Lab	1
RSRT:3120	Radiographic Procedures III	2
RSRT:3125	Radiologic Technology Clinical Internship IV	4
RSRT:3132	Radiation Safety in Radiologic Technology	1
RSRT:3140	Radiographic and Digital Imaging	3
RSRT:3141	Radiographic and Digital Imaging Lab	1
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
RSRT:3225	Radiologic Technology Clinical Internship V	3
RSRT:3230	Radiographic Physics and Imaging Equipment	3
RSRT:3231	Radiographic Physics and Imaging Equipment Lab	1
RSRT:3325	Radiologic Technology Clinical Internship VI	2
RSRT:4125	Radiologic Technology Clinical Internship VII	1
RSRT:4225	Radiologic Technology Clinical Internship VIII	1
RSRT:4230	Radiologic Technology Capstone and Certification Exam Preparation	2

Radiologic Technology and Cardiovascular Interventional

Students participate in the radiologic technology curriculum as stated previously for the first two years.

The cardiovascular interventional (CVI) component provides didactic education in imaging equipment, pharmacology, sterile techniques, cardiac monitoring, vascular anatomy and physiology; cardiovascular, peripheral, and neurological procedures and pathology; therapeutic intervention techniques; and digital angiography. Students become acquainted with imaging equipment, study quality assurance, and participate in supervised clinical education in radiography, cardiac interventional, and peripheral and neurological interventional.

Upon completion of the program, graduates are eligible to apply for the national certification exams in radiography, vascular interventional technology, and cardiac interventional technology.

Students who will have completed all prerequisite courses by June 1 are eligible to apply to this program. Students typically apply to this three-year program during their first year and begin in fall of their sophomore year. Application deadline is Jan. 15.

Radiologic Technology and Cardiovascular Interventional, Required Courses

Upon acceptance into the radiologic technology and cardiovascular interventional professional program, students will complete required courses and internships during their second, third, and fourth years.

Course #	Title	Hours
All of these:		
RSCI:4110	Vascular Anatomy	3
RSCI:4120	CVI Principles	4
RSCI:4130	Electrocardiogram and Hemodynamics	3
RSCI:4140	CVI Peripheral Procedures and Pathology	3
RSCI:4150	CVI Neurology and Nonvascular Procedures and Pathology	3
RSCI:4160	CVI Cardiac Procedures and Pathology	4
RSCI:4170	CVI Clinical Internship III	4
RSCI:4180	CVI Clinical Internship II	4
RSCI:4190	CVI Clinical Internship I	2
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
RSP:3210	Medical Ethics and Law	2
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSP:4110	Research Methodology for Radiation Sciences	3
RSRT:2120	Radiologic Technology Clinical Internship I	1
RSRT:2130	Radiographic Procedures I	2
RSRT:2140	Radiographic Analysis I	1
RSRT:2141	Radiographic Procedures and Analysis I Lab	1
RSRT:2225	Radiologic Technology Clinical Internship II	3
RSRT:2230	Radiographic Procedures II	3
RSRT:2240	Radiographic Analysis II	2
RSRT:2241	Radiographic Procedures and Analysis II Lab	1
RSRT:2250	Radiographic Fluoroscopic Procedures	2
RSRT:2251	Radiographic Fluoroscopic Procedures Lab	1
RSRT:2325	Radiologic Technology Clinical Internship III	3
RSRT:3110	Radiographic Analysis III	1
RSRT:3111	Radiographic Procedures and Analysis III Lab	1
RSRT:3120	Radiographic Procedures III	2
RSRT:3125	Radiologic Technology Clinical Internship IV	4
RSRT:3132	Radiation Safety in Radiologic Technology	1
RSRT:3140	Radiographic and Digital Imaging	3
RSRT:3141	Radiographic and Digital Imaging Lab	1
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
RSRT:3225	Radiologic Technology Clinical Internship V	3
RSRT:3230	Radiographic Physics and Imaging Equipment	3
RSRT:3231	Radiographic Physics and Imaging Equipment Lab	1
RSRT:3325	Radiologic Technology Clinical Internship VI	2
RSRT:4125	Radiologic Technology Clinical Internship VII	1
RSRT:4225	Radiologic Technology Clinical Internship VIII	1
RSRT:4230	Radiologic Technology Capstone and Certification Exam Preparation	2

Radiologic Technology and Computed Tomography

Students participate in the radiologic technology curriculum as stated previously for the first two years.

The computed tomography (CT) component provides didactic education in sectional anatomy, multislice CT, dual source CT, electron beam CT, physiologic and 3D imaging, CT simulation, physics and imaging, and procedures and pathology. Students become acquainted with imaging equipment, study quality assurance, and participate in supervised clinical education in radiography and computed tomography.

Upon completion of the program, graduates are eligible to apply for the national certification exams in radiography and computed tomography.

Students who will have completed all prerequisite courses by June 1 are eligible to apply to this program. Students typically apply to this three-year program during their first year and begin in fall of their sophomore year. Application deadline is Jan. 15.

Radiologic Technology and Computed Tomography, Required Courses

Upon acceptance into the radiologic technology and computed tomography professional program, students will complete required courses and internships during their second, third, and fourth years.

Course #	Title	Hours
All of these:		
RSCI:4110	Vascular Anatomy	3
RSCI:4130	Electrocardiogram and Hemodynamics	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSCT:4105	Computed Tomography Clinical Internship I	2
RSCT:4115	Computed Tomography Clinical Internship II	4
RSCT:4120	Computed Tomography Procedures I	4
RSCT:4125	Computed Tomography Procedures II	4
RSCT:4130	Computed Tomography Physical Principles and QC	4

RSCT:4215	Computed Tomography Clinical Internship III	4
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
RSP:3210	Medical Ethics and Law	2
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSP:4110	Research Methodology for Radiation Sciences	3
RSRT:2120	Radiologic Technology Clinical Internship I	1
RSRT:2130	Radiographic Procedures I	2
RSRT:2140	Radiographic Analysis I	1
RSRT:2141	Radiographic Procedures and Analysis I Lab	1
RSRT:2225	Radiologic Technology Clinical Internship II	3
RSRT:2230	Radiographic Procedures II	3
RSRT:2240	Radiographic Analysis II	2
RSRT:2241	Radiographic Procedures and Analysis II Lab	1
RSRT:2250	Radiographic Fluoroscopic Procedures	2
RSRT:2251	Radiographic Fluoroscopic Procedures Lab	1
RSRT:2325	Radiologic Technology Clinical Internship III	3
RSRT:3110	Radiographic Analysis III	1
RSRT:3111	Radiographic Procedures and Analysis III Lab	1
RSRT:3120	Radiographic Procedures III	2
RSRT:3125	Radiologic Technology Clinical Internship IV	4
RSRT:3132	Radiation Safety in Radiologic Technology	1
RSRT:3140	Radiographic and Digital Imaging	3
RSRT:3141	Radiographic and Digital Imaging Lab	1
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
RSRT:3225	Radiologic Technology Clinical Internship V	3
RSRT:3230	Radiographic Physics and Imaging Equipment	3
RSRT:3231	Radiographic Physics and Imaging Equipment Lab	1
RSRT:3325	Radiologic Technology Clinical Internship VI	2
RSRT:4125	Radiologic Technology Clinical Internship VII	1
RSRT:4225	Radiologic Technology Clinical Internship VIII	1
RSRT:4230	Radiologic Technology Capstone and Certification Exam Preparation	2

Radiologic Technology and Magnetic Resonance Imaging

Students participate in the radiologic technology curriculum as stated previously for the first two years.

The magnetic resonance imaging (MRI) component provides didactic education in patient care procedures, pathophysiology, physics, sectional anatomy, and instrumentation. Students become acquainted with imaging equipment, study quality assurance, and participate in supervised clinical education in radiography and magnetic resonance imaging.

Upon completion of the program, graduates are eligible to apply for the national certification exams in radiography and magnetic resonance imaging.

Students who will have completed all prerequisite courses by June 1 are eligible to apply to this program. Students typically apply to this three-year program during their first year and begin in fall of their sophomore year. Application deadline is Jan. 15.

Radiologic Technology and Magnetic Resonance Imaging, Required Courses

Upon acceptance into the radiologic technology and magnetic resonance imaging professional program, students will complete required courses and internships during their second, third, and fourth years.

Course #	Title	Hours
All of these:		
RSCI:4110	Vascular Anatomy	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSMR:4110	Fundamentals for the MRI Technologist	3
RSMR:4120	MRI Procedures I	4
RSMR:4130	MRI Procedures II	4
RSMR:4140	MRI Acquisition and Principles I	3
RSMR:4150	MRI Acquisition and Principles II	3
RSMR:4160	MRI Clinical Internship I	2
RSMR:4170	MRI Clinical Internship II	4
RSMR:4175	MRI Clinical Internship III	4
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
RSP:3210	Medical Ethics and Law	2
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSP:4110	Research Methodology for Radiation Sciences	3
RSRT:2120	Radiologic Technology Clinical Internship I	1
RSRT:2130	Radiographic Procedures I	2
RSRT:2140	Radiographic Analysis I	1

RSRT:2141	Radiographic Procedures and Analysis I Lab	1
RSRT:2225	Radiologic Technology Clinical Internship II	3
RSRT:2230	Radiographic Procedures II	3
RSRT:2240	Radiographic Analysis II	2
RSRT:2241	Radiographic Procedures and Analysis II Lab	1
RSRT:2250	Radiographic Fluoroscopic Procedures	2
RSRT:2251	Radiographic Fluoroscopic Procedures Lab	1
RSRT:2325	Radiologic Technology Clinical Internship III	3
RSRT:3110	Radiographic Analysis III	1
RSRT:3111	Radiographic Procedures and Analysis III Lab	1
RSRT:3120	Radiographic Procedures III	2
RSRT:3125	Radiologic Technology Clinical Internship IV	4
RSRT:3132	Radiation Safety in Radiologic Technology	1
RSRT:3140	Radiographic and Digital Imaging	3
RSRT:3141	Radiographic and Digital Imaging Lab	1
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
RSRT:3225	Radiologic Technology Clinical Internship V	3
RSRT:3230	Radiographic Physics and Imaging Equipment	3
RSRT:3231	Radiographic Physics and Imaging Equipment Lab	1
RSRT:3325	Radiologic Technology Clinical Internship VI	2
RSRT:4125	Radiologic Technology Clinical Internship VII	1
RSRT:4225	Radiologic Technology Clinical Internship VIII	1
RSRT:4230	Radiologic Technology Capstone and Certification Exam Preparation	2

Radiologic Technology Recommended Pre-Major Work

The following courses are recommended prior to radiologic technology program application.

Course #	Title	Hours
All of these:		
RSP:1100	Introduction to the Radiation Sciences (required for two-year radiologic technology track)	1
PHYS:1400	Basic Physics	3-4
PSY:1010	Your Brain Unlocked: Learning About Learning	1
STAT:1020	Elementary Statistics and Inference	3
One of these:		
BIOL:1140	Human Biology: Nonmajors	4
HHP:1400	Human Anatomy and Physiology	3
One of these:		
BAIS:1500	Business Computing Essentials	2
CS:1020	Principles of Computing	3

Radiation Therapy

A radiation therapist is a healthcare professional specializing in the administration of radiation treatments to patients with cancer and certain benign conditions. As part of a multidisciplinary team, they work closely with radiation oncologists, medical physicists, dosimetrists, and oncology nurses.

A radiation therapist's primary duties include treatment delivery, patient care, equipment operation, and treatment planning.

Radiation therapists play a critical role in cancer care, combining technical expertise with patient-centered care to improve treatment outcomes. They typically work in hospitals, cancer treatment centers, and freestanding clinics. With additional education and experience, radiation therapists can advance to roles such as dosimetrists, educators, researchers, or leadership and administrative positions.

Admission to this two-year program is selective and competitive; acceptance is not guaranteed. Students must satisfy all UI admission requirements, complete all prerequisites, and be accepted into the radiation therapy professional program following an application and selection process. See the Radiation Sciences website for more information.

Radiation Therapy

The radiation therapy professional program teaches the theory and techniques of radiation therapy technology, with emphasis on competence in areas of oncology treatment planning, treatment delivery, dosimetry, and use of megavoltage radiation-producing equipment to administer treatment. Students participate in clinical education in radiation therapy. Radiation therapy students also complete coursework in sectional anatomy, computed tomography (CT) procedures and physics, and magnetic resonance imaging (MRI) fundamentals.

Upon completing the program, graduates are eligible to apply for the national certification exam in radiation therapy. Students will have also completed didactic coursework for the national certification exam in CT and MRI, but not the clinical component.

Students who have completed a total of 60 s.h., including prerequisite courses by June 1, are eligible to apply to this program. Students typically apply to this two-year program during their second year and begin it in the fall of their junior year. The application deadline is Jan. 15.

The radiation therapy program accepts up to ten students each year into one of the two track options. Students in both tracks attend didactic classes on campus in Iowa City during their junior year and online during their senior year.

Radiation Therapy, Required Courses

Upon acceptance into the radiation therapy professional program, students will complete required courses and internships during their third and fourth years.

Course #	Title	Hours
All of these:		
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSCT:4120	Computed Tomography Procedures I	4
RSCT:4130	Computed Tomography Physical Principles and QC	4
RSMR:4110	Fundamentals for the MRI Technologist	3
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
RSP:3210	Medical Ethics and Law	2
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSP:4110	Research Methodology for Radiation Sciences	3
RSTH:3100	Introduction to Radiation Therapy	2
RSTH:3101	Introduction to Radiation Therapy Lab	1
RSTH:3110	Medical Physics I	2
RSTH:3120	Radiation Therapy Clinical Internship I	3
RSTH:3132	Radiobiology in Radiation Therapy	1
RSTH:3205	Principles of Radiation Therapy I	3
RSTH:3206	Principles of Radiation Therapy I Lab	1
RSTH:3215	Medical Physics II	2
RSTH:3225	Radiation Therapy Clinical Internship II	3
RSTH:3325	Radiation Therapy Clinical Internship III	4
RSTH:4105	Principles of Radiation Therapy II	2
RSTH:4125	Radiation Therapy Clinical Internship IV	4
RSTH:4225	Radiation Therapy Clinical Internship V	5
RSTH:4230	Radiation Therapy Capstone	3

Radiation Therapy, Recommended Pre-Major Work

The following courses are recommended prior to applying to the radiation therapy program.

Course #	Title	Hours
All of these:		
RSP:1100	Introduction to the Radiation Sciences	1
HHP:2110	Human Anatomy Laboratory	1
PSY:1010	Your Brain Unlocked: Learning About Learning	1
STAT:1020	Elementary Statistics and Inference	3
One of these:		
BIOL:1140	Human Biology: Nonmajors	4
HHP:1400	Human Anatomy and Physiology	3
One of these:		
BAIS:1500	Business Computing Essentials	2
CS:1020	Principles of Computing	3

RT to BS (Online)

The RT to BS is an online program designed for registered radiologic technologists and nuclear medicine technologists who wish to earn a Bachelor of Science degree with a major in radiation sciences by distance education. The program requires a minimum of 120 s.h. Students who successfully complete a radiologic technology (RT) or a nuclear medicine technology (NMT) program and pass the board certification exam are awarded 60 s.h. of credit. They are also awarded credit for equivalent coursework that is prerequisite to entering the major. Upon admission to the major, students complete a second modality online, with or without a practicum.

Students choose coursework in any of the five online modalities: breast imaging (BI), cardiovascular interventional (CVI), computed tomography (CT), or magnetic resonance imaging (MRI). This program of study does not require a practicum. However, practicum opportunities at University of Iowa Health Care may be available for application. Acceptance into a practicum is not guaranteed. For more information, visit the Radiation Sciences website.

In order to be admitted to the radiation sciences major, students must pass the American Registry of Radiologic Technologists (ARRT) radiography (R), ARRT nuclear medicine technology (N), or Nuclear Medicine Technology Certification Board (NMTCB) exam. They must also have completed all coursework prerequisite to entering the major with a grade-point average of at least 2.50, not including RT or NMT program courses. Students may count approved transfer credit toward the required prerequisites; learn more by visiting Transfer Courses on MyUI.

Applicants for admission to the University of Iowa whose first language is not English are strongly encouraged to complete the university's English Proficiency Evaluation and satisfy the university's English Proficiency Requirements.

The radiation sciences major requires students to complete a minimum of two years of a high school world language prior to admission.

For additional information on UI admission requirements, contact the University of Iowa Admissions.

Prerequisites to the Radiation Sciences Major

In addition to the completion of an RT or NMT program, students must complete the following prerequisite courses (25–29 s.h.) before they may enter the radiation sciences major.

Rhetoric

Course #	Title	Hours
RHET:1030	Rhetoric: Writing and Communication	4

Anatomy

Course #	Title	Hours
One of these:		
HHP:2100	Human Anatomy	3
HHP:3105	Anatomy for Human Physiology	3
HHP:3115	Anatomy for Human Physiology With Lab	5

Natural Sciences

Course #	Title	Hours
One of these:		
BIOL:1140	Human Biology: Nonmajors	4
CHEM:1070	General Chemistry I	3
CHEM:1110	Principles of Chemistry I	4
HHP:2400	Fundamentals of Human Physiology	3
HHP:3500	Human Physiology	3
HHP:3550	Human Physiology With Laboratory	5
PHYS:1400	Basic Physics	3-4
PHYS:1511	College Physics I	4

Quantitative or Formal Reasoning

Course #	Title	Hours
One of these:		
MATH:1020	Elementary Functions	4
MATH:1440	Mathematics for the Biological Sciences	4

Psychology

Course #	Title	Hours
PSY:1001	Elementary Psychology	3

Medical Terminology

Course #	Title	Hours
CLSA:3750	Medical and Technical Terminology	2

Culture, Society, and the Arts

Two courses for 3 s.h. each in two of these areas.

- Understanding Cultural Perspectives
- Historical Perspectives
- International and Global Issues
- Literary, Visual, and Performing Arts
- Values and Society

See GE CLAS Core [p. 22] (College of Liberal Arts and Sciences) in the catalog for approved courses in the areas listed.

Once students are admitted to the Carver College of Medicine and the radiation sciences major, they must at least complete their final consecutive 30 s.h. at the University of Iowa, including the online modality courses and practicum (optional).

Second Modality

Students complete the following with a C or above.

Core Courses

Course #	Title	Hours
Both of these:		
RSCI:4110	Vascular Anatomy	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3

Modality Courses

Course #	Title	Hours
24 s.h. from these:		
RSBI:3310	Patient Care for Breast Imaging	3
RSBI:4110	Breast Imaging Procedures and Analysis	3
RSBI:4120	Anatomy and Pathology for Breast Imaging	2
RSBI:4130	Breast Imaging Acquisitions and Principles	2
RSBI:4210	Breast Imaging Advanced Procedures and Analysis	3
RSBI:4220	Quality Control in Breast Imaging	3
RSBI:4308	Breast Imaging Practicum	1-6
RSCI:4120	CVI Principles	4
RSCI:4130	Electrocardiogram and Hemodynamics	3
RSCI:4140	CVI Peripheral Procedures and Pathology	3
RSCI:4150	CVI Neurology and Nonvascular Procedures and Pathology	3
RSCI:4160	CVI Cardiac Procedures and Pathology	4
RSCI:4308	Cardiovascular Interventional Practicum	1-6
RSCT:4120	Computed Tomography Procedures I	4
RSCT:4125	Computed Tomography Procedures II	4
RSCT:4130	Computed Tomography Physical Principles and QC	4
RSCT:4308	Computed Tomography Practicum	1-6
RSMR:4110	Fundamentals for the MRI Technologist	3
RSMR:4120	MRI Procedures I	4
RSMR:4130	MRI Procedures II	4
RSMR:4140	MRI Acquisition and Principles I	3

RSMR:4150	MRI Acquisition and Principles II	3
RSMR:4308	Magnetic Resonance Imaging Practicum	1-6

A practicum is not required. Acceptance into a practicum is not guaranteed

Students may apply up to two of the following multidisciplinary courses toward the modality courses requirement.

Course #	Title	Hours
Up to two of these:		
ASP:1800	Aging Matters: Introduction to Gerontology	3
ASP:3150	Psychology of Aging	3
CPH:1400	Fundamentals of Public Health	3
CSED:4111	Building Leadership and Success at Work	3
CSED:4140	Foundations of Leadership for Community Agencies	3
CSED:4175	Motivational Interviewing	3
CSED:4194	Interpersonal Effectiveness	3
CSED:4197	Citizenship in a Multicultural Society	3
ECON:1200	Principles of Macroeconomics	4
GHS:3850	Promoting Health Globally	3
HHP:2130	Human Development Through the Life Span	3
MGMT:2100	Introduction to Management	3
MGMT:3500	Nonprofit Organizational Effectiveness I	3
PSQF:1075	Educational Psychology and Measurement	3
PSQF:2700	Introduction to Understanding Trauma and Resilience	3
RHET:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
SOC:3510	Medical Sociology	3
SOC:4225	The Social Psychology of Leadership	3
STAT:1020	Elementary Statistics and Inference	3

Electives

Students choose elective coursework to complete the minimum 120 s.h. required and the final consecutive 30 s.h. necessary to qualify for graduation.

Career Advancement

The majority of radiation sciences graduates are employed upon graduation. Graduates generally find jobs in hospitals, clinics, imaging centers, and physicians' offices. With experience, and sometimes additional education, they may find related jobs in management, sales, education, or as application specialists. Some students choose to continue their education in a master's, physician assistant, or other related medical program.

Most radiation sciences professionals with full-time jobs work 40 hours a week and may have holiday, weekend, evening, night, and on-call hours.

Students who complete Iowa's professional radiation sciences programs are eligible to apply for national certification exams administered by the appropriate agency in order to practice.

Licensure laws for radiographers, sonographers, and radiation therapists vary from state to state. Iowa is a licensing state, requiring radiographers and radiation therapists to have a permit to practice. Passing the national exam is a criterion used to issue a permit to practice.

More information on radiation sciences careers and outcomes may be found on the Radiation Sciences Program website. The Pomerantz Career Center offers multiple resources to help students find jobs.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Radiation Sciences, BS

- Diagnostic Medical Sonography and Cardiac/Vascular Professional Program [p. 1987]
- Diagnostic Medical Sonography and General/Vascular Professional Program [p. 1989]
- Radiation Therapy Professional Program [p. 1990]
- Radiologic Technology Professional Program [p. 1991]
- Radiologic Technology and Breast Imaging Professional Program [p. 1993]
- Radiologic Technology and Cardiovascular Interventional Professional Program [p. 1994]
- Radiologic Technology and Computed Tomography Professional Program [p. 1996]
- Radiologic Technology and Magnetic Resonance Imaging Professional Program [p. 1997]

Diagnostic Medical Sonography and Cardiac/Vascular Professional Program

Course	Title	Hours
Academic Career		
Any Semester		
Students apply to the Radiation Sciences B.S. program through a selective process. Acceptance is not guaranteed. [a]		
Students must earn a grade of C or higher in all RS** courses.		
The Diagnostic Medical Sonography and Cardiac/Vascular professional program is three years in duration.		
	Hours	**0**
First Year		
Any Semester		
Recommended: health care experience (e.g. CNA), job shadowing in diagnostic medical sonography		
	Hours	**0**

Fall		
RHET:1030	Rhetoric: Writing and Communication	4
BIOL:1140 or HHP:1400	Human Biology: Nonmajors [b] or Human Anatomy and Physiology	3 - 4
MATH:1020 or MATH:1440	Elementary Functions [c] or Mathematics for the Biological Sciences	4
RSP:1100	Introduction to the Radiation Sciences [d]	1
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
Admission Application: begin preparing materials for Radiation Sciences application (due January 15) [f]		
	Hours	**15-16**
Spring		
Human Anatomy course [g]		3, 5
Human Physiology course [h]		3, 5
PSY:1001	Elementary Psychology	3
CLSA:3750	Medical and Technical Terminology	2
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
	Hours	**14-18**
Summer		
PHYS:1511 or PHYS:1400	College Physics I [i] or Basic Physics	3 - 4
	Hours	**3-4**
Second Year		
Any Semester		
The curriculum shown in the second, third, and fourth years on this plan begins upon acceptance into the Carver College of Medicine, Diagnostic Medical Sonography Professional Program.		
	Hours	**0**
Fall		
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSCI:4110	Vascular Anatomy	3
RSMS:3110	Foundations of Sonography	3
RSMS:3111	Foundations of Sonography Lab	1
RSMS:3115	Diagnostic Medical Sonography Clinical Internship I	1
	Hours	**13**
Spring		
RSP:3210	Medical Ethics and Law	2
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSCI:4130	Electrocardiogram and Hemodynamics	3
RSMS:3230	Sonography Principles, Physics, and Instrumentation	3
RSMS:3231	Sonography Principles, Physics, and Instrumentation Lab	1
	Hours	**12**
Third Year		
Fall		
RSMS:3100	Cardiac Sonography I	3
RSMS:3101	Cardiac Sonography I Lab	2
RSMS:3150	Cardiac Physiology and Hemodynamics	3
RSMS:3140	Vascular Sonography I	3
RSMS:3141	Vascular Sonography I Lab	1
	Hours	**12**
Spring		
RSMS:3205	Cardiac Sonography II	3
RSMS:3206	Cardiac Sonography II Lab	1
RSMS:3270	Vascular Sonography II	3
RSMS:3215	Diagnostic Medical Sonography Clinical Internship II	3
RSMS:3305	Pediatric Cardiac Sonography [d]	3
RSMS:3306	Pediatric Cardiac Sonography Laboratory [d]	1
	Hours	**14**
Summer		
RSMS:3315	Diagnostic Medical Sonography Clinical Internship III	3
RSMS:3376	Vascular Sonography II Lab	1
	Hours	**4**
Fourth Year		
Fall		
RSMS:4110	Advanced Sonography	3
RSMS:4111	Advanced Sonography Lab	1
RSMS:4120	Advanced Cardiac Sonography	3
RSMS:4121	Advanced Cardiac Sonography Lab	1
RSMS:4115	Diagnostic Medical Sonography Clinical Internship IV	5
RSP:4110	Research Methodology for Radiation Sciences	3
	Hours	**16**
Spring		
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSMS:4210	Fetal Cardiac Sonography [d]	3
RSMS:4215	Diagnostic Medical Sonography Clinical Internship V	5
RSMS:4220	Multidisciplinary Capstone Seminar	3
RSMS:4230	Musculoskeletal Sonography [d]	3
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
Exam: Upon completion of the program students are eligible to apply to take certification exams.		
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**18**
	Total Hours	**121-127**

a The Academic Advising Center advises Radiation Sciences Interest students on prerequisite course planning. Students are advised for success, based on academic strength, not necessarily for a four year plan. Prerequisites may take more than one year to complete.

b BIOL:1140 or HHP:1400 is recommended not required. Most students will need to complete BIOL:1140 or HHP:1400 prior to Human Anatomy (based on academic strength).

c Enrollment in math courses requires completion of a placement exam.

d This course is recommended not required.
e Students must complete 6 s.h. by taking 3 s.h. courses from two of the following areas: Historical Perspectives, International and Global Issues, Literary, Visual, and Performing Arts, Understanding Cultural Perspectives, or Values and Society.
f Please see the Radiation Sciences Programs website and your academic advisor for detailed application instructions and deadlines.
g Choose from HHP:2100, HHP:3105, HHP:3115.
h Choose from HHP:2400, HHP:3500, HHP:3550.
i PHYS:1400 may be completed in the spring or summer semester. Summer is recommended if both anatomy and physiology are taken in the spring.
j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Diagnostic Medical Sonography and General/Vascular Professional Program

Course	Title	Hours
Academic Career		
Any Semester		
Students apply to the Radiation Sciences B.S. program through a selective process. Acceptance is not guaranteed. [a]		
Students must earn a grade of C or higher in all RS** courses.		
The Diagnostic Medical Sonography and General/Vascular professional program is three years in duration.		
	Hours	**0**
First Year		
Any Semester		
Recommended: health care experience (e.g. CNA), job shadowing in diagnostic medical sonography		
	Hours	**0**
Fall		
RHET:1030	Rhetoric: Writing and Communication	4
BIOL:1140 or HHP:1400	Human Biology: Nonmajors [b] or Human Anatomy and Physiology	3 - 4
MATH:1440 or MATH:1020	Mathematics for the Biological Sciences [c] or Elementary Functions	4
RSP:1100	Introduction to the Radiation Sciences [d]	1
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
Admission Application: begin preparing materials for Radiation Sciences application (due January 15) [f]		
	Hours	**15-16**
Spring		
Human Anatomy course [g]		3, 5
Human Physiology course [h]		3, 5
PSY:1001	Elementary Psychology	3
CLSA:3750	Medical and Technical Terminology	2
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
	Hours	**14-18**
Summer		
PHYS:1511 or PHYS:1400	College Physics I [i] or Basic Physics	3 - 4
	Hours	**3-4**
Second Year		
Any Semester		
The curriculum shown in the second, third, and fourth years on this plan begins upon acceptance into the Carver College of Medicine, Diagnostic Medical Sonography Professional Program.		
	Hours	**0**
Fall		
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSCI:4110	Vascular Anatomy	3
RSMS:3110	Foundations of Sonography	3
RSMS:3111	Foundations of Sonography Lab	1
RSMS:3115	Diagnostic Medical Sonography Clinical Internship I	1
	Hours	**13**
Spring		
RSP:3210	Medical Ethics and Law	2
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSCI:4130	Electrocardiogram and Hemodynamics	3
RSMS:3230	Sonography Principles, Physics, and Instrumentation	3
RSMS:3231	Sonography Principles, Physics, and Instrumentation Lab	1
	Hours	**12**
Third Year		
Fall		
RSMS:3120	Abdominal Sonography I	3
RSMS:3121	Abdominal Sonography I Lab	1
RSMS:3130	Obstetrical and Gynecological Sonography I	3
RSMS:3131	Obstetrical and Gynecological Sonography I Lab	1
RSMS:3140	Vascular Sonography I	3
RSMS:3141	Vascular Sonography I Lab	1
	Hours	**12**
Spring		
RSMS:3240	Abdominal Sonography II	3
RSMS:3250	Obstetrical and Gynecological Sonography II	3
RSMS:3270	Vascular Sonography II	3
RSMS:3215	Diagnostic Medical Sonography Clinical Internship II	3
RSMS:3260	Breast Sonography [d]	2
	Hours	**14**
Summer		
RSMS:3325	Abdominal Sonography II Lab	1
RSMS:3376	Vascular Sonography II Lab	1
RSMS:3300	Pediatric Sonography	3

RSMS:3315	Diagnostic Medical Sonography Clinical Internship III	3
	Hours	**8**
Fourth Year		
Fall		
RSMS:4110	Advanced Sonography	3
RSMS:4111	Advanced Sonography Lab	1
RSMS:4115	Diagnostic Medical Sonography Clinical Internship IV	5
RSP:4110	Research Methodology for Radiation Sciences	3
	Hours	**12**
Spring		
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSMS:4210	Fetal Cardiac Sonography [d]	3
RSMS:4215	Diagnostic Medical Sonography Clinical Internship V	5
RSMS:4220	Multidisciplinary Capstone Seminar	3
RSMS:4230	Musculoskeletal Sonography [d]	3
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
Exam: Upon completion of the program students are eligible to apply to take certification exams.		
	Hours	**18**
	Total Hours	**121-127**

a The Academic Advising Center advises Radiation Sciences Interest students on prerequisite course planning. Students are advised for success, based on academic strength, not necessarily for a four year plan. Prerequisites may take more than one year to complete.

b BIOL:1140 or HHP:1400 is recommended not required. Most students will need to complete BIOL:1140 or HHP:1400 prior to Human Anatomy (based on academic strength).

c Enrollment in math courses requires completion of a placement exam.

d This course is recommended not required.

e Students must complete 6 s.h. by taking 3 s.h. courses from two of the following areas: Historical Perspectives, International and Global Issues, Literary, Visual, and Performing Arts, Understanding Cultural Perspectives, or Values and Society.

f Please see the Radiation Sciences Programs website and your academic advisor for detailed application instructions and deadlines.

g Choose from HHP:2100, HHP:3105, HHP:3115.

h Choose from HHP:2400, HHP:3500, HHP:3550.

i PHYS:1400 may be completed in the spring or summer semester. Summer is recommended if both anatomy and physiology are taken in the spring.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Radiation Therapy Professional Program

Course	Title	Hours
Academic Career		
Any Semester		
Students apply to the Radiation Sciences B.S. program through a selective process. Acceptance is not guaranteed. [a]		
Students must earn a grade of C or higher in all RS** courses.		
The Radiation Therapy professional program is two years in duration.		
	Hours	**0**
First Year		
Any Semester		
Recommended: health care experience (e.g. CNA), job shadowing in radiation therapy		
	Hours	**0**
Fall		
RHET:1030	Rhetoric: Writing and Communication	4
HHP:1400 or BIOL:1140	Human Anatomy and Physiology [b] or Human Biology: Nonmajors	3 - 4
MATH:1440 or MATH:1020	Mathematics for the Biological Sciences [c] or Elementary Functions	4
RSP:1100	Introduction to the Radiation Sciences [d]	1
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
	Hours	**15-16**
Spring		
Human Anatomy course [f, g]		3, 5
Human Physiology course [h]		3, 5
PSY:1001	Elementary Psychology	3
CLSA:3750	Medical and Technical Terminology	2
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
	Hours	**14-18**
Second Year		
Fall		
CS:1020 or BAIS:1500	Principles of Computing [d] or Business Computing Essentials	2 - 3
PHYS:1400 or PHYS:1511	Basic Physics or College Physics I	3 - 4
PSY:1010	Your Brain Unlocked: Learning About Learning [d]	1
Elective course		3
Elective course		3
Elective course		3
Admission Application: begin preparing materials for Radiation Sciences application (due January 15) [i]		
	Hours	**15-17**
Spring		
STAT:1020	Elementary Statistics and Inference [d]	3
Elective course		3
Elective course		3
Elective course		3

Elective course		3
Elective course		1
	Hours	**16**
Third Year		
Any Semester		
The curriculum shown in the third and fourth years on this plan begins upon acceptance into the Carver College of Medicine, Radiation Therapy Professional Program.		
	Hours	**0**
Fall		
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
RSP:2110	Pathology for Radiation Sciences	2
RSTH:3100	Introduction to Radiation Therapy	2
RSTH:3101	Introduction to Radiation Therapy Lab	1
RSTH:3110	Medical Physics I	2
RSTH:3120	Radiation Therapy Clinical Internship I	3
RSTH:3132	Radiobiology in Radiation Therapy	1
	Hours	**15**
Spring		
RSP:3210	Medical Ethics and Law	2
RSTH:3205	Principles of Radiation Therapy I	3
RSTH:3206	Principles of Radiation Therapy I Lab	1
RSTH:3215	Medical Physics II	2
RSTH:3225	Radiation Therapy Clinical Internship II	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
	Hours	**14**
Summer		
RSTH:3325	Radiation Therapy Clinical Internship III	4
RSCT:4130	Computed Tomography Physical Principles and QC	4
	Hours	**8**
Fourth Year		
Fall		
RSTH:4105	Principles of Radiation Therapy II	2
RSTH:4125	Radiation Therapy Clinical Internship IV	4
RSP:4110	Research Methodology for Radiation Sciences	3
RSCT:4120	Computed Tomography Procedures I	4
	Hours	**13**
Spring		
RSTH:4230	Radiation Therapy Capstone	3
RSTH:4225	Radiation Therapy Clinical Internship V	5
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSMR:4110	Fundamentals for the MRI Technologist	3
Exam: Upon completion of the program students are eligible to apply to take certification exams.		
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**13**
	Total Hours	**123-130**

a The Academic Advising Center advises Radiation Sciences Interest students on prerequisite course planning. Students are advised for success, based on academic strength, not necessarily for a four year plan. Prerequisites may take more than two years to complete.

b BIOL:1140 or HHP:1400 is recommended not required. Most students will need to complete BIOL:1140 or HHP:1400 prior to Human Anatomy (based on academic strength).

c Enrollment in math courses requires completion of a placement exam.

d This course is recommended not required.

e Students must complete 6 s.h. by taking 3 s.h. courses from two of the following areas: Historical Perspectives, International and Global Issues, Literary, Visual, and Performing Arts, Understanding Cultural Perspectives, or Values and Society.

f If not previously completed.

g Choose from HHP:2100, HHP:3105, HHP:3115.

h Choose from HHP:2400, HHP:3500, HHP:3550.

i Please see the Radiation Sciences Programs website and your academic advisor for detailed application instructions and deadlines.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Radiologic Technology Professional Program

Course	Title	Hours
Academic Career		
Any Semester		
Students apply to the Radiation Sciences B.S. program through a selective process. Acceptance is not guaranteed. [a]		
Students must earn a grade of C or higher in all RS** courses.		
The Radiologic Technology professional program is two years in duration.		
	Hours	**0**
First Year		
Any Semester		
Recommended: health care experience (e.g. CNA), job shadowing in radiologic technology, computed tomography, magnetic resonance imaging, cardiovascular interventional, and breast imaging.		
	Hours	**0**
Fall		
RHET:1030	Rhetoric: Writing and Communication	4

BIOL:1140 or HHP:1400	Human Biology: Nonmajors [b] or Human Anatomy and Physiology	3 - 4
MATH:1020 or MATH:1440	Elementary Functions [c] or Mathematics for the Biological Sciences	4
RSP:1100	Introduction to the Radiation Sciences	1
GE: General Education course (HP, IGI, LVPA, UCP or VS) [d]		3
	Hours	**15-16**
Spring		
Human Anatomy course [e, f]		3, 5
Human Physiology course [g]		3, 5
PSY:1001	Elementary Psychology	3
CLSA:3750	Medical and Technical Terminology	2
GE: General Education course (HP, IGI, LVPA, UCP or VS) [d]		3
	Hours	**14-18**
Second Year		
Fall		
CS:1020 or BAIS:1500	Principles of Computing [h] or Business Computing Essentials	2 - 3
PHYS:1400	Basic Physics [h]	3 - 4
PSY:1010	Your Brain Unlocked: Learning About Learning [h]	1
Elective course		3
Elective course		3
Elective course		3
Admission Application: begin preparing materials for Radiation Sciences application (due January 15) [i]		
	Hours	**15-17**
Spring		
STAT:1020	Elementary Statistics and Inference [h]	3
Elective course		3
Elective course		3
Elective course		3
Elective course		3
Elective course		1
	Hours	**16**
Third Year		
Any Semester		
The curriculum shown in the third and fourth years on this plan begins upon acceptance into the Carver College of Medicine, Radiologic Technology Professional Program.		
	Hours	**0**
Fall		
RSRT:2120	Radiologic Technology Clinical Internship I	1
RSRT:2130	Radiographic Procedures I	2
RSRT:2140	Radiographic Analysis I	1
RSRT:2141	Radiographic Procedures and Analysis I Lab	1
RSRT:3132	Radiation Safety in Radiologic Technology	1
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
RSP:1100	Introduction to the Radiation Sciences [f]	1
	Hours	**13**
Spring		
RSRT:2225	Radiologic Technology Clinical Internship II	3
RSRT:2230	Radiographic Procedures II	3
RSRT:2240	Radiographic Analysis II	2
RSRT:2241	Radiographic Procedures and Analysis II Lab	1
RSRT:2250	Radiographic Fluoroscopic Procedures	2
RSRT:2251	Radiographic Fluoroscopic Procedures Lab	1
RSP:3210	Medical Ethics and Law	2
	Hours	**14**
Summer		
RSRT:2325	Radiologic Technology Clinical Internship III	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
	Hours	**6**
Fourth Year		
Fall		
RSRT:3110	Radiographic Analysis III	1
RSRT:3111	Radiographic Procedures and Analysis III Lab	1
RSRT:3120	Radiographic Procedures III	2
RSRT:3125	Radiologic Technology Clinical Internship IV	4
RSRT:3140	Radiographic and Digital Imaging	3
RSRT:3141	Radiographic and Digital Imaging Lab	1
RSP:4110	Research Methodology for Radiation Sciences	3
	Hours	**15**
Spring		
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
RSRT:3225	Radiologic Technology Clinical Internship V	3
RSRT:3230	Radiographic Physics and Imaging Equipment	3
RSRT:3231	Radiographic Physics and Imaging Equipment Lab	1
RSRT:4230	Radiologic Technology Capstone and Certification Exam Preparation	2
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
Exam: Upon completion of the program students are eligible to apply to take certification exams.		

Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**13**
	Total Hours	**121-128**

a The Academic Advising Center advises Radiation Sciences Interest students on prerequisite course planning. Students are advised for success, based on academic strength, not necessarily for a four year plan. Prerequisites may take more than two years to complete.
b BIOL:1140 or HHP:1400 is recommended not required. Most students will need to complete BIOL:1140 or HHP:1400 prior to Human Anatomy (based on academic strength).
c Enrollment in math courses requires completion of a placement exam.
d Students must complete 6 s.h. by taking 3 s.h. courses from two of the following areas: Historical Perspectives, International and Global Issues, Literary, Visual, and Performing Arts, Understanding Cultural Perspectives, or Values and Society.
e Choose from HHP:2100, HHP:3105, HHP:3115.
f If not previously completed.
g Choose from HHP:2400, HHP:3500, HHP:3550.
h This course is recommended not required.
i Please see the Radiation Sciences Programs website and your academic advisor for detailed application instructions and deadlines.
j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Radiologic Technology and Breast Imaging Professional Program

Course	Title	Hours
Academic Career		
Any Semester		
Students apply to the Radiation Sciences B.S. program through a selective process. Acceptance is not guaranteed. [a]		
Students must earn a grade of C or higher in all RS** courses.		
The Radiologic Technology and Breast Imaging professional program is four years in duration.		
	Hours	**0**
First Year		
Any Semester		
Recommended: health care experience (e.g. CNA), job shadowing in radiologic technology, computed tomography, magnetic resonance imaging, cardiovascular interventional, and breast imaging.		
	Hours	**0**
Fall		
RHET:1030	Rhetoric: Writing and Communication	4
BIOL:1140 or HHP:1400	Human Biology: Nonmajors [b] or Human Anatomy and Physiology	3 - 4
MATH:1440 or MATH:1020	Mathematics for the Biological Sciences [c] or Elementary Functions	4
RSP:1100	Introduction to the Radiation Sciences [d]	1
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
Admission Application: begin preparing materials for Radiation Sciences application (due January 15) [f]		
	Hours	**15-16**
Spring		
Human Anatomy course [g, h]		3, 5
Human Physiology course [i]		3, 5
PSY:1001	Elementary Psychology	3
CLSA:3750	Medical and Technical Terminology	2
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
	Hours	**14-18**
Second Year		
Any Semester		
The curriculum shown in the second, third, and fourth years on this plan begins upon acceptance into the Carver College of Medicine, Radiologic Technology Professional Program.		
	Hours	**0**
Fall		
RSRT:2120	Radiologic Technology Clinical Internship I	1
RSRT:2130	Radiographic Procedures I	2
RSRT:2140	Radiographic Analysis I	1
RSRT:2141	Radiographic Procedures and Analysis I Lab	1
RSRT:3132	Radiation Safety in Radiologic Technology	1
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
	Hours	**12**
Spring		
RSRT:2225	Radiologic Technology Clinical Internship II	3
RSRT:2230	Radiographic Procedures II	3
RSRT:2240	Radiographic Analysis II	2
RSRT:2241	Radiographic Procedures and Analysis II Lab	1
RSRT:2250	Radiographic Fluoroscopic Procedures	2
RSRT:2251	Radiographic Fluoroscopic Procedures Lab	1
RSP:3210	Medical Ethics and Law	2
	Hours	**14**
Summer		
RSRT:2325	Radiologic Technology Clinical Internship III	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
	Hours	**6**
Third Year		
Fall		
RSRT:3110	Radiographic Analysis III	1

RSRT:3111	Radiographic Procedures and Analysis III Lab	1
RSRT:3120	Radiographic Procedures III	2
RSRT:3125	Radiologic Technology Clinical Internship IV	4
RSRT:3140	Radiographic and Digital Imaging	3
RSRT:3141	Radiographic and Digital Imaging Lab	1
	Hours	**12**
Spring		
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
RSRT:3225	Radiologic Technology Clinical Internship V	3
RSRT:3230	Radiographic Physics and Imaging Equipment	3
RSRT:3231	Radiographic Physics and Imaging Equipment Lab	1
RSCI:4110	Vascular Anatomy	3
	Hours	**12**
Summer		
RSRT:3325	Radiologic Technology Clinical Internship VI	2
RSBI:3310	Patient Care for Breast Imaging	3
RSBI:3315	Breast Imaging Clinical Internship I	2
	Hours	**7**
Fourth Year		
Fall		
RSRT:4125	Radiologic Technology Clinical Internship VII	1
RSP:4110	Research Methodology for Radiation Sciences	3
RSBI:4110	Breast Imaging Procedures and Analysis	3
RSBI:4120	Anatomy and Pathology for Breast Imaging	2
RSBI:4130	Breast Imaging Acquisitions and Principles	2
RSBI:4115	Breast Imaging Clinical Internship II	4
	Hours	**15**
Spring		
RSRT:4225	Radiologic Technology Clinical Internship VIII	1
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSBI:4210	Breast Imaging Advanced Procedures and Analysis	3
RSBI:4220	Quality Control in Breast Imaging	3
RSBI:4215	Breast Imaging Clinical Internship III	4
RSRT:4230	Radiologic Technology Capstone and Certification Exam Preparation	2
Exam: Upon completion of the program students are eligible to apply to take certification exams.		
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**15**
	Total Hours	**122-127**

a The Academic Advising Center advises Radiation Sciences Interest students on prerequisite course planning. Students are advised for success, based on academic strength, not necessarily for a four year plan. Prerequisites may take more than one year to complete.

b BIOL:1140 or HHP:1400 is recommended not required. Most students will need to complete BIOL:1140 or HHP:1400 prior to Human Anatomy (based on academic strength).

c Enrollment in math courses requires completion of a placement exam.

d This course is recommended not required.

e Students must complete 6 s.h. by taking 3 s.h. courses from two of the following areas: Historical Perspectives, International and Global Issues, Literary, Visual, and Performing Arts, Understanding Cultural Perspectives, or Values and Society.

f Please see the Radiation Sciences Programs website and your academic advisor for detailed application instructions and deadlines.

g If not previously completed.

h Choose from HHP:2100, HHP:3105, HHP:3115.

i Choose from HHP:2400, HHP:3500, HHP:3550.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Radiologic Technology and Cardiovascular Interventional Professional Program

Course	Title	Hours
Academic Career		
Any Semester		
Students apply to the Radiation Sciences B.S. program through a selective process. Acceptance is not guaranteed. [a]		
Students must earn a grade of C or higher in all RS** courses.		
The Radiologic Technology and Cardiovascular Interventional professional program is three years in duration.		
	Hours	**0**
First Year		
Any Semester		
Recommended: health care experience (e.g. CNA), job shadowing in radiologic technology, computed tomography, magnetic resonance imaging, cardiovascular interventional, and breast imaging.		
	Hours	**0**
Fall		
RHET:1030	Rhetoric: Writing and Communication	4
HHP:1400 or BIOL:1140	Human Anatomy and Physiology [b] or Human Biology: Nonmajors	3 - 4
MATH:1440 or MATH:1020	Mathematics for the Biological Sciences [c] or Elementary Functions	4

RSP:1100	Introduction to the Radiation Sciences [d]	1
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
Admission Application: begin preparing materials for Radiation Sciences application (due January 15) [f]		
	Hours	**15-16**
Spring		
Human Anatomy course [g, h]		3, 5
Human Physiology course [i]		3, 5
PSY:1001	Elementary Psychology	3
CLSA:3750	Medical and Technical Terminology	2
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
	Hours	**14-18**
Second Year		
Any Semester		
The curriculum shown in the second, third, and fourth years on this plan begins upon acceptance into the Carver College of Medicine, Radiologic Technology Professional Program.		
	Hours	**0**
Fall		
RSRT:2120	Radiologic Technology Clinical Internship I	1
RSRT:2130	Radiographic Procedures I	2
RSRT:2140	Radiographic Analysis I	1
RSRT:2141	Radiographic Procedures and Analysis I Lab	1
RSRT:3132	Radiation Safety in Radiologic Technology	1
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
	Hours	**12**
Spring		
RSRT:2225	Radiologic Technology Clinical Internship II	3
RSRT:2230	Radiographic Procedures II	3
RSRT:2240	Radiographic Analysis II	2
RSRT:2241	Radiographic Procedures and Analysis II Lab	1
RSRT:2250	Radiographic Fluoroscopic Procedures	2
RSRT:2251	Radiographic Fluoroscopic Procedures Lab	1
RSP:3210	Medical Ethics and Law	2
	Hours	**14**
Summer		
RSRT:2325	Radiologic Technology Clinical Internship III	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
	Hours	**6**
Third Year		
Fall		
RSRT:3110	Radiographic Analysis III	1
RSRT:3111	Radiographic Procedures and Analysis III Lab	1
RSRT:3120	Radiographic Procedures III	2
RSRT:3125	Radiologic Technology Clinical Internship IV	4
RSRT:3140	Radiographic and Digital Imaging	3
RSRT:3141	Radiographic and Digital Imaging Lab	1
	Hours	**12**
Spring		
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
RSRT:3225	Radiologic Technology Clinical Internship V	3
RSRT:3230	Radiographic Physics and Imaging Equipment	3
RSRT:3231	Radiographic Physics and Imaging Equipment Lab	1
RSCI:4110	Vascular Anatomy	3
	Hours	**12**
Summer		
RSRT:3325	Radiologic Technology Clinical Internship VI	2
RSCI:4120	CVI Principles	4
RSCI:4190	CVI Clinical Internship I	2
	Hours	**8**
Fourth Year		
Fall		
RSRT:4125	Radiologic Technology Clinical Internship VII	1
RSP:4110	Research Methodology for Radiation Sciences	3
RSCI:4140	CVI Peripheral Procedures and Pathology	3
RSCI:4150	CVI Neurology and Nonvascular Procedures and Pathology	3
RSCI:4180	CVI Clinical Internship II	4
	Hours	**14**
Spring		
RSRT:4225	Radiologic Technology Clinical Internship VIII	1
RSCI:4130	Electrocardiogram and Hemodynamics	3
RSCI:4160	CVI Cardiac Procedures and Pathology	4
RSCI:4170	CVI Clinical Internship III	4
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSRT:4230	Radiologic Technology Capstone and Certification Exam Preparation	2
Exam: Upon completion of the program students are eligible to apply to take certification exams.		
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**16**
	Total Hours	**123-128**

a The Academic Advising Center advises Radiation Sciences Interest students on prerequisite course planning. Students

are advised for success, based on academic strength, not necessarily for a four year plan. Prerequisites may take more than one year to complete.

b BIOL:1140 or HHP:1400 s recommended not required. Most students will need to complete BIOL:1140 or HHP:1400 prior to Human Anatomy (based on academic strength).

c Enrollment in math courses requires completion of a placement exam.

d This course is recommended not required.

e Students must complete 6 s.h. by taking 3 s.h. courses from two of the following areas: Historical Perspectives, International and Global Issues, Literary, Visual, and Performing Arts, Understanding Cultural Perspectives, or Values and Society.

f Please see the Radiation Sciences Programs website and your academic advisor for detailed application instructions and deadlines.

g Choose from HHP:2100, HHP:3105, HHP:3115.

h If not previously completed.

i Choose from HHP:2400, HHP:3500, HHP:3550.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Radiologic Technology and Computed Tomography Professional Program

Course	Title	Hours
Academic Career		
Any Semester		
Students apply to the Radiation Sciences B.S. program through a selective process. Acceptance is not guaranteed. [a]		
Students must earn a grade of C or higher in all RS** courses.		
The Radiologic Technology and Computed Tomography professional program is three years in duration.		
	Hours	**0**
First Year		
Any Semester		
Recommended: health care experience (e.g. CNA), job shadowing in radiologic technology, computed tomography, magnetic resonance imaging, cardiovascular interventional, and breast imaging.		
	Hours	**0**
Fall		
RHET:1030	Rhetoric: Writing and Communication	4
BIOL:1140 or HHP:1400	Human Biology: Nonmajors [b] or Human Anatomy and Physiology	3 - 4
MATH:1020 or MATH:1440	Elementary Functions [c] or Mathematics for the Biological Sciences	4
RSP:1100	Introduction to the Radiation Sciences [d]	1
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
Admission Application: begin preparing materials for Radiation Sciences application (due January 15) [f]		
	Hours	**15-16**
Spring		
Human Anatomy course [g, h]		3, 5
Human Physiology course [i]		3, 5
PSY:1001	Elementary Psychology	3
CLSA:3750	Medical and Technical Terminology	2
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
	Hours	**14-18**
Second Year		
Any Semester		
The curriculum shown in the second, third, and fourth years on this plan begins upon acceptance into the Carver College of Medicine, Radiologic Technology Professional Program.		
	Hours	**0**
Fall		
RSRT:2120	Radiologic Technology Clinical Internship I	1
RSRT:2130	Radiographic Procedures I	2
RSRT:2140	Radiographic Analysis I	1
RSRT:2141	Radiographic Procedures and Analysis I Lab	1
RSRT:3132	Radiation Safety in Radiologic Technology	1
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
	Hours	**12**
Spring		
RSRT:2225	Radiologic Technology Clinical Internship II	3
RSRT:2230	Radiographic Procedures II	3
RSRT:2240	Radiographic Analysis II	2
RSRT:2241	Radiographic Procedures and Analysis II Lab	1
RSRT:2250	Radiographic Fluoroscopic Procedures	2
RSRT:2251	Radiographic Fluoroscopic Procedures Lab	1
RSP:3210	Medical Ethics and Law	2
	Hours	**14**
Summer		
RSRT:2325	Radiologic Technology Clinical Internship III	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
	Hours	**6**
Third Year		
Fall		
RSRT:3110	Radiographic Analysis III	1
RSRT:3111	Radiographic Procedures and Analysis III Lab	1
RSRT:3120	Radiographic Procedures III	2

RSRT:3125	Radiologic Technology Clinical Internship IV	4
RSRT:3140	Radiographic and Digital Imaging	3
RSRT:3141	Radiographic and Digital Imaging Lab	1
	Hours	**12**
Spring		
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
RSRT:3225	Radiologic Technology Clinical Internship V	3
RSRT:3230	Radiographic Physics and Imaging Equipment	3
RSRT:3231	Radiographic Physics and Imaging Equipment Lab	1
RSCI:4130	Electrocardiogram and Hemodynamics	3
	Hours	**12**
Summer		
RSRT:3325	Radiologic Technology Clinical Internship VI	2
RSCT:4105	Computed Tomography Clinical Internship I	2
RSCT:4130	Computed Tomography Physical Principles and QC	4
	Hours	**8**
Fourth Year		
Fall		
RSRT:4125	Radiologic Technology Clinical Internship VII	1
RSCT:4115	Computed Tomography Clinical Internship II	4
RSCT:4120	Computed Tomography Procedures I	4
RSCI:4110	Vascular Anatomy	3
RSP:4110	Research Methodology for Radiation Sciences	3
	Hours	**15**
Spring		
RSRT:4225	Radiologic Technology Clinical Internship VIII	1
RSRT:4230	Radiologic Technology Capstone and Certification Exam Preparation	2
RSCT:4125	Computed Tomography Procedures II	4
RSCT:4215	Computed Tomography Clinical Internship III	4
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
Exam: Upon completion of the program students are eligible to apply to take certification exams.		
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**13**
	Total Hours	**121-126**

a The Academic Advising Center advises Radiation Sciences Interest students on prerequisite course planning. Students are advised for success, based on academic strength, not necessarily for a four year plan. Prerequisites may take more than one year to complete.

b BIOL:1140 or HHP:1400 is recommended not required. Most students will need to complete BIOL:1140 or HHP:1400 prior to Human Anatomy (based on academic strength).

c Enrollment in math courses requires completion of a placement exam.

d This course is recommended not required.

e Students must complete 6 s.h. by taking 3 s.h. courses from two of the following areas: Historical Perspectives, International and Global Issues, Literary, Visual, and Performing Arts, Understanding Cultural Perspectives, or Values and Society.

f Please see the Radiation Sciences Programs website and your academic advisor for detailed application instructions and deadlines.

g Choose from HHP:2100, HHP:3105, HHP:3115.

h If not previously completed.

i Choose from HHP:2400, HHP:3500, HHP:3550.

j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Radiologic Technology and Magnetic Resonance Imaging Professional Program

Course	Title	Hours
Academic Career		
Any Semester		
Students apply to the Radiation Sciences B.S. program through a selective process. Acceptance is not guaranteed. [a]		
Students must earn a grade of C or higher in all RS** courses.		
The Radiologic Technology and Magnetic Resonance Imaging professional program is three years in duration.		
	Hours	**0**
First Year		
Any Semester		
Recommended: health care experience (e.g. CNA), job shadowing in radiologic technology, computed tomography, magnetic resonance imaging, cardiovascular interventional, and breast imaging.		
	Hours	**0**
Fall		
RHET:1030	Rhetoric: Writing and Communication	4
HHP:1400 or BIOL:1140	Human Anatomy and Physiology [b] or Human Biology: Nonmajors	3 - 4
MATH:1440 or MATH:1020	Mathematics for the Biological Sciences [c] or Elementary Functions	4
RSP:1100	Introduction to the Radiation Sciences [d]	1
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
Admission Application: begin preparing materials for Radiation Sciences application (due January 15) [f]		
	Hours	**15-16**

Spring		
Human Anatomy course [g, h]		3, 5
Human Physiology course [i]		3, 5
PSY:1001	Elementary Psychology	3
CLSA:3750	Medical and Technical Terminology	2
GE: General Education course (HP, IGI, LVPA, UCP or VS) [e]		3
	Hours	**14-18**
Second Year		
Any Semester		
The curriculum shown in the second, third, and fourth years on this plan begins upon acceptance into the Carver College of Medicine, Radiologic Technology Professional Program.		
	Hours	**0**
Fall		
RSRT:2120	Radiologic Technology Clinical Internship I	1
RSRT:2130	Radiographic Procedures I	2
RSRT:2140	Radiographic Analysis I	1
RSRT:2141	Radiographic Procedures and Analysis I Lab	1
RSRT:3132	Radiation Safety in Radiologic Technology	1
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
	Hours	**12**
Spring		
RSRT:2225	Radiologic Technology Clinical Internship II	3
RSRT:2230	Radiographic Procedures II	3
RSRT:2240	Radiographic Analysis II	2
RSRT:2241	Radiographic Procedures and Analysis II Lab	1
RSRT:2250	Radiographic Fluoroscopic Procedures	2
RSRT:2251	Radiographic Fluoroscopic Procedures Lab	1
RSP:3210	Medical Ethics and Law	2
	Hours	**14**
Summer		
RSRT:2325	Radiologic Technology Clinical Internship III	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
	Hours	**6**
Third Year		
Fall		
RSRT:3110	Radiographic Analysis III	1
RSRT:3111	Radiographic Procedures and Analysis III Lab	1
RSRT:3120	Radiographic Procedures III	2
RSRT:3125	Radiologic Technology Clinical Internship IV	4
RSRT:3140	Radiographic and Digital Imaging	3
RSRT:3141	Radiographic and Digital Imaging Lab	1
	Hours	**12**
Spring		
RSRT:3220	Emotional Intelligence for the Health Care Professional	2
RSRT:3225	Radiologic Technology Clinical Internship V	3
RSRT:3230	Radiographic Physics and Imaging Equipment	3
RSRT:3231	Radiographic Physics and Imaging Equipment Lab	1
RSCI:4110	Vascular Anatomy	3
	Hours	**12**
Summer		
RSMR:4110	Fundamentals for the MRI Technologist	3
RSMR:4160	MRI Clinical Internship I	2
RSRT:3325	Radiologic Technology Clinical Internship VI	2
	Hours	**7**
Fourth Year		
Fall		
RSRT:4125	Radiologic Technology Clinical Internship VII	1
RSP:4110	Research Methodology for Radiation Sciences	3
RSMR:4120	MRI Procedures I	4
RSMR:4140	MRI Acquisition and Principles I	3
RSMR:4170	MRI Clinical Internship II	4
	Hours	**15**
Spring		
RSRT:4225	Radiologic Technology Clinical Internship VIII	1
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSMR:4130	MRI Procedures II	4
RSMR:4150	MRI Acquisition and Principles II	3
RSMR:4175	MRI Clinical Internship III	4
RSRT:4230	Radiologic Technology Capstone and Certification Exam Preparation	2
Exam: Upon completion of the program students are eligible to apply to take certification exams.		
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [j]		
	Hours	**16**
	Total Hours	**123-128**

a The Academic Advising Center advises Radiation Sciences Interest students on prerequisite course planning. Students are advised for success, based on academic strength, not necessarily for a four year plan. Prerequisites may take more than one year to complete.

b BIOL:1140 or HHP:1400 is recommended not required. Most students will need to complete BIOL:1140 or HHP:1400 prior to Human Anatomy (based on academic strength).

c Enrollment in math courses requires completion of a placement exam.

d This course is recommended not required.

e Students must complete 6 s.h. by taking 3 s.h. courses from two of the following areas: Historical Perspectives, International and Global Issues, Literary, Visual, and Performing Arts, Understanding Cultural Perspectives, or Values and Society.
f Please see the Radiation Sciences Programs website and your academic advisor for detailed application instructions and deadlines.
g Choose from HHP:2100, HHP:3105, HHP:3115.
h If not previously completed.
i Choose from HHP:2400, HHP:3500, HHP:3550.
j Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Radiology

Chair

- Bruno A. Policeni

Faculty: https://medicine.uiowa.edu/radiology/our-people

Website: https://medicine.uiowa.edu/radiology/

The Department of Radiology has a three-fold mission of education, research, and patient care. It trains Doctor of Medicine students, residents, and fellows and offers programs for medical professionals. It is a leader in innovative research relating to diagnosis and treatment across the clinical subspecialties, including MRI, PET, breast imaging, cardiac and pulmonary imaging, and imaging informatics. Residents, fellows, medical students, and graduate students have opportunities to participate in research projects in the department. The radiology library provides varied resources and services for department faculty and staff.

The department also provides diagnostic and therapeutic radiology services for patients and families in Iowa and surrounding states through its clinical services at University of Iowa Health Care. Visit the Department of Radiology website to learn more about the department's activities and resources.

Undergraduate Education

The Department of Radiology offers clinical education to students in the Nuclear Medicine Technology [p. 1923] and Radiation Sciences [p. 1966] programs.

MD Training

The Department of Radiology offers a clerkship for Doctor of Medicine students and provides additional courses, research experiences, and externships for students interested in learning more about radiology. Several of the department's programs are open to medical students from other institutions. See Medical Student Training and Externship Program on the Department of Radiology website.

Residency

The department offers three residency programs in diagnostic radiology, interventional radiology, and nuclear medicine; see Education on the Department of Radiology website.

Fellowships are available in these specialties: body imaging, breast imaging, endovascular surgical neuroradiology, interventional radiology, musculoskeletal radiology, neuroradiology, pediatric radiology, molecular imaging, theranostics, and cardiothoracic imaging. Practicing radiologists have access to several departmental traineeships that provide category 1 continuing medical education credit through the Carver College of Medicine.

Courses

Radiology Courses

RAD:8007 Medical Student Fellowships in Radiology (Externships) 0 s.h.
Students work directly with on-call radiology residents; respond to pages, communication with clinicians and consults, facilitate communication with technologists; involves a large amount of medical thinking with emphasis on indications for diagnostic imaging, study protocols, and contrast utilization. Requirements: MD standing in radiology externship.

RAD:8301 Clinical Radiology 2 s.h.
Two-week clerkship. Requirements: MD enrollment.

RAD:8401 Advanced Clinical Radiology arr.
Requirements: MD enrollment.

RAD:8402 Vascular and Interventional Radiology arr.
Requirements: MD enrollment.

RAD:8497 Research in Radiology arr.
Medical research, clinical or laboratory projects; individual study.

RAD:8498 Radiology On Campus arr.
Requirements: MD enrollment.

RAD:8499 Radiology Off Campus arr.
Requirements: MD enrollment.

Stead Family Department of Pediatrics

Chair

- Alexander G. Bassuk

Website: https://pediatrics.medicine.uiowa.edu/

The Stead Family Department of Pediatrics provides a solid foundation for MD students and postgraduate trainees. It offers extensive opportunities for general pediatrics and subspecialties training.

Affiliated programs add depth to the educational program in community pediatrics and primary care. The department is affiliated with the child and maternal health programs of the Bureau of Family Health, Iowa Department of Public Health, University of Iowa Stead Family Children's Hospital, the Center for Disabilities and Development, the Blank Children's Hospital in Des Moines, and community sites.

MD Training

Didactic lectures and physical examinations of newborns, toddlers, and older children provide MD students with their initial pediatric patient contact. This experience includes taking a history, performing a physical examination, appraisal of growth and development, nutrition, and symptomatology of newborns, toddlers, and adolescents.

For core and advanced medical students, the inpatient service provides training in the complex problems of disease and critical illness. Students participate in daily rounds involving general pediatrics and all subspecialties. Challenging and interesting cases are presented for discussion of diagnosis and treatment.

Outpatient experience, available in the core clerkship and advanced electives, stresses principles and practices required for the maintenance of children's health, treatment of common general pediatric disorders, and the diagnosis and treatment of subspecialty ambulatory patients.

Residency and Fellowships

The department offers an accredited three-year residency program designed to prepare trainees for professional careers in general pediatrics or further fellowship training. The program meets the eligibility requirements of the American Board of Pediatrics (ABP) and is approved for 15 residents and one child neurology resident per year by the Accreditation Council for Graduate Medical Education (ACGME).

Fellowships are available in multiple pediatrics subspecialties. Fellowship programs encourage the development of knowledge and skills through research and clinical experiences in the chosen discipline. Upon satisfactory completion of the program, fellows meet the ABP eligibility requirements in their subspecialty.

Facilities

The Stead Family Department of Pediatrics has inpatient and outpatient facilities at the University of Iowa Stead Family Children's Hospital. Additional outpatient facilities are located at Iowa River Landing in Coralville, UI Heath Care—North Liberty, UI Health Care—Scott Boulevard, and Cedar Rapids Pediatrics.

The pediatric inpatient service has approximately 189 beds and more than 60,000 patients are seen each year in the general, specialty, continuity care, and field clinics and in University of Iowa Health Care Emergency Medicine. The Center for Disabilities and Development provides resources for children with intellectual or developmental disabilities and cerebral palsy.

The department maintains a number of laboratories that perform both clinical and research studies.

Courses

Pediatrics (Stead Family Department of Pediatrics) Courses

PEDS:6101 Primary Care: Infants, Children, and Adolescents II **3 s.h.**
Enhancement of clinical knowledge and skills for infant, child, adolescent care; development and refinement of knowledge and skills in primary health care delivery. Prerequisites: NURS:6100. Corequisites: NURS:6702. Same as NURS:6101.

PEDS:7264 Clinical Applications of Applied Behavior Analysis **1-3 s.h.**
Experience behavioral observations, consultation, and/or conducting behavioral assessments (including preference assessments and functional analyses), matched treatments; interviews with care providers, collect behavioral data, conduct behavioral assessments, matched treatments; follow-up with care providers.

PEDS:8301 Clinical Pediatrics **6 s.h.**
Principles, practices of health maintenance and treatment of acute and chronic illnesses in children; emphasis on diagnosis and evaluation, nutrition, behavior problems, disorders affecting children; patient care, daily rounds, ward work. Requirements: third-year MD enrollment.

PEDS:8401 Advanced Inpatient Subinternship in Pediatric Care **arr.**
Experience on pediatric inpatient team caring for patients ranging from infants through adolescents; evaluation, formulation of differential diagnoses, diagnostic workups, appropriate therapy programs. Requirements: fourth-year MD enrollment.

PEDS:8402 Advanced Inpatient Subinternship in Pediatrics: Blank Children's Hospital, Des Moines **arr.**
Experience in the care of general pediatric inpatients; daily rounds and teaching by senior residents and faculty members; daily didactic conferences. Requirements: fourth-year MD enrollment.

PEDS:8403 Neonatology (NICU) **arr.**
Experience caring for ill neonates, proficiency in using diagnostic tests and procedures; responsibility for care of several infants; reference and literature review, conferences, teaching, clinical rounds. Requirements: fourth-year MD enrollment.

PEDS:8404 Critical Care (PICU) **4 s.h.**
Direct care of critically ill children in a multidisciplinary medical/surgical/cardiac intensive care unit, under supervision of pediatric residents and staff; participation in educational activities and formal clinical rounds. Requirements: fourth-year MD enrollment.

PEDS:8405 Emergency Room Blank Children's Hospital, Des Moines arr.
Pediatric emergencies and urgent care, proficiency in pediatric medicine procedures; expansion of basic knowledge. Requirements: fourth-year MD enrollment.

PEDS:8406 Pediatric Pulmonary 4 s.h.
Extensive opportunity to learn clinical assessment of respiratory diseases and complaints including physical exam, history taking, and interpretation of ancillary study (e.g., lung functions, allergy testing, blood gases); diagnosis, management, and follow-up for common chronic respiratory conditions in pediatric population. Requirements: fourth-year MD enrollment.

PEDS:8407 Pediatric Cardiology arr.
Participation in clinical activities; observation of cardiac catheterization; experience in cardiac auscultation, ECG, radiography; emphasis on physical diagnosis, approach to heart disease and murmurs in children. Requirements: fourth-year MD enrollment.

PEDS:8408 Pediatric Gastroenterology arr.
Diagnosis, management, treatment of diseases of gastrointestinal tract, liver, pancreas in children; ward rounds, consultations, clinics, diagnostic procedures, conferences. Requirements: fourth-year MD enrollment.

PEDS:8409 Pediatric Hematology/Oncology arr.
Basic concepts of clinical approach to hematologic and oncologic problems in children and adolescents; primarily outpatient experience. Requirements: fourth-year MD enrollment.

PEDS:8410 Pediatric Neurology arr.
Participation in outpatient and inpatient activities, teaching, morning ward rounds. Requirements: fourth-year MD enrollment.

PEDS:8412 Developmental and Behavioral Pediatrics 2,4 s.h.
Normal developmental sequence of gestation and early childhood, impact of environmental influences; antecedents of developmental disabilities; methods to detect cognitive and motor delays in preschool children; long-term consequences of developmental disabilities for children, their families; advantages of interdisciplinary teamwork. Requirements: fourth-year MD enrollment.

PEDS:8415 Medical Genetics for the Senior Student arr.
Participation in diagnostic, therapeutic problems; techniques for evaluation, appropriate counseling in genetic cases; conferences. Requirements: fourth-year MD enrollment.

PEDS:8416 Neonatal Intensive Care Unit, Blank Children's Hospital 4 s.h.
Experience equivalent to intern on neonatal intensive care unit teaching service at Blank Children's Hospital, Des Moines; four-week rotation.

PEDS:8417 Community Pediatric Outpatient Elective 2 s.h.
Opportunity to participate as active members of a community-based general pediatric office; work directly with community-based faculty and non-physician team members; build on clinical skills developed in M3 pediatric clerkship. Requirements: MD enrollment.

PEDS:8418 Pediatric Intensive Care Unit, Blank Children's Hospital 4 s.h.
Development of knowledge and clinical skills in recognition of critical illness in children; basic strategies of initial resuscitation and management.

PEDS:8419 Pediatric Rheumatology, Allergy, and Immunology 4 s.h.
Introduction to fields of rheumatology and allergy/immunology; utilization of self-reflection to guide self-directed learning; identification of knowledge and performance gaps and address those gaps; demonstration of ability to use evidence-based medicine in production of an evidence-based project; understand how socioeconomic factors affect patient populations through observed patient interactions. Requirements: MD enrollment.

PEDS:8420 Pediatric Palliative Care 2,4 s.h.
Palliative medicine as a specialty which enhances quality of life, reduces suffering for patients with serious illnesses, and provides education and support for their families; interdisciplinary consult teamwork with patient's primary medical providers for inpatient or outpatient management of symptoms, goal setting, and decision-making; introduction to pediatric palliative care with option to be involved in adult palliative care and local hospice services. Requirements: MD enrollment.

PEDS:8421 Pediatric Endocrinology 2,4 s.h.
Diagnosis, management, and treatment of pediatric endocrine diseases: growth disorders (short stature, tall stature, delayed puberty, precocious puberty), thyroid disorders (hypothyroidism, hyperthyroidism, thyroid nodules), diabetes mellitus, diabetes insipidus, dysgenetic syndromes, ambiguous genitalia, adrenal insufficiency or adrenal steroid excess, and hypopituitarism. Requirements: MD enrollment.

PEDS:8431 Pediatric Nephrology 2,4 s.h.
Introduction to general pediatric nephrology cases and management. Requirements: MD enrollment.

PEDS:8450 Continuity of Care in Outpatient General Pediatrics 4 s.h.
Work with experienced general pediatrician in a longitudinal clinical experience for the academic year; paired with faculty pediatrician to see patients in a weekly clinic, provide clinical care to a defined patient population; growth and development, health supervision, and management of common acute and chronic clinical problems. Requirements: fourth-year MD enrollment.

PEDS:8495 Pediatric Intensive Care Off Campus arr.
Arranged by student and department. Requirements: fourth-year MD enrollment.

PEDS:8497 Research in Pediatrics arr.
Medical research, clinical or laboratory projects; individual study.

PEDS:8498 Pediatrics On Campus arr.
Requirements: fourth-year MD enrollment.

PEDS:8499 Pediatrics Off Campus arr.
Requirements: fourth-year MD enrollment.

Surgery

Chair

- Ronald Weigel

Faculty: https://surgery.medicine.uiowa.edu/our-people

Website: https://surgery.medicine.uiowa.edu/

The Department of Surgery offers didactic instruction as well as clinical and other practical experiences for medical students. It also hosts a wide spectrum of clinical and scientific research.

Faculty

The faculty's strengths center on pathophysiology and problems of severe burns, trauma, organ transplantation, surgical control of morbid obesity, surgical oncology, bowel disease, biliary tract disease, pediatric surgery, endocrine disease, plastic surgery, diseases of the esophagus, artificial organs, transplantation, and vascular surgery. Research also is underway in the sequence of mutations and in the localization of genes predisposed to cancer.

MD Training

Department of Surgery courses provide a unique combination of experiences oriented toward patient care and understanding of surgery's place among a physician's skills. Surgery courses are open only to MD students and qualified students in associated health sciences.

Students develop an awareness of surgery's role in the treatment of disease. Emphasis is placed on general surgery, basic emergency surgery, trauma, oncology, burns, gastrointestinal and biliary tract disease, endocrine disease, pediatric surgery, transplantation, plastic and reconstructive surgery, and peripheral vascular surgery.

The majority of surgery courses involve patient-centered discussions and practical exercises interwoven with operating room experience. Lectures and conferences are scheduled regularly on specific topics.

The department offers independent study courses in selected surgery topics and clinical experiences; some are available to fourth-year MD students by arrangement with the faculty.

Facilities

Abundant patient contact provides education on a wide variety of surgical diseases. The Department of Surgery provides training in the only burn unit in Iowa approved by the American College of Surgeons and in the Level I Trauma Center at University of Iowa Health Care.

Laboratories provide equipment, space, and technical expertise to support teaching and a wide spectrum of clinical and scientific research. Projects are available in gastrointestinal surgery, surgical microbiology, peripheral vascular surgery, transplantation, wound healing, organ preservation, vascular surgery, pediatric surgery, and surgical oncology.

The laboratories are also used for supervised teaching exercises in surgical techniques for medical students and junior residents and for the refinement of techniques for senior residents and faculty members.

Courses

Surgery Courses

SURG:8301 Clinical Surgery **6 s.h.**
Experience as active member of surgical team; work on inpatient units, in clinics and operating room; assist in elective and emergency patient care.

SURG:8401 Advanced General Surgery **4 s.h.**
Opportunity to strengthen clinical skills through experiences in the operating rooms, clinics, wards, and intensive care units of University of Iowa Health Care.

SURG:8402 Advanced Inpatient Subinternship in General Surgery **4 s.h.**
Responsibility for management of selected surgical inpatients, on a surgical service. Prerequisites: SURG:8301.

SURG:8406 General Surgery, Des Moines, IA **4 s.h.**
Care of general surgery patients in private hospital setting. Prerequisites: SURG:8301.

SURG:8407 Intensive Care Unit - Trauma, Iowa Methodist **4 s.h.**
Subinternship on trauma service team; evaluation and management of critically ill patients in the emergency room, operating room, intensive care unit. Prerequisites: SURG:8301. Requirements: fourth-year MD enrollment.

SURG:8409 General Surgery, Davenport, IA **4 s.h.**
Participation in diagnosis and management of general surgical patients under supervision of attending surgeons from Davenport Surgical Group, Genesis Medical Center. Prerequisites: SURG:8301. Requirements: fourth-year MD enrollment.

SURG:8411 Multidisciplinary Breast Elective **2,4 s.h.**
Evaluation and management of benign and malignant breast diseases; focus on multidisciplinary nature of treatment of breast disease; for students who plan to pursue residency in general surgery, obstetrics and gynecology, family practice, or other field with focus on women's health. Requirements: MD enrollment.

SURG:8419 Advanced Inpatient Subinternship in Plastic Surgery **4 s.h.**
Exposure to a wide range of educational opportunities and to the complexity and diversity of health care in the plastic surgery setting related to policies, environment, cultural, socioeconomic, and financial considerations; provides experience in all areas of plastic surgery; for students with an interest in plastic and reconstructive surgery. Requirements: MD enrollment.

SURG:8420 Plastic Surgery **4 s.h.**
Plastic surgery experience, including craniofacial, hand, reconstruction, and aesthetic surgery. Enhances students' understanding of both the technical and patient care aspects of plastic surgery, including reconstructive and cosmetic procedures. Requirements: MD enrollment.

SURG:8460 Surgical Residency Preparation **4 s.h.**
Preparation for surgical residency; focus on application of knowledge and skills accumulated through medical school to surgical patient care; development of an advanced understanding of preoperative, intraoperative, and postoperative care of patients, critical care knowledge, communication skills, and technical skills necessary for surgical specialties. Requirements: MD enrollment.

SURG:8497 Research in Surgery **arr.**
Medical research, clinical or laboratory projects; individual study.

SURG:8498 Surgery On Campus **arr.**
Surgery on campus; individually arranged. Prerequisites: SURG:8301.

SURG:8499 Surgery Off Campus **arr.**
Prerequisites: SURG:8301.

Urology

Chair

- Karl Kreder

Website: https://urology.medicine.uiowa.edu/

Urology encompasses the subspecialty areas of urologic nephrology, oncology, and endocrinology; male reproductive physiology; erectile dysfunction; neurourology; pediatric urology; urinary tract stone and infection, including endourology; laparoscopic and robotic urology; trauma and reconstructive urology; urodynamics and female urology; diagnostic urology; and urinary tract obstruction.

The Department of Urology offers instruction in all of these areas to MD and graduate students and provides continuing education for the delivery of urologic care.

Continuing Education

The department offers continuing education activities throughout the year for urologic and family practitioners. These activities are conducted by the faculty, whose interests include pediatric urology, reproductive physiology and male infertility, urologic oncology, urinary tract stone (including endourology/laparoscopy), robotic surgical procedures, trauma and reconstructive urology, female urology, and prostatic diseases.

Research

The department has earned international recognition for its studies of prostatic diseases. The urological laboratories conduct research and offer instruction in experimental oncology, cellular immunology, and infertility.

MD Training

The Department of Urology cooperates with several University of Iowa basic science departments to educate first-year MD students on the relationship between urology and the basic sciences. It collaborates with the Department of Microbiology and Immunology [p. 1903] in teaching and research concerning the immunology of genitourinary cancers and renal transplantation.

In the first-year MD course, MED:8134 Mechanisms of Health and Disease III, and the second-year courses, MED:8221 Clinical and Professional Skills III and MED:8224 Mechanisms of Health and Disease Keystone, the department presents illustrative lectures and demonstrations related to the diagnosis and treatment of genitourinary tract diseases.

Second-, third-, and fourth-year MD students take Department of Urology courses that provide experience in all areas of urology. The department's selective two-week clerkship covers the fundamentals of these areas through experience in outpatient clinics, surgical settings, and inpatient units at University of Iowa Health Care, the Iowa River Landing, and the VA Iowa City Health Care. MD students can take advanced elective courses of intensive study in any of the urologic subspecialties after completion of URO:8301 Clinical Urology.

Courses

Urology Courses

URO:8301 Clinical Urology **2 s.h.**
Work in urology unit, clinic; responsibility for patient care, working with residents.

URO:8401 Advanced Urology **4 s.h.**
Experience as integral member of urological staff, junior resident level. Requirements: MD enrollment.

URO:8402 Pediatric Urology **2,4 s.h.**
In-depth study of pediatric urology topics. Requirements: MD enrollment.

URO:8403 Urologic Oncology **2,4 s.h.**
Multispecialty exposure to diagnosis and treatment of patients with current and newly diagnosed urologic malignancies. Requirements: MD enrollment.

URO:8404 Female Pelvic Floor Dysfunction **2,4 s.h.**
Requirements: MD enrollment.

URO:8497 Research in Urology **arr.**
Medical research, clinical or laboratory projects; individual study.

URO:8498 Urology On Campus **arr.**
Clinical clerkship; individually arranged by student with departmental approval.

URO:8499 Urology Off Campus **arr.**
Individually arranged by students with department approval.

College of Nursing

Dean

- Julie Zerwic

Executive Associate Dean

- Sandra E. Daack-Hirsch

Associate Dean for Research

- Tracie C. Harrison

Associate Dean for Undergraduate and MSN EIP Programs

- Mary B. Tobin

Associate Dean for Graduate Practice Programs

- Daniel J. Crawford

Director, PhD Program

- Stephanie Gilbertson White

Division Head, Acute and Critical Care

- Sue E. Gardner

Division Head, Community and Primary Care

- Lisa S. Segre

Undergraduate degree: BSN

Graduate degrees: MSN; DNP; PhD in Nursing

Graduate certificates: adult gerontology acute care nurse practitioner; adult gerontology primary care nurse practitioner; family nurse practitioner; health systems; pediatric nurse practitioner-acute care; pediatric nurse practitioner-primary care; psychiatric/mental health nurse practitioner

Faculty: https://nursing.uiowa.edu/faculty-staff/faculty-directory

Website: https://nursing.uiowa.edu/

The College of Nursing is an integral part of the University of Iowa health science campus, sharing in and contributing to teaching, research, and patient care resources that have earned international recognition. The university provides a robust setting for nursing preparation because the educational and clinical resources vital to educating nurses are evidence based, diverse, and available on or near the campus. Faculty and students participate fully in university life and contribute their time, interests, and abilities to the many general and special activities of a major research university.

The college's Bachelor of Science in Nursing (BSN), the Clinical Nurse Leader (CNL) and Nursing Systems Administration (NSA) subprograms for the Master of Science in Nursing (MSN) as well as the MSN Entry into Practice subprogram and the Doctor of Nursing Practice (DNP) program, are accredited by the Commission on Collegiate Nursing Education (CCNE), an autonomous accrediting arm of the American Association of Colleges of Nursing (AACN). They are also approved by the Iowa Board of Nursing. The anesthesia nursing program (in the Doctor of Nursing Practice) is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs.

Graduates of the prelicensure BSN and MSN Entry into Practice qualify to take the National Council Licensure Examination (NCLEX) required for practice as registered nurses (RN). Graduates of advanced practice majors in the graduate program are eligible to take certification examinations and apply for Advanced Registered Nurse Practitioner (ARNP) licensure.

Related Minor and Certificates

Aging and Longevity Studies

College of Nursing students may participate in the Aging and Longevity Studies Program, which provides undergraduate students with a multidisciplinary approach to gerontology. The program offers a minor. Students plan their course of study with their academic advisor in close cooperation with the Aging and Longevity Studies Program coordinator. The Aging and Longevity Studies Program is administered by the School of Social Work (College of Liberal Arts and Sciences). For more information, see Aging and Longevity Studies [p. 47] (College of Liberal Arts and Sciences) in the catalog.

Informatics (Health Informatics Subprogram)

The Graduate College offers the Certificate in Informatics with a health informatics subprogram. The subprogram emphasizes the organization, management, and use of health care information; health care research, education, and practice; and information technology developments in the socioeconomic context of health care.

College of Nursing students working toward the certificate complete IGPI:5110 Introduction to Informatics, which explores decision-making processes and technological tools to support health care administration, management, and practice.

Students earn additional credit in foundational informatics coursework, including one elective chosen in consultation with their major program advisor and their certificate advisor. Students who earn credit for a thesis, project, or independent study in their major program of study may apply the credit as an elective if the certificate advisor determines that the subject matter is pertinent.

To learn more, see the Certificate in Informatics [p. 1760] (Graduate College) in the catalog. For additional information, see Health Informatics on the Graduate College website.

Student Organizations

All College of Nursing BSN prelicensure students are members of the National Student Nurses Association and its local chapter, the Iowa Association of Nursing Students (IANS). The Student Nurse Association at the University of Iowa (SNAUI) provides opportunities for professional growth and development in nursing. SNAUI representatives are members of the Undergraduate Student Government (USG).

University of Iowa Men in Nursing (UI MiN) provides opportunities for nurses to meet, recruit, talk, and influence the environment for men in nursing. It is open to all nursing students.

The college's Association of Graduate Nursing Students (AGNS) provides opportunities for professional growth, sharing of research, and representation on varied college and university committees.

See Student Life–Nursing Student Organizations on the College of Nursing website.

Programs

Undergraduate Program of Study

Major

- Bachelor of Science in Nursing [p. 2018]

Graduate Programs of Study

- Master of Science in Nursing [p. 2024]
- Doctor of Nursing Practice [p. 2029]
- Doctor of Philosophy in Nursing [p. 2043]
- Adult Gerontology Acute Care Nurse Practitioner [p. 2045]
- Adult Gerontology Primary Care Nurse Practitioner [p. 2046]
- Family Nurse Practitioner [p. 2047]
- Health Systems [p. 2048]
- Pediatric Nurse Practitioner–Acute Care [p. 2049]
- Pediatric Nurse Practitioner–Primary Care [p. 2050]
- Psychiatric/Mental Health Nurse Practitioner [p. 2051]

Facilities

The College of Nursing Building is centrally located on the university's main campus, in close proximity to the Carver College of Medicine, the College of Dentistry, the College of Pharmacy, the College of Public Health, University of Iowa Health Care, and the Hardin Library for the Health Sciences.

The College of Nursing Building (CNB) boasts collaborative spaces, flexible learning spaces, and state-of-art classroom technology. The CNB spaces include two 84-seat flexible classrooms, two 49-seat flexible classrooms, and a clinical skills classroom on the ground floor; collaboration rooms for quiet study and group learning, student commons, and graduate student space are on the first floor; five seminar seating classrooms on the third floor; and flexible conference room and office space on the fourth floor.

The Nursing Clinical Education Center (NCEC), located at University of Iowa Health Care, provides hands-on simulation and laboratory experiences for both undergraduate and graduate nursing students. The center is also a training hub for the university's Department of Nursing Services and Patient Care. The NCEC houses state-of-the-art health care simulation technology. It has multiple classrooms, a resource library, a lobby with ample seating, and gathering spaces for private meetings. The center is codirected by the College of Nursing and the UI Health Care Department of Nursing Services and Patient Care.

Courses

College of Nursing Courses

NURS:1020 First-Year Seminar **1 s.h.**
Introduces first-year undergraduate students to the intellectual life of the University of Iowa; provides an opportunity to work closely with a faculty member or senior administrator; seminars help students make the transition to college-level learning through active participation in their own learning.

NURS:1030 Human Development and Behavior **3 s.h.**
Normal developmental transitions experienced by individuals and family systems throughout the lifespan, including physical, cognitive, and social-emotional development. Requirements: nursing or nursing-interest major.

NURS:1800 Aging Matters: Introduction to Gerontology **3 s.h.**
Overview of the field of gerontology from a bio-psycho-social framework; how the human body and brain age, effects of these biological changes on physical and cognitive functions, and interaction of these individual factors with societal contexts; broad perspective to give students a foundation in gerontology, paving the way for more advanced courses in biology of aging, psychology of aging, and global aging; for students from a wide range of disciplines and levels, no prior knowledge of aging required. GE: Social Sciences. Same as ASP:1800, CSD:1800, SSW:1800, TR:1800.

NURS:3099 Leadership U **1-3 s.h.**
Development of leadership in nursing; application of leadership theory in practice by participating in activities such as attending professional organization meetings, acting as a delegate, writing legislation, holding a board position, or being part of a multidisciplinary or international team to organize events for community involvement. Requirements: nursing major.

NURS:3110 Healthcare Finance **3 s.h.**
Basic structure of U.S. health care system and how it is funded; tools for making decisions about available financial resources.

NURS:3111 Caring for Vulnerable Populations **3 s.h.**
Introduction of basic concepts to deconstruct the caring of a variety of vulnerable populations. Content includes bias along many lines of difference, discrimination in healthcare, structural racism from a historical context, systemic inequities in healthcare delivery and outcomes, and social determinants of health. Concludes with an exploration of strategies to advance health equity and improve health for all.

NURS:3128 Health Assessment and Communication Across the Lifespan **3 s.h.**
Assessment and communication skills; development and application of cognitive skills to perform systematic, holistic, and culturally competent health assessments; emphasis on application of clinical reasoning involving assessment, nursing diagnoses, interventions, and outcomes. Requirements: admission to a College of Nursing program.

NURS:3138 Nursing and Pharmacological Interventions I **5 s.h.**
First of a two-part series focusing on basic biophysical concepts that inform nursing and pharmacological interventions, including sleep, immobility, skin care, wound healing, infection, and human response to illness; selected disorders and/or diseases, including GI disease, disorders of bowel and urine elimination, diabetes, and cancer; introduction to health literacy and principles of health education. Requirements: NURS:3128 taken as a prerequisite for the MSN-EIP program or taken as a corequisite for the BSN program.

NURS:3151 Introduction to Clinical Concepts for Nursing 2 s.h.
Introduction to aspects of nursing care including physical exam, health assessment, and psychomotor nursing interventions; students practice strategies to promote safe care of patients, including calculation of medications prior to administration; emphasis on effective patient communication, education, and integration of medical terminology; application of nursing interventions, psychomotor skills, and medication dosages and calculation; health, physical, and psychosocial assessment; first of a three-part laboratory and simulation series. Corequisites: NURS:3128. Requirements: admission to a College of Nursing program.

NURS:3160 Professional Role I: Professionalism and Patient Safety 3 s.h.
Introduction to inherent nursing values, history, theories, and scope of professional nursing; concepts of safety, risk identification, and clinical decision-making; information technologies that promote quality and safety. Requirements: admission to the College of Nursing.

NURS:3198 Distance Education: Independent Study 1-3 s.h.
Supervised study designed for individual undergraduate students.

NURS:3199 Independent Study 1-3 s.h.
Supervised study designed for individual undergraduate students.

NURS:3438 Nursing and Pharmacological Interventions II 5 s.h.
Second of a two-part series focusing on complex biophysical concepts that inform nursing and pharmacological interventions, including fluids and electrolytes, shock, and perioperative care; focus on selected disorders and/or diseases, including neurological, immune, musculoskeletal, cardiovascular, respiratory, renal, and endocrine disorders. Prerequisites: NURS:3138.

NURS:3451 Basic Clinical Concepts for Nursing 1 s.h.
Caring for the adult patient with diverse disease processes through experiential learning; emphasis on complex physical and psychosocial assessment, clinical reasoning, team building, interprofessional education and communication, and application of the nursing process to provide safe and effective nursing care; second of a three-part laboratory and simulation series. Prerequisites: NURS:3151.

NURS:3460 Professional Role II: Research 3 s.h.
Introduction to concepts and process of research in nursing; primary focus on understanding research and its foundation for nursing practice. Requirements: basic statistics and NURS:3160 taken as a prerequisite or corequisite for the RN-BSN program or taken as a corequisite for the BSN program. Recommendations: upper-level statistics.

NURS:3518 Pathology 3 s.h.
Introduction to abnormal functioning of cells, tissues, organs, and systems over the human lifespan; focus on hematological, immune, neurological, musculoskeletal, cardiovascular, respiratory, renal, gastrointestinal, endocrine, and reproductive system; alterations in metabolic processes and alterations in homeostatic mechanisms impacting the internal milieu; emphasis on critical thinking. Requirements: admission to a College of Nursing program.

NURS:3595 Nonprofit Organizational Effectiveness I 3 s.h.
Operational and financial aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as ENTR:3595, MGMT:3500, MUSM:3500, RELS:3700, SSW:3500.

NURS:3600 Nonprofit Organizational Effectiveness II 3 s.h.
Qualities for leadership of nonprofit organizations, including relationships with staff and volunteers; relationship of nonprofit and outside world; marketing, public relations, advocacy strategies for nonprofits. Same as MGMT:3600, RELS:3701, SSW:3600.

NURS:3615 Adult Medical/Surgical Nursing Practicum 3 s.h.
In-depth clinical experience; application of basic and complex concepts of nursing care for adults of all ages in a variety of settings, focus on older adults; development and application of critical thinking skills necessary to understand disease process, associated signs and symptoms; emphasis on interventions and outcomes. Prerequisites: NURS:3128 and NURS:3138 and NURS:3151 and NURS:3518.

NURS:3620 Gerontological Nursing 3 s.h.
Nurse's role in promoting, maintaining, and restoring the health of aging adults; internal and external influences on older adults, application of nursing science to the care of older adults in diverse settings. Prerequisites: NURS:3138 or NURS:3160.

NURS:3625 Gerontological Nursing Practicum 2 s.h.
In-depth clinical experience designed to apply basic and complex concepts of nursing care for adults of all ages in a variety of settings; focus on older adults; development and application of critical thinking skills necessary to understand disease process and the associated signs and symptoms, interventions, and outcomes. Prerequisites: NURS:3138. Corequisites: NURS:3620.

NURS:3631 Nursing Care of Children and Families 2 s.h.
Promoting, maintaining, and restoring the health of parents, infants, children, and adolescents in childbearing families; examination of nursing care of newborns, well children, and children with acute and chronic illness within the context of family and community. Prerequisites: NURS:3438. Corequisites: NURS:3632.

NURS:3632 Nursing Care of Childbearing Families 2 s.h.
Promoting, maintaining, and restoring health for women of reproductive age, childbearing families, and newborns; examination of nursing care for family planning, preconception health, prenatal care, childbirth, newborn care, and maternal and neonatal complications within the context of family and community. Prerequisites: NURS:3438. Corequisites: NURS:3631.

NURS:3635 Parent Child Nursing Practicum 2 s.h.
Application of nursing knowledge to promote, maintain, and restore health; vulnerable populations of interest including persons with mental health disorders, infants, children, adolescents, their families; processes of childbearing and childrearing within context of families. Prerequisites: NURS:3615. Corequisites: NURS:3631 and NURS:3632.

NURS:3640 Psychiatric/Mental Health Nursing 3 s.h.
General principles and practices of psychiatric/mental health nursing; psychiatric disorders, populations at risk, continuity of care, and problems in daily living; unique needs of diverse populations. Corequisites: NURS:3645.

NURS:3645 Mental Health Nursing Practicum 2 s.h.
Application of nursing knowledge to promote, maintain, and restore health; vulnerable populations of interest including persons with mental health disorders, infants, children, adolescents, their families; processes of childbearing and childrearing within context of families. Corequisites: NURS:3640. Requirements: NURS:3615 and NURS:3438 taken as prerequisites for the BSN program or enrollment in the MSN-EIP program.

NURS:3650 Community and Public Health Nursing 3 s.h.
Role of nursing in the relationship between community conditions and public health; emphasis on principles of public health combined with nursing knowledge and skills to address health needs of individuals, families, communities, and populations. Corequisites: NURS:3655 or NURS:5220.

NURS:3651 Advanced Clinical Concepts for Nursing 1 s.h.
Advanced and specialty nursing skills; focus on pediatric and obstetric simulation as well as advanced, medical-surgical skills; opportunity for ongoing development of essential clinical skills including team communication, clinical reasoning, patient safety, evidence-based practice, incorporation of the nursing process, patient education, and nursing care across the lifespan; third of a three-part laboratory and simulation series. Prerequisites: NURS:3451.

NURS:3655 Community and Public Health Nursing Practicum 2 s.h.
Learning opportunities to apply principles of public health with nursing knowledge and skills to address health promotion, disease and injury prevention, and nursing management of infectious disease and chronic health conditions; nursing activities focus on improvement of health outcomes at individual, family, community, and global levels within the context of population-focused practice. Corequisites: NURS:3650.

NURS:3660 Professional Role III: Improving Health Systems 3 s.h.
Legal and regulatory processes that impact health care, how disparities influence health care, and evidence-based approaches for improving quality of care; strategies for working effectively in intra and interdisciplinary teams; integration of a culture of safety. Prerequisites: NURS:3460.

NURS:3712 Human Sexuality, Diversity, and Society 1-3 s.h.
Introduction to human sexuality from a biopsychosocial, sex-positive perspective; sexuality as a normal and essential component of human existence and expression throughout the life span; influence of gender, class, religion, race, ethnicity, sexual orientation, ability status, age, and culture on sexuality interwoven and highlighted; diversity of perspectives and experiences shared through active participation and respectful dialogue. Same as SSW:3712.

NURS:3731 Healthier Living for Well-Being 1 s.h.
Strategies to reduce stress and promote healthy resilience; overall well-being and academic performance support; evidence-based, skills-building assignments focus on cognitive behavioral and coping techniques. Requirements: nursing interest or admission to the College of Nursing.

NURS:3732 Global Health Nursing 3 s.h.
Complexity of health and nursing in a global context; overview of biological, social, epigenetic, and environmental contributors to health and diseases in populations around the world and nursing's role in improving health; includes case studies of various global organizational and educational structures and systems relative to population health, selected infectious diseases, nutritional deficiencies, and health effects of environmental change. Same as GHS:3732.

NURS:3734 Introduction to Human Genetics 3 s.h.
Introduction to organization of the human genome and basic principles of inheritance in humans; cells and development, chromosome structure and function, gene structure and function, genes in pedigrees and populations, implications of genetic variation on health.

NURS:3737 Care of the Patient in Pain 3 s.h.
Foundational and advanced content in the area of pain management across populations, the lifespan, and settings of care; content and learning focus on core competencies for pain management recommended of all health care professionals; emphasis on development of interdisciplinary team, including nurses, as an advocate for quality and safe pain management; content areas include type of pain, pain therapies, assessment and measurement, treatment, self-management, evaluation/monitoring, disparities, and bioethics; no clinical component. Requirements: upper-division standing. Recommendations: pharmacology and pathophysiology.

NURS:3740 End-of-Life Care for Adults and Families 3 s.h.
End-of-life issues in care of adults, older adults, and their families. Same as ASP:3740, MED:3740.

NURS:3741 Nurse Residency Role Transition Seminar 3 s.h.
New graduate nurses entering practice are enrolled in transition-to-practice programs focused on integration of knowledge, skills, and professional behaviors necessary to provide safe, quality care; associate degree nurses evaluate how they achieved mastery of core knowledge and competencies and discuss Commission on Collegiate Nursing Education (CCNE) Entry-to-Practice Competencies; students examine transition-to-practice experience and document ways in which knowledge, skills, and attitudes are impacted and improved; engage in group discussion and reflective writing assignments to evaluate professional growth during transition-to-practice. Requirements: associate degree nurse graduate currently enrolled in or recent completion of a nurse residency program accredited by Commission on Collegiate Nursing Education (CCNE) or UI online nurse residency program (nurse residency program completed within two years or current enrollment with completion in a minimum of five months).

NURS:3742 Selected Topics in Nursing 1-2 s.h.
In-depth study of topics in professional nursing practice and health care; workshop format.

NURS:3744 Critical Care Nursing 3 s.h.
Provides nursing students with the knowledge required to safely and competently care for critically ill or injured patients; builds upon foundational courses in medical/surgical acute care. Requirements: NURS:3615 or RN licensure.

NURS:4096 Distance Education: Honors Independent Study 3 s.h.
Building on honors seminar, students implement the project they designed in the seminar with guidance from the student's contracted honors faculty mentor; honors project is expected to apply current professional evidence and result in a rigorous scholarly product; the specific type of product is negotiated with honors faculty mentor; while a minimum of 90 hours is required for honors project, honors faculty mentor and student work together to determine the specific schedule commitments. Prerequisites: NURS:4098.

NURS:4098 Honors Seminar 1 s.h.
Crafting a meaningful honors project; structured steps for development of a project idea, measurable learning objectives, GANTT chart timeline, beginning literature review related to the independent study subject; identification/ completion of organizational requirements such as approval processes, access to electronic systems, and training.

NURS:4099 Honors Independent Study 3 s.h.
Building on honors seminar, students implement the project they designed in the seminar with guidance from the student's contracted honors faculty mentor; honors project is expected to apply current professional evidence and result in a rigorous scholarly product; specific type of product negotiated with honors faculty mentor; while a minimum of 90 hours is required for honors project, honors faculty mentor and student work together to determine specific schedule commitments. Prerequisites: NURS:4098.

NURS:4155 Nursing Internship 5 s.h.
Immersion capstone experience to engage in practice under direct supervision of a professional registered nurse mentor; design, provide, coordinate, and evaluate care; work with teams to deliver evidence-based care; improve quality, patient safety, and outcomes. Requirements: enrollment in final semester of program.

NURS:4160 Professional Role IV: Leadership and Professional Engagement 3,5 s.h.
Concepts of leadership, followership, management, informatics, and professional engagement; quality improvement strategies and skills; professional development, career trajectory, and role transitions. Prerequisites: NURS:3660.

NURS:4170 Baccalaureate Seminar 1 s.h.
Examination of didactic and clinical learning experiences; documentation of changes in knowledge, skills, and attitudes to demonstrate achievement of relevant competencies; group discussion and reflective writing assignments to evaluate professional growth that has occurred during the BSN program. Requirements: enrollment in final semester of program.

NURS:5002 Leadership and Management Essentials 3 s.h.
Roles and strategies for leading and managing others in health care environments to influence health care delivery and provide a healthy, innovative working environment; focus on selected leadership and organizational concepts essential to leaders in health care.

NURS:5007 Applied Epidemiology 3 s.h.
Introduction to basic principles and methods of epidemiology and demonstration of applicability in field of nursing and nursing research; topics include historical perspectives of epidemiology, epidemiological models of health and disease, measures of disease occurrence and association, disease screening, causal inference, study design and application of epidemiological approaches to clinical practice, program planning and evaluation.

NURS:5009 Evaluating Evidence for Practice 3 s.h.
Opportunity for clinicians to develop proficiency in use of research- and evidence-based practice; essentials of the research process, qualitative and quantitative research, components of evidence-based practice; acquisition of knowledge and skills necessary for research (knowledge) utilization initiatives and application of evidence-based practice principles in clinical settings; identification of appropriate research questions, synthesis of knowledge base for evidence-based practice, revision of clinical practice guidelines, and evaluation of research utilization and evidence-based practice initiatives.

NURS:5010 Clinical Data Management and Evaluation 3 s.h.
Clinical data management essential for evaluating evidence-based practice/performance improvement projects; a high caliber data management plan will provide key stakeholders with information necessary to make decisions and includes components of identified processes and outcomes linked to variables and data sources, adequate statistical power, data cleaning and manipulation techniques, statistical methods, and a meaningful presentation of variables that addresses the concerns and questions of key stakeholders; knowledge and skills necessary to develop and execute data management plan for final project. Prerequisites: NURS:5009. Requirements: master's or doctoral standing.

NURS:5014 Graduate Physiology for Advanced Practice 3,5 s.h.
In-depth study of physiologic processes across the lifespan; cellular, organ, and systems functions; physiological responses to the internal milieu; interrelationships between body systems and cellular and body-wide defense mechanisms; synthesis of evidence-based information from various sources related to selected physiological phenomena. Requirements: admittance to a graduate healthcare practice program.

NURS:5015 Health Systems, Finance, and Economics 3 s.h.
Global, economic, organizational, legal, political, and technological contexts in advanced nursing practice; knowledge and skills necessary for understanding the evolution of health services organizations, financing of health care, and relationships among socioeconomic systems influencing health care and nursing practice; impact of macrosystems on distribution, acquisition, and use of financial and economic principles in delivery of health care services. Prerequisites: NURS:5002.

NURS:5016 Health Care Infrastructure and Informatics 3 s.h.
Health care infrastructure with a focus on the United States; role of information and technology in its development and implementation; role of data sets, information technology, and emerging technologies in supporting providers in managing patient care and population health of vulnerable groups. Prerequisites: NURS:5002 and NURS:5015.

NURS:5017 Quality and Safety 3 s.h.
Foundation for understanding concepts of safety and quality across health care settings; focus on providing a safe environment, elevating staff performance and clinical outcomes related to safety and quality, and methods for continuous improvement.

NURS:5018 Clinical Education in the Care Environment 3 s.h.
Preparation to assume role of educator with individuals, groups, and communities, including staff and students; teaching/learning process for providing client education; knowledge and skills needed to effectively fill role of preceptor/mentor.

NURS:5019 Role Development: Educator in a Practice Discipline 3 s.h.
Becoming an educator in a practice discipline; unique knowledge, skills, approaches to didactic and clinical teaching; overview of curriculum development process that affects revision/development; faculty role in curriculum development and evaluation; knowledge and skills to create a learner-centered environment for professional students; key facilitation and evaluation strategies; application of concepts during field experience working directly with experienced faculty.

NURS:5020 Application of Educator Role Competencies 1-3 s.h.
Individually designed activities to strengthen performance as an educator in a practice discipline; meet with experienced instructor to develop specific objectives and related activities to be completed during a 45-hour field experience. Prerequisites: NURS:5019.

NURS:5021 Physiology, Pathophysiology, and Pharmacology I for the Clinical Nurse Leader 3 s.h.
Basic scientific concepts required for BSN and clinical nursing experience; matches physiology and pathophysiology with pharmacological treatments as combined core elements; focus on regulation of cellular, organ, and system functions; regulation of internal milieu; functional interrelationships among body systems; cellular and body-wide defense mechanisms; synthesis of information related to pathophysiological phenomena; pharmacokinetic and pharmacodynamics principles essential for general practice; specific drug classes used in management of clinical conditions. Two semesters.

NURS:5022 Physiology, Pathophysiology, and Pharmacology II for the Clinical Nurse Leader 3 s.h.
Basic scientific concepts required for BSN and clinical nursing experience; matches physiology and pathophysiology with pharmacological treatments as combined core elements; focus on regulation of cellular, organ, and system functions; regulation of internal milieu; functional interrelationships among body systems; cellular and body-wide defense mechanisms; synthesis of information related to pathophysiological phenomena; pharmacokinetic and pharmacodynamics principles essential for general practice; specific drug classes used in management of clinical conditions. Two semesters. Prerequisites: NURS:5021.

NURS:5023 Pathophysiology for Advanced Clinical Practice 4 s.h.
In-depth study of pathophysiologic processes across the lifespan; emphasis on dysregulation of cellular, organ, and system functions; clinical manifestations of common disease states; resultant physiological responses to internal milieu; interrelationships among body system; cellular and body-wide defense mechanisms; synthesis of evidence-based information from a variety of sources related to selected pathophysiological phenomena. Requirements: graduate-level physiology course.

NURS:5031 Health Promotion and Assessment for Advanced Clinical Practice 3-4 s.h.
Emphasis on health promotion and advanced health assessment; didactic and clinical laboratory instruction allows students to develop and demonstrate mastery of advanced knowledge and skills in health assessment; content related to promotion of health and prevention of disease; focus on application of content with individuals within the student's respective population-based scope of practice. Requirements: admission to post-BSN DNP program.

NURS:5032 Mental Disorders in Advanced Practice 3 s.h.
Foundation for advanced practice nurse to provide care for common mental health disorders; presentation of neurophysiological, genomic, environmental/social, and developmental theories to understand etiology and presentation of common mental health conditions; psychopharmacological and nonpharmacological principles and modalities for treatment of common mental health problems.

NURS:5033 Pharmacotherapeutics for Advanced Practice Nursing 3 s.h.
Pharmacotherapeutic principles essential for advanced clinical practice; specific drug classes frequently used in the management of clinical conditions experienced by patient populations; legal considerations related to prescriptive authority and prescribing patterns. Prerequisites: NURS:5023.

NURS:5035 Graduate Pharmacology Specialty 3 s.h.
Principles of pharmacology learned in NURS:5033; principles and practices necessary for safe prescribing and medication management of a specialty population (e.g., pediatrics, geriatrics, acute care, mental health). Prerequisites: NURS:5033.

NURS:5036 Psychopharmacology for Advanced Clinical Practice 3 s.h.
Scientific knowledge of psychopharmacology and its application to treatment of clients with psychiatric disorders across the lifespan; advanced concepts in neuroscience, neurobiology of mental disorders, pharmacokinetics and pharmacodynamics of psychotherapeutic medications in the management of targeted symptoms of psychiatric disorders in clients across the lifespan. Prerequisites: NURS:5023 and NURS:5033.

NURS:5037 Health Promotion and Assessment for Clinical Nurse Leaders 3-4 s.h.
Emphasis on health promotion and advanced health assessment; didactic and clinical laboratory instruction allows students to develop and demonstrate mastery of advanced knowledge and skills in health assessment; content related to promotion of health and prevention of disease; focus on application of course content with individuals across the lifespan. Requirements: admission to MSN-CNL program.

NURS:5038 Advanced Diagnostic and Therapeutic Procedures for Acute Care 1 s.h.
Introduction to use of advanced diagnostic and therapeutic techniques commonly encountered in acute and critical care; students are provided opportunities to interpret and incorporate technologically derived data; discussion of practices to protect patients, such as informed consent, risk benefit analysis, infection control, and pain management; laboratory experiences allow students to practice techniques used to perform invasive procedures. Prerequisites: NURS:5023 and NURS:5031 and NURS:5033. Requirements: graduate-level physiology course.

NURS:5039 Advanced Diagnostic and Therapeutic Procedures for Primary Care 1 s.h.
Introduction to use of advanced diagnostic and therapeutic techniques commonly encountered in primary care; selected laboratory experiences designed to enhance familiarity with use of technologies and interpretation of technologically derived data; discussion of practices used to protect patients (e.g., informed consent, risk benefit analysis, infection control, pain management). Prerequisites: NURS:5023 and NURS:5031 and NURS:5033. Requirements: graduate-level physiology course.

NURS:5040 Genetics/Genomics for Advanced Nursing Practice 2 s.h.
Essential content for understanding the role genetics/genomics plays in health and disease; focus on the core competencies of American Nurses Association (ANA), which provides a framework for advanced nursing practice preparation to incorporate genetics/genomics knowledge for development of prevention, diagnosis, and treatment options in order to optimize health outcomes relevant to clinical role and specialty. Requirements: master's or doctoral standing.

NURS:5041 Psychotherapeutics for Advanced Practice Nursing Across the Lifespan I 2 s.h.
Scientific knowledge of psychotherapies and its application to treatment of clients with psychiatric disorders across the lifespan; focus on advanced concepts of effective communication and utilizing evidenced-based psychotherapy theories in the management of targeted symptoms of psychiatric disorders in clients across the lifespan.

NURS:5042 Psychotherapeutics for Advanced Practice Nursing Across the Lifespan II 1 s.h.
Scientific knowledge of psychotherapies and its application to treatment of clients with psychiatric disorders across the lifespan from NURS:5041; students identify two forms of evidenced-based psychotherapy theories and prepare a pathway to certification in each form of psychotherapy. Prerequisites: NURS:5041.

NURS:5210 Foundations of Professional Nursing 1 s.h.
Introduction to professional nursing practice and exploration of nursing discipline, history, and interprofessional partnerships; examination of nursing theories and professional identity of the nurse. Requirements: admission to MSN Entry into Practice program.

NURS:5215 Medical Surgical Care of Chronically Ill Adults 3 s.h.
Chronic disease management and reinforcement of clinical judgment, prioritization, psychomotor skills, and professional behavior with diverse patient populations in a variety of health care settings; application of evidence-based nursing practice and safe person-centered practice in the nursing process to adult patients with chronic health care needs; clinical focus includes activities of daily living, positioning, mobility, nutrition, therapeutic communication, asepsis, medication administration, elimination management, interprofessional collaboration, and transition of care. Prerequisites: NURS:3645. Corequisites: NURS:3138.

NURS:5220 Medical Surgical Care of Acutely Ill Adults 3 s.h.
Acute disease management and reinforcement of clinical judgment, prioritization, psychomotor skills, and professional behavior with diverse patient populations in a variety of health care settings; application of evidence-based nursing practice and safe person-centered practice in the nursing process to adult patients with acute health care needs; emphasis on building leadership skills, independent decision-making, interprofessional collaboration, person-centered education, and prioritization with adult patients who have acute health care needs. Prerequisites: NURS:5215. Corequisites: NURS:3438.

NURS:5225 Community Health Across the Lifespan Practicum 2,4 s.h.
Integration of specialty populations knowledge in providing care to individuals and communities of diverse backgrounds; experiences take place in community, pediatric/mother/baby/family, and geriatric settings; students use nursing process to deliver person-centered care within spheres of disease prevention/promotion of health and well-being, and hospice/palliative and supportive care in a variety of population settings; focus on improvement of health outcomes at individual, family, and community level within context of population-focused practice. Prerequisites: NURS:5220. Corequisites: NURS:3620 and NURS:3631 and NURS:3632.

NURS:5401 The Care of the Frail Elderly 3 s.h.
Clinical management of the elderly; emphasis on economic considerations, principles of gerontological care, common syndromes, ethical issues; clinical application experience in a long-term care setting. Prerequisites: NURS:5035. Corequisites: NURS:6200 and NURS:6701. Same as ASP:5401.

NURS:5636 Clinical Nurse Leader Seminar 2-3 s.h.
Evolution of clinical nurse leader (CNL) role, eight core role functions, and the process of integration of CNL role into health care system. Requirements: admission to MSN-CNL program.

NURS:5666 Leadership in the Microsystem 3 s.h.
Assessment of the microsystem of practice, clinical nurse leader role as leader embedded in a microsystem, and identification of opportunities to enhance care delivery in the microsystem.

NURS:5696 Clinical Nurse Leader Capstone Clinical Immersion 6 s.h.
Intensive immersion in role and practice expectations of the clinical nurse leader (CNL); experienced leaders within the microsystem, who are experts in the provision of clinical services at the point of care/services, serve as mentors. Requirements: enrollment in final semester of MSN-CNL program.

NURS:5697 Specialty Practice in Nursing Systems 4 s.h.
Practice in nursing and health care leadership; interventions that influence health care outcomes for individuals, populations, or systems; final capstone concepts and experiences prepare students to deliver and manage safe, effective, and quality care to diverse populations in a variety of settings and roles, and master nursing and health care leadership principles; 165-hour guided capstone program implementation and practicum is the centerpiece of learning experience.

NURS:5800 Independent Study arr.
Supervised study and/or clinical practice adjusted to needs of master's degree students.

NURS:5801 Master's Project 2-3 s.h.
Opportunity for in-depth analysis and synthesis of a chosen topic that contributes to some aspect of nursing practice.

NURS:5803 Distance Education: Master's Independent Study arr.
Supervised study and/or clinical practice adjusted to needs of master's degree students.

NURS:5806 Distance Education: Master's Project 2-3 s.h.
In-depth analysis and synthesis of a chosen topic that contributes to some aspect of nursing practice.

NURS:6000 Human Anatomy for Advanced Practice 4 s.h.
Integrated study of interrelationships between anatomic structure and physiological function in health and disease at various points in the lifespan; mechanisms governing and supporting cellular, organ, and system function; internal milieu; relationship of study to clinical assessment of functional integrity of individual organ systems utilizing pertinent objective and subjective data; implications of pathophysiology for anesthesia and implications of anesthesia for pathophysiology; foundation for clinical practicums and courses in nurse anesthesia. Requirements: completion of an undergraduate human anatomy and physiology course and admission to anesthesia nursing program. Same as ACB:6000.

NURS:6004 Scientific Principles for Anesthesia Practice 4 s.h.
Applicable chemical and physical properties of molecules important in anesthesia; technological principles and equipment used to safely deliver those molecules to patients and monitor patients during anesthesia; topics include basic chemical and physical calculations, properties of substances in solution, measurement, behavior of gases and other fluids, effects of heat transfer, and the specific chemistry of inhaled and intravenous anesthetics and adjuvant drugs. Corequisites: NURS:6006. Same as ANES:6004.

NURS:6006 Pharmacology of Anesthesia Practice 3 s.h.
Builds on content from foundational graduate pharmacology course; focus on safe prescribing, administration, and management of medications used to provide general, regional, or local anesthesia and analgesia for all patient populations across lifespan undergoing varied surgical, obstetrical, or other procedures in any health care setting. Prerequisites: PCOL:6204 with a minimum grade of B-. Requirements: enrollment in anesthesia nursing program. Same as ANES:6006.

NURS:6007 Basic Principles of Anesthesia Practice 5 s.h.
Overview and integration of anesthetic agents and techniques; patient assessment, preoperative airway evaluation, anesthetic planning, principles of fluid management, and arterial blood gas interpretation; principles of general and regional anesthesia and techniques as they pertain to each surgical specialty; Occupational, Safety and Health Administration (OSHA), The Joint Commission (TJC), and institutional regulations and requirements pertinent to anesthesia practice. Prerequisites: NURS:6004 with a minimum grade of B- and NURS:6006 with a minimum grade of B-. Same as ANES:6007.

NURS:6010 Advanced Principles of Anesthesia Practice I 4 s.h.
Special needs and intraoperative anesthetic management of complex patient populations and those with advanced pathologic states; anesthetic techniques for specific surgical subspecialties including pediatrics, obstetrics, neurosurgery, cardiac, vascular, thoracic, transplant, trauma, EENT, dental, and aesthetic or reconstructive procedures; pertinent pathophysiology and anesthetic monitoring and management techniques; clinical case conferences provide opportunities to discuss perianesthetic complications and challenges. Prerequisites: NURS:6007 with a minimum grade of B- or ANES:6007 with a minimum grade of B-. Same as ANES:6010.

NURS:6012 Advanced Principles of Anesthesia Practice II 1 s.h.
Acute and chronic pain treatment modalities for all patients presenting for a variety of medical or surgical procedures across the lifespan. Prerequisites: NURS:6007 with a minimum grade of B- or ANES:6007 with a minimum grade of B-. Same as ANES:6012.

NURS:6050 Introductory Clinical Anesthesia 2 s.h.
Initial mentorship in clinical anesthesia; development of basic clinical skills needed for a career as nurse anesthetist; application and integration of theoretical knowledge in clinical setting. Prerequisites: NURS:6004 and NURS:6006. Corequisites: NURS:6007. Same as ANES:6050.

NURS:6051 Clinical Anesthesia I 2 s.h.
Mentored clinical anesthesia experience; advancement and enhancement of clinical skills in providing anesthesia for various surgical subspecialities including general, orthopedic, pediatric, geriatric, gynecologic, urologic, dental, EENT, ambulatory surgery, and invasive diagnostic procedures. Prerequisites: NURS:6050 or ANES:6050. Corequisites: NURS:6010. Same as ANES:6051.

NURS:6052 Clinical Anesthesia II 2 s.h.
Additional mentored clinical anesthesia experience; advancement and enhancement of clinical skills in providing anesthesia for various surgical subspecialities including general, orthopedic, pediatric, geriatric, gynecologic, urologic, dental, EENT, ambulatory surgery, and invasive diagnostic procedures. Prerequisites: NURS:6051 or ANES:6051. Same as ANES:6052.

NURS:6053 Advanced Clinical Anesthesia 2 s.h.
Mentored clinical anesthesia at selected sites; development of advanced clinical skills and critical thinking by providing anesthesia for all surgical specialties and invasive diagnostic procedures in all anesthetizing locations; providing anesthesia for all patients in all settings, including on call emergency surgeries. Prerequisites: NURS:6052. Same as ANES:6053.

NURS:6054 Obstetrical Anesthesia 2 s.h.
Experience delivering analgesia and anesthesia for parturients during labor and delivery process. Prerequisites: NURS:6052. Same as ANES:6054.

NURS:6055 Rural Anesthesia 2 s.h.
Opportunity to develop experience providing anesthesia and associated health care services at UI-affiliated clinical sites in rural settings. Prerequisites: NURS:6052. Same as ANES:6055.

NURS:6100 Primary Care: Infants, Children, and Adolescents I 3 s.h.
Enhancement of clinical knowledge and skills for infant, child, adolescent care. Prerequisites: NURS:5035. Corequisites: NURS:6701.

NURS:6101 Primary Care: Infants, Children, and Adolescents II 3 s.h.
Enhancement of clinical knowledge and skills for infant, child, adolescent care; development and refinement of knowledge and skills in primary health care delivery. Prerequisites: NURS:6100. Corequisites: NURS:6702. Same as PEDS:6101.

NURS:6104 Essentials of Pediatric Primary Care: Infants, Children, and Adolescents 3 s.h.
Builds on prior graduate coursework to enhance foundational knowledge and skills in infant, child, and adolescent population; application of essential concepts of pediatric primary care to identify, diagnose, and manage health issues; emphasis on concepts (e.g., growth and development, anticipatory guidance, common pediatric health concerns) managed in ambulatory health care systems. Prerequisites: NURS:5031. Corequisites: NURS:5035.

NURS:6200 Primary Care: Adults and Older Individuals I 3 s.h.
Provides the knowledge and clinical decision-making for assessment, diagnosis, and management of complex acute and chronic health conditions found in adult and older adult patients. Students will become increasingly practice ready and proficient in providing patient-centered, evidence-based care to complex patients. Prerequisites: NURS:5023 and NURS:5031 and NURS:5033 and NURS:5035. Corequisites: NURS:6701.

NURS:6201 Primary Care: Adults and Older Individuals II 3 s.h.
Provides the knowledge and clinical decision-making for assessment, diagnosis, and management of complex acute and chronic health conditions found in adult and older adult patients. Students will become increasingly practice-ready and proficient in providing patient-centered, evidence-based care to complex patients. Prerequisites: NURS:6200. Corequisites: NURS:6702.

NURS:6400 Pediatric Acute Care I 3 s.h.
First of two courses exploring management of complex acute, critical, and chronically ill patients with urgent and emergent conditions; focus on alterations in pathophysiology, advanced assessment, diagnosis, and collaborative management of infants, children and adolescents with selected episodic/chronic health problems in acute/critical care. Prerequisites: NURS:5035. Corequisites: NURS:6701.

NURS:6401 Pediatric Acute Care II 3 s.h.
Second of two courses exploring management of complex acute, critical, and chronically ill patients with urgent and emergent conditions; focus on alterations in pathophysiology, advanced assessment, diagnosis, and collaborative management of infants, children and adolescents with selected episodic/chronic health problems in acute/critical care. Prerequisites: NURS:6400. Corequisites: NURS:6702.

NURS:6410 Adult-Gerontology Acute Care I 3 s.h.
First of two courses exploring management of complex acute, critical, and chronically ill patients with urgent and emergent conditions; focus on alterations in pathophysiology, advanced assessment, diagnosis, and collaborative management of adults and older adults with selected episodic/chronic health problems in acute/critical care. Prerequisites: NURS:5035. Corequisites: NURS:6701.

NURS:6411 Adult-Gerontology Acute Care II 3 s.h.
Second of two courses building on prior acute care content and focusing on critical, complex, and end of life care; emphasis on evidence-based strategies to stabilize patient's condition, assessment of risk for and prevention of complications, restoration and maintenance of optimal health and functioning, and/or provision of palliative care in context of patient's physical and psychosocial environment. Prerequisites: NURS:6410. Corequisites: NURS:6702.

NURS:6500 Psychiatric/Mental Health Nursing for Advanced Practice Didactic I 3 s.h.
Introduction to psychological principles and theories as they relate to mental health across the lifespan, intersections between physical and mental health, and role of advanced practice nurse in psychiatric/mental health care; examination of psychological theory within a life span developmental framework from infancy to older adult; introduction to role of cultural diversity in mental health; emphasis on assessment, diagnosis, and management of mental disorders that are common in adults. Prerequisites: NURS:5032 and NURS:5036. Corequisites: NURS:6701.

NURS:6501 Psychiatric/Mental Health Nursing for Advanced Practice Didactic II 3 s.h.
Builds on prior lifespan content with specific focus on selected populations, families, and groups; students further define and expand their practice of psychiatric/mental health nursing based on the integration of theory, standardized languages, and research; exploration of a variety of approaches and issues of service delivery; emphasis on methods and skills for completing a comprehensive mental health assessment and managing common psychiatric illness in childhood/adolescence and late life. Prerequisites: NURS:6500. Corequisites: NURS:6702.

NURS:6550 Advanced Leadership and Management 3-4 s.h.
Leadership and management concepts and theories; application to roles unique to executive nurse leader in health care organizations in institutional and community settings; emphasis on advanced leadership roles for facilitating, integrating, and coordinating complex structures, processes, and outcomes in health care systems.

NURS:6551 Financial Management 3-4 s.h.
Preparation for nurse leaders and practitioners to use techniques for financial analysis and decision-making for patient care programs across the health care continuum; focus on efficient and effective management of resources for delivery of quality health care services.

NURS:6552 Executive Management in the Organization 3-4 s.h.
Manage operations of patient care services across health care continuum within the framework of an established health care organization; focus on efficient and effective management of the structure, governance, patient care delivery system of care, and outcomes of care.

NURS:6553 Seminar on Innovations 4 s.h.
Strategizing about taking meaningful action, disrupting stable processes, diffusing innovation, and sustaining change; emerging innovations in nursing and health care systems that impact the functions and responsibilities of nurse leaders.

NURS:6554 Seminar on Healthy Work Environments 3 s.h.
Application of leadership and management knowledge specific to creating and sustaining healthy work environments in health care; current and emerging issues focused on health care work environments.

NURS:6555 Care Coordination Across Professional and Organizational Boundaries 3-4 s.h.
Structures, processes, concepts, tools and experience that leads to effective coordination of patient care, case and population health management as well as information, management and financial systems supporting care coordination; knowledge and skills for understanding structures, processes, challenges, solutions and innovations in coordinating patient care across professional disciplines and organizational boundaries; impacts of care coordination issues on patient experience, care quality and costs; evaluate interventions for informed and effective care processes in field experience.

NURS:6556 Marketing and Communications for Health Care Leaders 3 s.h.
Preparation to strategically plan, establish, and manage a customer-centric marketing strategy; focus on marketing frameworks and theories, and development of a strategic marketing approach with appropriate leadership strategy and positioning to ensure customer value; health care leaders' role in the marketing mix, mobilization of partners, crisis management, and crisis communication planning and response skills.

NURS:6557 Clinical Practice Management and Leadership for Advanced Practice Providers 3-4 s.h.
Overview of key aspects for health care provider leadership in clinical practice management and health care enterprise; advanced practice providers are expected to deliver health care services, lead to deliver value, achieve maximum reimbursement, and meet the Institute for Healthcare Improvement's quadruple aims; focus on value management, revenue cycle management, professional leadership, provider leadership, and clinical practice management; students read, discuss, explore, critique, and practice skills related to course topics.

NURS:6701 Advanced Practice Clinical Practicum I 3-4 s.h.
Application of advanced physical assessment, pathophysiology, and diagnostic reasoning in a clinical setting appropriate to a specific population. Prerequisites: NURS:5035 or NURS:5036. Corequisites: NURS:6100 or NURS:6400 or NURS:6410 or NURS:6500 or (NURS:5401 and NURS:6200) or (NURS:6100 and NURS:6200).

NURS:6702 Advanced Practice Clinical Practicum II 3-4 s.h.
Continuation of NURS:6701; emphasis on diagnostic reasoning and formulation of treatment plans. Prerequisites: NURS:6701. Corequisites: NURS:6101 or NURS:6201 or NURS:6401 or NURS:6411 or NURS:6501 or (NURS:6101 and NURS:6201).

NURS:6703 Advanced Practice Clinical Practicum III 1-4 s.h.
Synthesis of role expectations for advanced practice with focus on clinical competencies appropriate to the specialization. Prerequisites: NURS:6702.

NURS:6704 Practicum in Executive Leadership and Management 3-4 s.h.
Immersion experience in application of principles and methods of leadership, management, and evaluation to facilitate health care operations in various settings; student collaboration with a preceptor for mentored in-depth immersion in systems practice.

NURS:6802 Health Policy, Law, and Advocacy 3 s.h.
Issues that shape health care economics and policy development; framework for understanding work of legislators and other policy makers; emphasis on state and national level; health issues in developing countries; health care system, its economics, financing, role of government, not-for-profit entities, and nongovernmental organizations.

NURS:6808 Population Health for Advanced Practice 3 s.h.
Coordination and integration of care delivery for population health and clinical effectiveness across the continuum of care; management of optimized outcomes; emphasis on informatics infrastructure and translation of evidence-based practice to managing care provision and achieving desired outcomes as a result of care provision.

NURS:6809 Advanced Practice Role I: Introduction 2-3 s.h.
Introduction to competencies necessary for advanced nursing practice at the doctoral level; introduction to topics related to knowledge, skills, and abilities that enable doctorate of nursing practice graduates to function as leaders in a health care and nursing practice; topics may include advanced nursing practice role development, communication, collaboration, leadership, ethics, finance, organizational structure, and scope of practice and regulatory issues; first in a two-course sequence. Requirements: doctoral standing.

NURS:6810 Advanced Practice Role II: Integration 2-3 s.h.
Focus on transition to leadership roles that nurses prepared with a Doctor of Nursing Practice degree are expected to fill in practice; students are called upon to demonstrate synthesis of content from previous DNP program courses; discussion of topics pertinent to advanced roles in nursing practice including challenges and opportunities, leadership in health systems and the profession, interprofessional communication and collaboration, conflict management, dissemination of evidence and expertise to improve health care, advocacy and ethical decision-making. Prerequisites: NURS:6809.

NURS:6811 Social Determinants of Health and Health System Inequities 3 s.h.
Social determinants of health outcomes and inequities; social and economic forces that shape them using various perspectives and lenses; conceptualization and measurement of variables representing risk and inequities that serve as the organizing framework for course discussions, including individual and social factors; critical analysis of research studies for social bias.

NURS:6826 Doctor of Nursing Practice Project I 2 s.h.
Identification and analysis of a practice, system, or policy problem related to advanced nursing practice; development of an evidence-based proposal to improve outcomes for a group, population, or community; project will reflect student's independent scholarship and includes 370 minimum cumulative hours in the Doctor of Nursing Practice project series; first in a four-course sequence. Requirements: doctoral standing.

NURS:6827 Doctor of Nursing Practice Project II 1-2 s.h.
Students finalize their proposal, obtain project site approvals, complete human subjects review, begin implementation once approved, and prepare for project evaluation; project reflects student's independent scholarship; Doctor of Nursing Practice project series; second in a four-course sequence. Prerequisites: NURS:6826. Requirements: doctoral standing.

NURS:6828 Doctor of Nursing Practice Project III 1-2 s.h.
Students continue implementation, begin to evaluate outcomes of their chosen project, and prepare a rough draft of documents for defense of the project; project will reflect the student's independent scholarship; Doctor of Nursing Practice project series; third in a four-course sequence. Prerequisites: NURS:6827. Requirements: doctoral standing.

NURS:6829 Doctor of Nursing Practice Project IV 1-2 s.h.
Students finish evaluation; prepare and defend their project to faculty, peers, and the community; and give a final report to the project site; project will reflect student's independent scholarship; Doctor of Nursing Practice project series; fourth in a four-course sequence. Prerequisites: NURS:6828. Requirements: doctoral standing.

NURS:6900 Computational Intelligence 3 s.h.
Concepts, models, algorithms, and tools for development of intelligent systems; data mining, expert systems, neural networks for engineering, medical and systems applications. Same as ISE:6350.

NURS:7000 Philosophy and Sociology of Nursing Science 3 s.h.
Introduction to philosophical, historical, and sociological underpinnings of contemporary science and traces history of nursing as scientific and applied discipline; exploration of the nature of knowledge, different ways of knowing, history of science, various philosophical approaches, goals of knowledge generation; analysis of sociology of science to identify the norms, cultural and political influences, differences among scientific disciplines; emphasis on interdisciplinary science; identification of concepts and conceptual definitions, especially as these differ across disciplines. Requirements: PhD standing.

NURS:7001 Qualitative Research 4 s.h.
Provides a foundation in the design of qualitative and mixed methods research and analysis of qualitative and mixed methods data; emphasis on interactions among research purpose, question, aims, and interaction of that triad with sampling, setting, data collection, and analysis; using interpretive description as an exemplar, students design and conduct a small qualitative study relevant to their own interests; College of Nursing faculty present overviews of methods in which they have expertise, such as feminist research, ethnography, and narrative. Prerequisites: NURS:7000 and NURS:7002 and NURS:7006. Requirements: PhD standing.

NURS:7002 Designing Research 3 s.h.
Introduction to designing research studies; identifying a problem and determining overall goal of the study; research goal subsequently leading to purpose, specific aims, and choice of a specific design; focus on issues related to maintaining continuity throughout the design of a study. Prerequisites: NURS:7000 and NURS:7006. Requirements: PhD standing.

NURS:7003 Quantitative Research 4 s.h.
Refinement of student's understanding of the application of scientific logic; discussion of various quantitative methods; sampling theory and approaches to sample selection, recruitment, and methods to avoid bias; issues related to study validity, intervention development and evaluation, instrument selection, management of large data sets, and maintenance of data integrity; lab is designed as a workshop using guided exercises, peer sharing, and collaborative work groups to provide experiences integrated with content covered in didactic section of the course. Prerequisites: NURS:7002 and NURS:7006.

NURS:7006 Theory and Model Development 3 s.h.
Critical role of theories in science and the importance of continuous refinement of theory throughout a program of research; focus on theory construction and model building; examination of relationships linking concepts; analysis of structure, scope, and forms of theories/models; construction of micro- or mid-range theories/models using positivistic and inductive approaches; emphasis on critical analysis of literature. Prerequisites: NURS:7000. Requirements: PhD standing.

NURS:7310 Measurement in Health Research 3 s.h.
How to develop and employ measures that are operationalized within the context of theories and conceptual models; sound measurement principles and practices, as well as adequate testing for reliability and validity using appropriate methods and procedures. Prerequisites: NURS:7006.

NURS:7404 Biological Markers in Health Research 3 s.h.
Use of biomarkers as surrogate clinical endpoints, measure of behavior, and measures of exposures; judicious integration of biomarkers into an overall program of health research in light of pertinent considerations, including validity and reliability, feasibility and cost. Prerequisites: NURS:6811 and NURS:7002 and NURS:7003.

NURS:7509 Research Residency 1-3 s.h.
Participation in a research project based on an individualized plan of study, under guidance of an experienced researcher; students register with the respective faculty member for a residency that takes place at the University of Iowa, or register with their advisor for a residency that takes place outside the University of Iowa. Requirements: admission to the PhD in nursing.

NURS:7800 Independent Study arr.
Supervised study adjusted to needs of doctoral degree students. Requirements: doctoral enrollment.

NURS:7801 Seminar: Research Scholarship Role Development 2 s.h.
Preparation for successful completion of doctoral coursework, comprehensive examination, and dissertation; faculty-guided structure provides opportunities for students to assimilate knowledge and behavior of a scholar and activities that facilitate and optimize socialization and success as nurse scientists and academic faculty. Requirements: PhD standing.

NURS:7803 Research Practicum I 2 s.h.
First of two practicums that serve as a system of apprenticeship by which students are mentored through selected aspects of scientific processes, methodologies, analysis, and dissemination of results; projects relevant to student's area of study. Requirements: PhD standing.

NURS:7804 Research Practicum II 2 s.h.
Second of two practicums that serve as a system of apprenticeship by which students are mentored through selected aspects of scientific processes, methodologies, analysis, and dissemination of results; project relevant to student's area of study. Requirements: PhD standing.

NURS:7805 Dissertation Research arr.

Bachelor of Science in Nursing, BSN

The College of Nursing offers two paths to the Bachelor of Science in Nursing (BSN): a prelicensure program for students who do not hold a nursing license (see the Bachelor of Science in Nursing [p. 2018] in this section of the catalog) and a program for registered nurses (see Nursing–RN [p. 2020] in this section of the catalog).

The BSN programs prepare students for careers caring for patients in hospitals and in community agencies such as public health services, schools, homes, and industries. They also provide a base for graduate study in nursing.

In addition to combining general education with specialized career preparation, the University of Iowa programs in nursing offer the advantage of full participation in the social, cultural, and recreational activities of a highly diverse campus community. A university education enables students to prepare for a career as well as a life of thought and action informed by knowledge, introspection, and contemplation.

The BSN programs provide a basis for nurses' roles in wellness and health promotion, in acute care, and in long-term care for chronic illness. The professional nurse may provide care to individuals, families, groups, and communities along a continuum of health, illness, and disability in any sector of the health care system.

In addition to providing care, the nurse serves as a coordinator of health care by organizing and facilitating the delivery of comprehensive, efficient, and appropriate service to individuals, families, groups, and communities. The nurse demonstrates the ability to conceptualize the total continuing health needs of the patient, including legal and ethical aspects of care. The University of Iowa programs' goal is to produce graduates who are competent, committed, creative, and compassionate.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Graduates of the Bachelor of Science in Nursing (BSN) will be able to:

- ensure delivery of safe, quality nursing care to diverse individuals, families, groups, communities, and populations throughout the lifespan and across systems of care;
- integrate theoretical and scientific knowledge gained from natural and social sciences, and culture, society, and the liberal arts into nursing;
- demonstrate leadership and teamwork skills across systems of care to promote quality health outcomes;
- use the best evidence from multiple ways of knowing to inform practice to make clinical judgments, solve problems, and address system improvements;
- demonstrate a basic understanding of how health care policy, regulation, resource stewardship, technology, and economics impact nursing practice and quality health outcomes;
- use effective interprofessional communication and collaboration strategies to promote quality health outcomes;
- apply health promotion and disease prevention strategies to diverse individuals, families, groups, communities, and populations to promote quality health outcomes; and
- demonstrate professional values fundamental to the discipline of nursing.

Expenses and Insurance

Students pay University of Iowa student fees throughout the BSN program. They must purchase uniforms, shoes, a stethoscope, and a watch with a full-sweep second hand, and they must pay the cost of computer testing, supplies, and materials for required nursing courses. All nursing students arrange and pay for their own health screening requirements, health insurance, and transportation once they are enrolled in clinical nursing courses. They also pay fees that cover the cost of criminal background checks, laboratory equipment, professional liability insurance, and simulation.

Mandatory Health Insurance

Upon admission to the College of Nursing and each August after, BSN prelicensure students must provide verification that they have obtained and currently hold health insurance that satisfies the following minimal standards of coverage (or an equivalent alternative health care plan):

- $250,000 lifetime benefit;
- coverage for hospitalization, including coverage for room and board, physician visits, surgeon services, X-ray, and lab services;
- inpatient deductible under an individual policy not exceeding $500 per admission and a 20% copayment/coinsurance requirement; and
- coverage for medically necessary care, including physician services, X-ray, and lab services for the treatment of emergencies, illness, accident, and injury.

Professional Liability Insurance

All students in the College of Nursing are required to carry professional liability insurance throughout the duration of their program. Agencies that provide clinical practicums for College of Nursing programs require that students have insurance coverage. BSN prelicensure students and nursing–RN students are covered by a group policy supported by student fees.

Bachelor of Science in Nursing

The Bachelor of Science in Nursing (BSN) prelicensure program of study requires a minimum of 128 s.h., including 64 s.h. in the nursing major and 64 s.h. in supporting coursework that is a prerequisite to the nursing major. The program is intended for students beginning their education in nursing. All students must earn a grade-point average (GPA) of at least 2.00 to earn the degree.

BSN students may complete their entire program at Iowa, enrolling in the College of Liberal Arts and Sciences to complete courses that are prerequisites to the nursing major, or they may transfer from an institution that offers comparable prerequisite courses that are approved by the University of Iowa and the College of Nursing. University of Iowa students who have declared an interest in the prelicensure nursing program are advised at the university's Academic Advising Center until they are admitted to the College of Nursing. They must earn standard admission

to the College of Nursing once they have completed the prerequisite coursework. Students who earn standard admission to the College of Nursing have five semesters to complete prerequisite coursework. They begin work for the nursing major in the spring of their third year and complete the major in four semesters, earning the BSN degree.

Highly qualified applicants may be admitted to the College of Nursing directly under the BSN direct admission program; see Admission [p. 2021] in this section of the catalog. Students who are part of the BSN direct admission program spend their first four semesters (two years) on prerequisite coursework and complete the requirements for the nursing major during the next four semesters (their third and fourth years), earning the BSN in a total of four academic years.

Nursing courses are based on concepts of health, deviations from health, and nursing intervention. Coursework progresses in complexity across the curriculum. The curriculum reflects the current trend in health care delivery toward an emphasis on nursing as a service provided both inside and outside hospitals. Students have access to clinical experiences selected from a multitude of agencies in Iowa and around the country. After admission to the College of Nursing, each student is assigned a professional advisor in the college's Felton Student Success Center.

The following coursework is required for BSN students.

Requirements	Hours
General Education Prerequisites	13
Natural Science Prerequisites	23
Social Science Prerequisites	9-10
Other Prerequisites	19
Courses Required for the Major	64

The BSN prelicensure program requires the following coursework. Students must complete the prerequisite coursework before beginning the work required for the major in nursing.

Prerequisite Courses

All of the following prerequisites must be completed prior to enrolling in the nursing major courses. Any high school deficiencies must be completed or satisfied with collegiate coursework. Students work with their academic advisor to ensure these requirements are complete.

General Education Prerequisites

Course #	Title	Hours
All of these:		
RHET:1030	Rhetoric: Writing and Communication	4
International and Global Issues course		3
Literary, Visual, and Performing Arts course		3
Values and Society or Understanding Cultural Perspectives course		3

Natural Science Prerequisites

Course #	Title	Hours
All of these:		
ACB:3110	Principles of Human Anatomy	3
BIOL:1141	Human Biology: Health Professions	4
CHEM:1070	General Chemistry I	3
CHEM:1080	General Chemistry II	3
HHP:2310	Nutrition and Health	3
HHP:2400	Fundamentals of Human Physiology	3
MICR:3164	Microbiology and Human Health	4

Social Science Prerequisites

Course #	Title	Hours
Both of these:		
NURS:1030	Human Development and Behavior	3
PSY:1001	Elementary Psychology	3
And one of these:		
SOC:1010	Introduction to Sociology	3-4
SOC:1030	Contemporary Social Problems	3-4

Other Prerequisites

Course #	Title	Hours
All of these:		
NURS:3111	Caring for Vulnerable Populations	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
Electives		13

Courses Required for the Major

Direct and standard admission students complete the following courses for the major in nursing.

Course #	Title	Hours
All of these:		
NURS:3128	Health Assessment and Communication Across the Lifespan	3
NURS:3138	Nursing and Pharmacological Interventions I	5
NURS:3151	Introduction to Clinical Concepts for Nursing	2
NURS:3160	Professional Role I: Professionalism and Patient Safety	3
NURS:3438	Nursing and Pharmacological Interventions II	5
NURS:3451	Basic Clinical Concepts for Nursing	1
NURS:3460	Professional Role II: Research	3
NURS:3518	Pathology	3
NURS:3615	Adult Medical/Surgical Nursing Practicum	3
NURS:3620	Gerontological Nursing	3
NURS:3625	Gerontological Nursing Practicum	2
NURS:3631	Nursing Care of Children and Families	2
NURS:3632	Nursing Care of Childbearing Families	2

NURS:3635	Parent Child Nursing Practicum	2
NURS:3640	Psychiatric/Mental Health Nursing	3
NURS:3645	Mental Health Nursing Practicum	2
NURS:3650	Community and Public Health Nursing	3
NURS:3651	Advanced Clinical Concepts for Nursing	1
NURS:3655	Community and Public Health Nursing Practicum	2
NURS:3660	Professional Role III: Improving Health Systems	3
NURS:4155	Nursing Internship	5
NURS:4160	Professional Role IV: Leadership and Professional Engagement	3
Electives		3
Total Hours		**64**

See BSN–Plans of Study and Prerequisite Information on the College of Nursing website for semester-by-semester study plans for direct and standard admission students.

Honors in Nursing

The College of Nursing Honors Program provides seminars and independent study experience for qualified students. In order to pursue honors studies in nursing, students must maintain a University of Iowa GPA and a nursing major GPA of at least 3.50.

The honors program in nursing enables students to explore subject matter based on individual interests, needs, and goals. It provides opportunities for self-initiative, research experience, scholarly writing, and intellectual and personal development, and it challenges students to grow and excel. Students who fulfill the requirements of the program graduate with honors in nursing.

In addition to honors in their majors, prelicensure BSN students have a variety of opportunities for honors study and activities through membership in the University of Iowa Honors Program; visit Honors at Iowa to learn about the university's honors program.

Nursing–RN

The nursing–RN program of study requires 32 s.h. of credit. Students must hold a valid nursing license (RN) and an Associate Degree in Nursing or Diploma in Nursing. They must maintain a grade-point average (GPA) of at least 2.00 to earn the BSN.

The program is designed to offer registered nurses the opportunity to build on their nursing knowledge and experience by earning a Bachelor of Science in Nursing. Students take courses that focus on professionalism and patient safety, research, improvement of health systems, leadership, professional engagement, and community and public health.

Students may transfer coursework completed at other colleges and universities to satisfy the prerequisites, general education requirements, and electives for admission to the College of Nursing (see "Admission to the Nursing–RN Program" under Admission [p. 2021] in this section of the catalog). Once a student is admitted to the program, the student has the option of completing the required 32 s.h. in three, four, or five semesters.

The program is delivered online, with limited face-to-face meetings for the community health practicum experience and leadership project. Students must complete a practicum experience or an immersion experience in Eswatini, Africa, and may be required to drive up to 100 miles to a regional practicum setting.

The College of Nursing participates as a receiving institution in the Iowa Statewide Articulation Plan for Nursing Education: RN to Baccalaureate.

The nursing–RN program requires the following College of Nursing coursework.

Courses Required for the Major

Course #	Title	Hours
NURS:3111	Caring for Vulnerable Populations	3
NURS:3160	Professional Role I: Professionalism and Patient Safety	3
NURS:3460	Professional Role II: Research	3
NURS:3518	Pathology	3
NURS:3650	Community and Public Health Nursing	3
NURS:3655	Community and Public Health Nursing Practicum	2
NURS:3660	Professional Role III: Improving Health Systems	3
NURS:3734	Introduction to Human Genetics	3
NURS:4160	Professional Role IV: Leadership and Professional Engagement	5
NURS:4170	Baccalaureate Seminar	1
Nursing electives		3
Total Hours		**32**

See RN–BSN Plans of Study on the College of Nursing website for semester-by-semester views of required coursework for full-time (three semesters) and part-time (four or five semesters) study for fall and spring entry.

Honors in Nursing

The College of Nursing Honors Program provides seminars and independent study experience for qualified students. In order to pursue honors studies in nursing, students must maintain a University of Iowa GPA and a nursing major GPA of at least 3.50.

The honors program in nursing enables students to explore subject matter based on individual interests, needs, and goals. It provides opportunities for self-initiative, research experience, scholarly writing, intellectual and personal development, and it challenges students to grow and excel. Students who fulfill the requirements of the program graduate with honors in nursing.

Nursing–RN/3+1 Agreements

Agreements With Area Community Colleges in Iowa

The nursing–RN program at the College of Nursing has RN to BSN 3+1 agreements with area community colleges in Iowa for qualifying nursing graduates to seamlessly transfer to the UI College of Nursing to finish their Bachelor of Science in Nursing (BSN) degree in one year. Under the 3+1 structure, nursing students stay in their three-year program at a community college and then complete the BSN degree in one year (three semesters).

The nursing–RN program at the College of Nursing provides access to baccalaureate education for nurses throughout the state. The 3+1 partnership provides enhanced opportunities for unparalleled leadership experience while allowing students to continue working in their communities as they complete their degree.

See RN to BSN 3+1 on the College of Nursing website for the agreements with multiple higher education institutions around the state of Iowa.

Combined Programs

Nursing–RN/DNP

Students in the RN subprogram of the BSN who are interested in earning a Doctor of Nursing Practice degree with an adult gerontology primary care nurse practitioner, family nurse practitioner, health systems, or pediatric nurse practitioner–primary care subprogram may apply to the combined program offered by the College of Nursing. For information about the DNP degree, see the Doctor of Nursing Practice, DNP [p. 2029] in the catalog.

See RN–BSN Plans of Study on the College of Nursing website for semester-by-semester views of required coursework for Undergraduate to Graduate (U2G) Nursing–RN/DNP study for fall and spring entry.

Admission

Students entering the university who are not registered nurses (RN) apply to the BSN prelicensure program. Registered nurses apply to the nursing–RN (RN–BSN) program.

International students seeking admission into the College of Nursing as a first-year or transfer student, who are citizens of a country in which English is not the official language, must score at least 100 (internet-based) on the Test of English as a Foreign Language (TOEFL).

University of Iowa students who have not earned admission to the College of Nursing must present a minimum iBT of 80 with no subscore lower than 17, and complete the English Proficiency Evaluation (unless they have a TOEFL score of 100 or higher on the iBT). Students may be required to complete English as a Second Language course work if specified as a result of the English Proficiency Evaluation. If such course work is required, it must be completed prior to the start of the nursing major.

Registered nurses educated outside the United States are required to present verification of having passed the Commission on Graduates of Foreign Nursing Schools (CGFNS) examination and specified Excelsior baccalaureate nursing examinations.

Applicants admitted to the College of Nursing are expected to be able to meet the curriculum's performance standards; see the section titled "Technical Standards."

A criminal background check is conducted for all prelicensure and undergraduate students before they begin the nursing major. Admission to all programs is conditional pending a successful review of criminal background and abuse registry.

Admission to the BSN Prelicensure Program

All applicants to the BSN prelicensure program (direct and standard admission applicants) must have satisfied the following minimum high school course requirements.

- English: four years.
- Mathematics: three years, including algebra I, algebra II, and geometry.
- Science: one full year of biology, chemistry, and physics in each subject.
- Social science: three years.
- World languages: four years (fourth-level proficiency) of the same world language; or two years (second-level proficiency) in two different world languages; or two years of the same world language plus one 3 s.h. course from the GE CLAS Core [p. 22] International and Global Issues, Values and Society, Understanding Cultural Perspectives, or World Languages and Cultural Exploration.

BSN Direct Admission

A select group of highly qualified students is admitted to the College of Nursing directly from high school through the BSN Direct Admission Program. To be considered for direct admission, students must meet the following requirements:

- a grade-point average (GPA) of at least 3.80, and
- completion of all the minimum high school course requirements listed under "Admission to the BSN Prelicensure Program."

High school requirements must be satisfied prior to enrollment at the University of Iowa.

Students admitted through the Direct Admission Program must maintain a cumulative GPA of at least 3.00 and remain in good standing during their first four semesters at the University of Iowa. Students who fail to meet these requirements may be subject to probation or dismissal from the College of Nursing.

BSN Standard Admission

In order to apply for standard admission to the College of Nursing, students must:

- have a minimum cumulative GPA of at least 3.00;
- have a minimum of 48 s.h. of college credit at the end of application semester;
- have completed the minimum high school course requirements listed under "Admission to the BSN Prelicensure Program," with any deficiencies satisfied through college coursework; and
- have a grade of C or higher on all prerequisite coursework.

Students must also have completed the following coursework with a grade of C or higher. All natural sciences coursework must have been completed within 10 years of enrollment in the nursing major.

Course #	Title	Hours
Natural Sciences		
All of these or comparable courses:		
CHEM:1070	General Chemistry I	3
CHEM:1080	General Chemistry II	3
BIOL:1141	Human Biology: Health Professions	4
At least one of these:		
HHP:2100	Human Anatomy	3
HHP:2310	Nutrition and Health	3
HHP:2400	Fundamentals of Human Physiology	3
MICR:3164	Microbiology and Human Health	4
Social Science		
At least one of these:		
NURS:1030	Human Development and Behavior	3
PSY:1001	Elementary Psychology	3
SOC:1010	Introduction to Sociology	3-4

If admitted to the College of Nursing, successful standard admission applicants must:

- maintain a cumulative GPA of at least 3.00;
- have a minimum of 64 s.h. of college credit; and
- have completed all prerequisite coursework under the Bachelor of Science in Nursing [p. 2018], and degree requirements except nursing courses prior to enrollment/ matriculation in the nursing major courses.

Admission to the Nursing–RN Program

Applicants to the program must hold an RN license and an Associate Degree in Nursing or Diploma in Nursing. They must have a cumulative GPA of at least 3.00. Admission is highly competitive, with emphasis on the natural sciences (anatomy, biology, chemistry, microbiology, physiology), writing (composition I and II), and mathematics (statistics). World language is not an admission requirement.

Technical Standards

Applicants to the College of Nursing are expected to be capable of completing the entire nursing curriculum and earning a BSN degree. Nursing is a practice discipline with cognitive, sensory, affective, and psychomotor performance requirements. The college's technical standards provide an objective measure on which to base informed decisions about whether individual students will be able to participate in the nursing program. Technical standards also help students determine whether they will need accommodations or modifications in order to participate.

The technical standards are provided to all students before matriculation and are available online in the Bachelor of Science in Nursing Handbook; see Section VIII: Clinical Course and Health Science Student Requirements. Students with disabilities who believe that they may need assistance in meeting the core performance standards should contact Student Disability Services.

Selection

The college's admission committee recommends to the dean the applicants who appear to be best qualified. Fulfillment of minimum admission requirements does not guarantee admission to the College of Nursing. The committee may require personal interviews. A physical examination report and specific health screening requirements must be on file at University of Iowa Student Health 10 days before the class opens for the first clinical nursing course.

Application Deadlines

- BSN prelicensure direct admission
- BSN prelicensure standard admission
- Nursing–RN (RN to BSN) program (admission occurs fall and spring)

Financial Support

In addition to general assistance available to university students, there are assistance programs specifically for nursing students. Information about financial aid is available from the university's Office of Student Financial Aid.

Career Advancement

The University of Iowa's BSN program provides broad preparation in clinical, scientific, community health, and patient education skills, and promises outstanding career options. With a BSN degree, students are eligible to work as a staff nurse; flight nurse; a nurse on medical, oncology, surgical, pediatric, emergency, or intensive care units; a nurse in outpatient or neighborhood clinics; or a home health care nurse.

The U.S. Bureau of Labor Statistics projects that employment for registered nurses to be among the top occupations in terms of job growth through 2033.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Nursing, BSN

Course	Title	Hours
Academic Career		
Any Semester		
Meeting the minimum requirements for admission does not guarantee admission. Direct Admission is available only for high school students who meet the published criteria. All other students pursue Standard Admission. [a]		
All courses (except electives) must be completed with a grade of C or higher. [b]		
	Hours	**0**
First Year		
Fall		
RHET:1030	Rhetoric: Writing and Communication	4
CHEM:1070	General Chemistry I	3
PSY:1001	Elementary Psychology	3
STAT:1020	Elementary Statistics and Inference	3

NURS:1020	First-Year Seminar	1
Elective course		2
CSI:1600	Success at Iowa	1
	Hours	**17**
Spring		
CHEM:1080	General Chemistry II	3
BIOL:1141	Human Biology: Health Professions	4
NURS:1030	Human Development and Behavior [c]	3
SOC:1030 or SOC:1010	Contemporary Social Problems or Introduction to Sociology	3
GE: International and Global Issues [d]		3
Elective course		1
3.0 minimum cumulative GPA required		
	Hours	**17**
Second Year		
Fall		
ACB:3110	Principles of Human Anatomy	3
HHP:2310	Nutrition and Health	3
GE: Literary, Visual, and Performing Arts [d]		3
GE: Values and Society or Understanding Cultural Perspectives [d, e]		3
Elective course		3
Elective course		1
3.0 minimum cumulative GPA required		
	Hours	**16**
Spring		
NURS:3111	Caring for Vulnerable Populations [c, f]	3
MICR:3164	Microbiology and Human Health [c]	4
HHP:2400	Fundamentals of Human Physiology	3
Major: elective course (preferred upper level statistics) [g]		3
Elective course		3
Elective course		1
3.0 minimum cumulative GPA required		
Minimum 64 s.h. credit earned toward degree at end of second year (67 s.h. preferred) with a minimum 3.0 cumulative GPA.		
	Hours	**17**
Third Year		
Fall		
NURS:3138	Nursing and Pharmacological Interventions I	5
NURS:3128	Health Assessment and Communication Across the Lifespan	3
NURS:3518	Pathology [f]	3
NURS:3160	Professional Role I: Professionalism and Patient Safety [f]	3
NURS:3151	Introduction to Clinical Concepts for Nursing	2
	Hours	**16**
Spring		
NURS:3438	Nursing and Pharmacological Interventions II	5
NURS:3615	Adult Medical/Surgical Nursing Practicum	3
NURS:3620	Gerontological Nursing	3
NURS:3625	Gerontological Nursing Practicum	2
NURS:3460	Professional Role II: Research [f]	3
NURS:3451	Basic Clinical Concepts for Nursing	1
	Hours	**17**
Fourth Year		
Fall		
NURS:3631	Nursing Care of Children and Families	2
NURS:3632	Nursing Care of Childbearing Families	2
NURS:3635	Parent Child Nursing Practicum	2
NURS:3640	Psychiatric/Mental Health Nursing	3
NURS:3645	Mental Health Nursing Practicum	2
NURS:3660	Professional Role III: Improving Health Systems [f]	3
NURS:3651	Advanced Clinical Concepts for Nursing	1
	Hours	**15**
Spring		
NURS:3650	Community and Public Health Nursing [f]	3
NURS:3655	Community and Public Health Nursing Practicum [f]	2
NURS:4155	Nursing Internship	5
NURS:4160	Professional Role IV: Leadership and Professional Engagement [f]	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [h]		
Exam: NCLEX (upon completion of the program students are eligible to sit for this board exam)		
	Hours	**13**
	Total Hours	**128**

a See the College of Nursing website for further details and application instructions.

b A grade of C or higher is required. A grade of C-minus is not considered a passing grade for the College of Nursing.

c Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

d GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

e Choose either a course that fulfills the Understanding Cultural Perspectives GE or a course that fulfills the Values and Society GE.

f Register for on-campus section.

g Recommended. If considering graduate studies please contact your desired school to learn about the statistics requirements.

h Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Master of Science in Nursing, MSN

The College of Nursing offers the Master of Science in Nursing (MSN) with three subprogram focus areas: entry into practice, clinical nurse leader (CNL), and nursing systems administration (NSA).

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Clinical Nurse Leader and Nursing Systems Administration

Graduates will be able to:

- lead unit-level teams to achieve nursing and organizational goals;
- collect, decipher, and analyze data to produce action plans to improve quality;
- promote the adoption, integration, and sustainability of evidence-based practices;
- pursue lifelong learning to support one's professional identity; and
- design innovative nursing practice environments for patient care and the workforce.

Entry Into Practice

Graduates will be able to:

- ensure delivery of safe quality nursing care to diverse individuals, families, groups, communities, and populations throughout the lifespan and across systems of care;
- integrate theoretical and scientific knowledge gained from natural and social sciences and culture, society, and the liberal arts into nursing;
- use leadership skills across systems of care to promote equitable, safe, and quality health care outcomes;
- use the best evidence from multiple ways of knowing to inform practice to make clinical judgments, solve problems, and address systems improvements;
- analyze how health care policy, regulation, technology, and economics impact nursing practice and the delivery of care;
- use effective interprofessional communication and collaboration strategies to promote quality health outcomes;
- apply health promotion and disease prevention strategies to diverse individuals, families, groups, communities, and populations to promote quality health outcomes;
- demonstrate professional values fundamental to the discipline of nursing; and
- apply evidence-based, person-centered care services across the health care continuum.

Requirements

The Master of Science in Nursing (MSN) requires 33, 39, or 66 s.h., depending on the subprogram students choose to complete. Students maintain a Graduate College program grade-point average of at least 2.75.

Graduate students in the College of Nursing must adhere to all Graduate College policies regarding academic standing, probation, and dismissal. Transfer credit applicable to the MSN is limited and must be approved by the program director and College of Nursing associate dean for undergraduate/RN programs or associate dean for graduate practice programs. Coursework taken 10 years or more before the MSN final examination must be updated according to university policy.

MSN Subprograms

- Clinical Nurse Leader (CNL) [p. 2024]
- Entry Into Practice [p. 2025]
- Nursing Systems Administration (NSA) [p. 2026]

Clinical Nurse Leader (CNL)

The Master of Science in Nursing with a clinical nurse leader subprogram is not admitting new students for 2025–26.

The Master of Science in Nursing with a clinical nurse leader subprogram requires 39 s.h. of credit, including a core component of 21 s.h., which students take with College of Nursing doctoral students, and a specialization component of 18 s.h. that centers on the clinical nurse leader role. The clinical nurse leader subprogram focuses on improving the quality of patient care and helping professional nurses to thrive in the health care system. The clinical nurse leader role has demonstrated effectiveness in improving outcomes, elevating current evidence-based practice, enhancing quality, and providing continuous leadership in the microsystem.

Students must successfully complete a capstone immersion.

Two-Year Plan

The MSN with a clinical nurse leader subprogram requires the following coursework for a two-year plan.

First Year, Two-Year Plan

Course #	Title	Hours
NURS:5009	Evaluating Evidence for Practice	3
NURS:5017	Quality and Safety	3
NURS:5018	Clinical Education in the Care Environment (offered in summer odd years)	3
NURS:5021	Physiology, Pathophysiology, and Pharmacology I for the Clinical Nurse Leader	3
NURS:5022	Physiology, Pathophysiology, and Pharmacology II for the Clinical Nurse Leader	3
NURS:5636	Clinical Nurse Leader Seminar	3
NURS:5666	Leadership in the Microsystem	3
Total Hours		**21**

Second Year, Two-Year Plan

Course #	Title	Hours
NURS:5007	Applied Epidemiology	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5016	Health Care Infrastructure and Informatics	3

NURS:5037	Health Promotion and Assessment for Clinical Nurse Leaders	3
NURS:5696	Clinical Nurse Leader Capstone Clinical Immersion	6
Total Hours		**18**

Three-Year Plan

The MSN with a clinical nurse leader subprogram requires the following coursework for a three-year plan.

First Year, Three-Year Plan

Course #	Title	Hours
NURS:5009	Evaluating Evidence for Practice	3
NURS:5018	Clinical Education in the Care Environment (offered in summer odd years)	3
NURS:5021	Physiology, Pathophysiology, and Pharmacology I for the Clinical Nurse Leader	3
NURS:5022	Physiology, Pathophysiology, and Pharmacology II for the Clinical Nurse Leader	3
NURS:5636	Clinical Nurse Leader Seminar	3
Total Hours		**15**

Second Year, Three-Year Plan

Course #	Title	Hours
NURS:5007	Applied Epidemiology	3
NURS:5017	Quality and Safety	3
NURS:5037	Health Promotion and Assessment for Clinical Nurse Leaders	3
NURS:5666	Leadership in the Microsystem	3
Total Hours		**12**

Third Year, Three-Year Plan

Course #	Title	Hours
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5016	Health Care Infrastructure and Informatics	3
NURS:5696	Clinical Nurse Leader Capstone Clinical Immersion	6
Total Hours		**12**

See the MSN course plan on the College of Nursing website for a semester-by-semester course schedule.

Entry Into Practice

The Master of Science in Nursing with an entry into practice subprogram requires 66 s.h. of credit. The subprogram is an innovative program located on the Iowa City campus. It can be completed in five sessions. The entry into practice subprogram leads to a MSN degree that prepares students who do not currently have a nursing degree an opportunity to enter the health care workforce quickly. Class sizes are small and offer unparalleled educational excellence and clinical practice.

The MSN with an entry into practice subprogram requires the following coursework.

First Year, Entry Into Practice

Course #	Title	Hours
NURS:3128	Health Assessment and Communication Across the Lifespan	3
NURS:3138	Nursing and Pharmacological Interventions I	5
NURS:3151	Introduction to Clinical Concepts for Nursing	2
NURS:3438	Nursing and Pharmacological Interventions II	5
NURS:3451	Basic Clinical Concepts for Nursing	1
NURS:3640	Psychiatric/Mental Health Nursing	3
NURS:3645	Mental Health Nursing Practicum	2
NURS:3650	Community and Public Health Nursing	3
NURS:3651	Advanced Clinical Concepts for Nursing	1
NURS:5017	Quality and Safety	3
NURS:5210	Foundations of Professional Nursing	1
NURS:5215	Medical Surgical Care of Chronically Ill Adults	3
NURS:5220	Medical Surgical Care of Acutely Ill Adults	3
NURS:6808	Population Health for Advanced Practice	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
Total Hours		**41**

Second Year, Entry Into Practice

Course #	Title	Hours
NURS:3620	Gerontological Nursing	3
NURS:3631	Nursing Care of Children and Families	2
NURS:3632	Nursing Care of Childbearing Families	2
NURS:4155	Nursing Internship	5
NURS:5002	Leadership and Management Essentials	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5225	Community Health Across the Lifespan Practicum	4
Total Hours		**25**

See the MSN course plan on the College of Nursing website for a semester-by-semester course schedule.

Nursing Systems Administration (NSA)

The Master of Science in Nursing with a nursing systems administration subprogram requires 33 s.h. of credit. It can be completed on a two-and-a-half year plan (five semesters). The subprogram focuses on preparing nurse leaders to serve in a variety of managerial and leadership capacities in all practice environments. The program focuses on graduate-level practice in nursing and health care leadership and the interventions that influence health care outcomes for individuals, populations, or systems.

Students must successfully complete a graduate-level guided capstone program implementation project.

The MSN with a nursing systems administration subprogram requires the following coursework.

First Year, NSA

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:6550	Advanced Leadership and Management	3
NURS:6553	Seminar on Innovations	4
Total Hours		**13**

Second Year, NSA

Course #	Title	Hours
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5017	Quality and Safety	3
NURS:6551	Financial Management	4
NURS:6808	Population Health for Advanced Practice	3
Total Hours		**13**

Third Year, NSA

Course #	Title	Hours
NURS:5016	Health Care Infrastructure and Informatics	3
NURS:5697	Specialty Practice in Nursing Systems	4
Total Hours		**7**

See the MSN course plan on the College of Nursing website for a semester-by-semester course schedule.

Admission

Applicants to College of Nursing graduate programs must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants must have a grade-point average of at least 3.00. A criminal background check is required for all students upon admission. The College of Nursing has additional application requirements, as follows.

Admission to the MSN Program

Application requirements specific to the MSN program are:

- transcripts from institutions for all undergraduate and graduate coursework; and
- completion of an upper-level statistics course within five years of the application deadline (acceptable University of Iowa courses include BIOS:4120 Introduction to Biostatistics, PSQF:4143 Introduction to Statistical Methods, STAT:3510 Biostatistics, and STAT:4143 Introduction to Statistical Methods).

Applications are reviewed once a year. To be reviewed, the application must be complete with all materials submitted.

Due to the level of web-based coursework required, international students in the MSN subprograms are not eligible for F–1 or J–1 student immigration status. Questions regarding visas and immigration documentation should be directed to International Student and Scholar Services (ISSS).

Additional Application Requirements

- Admission to the Clinical Nurse Leader Subprogram [p. 2026]
- Admission to the Entry Into Practice Subprogram [p. 2026]
- Admission to the Nursing Systems Administration Subprogram [p. 2027]

Admission to the Clinical Nurse Leader Subprogram

Additional application requirements specific to the MSN with a clinical nurse leader subprogram are:

- a bachelor's or advanced degree with a major in nursing from an accredited program;
- approximately one year of experience;
- satisfaction of the legal requirements for the practice of nursing;
- current written recommendations from three persons knowledgeable about the applicant's competence in the practice of nursing and potential for leadership and scholarship (forms required); and
- a current résumé, goal statement (statement of purpose), statement of disclosure, and supplemental/information form.

Applicant interviews are required, and in some cases, virtual interviews may be arranged.

Admission to the Entry Into Practice Subprogram

Additional application requirements specific to the MSN with an entry into practice subprogram are:

- a bachelor's or advanced degree in a discipline other than nursing from an accredited college or university;
- completion of natural sciences courses within 10 years and/or a combination of related experience and training that provides the knowledge and abilities necessary to meet the objectives of the courses;
- completion of prerequisite coursework at the time of application (on track to have no more than two natural sciences and one social science unfinished at the end of the application semester);
- successful background and abuse checks;
- current written recommendations from three persons knowledgeable about the applicant's potential for the practice of nursing and leadership and scholarship

(required forms provided at the time of application by the Graduate College); and
- other forms, including a leadership and experiences form, a statement of purpose form (two essay questions), a statement of disclosure form, and a justification form (if applicable).

Applicant interviews are required, and in some cases, virtual interviews may be arranged.

Applicants to the MSN entry into practice subprogram whose first language is not English and who do not meet the requirements for a waiver are required to submit English proficiency scores. For a complete list of accepted English proficiency exams, score requirements, and waiver eligibility, please refer to the English Proficiency Requirements on the Graduate Admissions website.

Prerequisites for Natural and Social Sciences

To be considered for admission, a maximum of two natural sciences courses and one social science course can be incomplete at the application deadline; all must be completed prior to enrollment in the MSN entry into practice subprogram.

Natural Science Prerequisites

Course #	Title	Hours
These are the courses that are considered prerequisites; applicants need equivalent coursework to these UI courses:		
BIOL:1141	Human Biology: Health Professions	4
CHEM:1070	General Chemistry I	3
CHEM:1080	General Chemistry II	3
HHP:2310	Nutrition and Health	3
HHP:2400	Fundamentals of Human Physiology	3
MICR:3164	Microbiology and Human Health	4
NURS:3518	Pathology	3
And one of these:		
ACB:3110	Principles of Human Anatomy	3
HHP:2100	Human Anatomy	3

Social Science Prerequisites

Course #	Title	Hours
These are the courses that are considered prerequisites; applicants need equivalent coursework to these UI courses:		
NURS:1030	Human Development and Behavior	3
And any two of these:		
ANTH:1101/IS:1101	Cultural Anthropology	3
PSY:1001	Elementary Psychology	3
SOC:1010	Introduction to Sociology	3-4
SOC:1030	Contemporary Social Problems	3-4

Admission to the Nursing Systems Administration Subprogram

Additional application requirements specific to the MSN with a nursing systems administration subprogram are:

- a bachelor's or advanced degree with a major in nursing from an accredited program;
- approximately one year of experience;
- satisfaction of the legal requirements for the practice of nursing;
- current written recommendations from three persons knowledgeable about the applicant's competence in the practice of nursing and potential for leadership and scholarship (forms required); and
- a current résumé, goal statement (statement of purpose), statement of disclosure, and supplemental/information form.

Applicant interviews are required, and in some cases, virtual interviews may be arranged.

Application Deadlines

Application deadlines for the MSN subprograms are:

- MSN with clinical nurse leader subprogram: Feb. 1 for fall entry.
- MSN with entry into practice subprogram: March 15 for spring entry.
- MSN with nursing systems administration subprogram: Feb. 1 for fall entry.

Career Advancement

The MSN clinical nurse leader and nursing systems administration subprograms prepare nurses to be equipped with knowledge and skills to lead change, promote health, and elevate care in various roles and settings. Graduates of these subprograms are prepared for critical action with complex, changing systems, including health, educational, and organizational systems.

The MSN entry into practice subprogram prepares non-nurse college graduates of all academic backgrounds to become practicing nurses. Upon graduation, students will be prepared to take the NCLEX–RN nursing licensure exam to be licensed as a registered nurse.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Nursing, MSN

Entry Into Practice

Course	Title	Hours
Academic Career		
Any Semester		
66 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 2.75 is required. [c]		
	Hours	**0**

First Year		
Spring		
NURS:3128	Health Assessment and Communication Across the Lifespan	3
NURS:3151	Introduction to Clinical Concepts for Nursing	2
NURS:3640	Psychiatric/Mental Health Nursing	3
NURS:3645	Mental Health Nursing Practicum	2
NURS:5210	Foundations of Professional Nursing	1
NURS:6811	Social Determinants of Health and Health System Inequities	3
	Hours	**14**
Summer		
NURS:3138	Nursing and Pharmacological Interventions I	5
NURS:3451	Basic Clinical Concepts for Nursing	1
NURS:5215	Medical Surgical Care of Chronically Ill Adults [d, e]	3
NURS:6808	Population Health for Advanced Practice [e]	3
	Hours	**12**
Second Year		
Fall		
NURS:3438	Nursing and Pharmacological Interventions II	5
NURS:3650	Community and Public Health Nursing	3
NURS:3651	Advanced Clinical Concepts for Nursing	1
NURS:5017	Quality and Safety	3
NURS:5220	Medical Surgical Care of Acutely Ill Adults [d]	3
	Hours	**15**
Spring		
NURS:3620	Gerontological Nursing	3
NURS:3631	Nursing Care of Children and Families	2
NURS:3632	Nursing Care of Childbearing Families	2
NURS:5009	Evaluating Evidence for Practice	3
NURS:5225	Community Health Across the Lifespan Practicum	4
	Hours	**14**
Summer		
NURS:4155	Nursing Internship [f]	5
NURS:5002	Leadership and Management Essentials [e]	3
NURS:5015	Health Systems, Finance, and Economics [e]	3
Confirm completion of all degree requirements with program		
	Hours	**11**
	Total Hours	**66**

a In addition, students complete 120 lab/sim hours and 765 clinical hours over the course of this five semester program of study.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Program director assigned sections.

e 8 weeks.

f Schedule will be based upon preceptor schedule.

Doctor of Nursing Practice, DNP

The Doctor of Nursing Practice (DNP) program is designed to prepare clinicians with the knowledge and skills to provide the highest standard of care for individuals, families, and communities and navigate today's complex health care systems. Nurse managers and administrators will gain the knowledge and skills necessary to develop, implement, and monitor programs of care and policies in complex organizations.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Graduates will be able to:

- utilize scientific underpinnings for nursing practice;
- demonstrate organizational and systems leadership;
- evaluate clinical scholarship and analytical methods for evidence-based practice;
- evaluate information systems and patient care technology for the improvement and transformation of health care;
- influence health care policy for advocacy in health care;
- collaborate interprofessionally to improve patient and population health outcomes;
- design clinical prevention and population health interventions; and
- demonstrate expertise in advanced nursing practice.

Requirements

The Doctor of Nursing Practice (DNP) requires a minimum of 73 s.h. of graduate credit. Students may complete the program in three to five years, depending on their focus area. Students must maintain a UI cumulative grade-point average of at least 3.00.

DNP students complete basic graduate core courses, specialty courses, advanced core courses, and practicums. In didactic coursework, they explore clinical leadership, public policy and advocacy, specialty systems, change theory, finance and business, and entrepreneurial tools.

Those who enter the program with a master's degree must complete a minimum of 72 s.h., although some coursework from the master's degree program may count toward the DNP degree. Students who enter with a non-nursing master's degree who are interested in pursuing a focus in health administration can complete DNP degree requirements in health systems. Individuals who have been granted an MSN/APRN may complete the DNP with a minimum of 29 s.h. of graduate credit earned at the University of Iowa after DNP program admission and with a minimum of 43 s.h. of transfer credit previously earned from the UI or elsewhere.

Students must complete a minimum of 1,000 practice experience hours. Individuals who enter the program having completed an MSN may transfer approved clinical hours from their MSN program to the DNP program. The clinical hours requirement is evaluated for each student who has completed an MSN with a specialty program. Students who completed more than 1,000 practice experience hours in an MSN advanced practice program still must complete the number of DNP practicum and project hours determined in consultation with their advisor and the DNP program director.

Students may choose from a number of specialties, including adult gerontology acute care nurse practitioner, adult gerontology primary care nurse practitioner, anesthesia nursing, family nurse practitioner, pediatric nurse practitioner—acute care, pediatric nurse practitioner—primary care, psychiatric/mental health nurse practitioner, and health systems. For yearly plans that detail coursework in these specialty areas, see the following section, "Plans of Study." Visit DNP Plans of Study on the College of Nursing website for a semester-by-semester view of required coursework for each DNP specialty.

A dual certification program is available that allows students to combine two of the nurse practitioner specialties (excluding anesthesia nursing). In addition, a combined program is available for BSN students with the nursing-RN subprogram who are interested in earning the DNP degree with an adult gerontology primary care nurse practitioner, health systems, or pediatric nurse practitioner—primary care subprogram.

Students must adhere to all Graduate College policies regarding academic standing, probation, dismissal, and transfer of graduate credit. Transfer credit applicable to the DNP is limited and must be approved by the DNP program director and the College of Nursing associate dean for graduate practice programs. Transcripts for individuals who have completed an MSN are evaluated individually.

Plans of Study

- Adult Gerontology Acute Care Nurse Practitioner Subprogram [p. 2029]
- Adult Gerontology Primary Care Nurse Practitioner Subprogram [p. 2031]
- Anesthesia Nursing Subprogram [p. 2032]
- Family Nurse Practitioner Subprogram [p. 2033]
- Pediatric Nurse Practitioner—Acute Care Subprogram [p. 2034]
- Pediatric Nurse Practitioner—Primary Care Subprogram [p. 2035]
- Psychiatric/Mental Health Nurse Practitioner Subprogram [p. 2036]
- Health Systems Subprogram [p. 2038]
- For MSN and Advanced Practice Registered Nurses (APRN) Subprogram [p. 2041]

Adult Gerontology Acute Care Nurse Practitioner (AG–ACNP) Subprogram

Three-Year Plan, AG–ACNP

The following coursework (75 s.h.) is required for a three-year plan.

First Year, Three-Year Plan (AG–ACNP)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5007	Applied Epidemiology	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5010	Clinical Data Management and Evaluation	3

NURS:5014	Graduate Physiology for Advanced Practice	3
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6809	Advanced Practice Role I: Introduction	3
Total Hours		**26**

Second Year, Three-Year Plan (AG–ACNP)

Course #	Title	Hours
NURS:5017	Quality and Safety	3
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	4
NURS:5033	Pharmacotherapeutics for Advanced Practice Nursing	3
NURS:5035	Graduate Pharmacology Specialty	3
NURS:6808	Population Health for Advanced Practice	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**26**

Third Year, Three-Year Plan (AG–ACNP)

Course #	Title	Hours
NURS:5038	Advanced Diagnostic and Therapeutic Procedures for Acute Care	1
NURS:6410	Adult-Gerontology Acute Care I	3
NURS:6411	Adult-Gerontology Acute Care II	3
NURS:6701	Advanced Practice Clinical Practicum I	4
NURS:6702	Advanced Practice Clinical Practicum II	4
NURS:6703	Advanced Practice Clinical Practicum III	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**23**

Four-Year Plan, AG–ACNP

The following coursework (75 s.h.) is required for a four-year plan.

First Year, Four-Year Plan (AG–ACNP)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6808	Population Health for Advanced Practice	3
NURS:6809	Advanced Practice Role I: Introduction	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
Total Hours		**20**

Second Year, Four-Year Plan (AG–ACNP)

Course #	Title	Hours
NURS:5007	Applied Epidemiology	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5014	Graduate Physiology for Advanced Practice	3
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5017	Quality and Safety	3
Total Hours		**15**

Third Year, Four-Year Plan (AG–ACNP)

Course #	Title	Hours
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	4
NURS:5033	Pharmacotherapeutics for Advanced Practice Nursing	3
NURS:5035	Graduate Pharmacology Specialty	3
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**17**

Fourth Year, Four-Year Plan (AG–ACNP)

Course #	Title	Hours
NURS:5038	Advanced Diagnostic and Therapeutic Procedures for Acute Care	1
NURS:6410	Adult-Gerontology Acute Care I	3
NURS:6411	Adult-Gerontology Acute Care II	3
NURS:6701	Advanced Practice Clinical Practicum I	4
NURS:6702	Advanced Practice Clinical Practicum II	4

NURS:6703	Advanced Practice Clinical Practicum III	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**23**

Adult Gerontology Primary Care Nurse Practitioner (AG–PCNP) Subprogram

Three-Year Plan, AG–PCNP

The following coursework (79 s.h.) is required for a three-year plan.

First Year, Three-Year Plan (AG–PCNP)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5007	Applied Epidemiology	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5014	Graduate Physiology for Advanced Practice	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6808	Population Health for Advanced Practice	3
NURS:6809	Advanced Practice Role I: Introduction	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
Total Hours		**29**

Second Year, Three-Year Plan (AG–PCNP)

Course #	Title	Hours
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5017	Quality and Safety	3
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	4
NURS:5032	Mental Disorders in Advanced Practice	3
NURS:5033	Pharmacotherapeutics for Advanced Practice Nursing	3
NURS:5035	Graduate Pharmacology Specialty	3
NURS:5039	Advanced Diagnostic and Therapeutic Procedures for Primary Care	1
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**27**

Third Year, Three-Year Plan (AG–PCNP)

Course #	Title	Hours
NURS:5401/ ASP:5401	The Care of the Frail Elderly	3
NURS:6200	Primary Care: Adults and Older Individuals I	3
NURS:6201	Primary Care: Adults and Older Individuals II	3
NURS:6701	Advanced Practice Clinical Practicum I	3
NURS:6702	Advanced Practice Clinical Practicum II	3
NURS:6703	Advanced Practice Clinical Practicum III	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**23**

Four-Year Plan, AG–PCNP

The following coursework (79 s.h.) is required for a four-year plan.

First Year, Four-Year Plan (AG–PCNP)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6808	Population Health for Advanced Practice	3
NURS:6809	Advanced Practice Role I: Introduction	3
Total Hours		**20**

Second Year, Four-Year Plan (AG–PCNP)

Course #	Title	Hours
NURS:5007	Applied Epidemiology	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5014	Graduate Physiology for Advanced Practice	3
NURS:5017	Quality and Safety	3
NURS:5032	Mental Disorders in Advanced Practice	3

NURS:6811	Social Determinants of Health and Health System Inequities	3
Total Hours		**18**

Third Year, Four-Year Plan (AG–PCNP)

Course #	Title	Hours
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	4
NURS:5033	Pharmacotherapeutics for Advanced Practice Nursing	3
NURS:5035	Graduate Pharmacology Specialty	3
NURS:5039	Advanced Diagnostic and Therapeutic Procedures for Primary Care	1
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**18**

Fourth Year, Four-Year Plan (AG–PCNP)

Course #	Title	Hours
NURS:5401/ ASP:5401	The Care of the Frail Elderly	3
NURS:6200	Primary Care: Adults and Older Individuals I	3
NURS:6201	Primary Care: Adults and Older Individuals II	3
NURS:6701	Advanced Practice Clinical Practicum I	3
NURS:6702	Advanced Practice Clinical Practicum II	3
NURS:6703	Advanced Practice Clinical Practicum III	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**23**

Anesthesia Nursing Subprogram

Three-Year Plan, Anesthesia Nursing

The following coursework (81 s.h.) is required for a three-year plan.

First Year, Three-Year Plan (Anesthesia Nursing)

Course #	Title	Hours
NURS:5009	Evaluating Evidence for Practice	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5014	Graduate Physiology for Advanced Practice	5
NURS:5017	Quality and Safety	3
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6000/ ACB:6000	Human Anatomy for Advanced Practice	4
NURS:6004/ ANES:6004	Scientific Principles for Anesthesia Practice	4
NURS:6006/ ANES:6006	Pharmacology of Anesthesia Practice	3
NURS:6809	Advanced Practice Role I: Introduction	3
PCOL:6204	Pharmacology for Health Sciences: Nurse Anesthetist	5
Total Hours		**42**

Second Year, Three-Year Plan (Anesthesia Nursing)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:6007/ ANES:6007	Basic Principles of Anesthesia Practice	5
NURS:6010/ ANES:6010	Advanced Principles of Anesthesia Practice I	4
NURS:6012/ ANES:6012	Advanced Principles of Anesthesia Practice II	1
NURS:6050/ ANES:6050	Introductory Clinical Anesthesia	2
NURS:6051/ ANES:6051	Clinical Anesthesia I	2
NURS:6052/ ANES:6052	Clinical Anesthesia II	2
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**22**

Third Year, Three-Year Plan (Anesthesia Nursing)

Course #	Title	Hours
NURS:5015	Health Systems, Finance, and Economics	3
NURS:6053	Advanced Clinical Anesthesia	2
NURS:6054	Obstetrical Anesthesia	2
NURS:6055	Rural Anesthesia	2
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**17**

Family Nurse Practitioner (FNP) Subprogram

Three-Year Plan, FNP

The following coursework (83 s.h.) is required for a three-year plan.

First Year, Three-Year Plan (FNP)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5007	Applied Epidemiology	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5014	Graduate Physiology for Advanced Practice	3
NURS:5017	Quality and Safety	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6808	Population Health for Advanced Practice	3
NURS:6809	Advanced Practice Role I: Introduction	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
Total Hours		**29**

Second Year, Three-Year Plan (FNP)

Course #	Title	Hours
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	4
NURS:5032	Mental Disorders in Advanced Practice	3
NURS:5033	Pharmacotherapeutics for Advanced Practice Nursing	3
NURS:5035	Graduate Pharmacology Specialty	3
NURS:5039	Advanced Diagnostic and Therapeutic Procedures for Primary Care	1
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**27**

Third Year, Three-Year Plan (FNP)

Course #	Title	Hours
NURS:6100	Primary Care: Infants, Children, and Adolescents I	3
NURS:6101/ PEDS:6101	Primary Care: Infants, Children, and Adolescents II	3
NURS:6200	Primary Care: Adults and Older Individuals I	3
NURS:6201	Primary Care: Adults and Older Individuals II	3
NURS:6701	Advanced Practice Clinical Practicum I	3
NURS:6702	Advanced Practice Clinical Practicum II	3
NURS:6703	Advanced Practice Clinical Practicum III	4
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**27**

Four-Year Plan, FNP

The following coursework (83 s.h.) is required for a four-year plan.

First Year, Four-Year Plan (FNP)

Course #	Title	Hours
NURS:5007	Applied Epidemiology	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6808	Population Health for Advanced Practice	3
NURS:6809	Advanced Practice Role I: Introduction	3
Total Hours		**20**

Second Year, Four-Year Plan (FNP)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5014	Graduate Physiology for Advanced Practice	3
NURS:5017	Quality and Safety	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
Total Hours		**15**

Third Year, Four-Year Plan (FNP)

Course #	Title	Hours
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	4
NURS:5032	Mental Disorders in Advanced Practice	3

NURS:5033	Pharmacotherapeutics for Advanced Practice Nursing	3
NURS:5035	Graduate Pharmacology Specialty	3
NURS:5039	Advanced Diagnostic and Therapeutic Procedures for Primary Care	1
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**21**

Fourth Year, Four-Year Plan (FNP)

Course #	Title	Hours
NURS:6100	Primary Care: Infants, Children, and Adolescents I	3
NURS:6101/ PEDS:6101	Primary Care: Infants, Children, and Adolescents II	3
NURS:6200	Primary Care: Adults and Older Individuals I	3
NURS:6201	Primary Care: Adults and Older Individuals II	3
NURS:6701	Advanced Practice Clinical Practicum I	3
NURS:6702	Advanced Practice Clinical Practicum II	3
NURS:6703	Advanced Practice Clinical Practicum III	4
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**27**

Pediatric Nurse Practitioner—Acute Care (PNP—AC) Subprogram

Three-Year Plan OF PNP–AC

The following coursework (78 s.h.) is required for a three-year plan.

First Year, Three-Year Plan (PNP–AC)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5007	Applied Epidemiology	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5014	Graduate Physiology for Advanced Practice	3
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6808	Population Health for Advanced Practice	3
NURS:6809	Advanced Practice Role I: Introduction	3
Total Hours		**26**

Second Year, Three-Year Plan (PNP–AC)

Course #	Title	Hours
NURS:5017	Quality and Safety	3
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	4
NURS:5033	Pharmacotherapeutics for Advanced Practice Nursing	3
NURS:5035	Graduate Pharmacology Specialty	3
NURS:6104	Essentials of Pediatric Primary Care: Infants, Children, and Adolescents	3
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**29**

Third Year, Three-Year Plan (PNP–AC)

Course #	Title	Hours
NURS:5038	Advanced Diagnostic and Therapeutic Procedures for Acute Care	1
NURS:6400	Pediatric Acute Care I	3
NURS:6401	Pediatric Acute Care II	3
NURS:6701	Advanced Practice Clinical Practicum I	4
NURS:6702	Advanced Practice Clinical Practicum II	4
NURS:6703	Advanced Practice Clinical Practicum III	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**23**

Four-Year Plan, PNP–AC

The following coursework (78 s.h.) is required for a four-year plan.

First Year, Four-Year Plan (PNP–AC)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5009	Evaluating Evidence for Practice	3

NURS:5015	Health Systems, Finance, and Economics	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6808	Population Health for Advanced Practice	3
NURS:6809	Advanced Practice Role I: Introduction	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
Total Hours		**20**

Second Year, Four-Year Plan (PNP–AC)

Course #	Title	Hours
NURS:5007	Applied Epidemiology	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5014	Graduate Physiology for Advanced Practice	3
NURS:5017	Quality and Safety	3
NURS:6802	Health Policy, Law, and Advocacy	3
Total Hours		**15**

Third Year, Four-Year Plan (PNP–AC)

Course #	Title	Hours
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	4
NURS:5033	Pharmacotherapeutics for Advanced Practice Nursing	3
NURS:5035	Graduate Pharmacology Specialty	3
NURS:6104	Essentials of Pediatric Primary Care: Infants, Children, and Adolescents	3
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**20**

Fourth Year, Four-Year Plan (PNP–AC)

Course #	Title	Hours
NURS:5038	Advanced Diagnostic and Therapeutic Procedures for Acute Care	1
NURS:6400	Pediatric Acute Care I	3
NURS:6401	Pediatric Acute Care II	3
NURS:6701	Advanced Practice Clinical Practicum I	4
NURS:6702	Advanced Practice Clinical Practicum II	4
NURS:6703	Advanced Practice Clinical Practicum III	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**23**

Pediatric Nurse Practitioner—Primary Care (PNP–PC) Subprogram

Three-Year Plan, PNP–PC

The following coursework (77 s.h.) is required for a three-year plan.

First Year, Three-Year Plan (PNP–PC)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5007	Applied Epidemiology	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5014	Graduate Physiology for Advanced Practice	3
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6808	Population Health for Advanced Practice	3
NURS:6809	Advanced Practice Role I: Introduction	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
Total Hours		**29**

Second Year, Three-Year Plan (PNP–PC)

Course #	Title	Hours
NURS:5017	Quality and Safety	3
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	4
NURS:5032	Mental Disorders in Advanced Practice	3
NURS:5033	Pharmacotherapeutics for Advanced Practice Nursing	3
NURS:5035	Graduate Pharmacology Specialty	3
NURS:5039	Advanced Diagnostic and Therapeutic Procedures for Primary Care	1
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**24**

Third Year, Three-Year Plan (PNP–PC)

Course #	Title	Hours
NURS:6100	Primary Care: Infants, Children, and Adolescents I	3

NURS:6101/ PEDS:6101	Primary Care: Infants, Children, and Adolescents II	3
NURS:6701	Advanced Practice Clinical Practicum I	3
NURS:6702	Advanced Practice Clinical Practicum II	4
NURS:6703	Advanced Practice Clinical Practicum III	3
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**24**

Four-Year Plan, PNP–PC

The following coursework (77 s.h.) is required for a four-year plan.

First Year, Four-Year Plan (PNP–PC)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5007	Applied Epidemiology	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6809	Advanced Practice Role I: Introduction	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
Total Hours		**20**

Second Year, Four-Year Plan (PNP–PC)

Course #	Title	Hours
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5014	Graduate Physiology for Advanced Practice	3
NURS:5017	Quality and Safety	3
NURS:5032	Mental Disorders in Advanced Practice	3
NURS:6808	Population Health for Advanced Practice	3
Total Hours		**15**

Third Year, Four-Year Plan (PNP–PC)

Course #	Title	Hours
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	4
NURS:5033	Pharmacotherapeutics for Advanced Practice Nursing	3
NURS:5035	Graduate Pharmacology Specialty	3
NURS:5039	Advanced Diagnostic and Therapeutic Procedures for Primary Care	1
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**21**

Fourth Year, Four-Year Plan (PNP–PC)

Course #	Title	Hours
NURS:6100	Primary Care: Infants, Children, and Adolescents I	3
NURS:6101/ PEDS:6101	Primary Care: Infants, Children, and Adolescents II	3
NURS:6701	Advanced Practice Clinical Practicum I	3
NURS:6702	Advanced Practice Clinical Practicum II	4
NURS:6703	Advanced Practice Clinical Practicum III	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**21**

Psychiatric/Mental Health Nurse Practitioner (PMHNP)Subprogram

Three-Year Plan, PMHNP

The following coursework (76 s.h.) is required for a three-year plan.

First Year, Three-Year Plan (PMHNP)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5007	Applied Epidemiology	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5014	Graduate Physiology for Advanced Practice	3
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5017	Quality and Safety	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6808	Population Health for Advanced Practice	3
NURS:6809	Advanced Practice Role I: Introduction	3

NURS:6811	Social Determinants of Health and Health System Inequities	3
Total Hours		**29**

Second Year, Three-Year Plan (PMHNP)

Course #	Title	Hours
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	4
NURS:5033	Pharmacotherapeutics for Advanced Practice Nursing	3
NURS:5036	Psychopharmacology for Advanced Clinical Practice	3
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**20**

Third Year, Three-Year Plan (PMHNP)

Course #	Title	Hours
NURS:5041	Psychotherapeutics for Advanced Practice Nursing Across the Lifespan I	2
NURS:5042	Psychotherapeutics for Advanced Practice Nursing Across the Lifespan II	1
NURS:6500	Psychiatric/Mental Health Nursing for Advanced Practice Didactic I	3
NURS:6501	Psychiatric/Mental Health Nursing for Advanced Practice Didactic II	3
NURS:6701	Advanced Practice Clinical Practicum I	3
NURS:6702	Advanced Practice Clinical Practicum II	4
NURS:6703	Advanced Practice Clinical Practicum III	3
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**27**

Four-Year Plan, PMHNP

The following coursework (76 s.h.) is required for a four-year plan.

First Year, Four-Year Plan (PMHNP)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5007	Applied Epidemiology	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5040	Genetics/Genomics for Advanced Nursing Practice	2
NURS:6809	Advanced Practice Role I: Introduction	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
Total Hours		**20**

Second Year, Four-Year Plan (PMHNP)

Course #	Title	Hours
NURS:5014	Graduate Physiology for Advanced Practice	3
NURS:5017	Quality and Safety	3
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6808	Population Health for Advanced Practice	3
Total Hours		**12**

Third Year, Four-Year Plan (PMHNP)

Course #	Title	Hours
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5023	Pathophysiology for Advanced Clinical Practice	4
NURS:5031	Health Promotion and Assessment for Advanced Clinical Practice	4
NURS:5033	Pharmacotherapeutics for Advanced Practice Nursing	3
NURS:5036	Psychopharmacology for Advanced Clinical Practice	3
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**20**

Fourth Year, Four-Year Plan (PMHNP)

Course #	Title	Hours
NURS:5041	Psychotherapeutics for Advanced Practice Nursing Across the Lifespan I	2
NURS:5042	Psychotherapeutics for Advanced Practice Nursing Across the Lifespan II	1
NURS:6500	Psychiatric/Mental Health Nursing for Advanced Practice Didactic I	3
NURS:6501	Psychiatric/Mental Health Nursing for Advanced Practice Didactic II	3
NURS:6701	Advanced Practice Clinical Practicum I	3
NURS:6702	Advanced Practice Clinical Practicum II	4

NURS:6703	Advanced Practice Clinical Practicum III	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**24**

Health Systems (HS) Subprogram

Four-Year Plan, Health Systems

The following coursework (73 s.h.) is required for a four-year plan.

First Year, Four-Year Plan (HS)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5016	Health Care Infrastructure and Informatics	3
NURS:5017	Quality and Safety	3
NURS:6808	Population Health for Advanced Practice	3
NURS:6809	Advanced Practice Role I: Introduction	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
Total Hours		**24**

Second Year, Four-Year Plan (HS)

Course #	Title	Hours
NURS:5007	Applied Epidemiology	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:6550	Advanced Leadership and Management	4
NURS:6551	Financial Management	4
NURS:6552	Executive Management in the Organization	4
NURS:6554	Seminar on Healthy Work Environments	3
NURS:6802	Health Policy, Law, and Advocacy	3
Total Hours		**24**

Third Year, Four-Year Plan (HS)

Course #	Title	Hours
NURS:5019	Role Development: Educator in a Practice Discipline (offered in summer even years)	3
NURS:6553	Seminar on Innovations	4
NURS:6704	Practicum in Executive Leadership and Management	4
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**14**

Fourth Year, Four-Year Plan (HS)

Course #	Title	Hours
NURS:6556	Marketing and Communications for Health Care Leaders	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
One of these elective courses:		3
NURS:3595	Nonprofit Organizational Effectiveness I (same as ENTR:3595, MGMT:3500, MUSM:3500, RELS:3700, SSW:3500)	
NURS:3600	Nonprofit Organizational Effectiveness II (same as MGMT:3600, RELS:3701, SSW:3600)	
NURS:5018	Clinical Education in the Care Environment (offered in summer odd years)	
NURS:5020	Application of Educator Role Competencies	
NURS:5032	Mental Disorders in Advanced Practice	
NURS:5040	Genetics/Genomics for Advanced Nursing Practice (plus an additional 1 s.h. elective course; consult advisor)	
NURS:6555	Care Coordination Across Professional and Organizational Boundaries	
NURS:6557	Clinical Practice Management and Leadership for Advanced Practice Providers	
Total Hours		**11**

Five-Year Plan, Health Systems

The following coursework (73 s.h.) is required for a five-year plan.

First Year, Five-Year Plan (HS)

Course #	Title	Hours
NURS:5002	Leadership and Management Essentials	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5017	Quality and Safety	3
NURS:6550	Advanced Leadership and Management	4
NURS:6802	Health Policy, Law, and Advocacy	3

NURS:6809	Advanced Practice Role I: Introduction	3
Total Hours		**19**

Second Year, Five-Year Plan (HS)

Course #	Title	Hours
NURS:5015	Health Systems, Finance, and Economics	3
NURS:5016	Health Care Infrastructure and Informatics	3
NURS:6551	Financial Management	4
NURS:6552	Executive Management in the Organization	4
NURS:6808	Population Health for Advanced Practice	3
Total Hours		**17**

Third Year, Five-Year Plan (HS)

Course #	Title	Hours
NURS:5007	Applied Epidemiology	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5019	Role Development: Educator in a Practice Discipline (offered in summer even years)	3
NURS:6554	Seminar on Healthy Work Environments	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
One of these elective courses:		3
NURS:3595	Nonprofit Organizational Effectiveness I (same as ENTR:3595, MGMT:3500, MUSM:3500, RELS:3700, SSW:3500)	
NURS:3600	Nonprofit Organizational Effectiveness II (same as MGMT:3600, RELS:3701, SSW:3600)	
NURS:5018	Clinical Education in the Care Environment (offered in summer odd years)	
NURS:5020	Application of Educator Role Competencies	
NURS:5032	Mental Disorders in Advanced Practice	
NURS:5040	Genetics/Genomics for Advanced Nursing Practice (plus an additional 1 s.h. elective course; consult advisor)	
NURS:6555	Care Coordination Across Professional and Organizational Boundaries	
NURS:6557	Clinical Practice Management and Leadership for Advanced Practice Providers	
Total Hours		**18**

Fourth Year, Five-Year Plan (HS)

Course #	Title	Hours
NURS:6553	Seminar on Innovations	4
NURS:6704	Practicum in Executive Leadership and Management	4
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**11**

Fifth Year, Five-Year Plan (HS)

Course #	Title	Hours
NURS:6556	Marketing and Communications for Health Care Leaders	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**8**

Students with a master's degree, such as an MA, MS, MBA, or MPH with an interest in pursuing a focus in health administration may complete the following coursework to fulfill the DNP degree requirements in health systems.

Three-Year Plan of Health Systems With Administration Degree

The following coursework (45 s.h.) is required for a three-year plan for students with a master's degree in an administration field.

First Year, Three-Year Plan (Health Systems With Administration Degree)

Course #	Title	Hours
NURS:5009	Evaluating Evidence for Practice	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5017	Quality and Safety	3
NURS:6550	Advanced Leadership and Management	3
NURS:6551	Financial Management	3
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6809	Advanced Practice Role I: Introduction	3
Total Hours		**21**

Second Year, Three-Year Plan (Health Systems With Administration Degree)

Course #	Title	Hours
NURS:5007	Applied Epidemiology	3
NURS:6556	Marketing and Communications for Health Care Leaders	3

NURS:6704	Practicum in Executive Leadership and Management	4
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
One of these elective courses:		3
NURS:3595	Nonprofit Organizational Effectiveness I (same as ENTR:3595, MGMT:3500, MUSM:3500, RELS:3700, SSW:3500)	
NURS:3600	Nonprofit Organizational Effectiveness II (same as MGMT:3600, RELS:3701, SSW:3600)	
NURS:5018	Clinical Education in the Care Environment (offered in summer odd years)	
NURS:5019	Role Development: Educator in a Practice Discipline (offered in summer even years)	
NURS:5020	Application of Educator Role Competencies	
NURS:5032	Mental Disorders in Advanced Practice	
NURS:5040	Genetics/Genomics for Advanced Nursing Practice (plus an additional 1 s.h. elective course; consult advisor)	
NURS:6555	Care Coordination Across Professional and Organizational Boundaries	
NURS:6557	Clinical Practice Management and Leadership for Advanced Practice Providers	
Total Hours		**16**

Third Year, Three-Year Plan (Health Systems With Administration Degree)

Course #	Title	Hours
NURS:6808	Population Health for Advanced Practice	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**8**

Four-Year Plan, Health Systems With Non-Administration Degree

The following coursework (55 s.h.) is required for a four-year plan for students with a master's degree in a non-administration field.

First Year, Four-Year Plan (Health Systems With Non-Administration Degree)

Course #	Title	Hours
NURS:5007	Applied Epidemiology	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5017	Quality and Safety	3
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6809	Advanced Practice Role I: Introduction	3
Total Hours		**18**

Second Year, Four-Year Plan (Health Systems With Non-Administration Degree)

Course #	Title	Hours
NURS:6550	Advanced Leadership and Management	4
NURS:6551	Financial Management	4
NURS:6552	Executive Management in the Organization	4
One of these elective courses:		3
NURS:3595	Nonprofit Organizational Effectiveness I (same as ENTR:3595, MGMT:3500, MUSM:3500, RELS:3700, SSW:3500)	
NURS:3600	Nonprofit Organizational Effectiveness II (same as MGMT:3600, RELS:3701, SSW:3600)	
NURS:5018	Clinical Education in the Care Environment (offered in summer odd years)	
NURS:5019	Role Development: Educator in a Practice Discipline (offered in summer even years)	
NURS:5020	Application of Educator Role Competencies	
NURS:5032	Mental Disorders in Advanced Practice	
NURS:5040	Genetics/Genomics for Advanced Nursing Practice (plus an additional 1 s.h. elective course; consult advisor)	
NURS:6555	Care Coordination Across Professional and Organizational Boundaries	
NURS:6557	Clinical Practice Management and Leadership for Advanced Practice Providers	
Total Hours		**15**

Third Year, Four-Year Plan (Health Systems With Non-Administration Degree)

Course #	Title	Hours
NURS:6553	Seminar on Innovations	4
NURS:6554	Seminar on Healthy Work Environments	3
NURS:6704	Practicum in Executive Leadership and Management	4
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**14**

Fourth Year, Four-Year Plan (Health Systems With Non-Administration Degree)

Course #	Title	Hours
NURS:6808	Population Health for Advanced Practice	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
Total Hours		**8**

For MSN and Advanced Practice Registered Nurses (APRN) Subprogram

Students in the MSN and APRN subprogram complete the following requirements in addition to transferring a minimum of 43 s.h. of credit previously earned at the UI or elsewhere.

Two-Year Plan, MSN and APRN

The following coursework (29 s.h.) is required for a two-year plan.

First Year, Two-Year Plan (MSN and APRN)

Course #	Title	Hours
NURS:5009	Evaluating Evidence for Practice	3
NURS:5010	Clinical Data Management and Evaluation	3
NURS:5017	Quality and Safety	3
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6809	Advanced Practice Role I: Introduction	3
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**18**

Second Year, Two-Year Plan (MSN and APRN)

Course #	Title	Hours
NURS:5007	Applied Epidemiology	3
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
One of these elective courses:		3
NURS:5018	Clinical Education in the Care Environment (offered in summer odd years)	
NURS:5019	Role Development: Educator in a Practice Discipline (offered in summer even years)	
NURS:5020	Application of Educator Role Competencies	
NURS:5040	Genetics/Genomics for Advanced Nursing Practice (plus an additional 1 s.h. elective course; consult advisor)	
NURS:6554	Seminar on Healthy Work Environments	
NURS:6555	Care Coordination Across Professional and Organizational Boundaries	
NURS:6556	Marketing and Communications for Health Care Leaders	
NURS:6557	Clinical Practice Management and Leadership for Advanced Practice Providers	
NURS:6808	Population Health for Advanced Practice	
Total Hours		**11**

Three-Year Plan, MSN and APRN

The following coursework (29 s.h.) is required for a three-year plan.

First Year, Three-Year Plan (MSN and APRN)

Course #	Title	Hours
NURS:5007	Applied Epidemiology	3
NURS:5009	Evaluating Evidence for Practice	3
NURS:5017	Quality and Safety	3
NURS:6809	Advanced Practice Role I: Introduction	3
Total Hours		**12**

Second Year, Three-Year Plan (MSN and APRN)

Course #	Title	Hours
NURS:5010	Clinical Data Management and Evaluation	3
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6826	Doctor of Nursing Practice Project I	2
NURS:6827	Doctor of Nursing Practice Project II	1
Total Hours		**9**

Third Year, Three-Year Plan (MSN and APRN)

Course #	Title	Hours
NURS:6810	Advanced Practice Role II: Integration	3
NURS:6828	Doctor of Nursing Practice Project III	1
NURS:6829	Doctor of Nursing Practice Project IV	1
One of these elective courses:		3
NURS:5018	Clinical Education in the Care Environment (offered in summer odd years)	
NURS:5019	Role Development: Educator in a Practice Discipline (offered in summer even years)	
NURS:5020	Application of Educator Role Competencies	
NURS:5040	Genetics/Genomics for Advanced Nursing Practice (plus an additional 1 s.h. elective course; consult advisor)	
NURS:6554	Seminar on Healthy Work Environments	
NURS:6555	Care Coordination Across Professional and Organizational Boundaries	
NURS:6556	Marketing and Communications for Health Care Leaders	
NURS:6557	Clinical Practice Management and Leadership for Advanced Practice Providers	
NURS:6808	Population Health for Advanced Practice	
Total Hours		**8**

Admission

Applicants to College of Nursing graduate programs must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Applicants must have a grade-point average (GPA) of at least 3.00; applicants for the dual certification programs must have a minimum GPA of at least 3.50. A criminal background check is required for all students upon admission. The College of Nursing has additional application requirements, as follows.

Admission to the DNP Program

Application requirements specific to the DNP program are:

- a bachelor's or advanced degree with a major in nursing from a Commission on Collegiate Nursing Education (CCNE) or National League for Nursing Accrediting Commission (NLNAC) accredited nursing program;
- satisfaction of the legal requirements for the practice of nursing;
- current written recommendations from three persons knowledgeable about the applicant's competence in the practice of nursing and potential for leadership and scholarship (forms required);
- a current résumé, goal statement (statement of purpose), statement of disclosure, and supplemental/information form;
- transcripts from all undergraduate and graduate coursework;
- DNP applicants to the direct care programs with master's degrees in nursing from other schools must provide verification of completed clinical hours from their institution's graduate director or must submit appropriate course syllabi;
- additional application requirements for post-APRN MSN to DNP applicants include providing verification of an MSN in a recognized ARNP specialty and proof of certification;
- an upper-level statistics course (undergraduate course at junior/senior level) completed within five years of application deadline except for post-APRN MSN to DNP applicants; acceptable University of Iowa courses are STAT:3510 Biostatistics, PSQF:4143 Introduction to Statistical Methods, STAT:4143 Introduction to Statistical Methods, or BIOS:4120 Introduction to Biostatistics (equivalent courses from other colleges also are accepted), and the upper-level statistics course must have a letter grade of C-minus or higher; and
- specific clinical experience requirements working as a registered nurse are required if applying to subprograms of adult gerontology acute care nurse practitioner, pediatric nurse practitioner–acute care, and anesthesia nursing. Visit DNP Admission Information FAQs on the College of Nursing website for specific work experience requirements.

For statistics courses taken at another institution, refer to that institution's catalog or registrar's office to verify course numbering scheme. Community college courses are not acceptable as an admission prerequisite statistics course. For further questions regarding the admission upper-level statistics course requirement, contact the College of Nursing graduate programs office.

Due to the level of web-based coursework required, international students in the DNP program of study are not eligible for F–1, F–2, or J–1 student immigration status. Questions regarding visas and immigration documentation should be directed to International Student and Scholar Services (ISSS).

Application Deadlines

The application deadline for the DNP is Feb.1 for all subprograms except anesthesia nursing. The anesthesia nursing subprogram application deadline is June 1.

Career Advancement

The DNP program prepares nurses for leadership and advanced practice roles within today's complex health care system. Graduates acquire the knowledge and skills to provide the highest standard of care for individuals, families, and communities.

Nursing, PhD

Learning Outcomes

The Doctor of Philosophy (PhD) program prepares scholars to advance nursing science and contribute to transdisciplinary efforts to improve health outcomes. Graduates of the program are prepared to be leaders who engage in the three roles highlighted by the American Association of Colleges of Nursing (AACN): develop the science, steward the discipline, and educate the next generation of nurses.

Graduates will:

- master in-depth knowledge in a substantive area of nursing;
- conduct original research that generates new knowledge;
- disseminate research results and articulate implications for policy, practice, and the profession; and
- assimilate evolving roles and responsibilities of a nurse scholar.

Requirements

The Doctor of Philosophy program in nursing requires a minimum of 72 s.h. of graduate credit. Students must maintain a UI cumulative grade-point average of at least 3.00.

The program prepares students to advance nursing science and contribute to the body of nursing knowledge. It emphasizes student participation with faculty members on research teams, focused coursework, presentation and publication of research-based knowledge, and interdisciplinary learning experiences.

Graduate students in the College of Nursing must adhere to all Graduate College policies regarding academic standing, probation, and dismissal. Coursework taken 10 or more years before a student plans to graduate from the PhD program must be updated according to university policy.

The PhD in nursing requires the following coursework.

Required Courses

Course #	Title	Hours
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:6811	Social Determinants of Health and Health System Inequities	3
NURS:7000	Philosophy and Sociology of Nursing Science	3
NURS:7001	Qualitative Research	4
NURS:7002	Designing Research	3
NURS:7003	Quantitative Research	4
NURS:7006	Theory and Model Development	3
NURS:7310	Measurement in Health Research	3
NURS:7404	Biological Markers in Health Research	3
NURS:7801	Seminar: Research Scholarship Role Development	2
NURS:7803	Research Practicum I	2
NURS:7804	Research Practicum II	2
CPH:7270	Principles of Scholarly Integrity: Public Health	0-1
Specialization courses (BSN–PhD only)		6
Intermediate statistics		3
Advanced statistics		3-4

Cognate Area

Course #	Title	Hours
Cognate courses (BSN–PhD only)		6

Comprehensive Exam and Dissertation

Students must complete a written and oral comprehensive examination before they begin work on the dissertation. They must write the dissertation and defend it orally.

Dissertation

Course #	Title	Hours
This course (minimum of 11 s.h.):		
NURS:7805	Dissertation Research	arr.

Admission

Applicants to College of Nursing graduate programs must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

The program is open to individuals who have earned a bachelor's degree in nursing, an associate's degree in nursing with a bachelor's or advanced degree in any field, an advanced degree in nursing, or an advanced degree in a health-related field.

A criminal background check is required for all students upon admission. The College of Nursing has additional application requirements, as follows.

Admission to the PhD Program

PhD applicants who have completed an accredited basic nursing program must hold a current license to practice nursing.

Applicants must have a grade-point average of at least 3.00. They must also have successfully completed an upper-level statistics course within five years prior to the application deadline.

Applicants must submit along with their application:

- a two-to-three-page statement describing their educational objectives, career goals, and an area of research for their doctoral study;
- three recommendations from nursing professionals that speak to the applicant's potential as a scholar;
- a current résumé or curriculum vitae; and
- a complete transcript of all college programs and courses.

Applicants whose first language is not English must score at least 81 (internet-based) on the Test of English as a Foreign Language (TOEFL); at least 7.0 on the International English Language Testing System (IELTS), with no subscore less than 6; or at least 105 on the Duolingo English Test (DET).

The application deadline for the PhD program is Dec. 1. In order to be reviewed, the applicant's file must be complete, with all materials submitted.

Career Advancement

The PhD program prepares scholars to move nursing and health science forward. Graduates are prepared for careers as faculty members in college and university settings as well as researchers, consultants, and leaders in military, academic, or industry venues and in other nonacademic settings.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Nursing, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
See General Catalog and website for specific requirements; must include 3 s.h. of intermediate statistics, 3 s.h. of advanced statistics, 6 s.h. of other coursework, and at least 11 s.h. of dissertation credit. Work with faculty advisor to determine courses and sequence.		
	Hours	**0**
First Year		
Fall		
CITI Training [b]		
NURS:7000	Philosophy and Sociology of Nursing Science	3
NURS:7801	Seminar: Research Scholarship Role Development	2
BIOS:4120	Introduction to Biostatistics [c]	3
	Hours	**8**
Spring		
NURS:6811	Social Determinants of Health and Health System Inequities	3
NURS:7006	Theory and Model Development	3
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
	Hours	**9**
Second Year		
Fall		
NURS:7002	Designing Research	3
NURS:7310	Measurement in Health Research	3
BIOS:5130	Applied Categorical Data Analysis	3
CPH:7270	Principles of Scholarly Integrity: Public Health	0
	Hours	**9**
Spring		
NURS:7003	Quantitative Research	4
NURS:7803	Research Practicum I	2
CPH:7270	Principles of Scholarly Integrity: Public Health	1
	Hours	**7**
Third Year		
Fall		
Comprehensive Exam [d]		
NURS:6802	Health Policy, Law, and Advocacy	3
NURS:7001	Qualitative Research	4
NURS:7804	Research Practicum II	2
	Hours	**9**
Spring		
NURS:7404	Biological Markers in Health Research	3
NURS:7509	Research Residency [e]	3
	Hours	**6**
Fourth Year		
Fall		
NURS:7805	Dissertation Research [f]	3
	Hours	**3**
Spring		
NURS:7805	Dissertation Research [f]	3
	Hours	**3**
Fifth Year		
Fall		
NURS:7805	Dissertation Research [f]	3
	Hours	**3**
Spring		
NURS:7805	Dissertation Research [f]	3
Final Oral Exam (Dissertation Defense)		
	Hours	**3**
	Total Hours	**60**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Online training modules to be completed during first semester.

c Other coursework includes the following: electives, additional methods courses, Research Practicum, or Research Residency. Work with faculty advisor to determine courses and sequence.

d For students admitted fall 2017 or later, the Comprehensive Exam must be completed no later than the end of the fall semester of year three.

e Or take an advanced/specific methods course, third statistics course, or an elective.

f Minimum of 11 s.h. of Dissertation Research required, generally distributed over multiple semesters until degree completion.

Adult Gerontology Acute Care Nurse Practitioner, Graduate Certificate

Learning Outcomes

Graduates will be able to:

- demonstrate high-quality, evidence-based clinical competence in the advanced practice care of a new patient population focus;
- utilize scientific underpinnings for the advanced practice care of a new patient population focus; and
- incorporate principles of inclusive, compassionate, person-centered care into the delivery of health care.

Requirements

The graduate Certificate in Adult Gerontology Acute Care Nurse Practitioner requires 21 s.h. of credit. Students must maintain a UI cumulative grade-point average of at least 2.50 in coursework for the certificate. The certificate is available for post-master's Advanced Practice Registered Nurse (APRN) degree students who would like to pursue a second specialty.

The curriculum includes didactic and clinical core courses as well as specialty courses, as determined by the director of the program. Coursework and clinical hours are determined by a gap analysis.

The Certificate in Adult Gerontology Acute Care Nurse Practitioner requires the following coursework.

Requirements

First Year

Course #	Title	Hours
NURS:5035	Graduate Pharmacology Specialty	3
NURS:5038	Advanced Diagnostic and Therapeutic Procedures for Acute Care	1
NURS:6410	Adult-Gerontology Acute Care I	3
NURS:6411	Adult-Gerontology Acute Care II	3
NURS:6701	Advanced Practice Clinical Practicum I	4
NURS:6702	Advanced Practice Clinical Practicum II	4

Second Year

Course #	Title	Hours
NURS:6703	Advanced Practice Clinical Practicum III	3

Admission

The application deadline for the certificate is Feb. 1. See Post-Graduate Certificate Programs on the College of Nursing website for admission requirements and application details.

Adult Gerontology Primary Care Nurse Practitioner, Graduate Certificate

Learning Outcomes

Graduates will be able to:

- demonstrate high-quality, evidence-based clinical competence in the advanced practice care of a new patient population focus;
- utilize scientific underpinnings for the advanced practice care of a new patient population focus; and
- incorporate principles of inclusive, compassionate, person-centered care into the delivery of health care.

Requirements

The graduate Certificate in Adult Gerontology Primary Care Nurse Practitioner requires 22 s.h. of credit. Students must maintain a UI cumulative grade-point average of at least 2.50 in coursework for the certificate. The certificate is available for post-master's Advanced Practice Registered Nurse (APRN) degree students who would like to pursue a second specialty.

The curriculum includes didactic and clinical core courses as well as specialty courses, as determined by the director of the program. Coursework and clinical hours are determined by a gap analysis.

The Certificate in Adult Gerontology Primary Care Nurse Practitioner requires the following coursework.

Coursework

First Year

Course #	Title	Hours
NURS:5035	Graduate Pharmacology Specialty	3
NURS:5039	Advanced Diagnostic and Therapeutic Procedures for Primary Care	1
NURS:5401/ ASP:5401	The Care of the Frail Elderly	3
NURS:6200	Primary Care: Adults and Older Individuals I	3
NURS:6201	Primary Care: Adults and Older Individuals II	3
NURS:6701	Advanced Practice Clinical Practicum I	3
NURS:6702	Advanced Practice Clinical Practicum II	3

Second Year

Course #	Title	Hours
NURS:6703	Advanced Practice Clinical Practicum III	3

Admission

The application deadline for the certificate is Feb. 1. See Post-Graduate Certificate Programs on the College of Nursing website for admission requirements and application details.

Family Nurse Practitioner, Graduate Certificate

Learning Outcomes

Graduates will be able to:

- demonstrate high-quality, evidence-based clinical competence in the advanced practice care of a new patient population focus;
- utilize scientific underpinnings for the advanced practice care of a new patient population focus; and
- incorporate principles of inclusive, compassionate, person-centered care into the delivery of health care.

Requirements

The graduate Certificate in Family Nurse Practitioner requires 26 s.h. of credit. Students must maintain a UI cumulative grade-point average of at least 2.50 in coursework for the certificate. The certificate is available for post-master's Advanced Practice Registered Nurse (APRN) degree students who would like to pursue a second specialty.

The curriculum includes didactic and clinical core courses as well as specialty courses, as determined by the director of the program. Coursework and clinical hours are determined by a gap analysis.

The Certificate in Family Nurse Practitioner requires the following coursework.

Coursework

First Year

Course #	Title	Hours
NURS:5035	Graduate Pharmacology Specialty	3
NURS:5039	Advanced Diagnostic and Therapeutic Procedures for Primary Care	1
NURS:6100	Primary Care: Infants, Children, and Adolescents I	3
NURS:6101/ PEDS:6101	Primary Care: Infants, Children, and Adolescents II	3
NURS:6200	Primary Care: Adults and Older Individuals I	3
NURS:6201	Primary Care: Adults and Older Individuals II	3
NURS:6701	Advanced Practice Clinical Practicum I	3
NURS:6702	Advanced Practice Clinical Practicum II	3

Second Year

Course #	Title	Hours
NURS:6703	Advanced Practice Clinical Practicum III	4

Admission

The application deadline for the certificate is Feb. 1. See Post-Graduate Certificate Programs on the College of Nursing website for admission requirements and application details.

Health Systems, Graduate Certificate

Learning Outcomes

Graduates will be able to:

- demonstrate organizational and systems leadership to innovate, influence, and transform health care delivery and health equity;
- foster interprofessional partnerships to impact inclusive, person-centered care for sustainable outcomes at the individual, community, or population level; and
- design advanced leadership opportunities to collaborate with health care leaders that impact professional growth for self, the workforce, and health outcomes.

Requirements

The graduate Certificate in Health Systems is built on the foundational courses from the Doctor of Nursing Practice (DNP) with a health systems subprogram. The certificate requires 19 s.h. of credit. Students must maintain a UI cumulative grade-point average of at least 2.50 in coursework for the certificate. The certificate is available to post-master's degree students seeking additional preparation in the area of health systems with a focus in administration or health systems and in administration with practice management.

The Certificate in Health Systems requires the following work.

Focus in Administration Coursework

Students who want to complete the certificate with a focus in administration complete the following.

First Year, Administration

Course #	Title	Hours
NURS:6550	Advanced Leadership and Management	4
NURS:6551	Financial Management	4
NURS:6554	Seminar on Healthy Work Environments	3

Second Year, Administration

Course #	Title	Hours
NURS:6552	Executive Management in the Organization	4
NURS:6553	Seminar on Innovations	4

Focus in Administration With Practice Management Coursework

Students who want to complete the certificate with a focus in administration with practice management complete the following.

First Year, Administration With Practice Management

Course #	Title	Hours
NURS:6550	Advanced Leadership and Management	4
NURS:6551	Financial Management	4
NURS:6554	Seminar on Healthy Work Environments	3

Second Year, Administration With Practice Management

Course #	Title	Hours
NURS:6553	Seminar on Innovations	4
NURS:6557	Clinical Practice Management and Leadership for Advanced Practice Providers	4

Admission

The application deadline for the certificate is Feb. 1. See Post-Graduate Certificate Programs on the College of Nursing website for admission requirements and application details.

Pediatric Nurse Practitioner—Acute Care, Graduate Certificate

Learning Outcomes

Graduates will be able to:

- demonstrate high-quality, evidence-based clinical competence in the advanced practice care of a new patient population focus;
- utilize scientific underpinnings for the advanced practice care of a new patient population focus; and
- incorporate principles of inclusive, compassionate, person-centered care into the delivery of health care.

Requirements

The graduate Certificate in Pediatric Nurse Practitioner—Acute Care requires 21 s.h. of credit. Students must maintain a UI cumulative grade-point average of at least 2.50 in coursework for the certificate. The certificate is available for post-master's Advanced Practice Registered Nurse (APRN) degree students who would like to pursue a second specialty.

The curriculum includes didactic and clinical core courses as well as specialty courses, as determined by the director of the program. Coursework and clinical hours are determined by a gap analysis.

The Certificate in Pediatric Nurse Practitioner—Acute Care requires the following coursework.

Coursework

First Year

Course #	Title	Hours
NURS:5035	Graduate Pharmacology Specialty	3
NURS:5038	Advanced Diagnostic and Therapeutic Procedures for Acute Care	1
NURS:6400	Pediatric Acute Care I	3
NURS:6401	Pediatric Acute Care II	3
NURS:6701	Advanced Practice Clinical Practicum I	4
NURS:6702	Advanced Practice Clinical Practicum II	4

Second Year

Course #	Title	Hours
NURS:6703	Advanced Practice Clinical Practicum III	3

Admission

The application deadline for the certificate is Feb. 1. See Post-Graduate Certificate Programs on the College of Nursing website for admission requirements and application details.

Pediatric Nurse Practitioner—Primary Care, Graduate Certificate

Learning Outcomes

Graduates will be able to:

- demonstrate high-quality, evidence-based clinical competence in the advanced practice care of a new patient population focus;
- utilize scientific underpinnings for the advanced practice care of a new patient population focus; and
- incorporate principles of inclusive, compassionate, person-centered care into the delivery of health care.

Requirements

The graduate Pediatric Nurse Practitioner—Primary Care requires 20 s.h. of credit. Students must maintain a UI cumulative grade-point average of at least 2.50 in coursework for the certificate. The certificate is available for post-master's Advanced Practice Registered Nurse (APRN) degree students who would like to pursue a second specialty.

The curriculum includes didactic and clinical core courses as well as specialty courses, as determined by the director of the program. Coursework and clinical hours are determined by a gap analysis.

The Certificate in Pediatric Nurse Practitioner—Primary Care requires the following coursework.

Coursework

First Year

Course #	Title	Hours
NURS:5035	Graduate Pharmacology Specialty	3
NURS:5039	Advanced Diagnostic and Therapeutic Procedures for Primary Care	1
NURS:6100	Primary Care: Infants, Children, and Adolescents I	3
NURS:6101/ PEDS:6101	Primary Care: Infants, Children, and Adolescents II	3
NURS:6701	Advanced Practice Clinical Practicum I	3
NURS:6702	Advanced Practice Clinical Practicum II	4

Second Year

Course #	Title	Hours
NURS:6703	Advanced Practice Clinical Practicum III	3

Admission

The application deadline for the certificate is Feb. 1. See Post-Graduate Certificate Programs on the College of Nursing website for admission requirements and application details.

Psychiatric/Mental Health Nurse Practitioner, Graduate Certificate

Learning Outcomes

Graduates will be able to:

- demonstrate high-quality, evidence-based clinical competence in the advanced practice care of a new patient population focus;
- utilize scientific underpinnings for the advanced practice care of a new patient population focus; and
- incorporate principles of inclusive, compassionate, person-centered care into the delivery of health care.

Requirements

The graduate Certificate in Psychiatric/Mental Health Nurse Practitioner requires 22 s.h. of credit. Students must maintain a UI cumulative grade-point average of at least 2.50 in coursework for the certificate. The certificate is available for post-master's Advanced Practice Registered Nurse (APRN) degree students who would like to pursue a second specialty.

The curriculum includes didactic and clinical core courses as well as specialty courses, as determined by the director of the program. Coursework and clinical hours are determined by a gap analysis.

The Certificate in Psychiatric/Mental Health Nurse Practitioner requires the following coursework.

Coursework

First Year

Course #	Title	Hours
NURS:5036	Psychopharmacology for Advanced Clinical Practice	3
NURS:5041	Psychotherapeutics for Advanced Practice Nursing Across the Lifespan I	2
NURS:5042	Psychotherapeutics for Advanced Practice Nursing Across the Lifespan II	1
NURS:6500	Psychiatric/Mental Health Nursing for Advanced Practice Didactic I	3
NURS:6501	Psychiatric/Mental Health Nursing for Advanced Practice Didactic II	3
NURS:6701	Advanced Practice Clinical Practicum I	3
NURS:6702	Advanced Practice Clinical Practicum II	4

Second Year

Course #	Title	Hours
NURS:6703	Advanced Practice Clinical Practicum III	3

Admission

The application deadline for the certificate is Feb. 1. See Post-Graduate Certificate Programs on the College of Nursing website for admission requirements and application details.

College of Pharmacy

Dean

- Jill M. Kolesar

Associate Dean, Academic Affairs

- Mary E. Ray

Associate Dean, Student Affairs

- Cynthia A. Sanoski

Associate Dean, Research and Graduate Programs

- David L. Roman

Associate Dean, Clinical Affairs

- Michael J. Brownlee

Assistant Dean, Iowa City Veterans Affairs Medical Center

- Traviss A. Tubbs

Chair, Pharmaceutical Sciences and Experimental Therapeutics

- Jonathan A. Doorn

Chair, Pharmacy Practice and Science

- Arinze Nkemdirim Okere

Managing Director, University of Iowa Pharmaceuticals

- Marlow B. Hicks

Professional degree: PharmD

Professional certificates: emergency medicine and critical care pharmacotherapy; palliative care

Graduate degrees: MS in pharmacy; PhD in pharmacy

Faculty: https://pharmacy.uiowa.edu/people

Website: https://pharmacy.uiowa.edu/

The hallmarks of a University of Iowa pharmacy degree are patient-centered practice, strong grounding in science and evidence-based practice, exploration of career choices through required and elective courses, and exposure to leadership opportunities within the college, the university, and the profession. Career options may include community and/or hospital pharmacy, public service, consulting, long-term care, teaching and research in academia, managed care, pharmaceutical industry, or research careers.

The University of Iowa's PharmD program synthesizes basic scientific principles and practice through caring and communication in an integrated professional program. The role of a pharmacist ranges from managing medication for individuals to shaping national health care policy. Students learn to manage aspects of practice, solve problems, make clinical decisions, clearly communicate ideas, practice ethically, and become leaders in their communities and professions. Students study with professors who, in many cases, are pioneering the development of new drugs and defining the appropriate use of others to solve chronic health problems.

The College of Pharmacy PhD program offers three areas of graduate study: drug discovery and experimental therapeutics, health services research, and pharmaceutics. The major emphasis of these graduate programs is on research and coursework.

The College of Pharmacy collaborates with the College of Public Health to offer the combined Doctor of Pharmacy/MPH degree, and with the Graduate College to offer the Doctor of Pharmacy/MS in informatics degree. In addition, the College of Pharmacy offers a professional Certificate in Emergency Medicine and Critical Care Pharmacotherapy and a professional Certificate in Palliative Care.

College Organization

The College of Pharmacy's faculty and programs are organized in two academic units. These units provide coursework for the Doctor of Pharmacy curriculum and for the college's graduate programs.

Pharmacy Practice and Science

Faculty in Pharmacy Practice and Science (PPS) provide expertise and education in the professional practice of pharmacy. They specialize in a wide variety of clinical pharmacy practices; conduct research on patient and population outcomes related to medication therapy; contribute to the scholarship of teaching and learning in pharmacy education; and provide instruction in the pharmacist's professional role and the safe, effective use of medications.

This unit offers Master of Science and Doctor of Philosophy curricula in health services research, which encompasses the behavioral, economic, social, and administrative sciences; and elements of pharmacy practice. It offers coursework through the Applied Clinical Sciences Division and the Health Services Research Division.

Applied Clinical Sciences (ACS) Division

Teaching and research in this division focus on the delivery of care and related services to patients and the education of student and resident pharmacists in practice settings. Courses are offered in pharmacotherapy, communication and practice skill development, clinical problem solving, and patient care. Professional practice mentoring and education are provided in introductory and advanced pharmacy practice experiences.

Health Services Research (HSR) Division

Teaching and research in this division involve economic, social, behavioral, and administrative components of pharmacy practice and medication use. Courses are offered on the health care system, practice management, the professional and business aspects of pharmacy practice, and learning and applying economic and social psychological theories to the study of health services and medication use.

To learn more about the department and its two divisions, visit Pharmacy Practice and Science on the College of Pharmacy website.

Pharmaceutical Sciences and Experimental Therapeutics

Faculty in Pharmaceutical Sciences and Experimental Therapeutics (PSET) provide expertise and education in areas that include the fundamental basis for drug therapy outcomes in patients, factors responsible for specific drug actions in individual patients and larger patient populations, drug metabolism, pharmaceutical toxicology, organic synthesis,

structure-activity relationships, drug design, computer-aided drug discovery, bioanalytical chemistry, biopolymeric drugs, molecular pharmacology, dosage form development and performance, pharmaceutical applications of nanotechnology, industrial and manufacturing pharmacy, pharmacokinetics, and pharmacodynamics.

In addition to its educational roles in the Doctor of Pharmacy program, PSET offers PhD and MS degrees in two graduate areas: drug discovery and experimental therapeutics and pharmaceutics. Drug discovery and experimental therapeutics is for students interested in drug discovery and the development of novel therapeutics. It includes interdisciplinary research experiences in medicinal chemistry, biotherapeutics, pharmacogenetics/genomics, and basic pharmacology/toxicology. Pharmaceutics focuses on the characterization of pharmaceuticals and their component materials, the development of new dosage forms and drug delivery systems, pharmaceutical applications of nanotechnology, and the pharmacokinetic and pharmacodynamic evaluation of drug actions and interactions.

The department offers interdisciplinary research opportunities with programs in medicine, chemistry, biochemistry, pharmacology, engineering, dentistry, and public health. Its national and international collaborations further enhance the breadth of research activities available to students.

To learn more, visit Pharmaceutical Sciences and Experimental Therapeutics on the College of Pharmacy website.

Programs

Professional Programs of Study

- Doctor of Pharmacy [p. 2061]
- Professional Certificate in Emergency Medicine and Critical Care Pharmacotherapy [p. 2064]
- Professional Certificate in Palliative Care [p. 2065]

Graduate Programs of Study

- Master of Science in Pharmacy [p. 2066]
- Doctor of Philosophy in Pharmacy [p. 2067]

Facilities

Pharmacy Building

A new, state-of-the-art building has set the stage for advancements in science and discovery, and for world-class pharmacy education to continue to grow and thrive. Classroom space is designed for collaborative and hands-on learning. The building boasts 16 collaborative research spaces and 23 learning spaces—centers and team rooms with aspects of universal design. In addition, the college has added 16,000 square feet of manufacturing space with a sterile products processing facility.

The original facility, now called the Pharmaceutical Sciences Research Building, continues to house classrooms, labs, offices, and a manufacturing facility.

The College of Pharmacy is located on the university's health sciences campus in close proximity to five professional schools. Students collaborate with expert health care providers at the Carver College of Medicine, and at the colleges of Dentistry [p. 1291], Nursing [p. 2006], and Public Health [p. 2073]. The College of Pharmacy is located in close proximity to University of Iowa Health Care, the Bowen Science Building, and the Hardin Library for the Health Sciences.

For more than 125 years, the University of Iowa College of Pharmacy has led the way in educating pharmacists and pharmaceutical scientists. The college is well known for its high-quality pharmacy education, advanced practice models, patient care, drug discovery, product development, and contract manufacturing.

University of Iowa Pharmaceuticals

University of Iowa Pharmaceuticals is a pharmaceutical manufacturing facility registered with the U.S. Food and Drug Administration that develops pharmaceutical dosage forms and has manufactured clinical supplies in compliance with Good Manufacturing Practices since 1974. University of Iowa Pharmaceuticals has clients worldwide, including pharmaceutical companies, biotechnology firms, medical departments, and government agencies. Its staff works closely with clients and pharmaceutics faculty members to produce virtually every type of pharmaceutical dosage form, supplying new pharmaceutical agents for use in clinical trials and other research. For more information, visit the UI Pharmaceuticals website.

Courses

Students must be enrolled in the College of Pharmacy to enroll in professional-level (PharmD) coursework numbered 8000–9999. Students who meet prerequisite requirements may register for the college's undergraduate- and graduate-level courses numbered 1100–7999.

College of Pharmacy Courses

PHAR:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities).

PHAR:1100 Introduction to Pharmaceutical Sciences: Drug Development **1-2 s.h.**
Introduction to drug discovery, development, and approval pathways used in the United States; specific focus on career pathways related to pharmaceutical development including the natural and biomedical sciences, clinical, regulatory and legal affairs, sales and marketing, and business development.

PHAR:1111 Need a New Drug? **1 s.h.**
Introduction to drug discovery, development, and approval process in the United States; focus on preclinical and clinical development activities and role of the FDA and other regulatory bodies in approval and oversight of available drug products.

PHAR:1150 Emerging Perspectives in Pharmacy and the Pharmaceutical Industry **1 s.h.**
Development of curiosity and knowledge of pharmacy practice, the pharmaceutical industry, and drug discovery. Students engage with emerging leaders from the University of Iowa College of Pharmacy Genesis Board. These recent graduates of the PharmD or PhD programs hold influential positions in pharmacy practice, the pharmaceutical industry, government, nonprofits, and innovative companies.

PHAR:1200 Medicines That Changed the World 1 s.h.
Herbal remedies and ancient traditional medicines have led to the discovery of life-saving drug therapies; as science has evolved, how the discovery of other important medicines have come about through advances in chemistry and biology and now through advances in computer science and informatics; students learn about the discovery history of some of the most important drug therapies of the 20th and 21st centuries and how those discoveries are leading to even more important, life-saving treatments.

PHAR:1300 Drugs and American Pop Culture 1 s.h.
Humans have used and misused drugs for thousands of years. Religious, cultural, and social experiences have been influenced by drugs. Review the roles of drugs in visual arts, literature, music, and film. Explore drug use and culture from the 1960s through the present day including the war on drugs and the social programs to combat addictions in America. Discuss the glamorization of drug use versus real-life impact of addictions. Drug names, chemical structure, classification, regulation, medicinal and recreational uses, and medications to assist with recovery will be reviewed.

PHAR:1812 What's in My Medicine Cabinet? An Introduction to Over-the-Counter Medications and Self Care 2 s.h.
Introduction to nonprescription medications for treatment of minor illness and health maintenance; causes, signs, and symptoms of common ailments with information about selection of appropriate over-the-counter therapies and considerations for the need for further care; self-care strategies for disease prevention and wellness.

PHAR:2000 Exploring Travel Medicine: Navigating Healthy Travel 2 s.h.
Introduction to international travel medicine including pre-assessments and planning, services provided to travelers to prevent and manage conditions during travel, and post-travel care.

PHAR:3994 Undergraduate Research in Pharmaceutical Sciences 1-4 s.h.
Individual scientific research conducted under the guidance of a faculty member.

PHAR:3995 Undergraduate Independent Study 1-4 s.h.
Supervised study. Requirements: enrollment in College of Pharmacy undergraduate certificate program.

PHAR:4146 Drug Disposition and Pharmacokinetics 2 s.h.
Introduction to drug absorption, distribution, and elimination processes controlling overall drug exposure in humans; basic quantitative measurements presented and used to demonstrate the influence of drug properties and physiologic action on drug disposition. Prerequisites: (MATH:1460 or MATH:1550 or MATH:1850) and (BIOL:1140 or BIOL:1141 or BIOL:1411 or BIOL:1412) and (STAT:1020 or PSQF:1020 or STAT:1030 or STAT:2010).

PHAR:4736 Properties of Dosage Forms I 3 s.h.
Introduction to principles of physical and chemical sciences important in drug product development; solubility, colligative properties, and partitioning behavior, as well as ionic equilibria, pH control, and chemical stability are evaluated in context of their importance in liquid dosage forms; emphasis on issues impacting drug product quality. Prerequisites: (CHEM:2220 or CHEM:2240) and (MATH:1460 or MATH:1550 or MATH:1850 or MATH:1860).

PHAR:4741 Immunology and Immunotherapies 2 s.h.
Introduction to basics of the immune system and how it protects against infection and disease; in-depth lectures on vaccines against infectious diseases and cancer in terms of their formulations and how they work; focus on past seminal findings, current treatment modalities, and cutting-edge technologies likely to impact future immunotherapeutic strategies.

PHAR:4799 Special Topics in Pharmaceutics arr.
Current topics in pharmaceutics. Prerequisites: MATH:2560 and CHEM:4431.

PHAR:4800 Chemical and Biophysical Properties of Drugs 2 s.h.
Introduction to design of drug molecules based on an understanding of drug-like properties including chemical reactivity and structural optimization; minimization of potentially toxic biotransformations; optimization of absorption; screening methods for selection and classification of optimized molecules. Prerequisites: ((CHEM:2220 or CHEM:2240) and BMB:3110) or (BMB:3120 and BMB:3130).

PHAR:4850 Upstream Biotechnology Processes 2 s.h.
Introduction to fermentation, fermenter preparation, cell growth and medium requirements, inoculation, sampling, process termination, separation of cells, fermentation case study, enzyme activity, and biocatalysis. Same as CHEM:4850.

PHAR:4851 Radiopharmaceuticals in Diagnostics and Therapy 2 s.h.
Use of radionuclides for diagnosis and monitoring of disease and in development of new therapeutic agents; strategies for provision of effective agents, regulatory processes, and safe handling and administration. Prerequisites: CHEM:2220 or CHEM:2240. Recommendations: one semester of physics, one semester of biology, one semester of anatomy or physiology, and one semester of pharmacology.

PHAR:5310 Health Services Research Seminar 1-2 s.h.
Recent research in pharmacy administration.

PHAR:5350 Introduction to Research Methods 3 s.h.
Scientific inquiry, experimental design, data collection, statistical methods used in the study of health services and clinical investigations; focus on understanding the research process and evaluating published studies. Recommendations: introductory statistics.

PHAR:5360 Applied Research Methods: Primary Data 2 s.h.
Advanced topics in research methods; focus on primary data collection and analysis; qualitative, mixed, survey, and intervention research methods with focus on applying these methods to topics in pharmacy health services research. Prerequisites: PHAR:5350.

PHAR:5365 Applied Research Methods: Secondary Data 2 s.h.
Advanced topics in research methods applicable to common sources of secondary data; hands-on experience writing programs to prepare and analyze various health-related data using common statistical software packages (e.g., SAS, STATA, R). Prerequisites: PHAR:5350.

PHAR:5400 Principles of Pharmacogenomics 3 s.h.
Fundamental knowledge of molecular biology and relationship to pharmacological agents; working knowledge of DNA, RNA, and protein changes that occur to influence gene expression; how pharmacological agents can impact biological mechanisms and how this can impact treatment response; requirements to design and carry out an experiment in human and animal models to study specific biological mechanisms; critical evaluation of published scientific literature to describe cutting-edge pharmacological findings in this field. Requirements: graduate standing in pharmacy (clinical pharmaceutical sciences, pharmaceutics, medicinal chemistry), neuroscience, pharmacology, or toxicology.

PHAR:5510 Pharmaceutical Sciences and Experimental Therapeutics Seminar 1-2 s.h.

PHAR:5512 Drug Discovery and Mechanisms 3 s.h.
Process of modern drug discovery, focus on high throughput screening strategies, target validation, pharmacological characterization of new compounds; mechanism of drugs targeting G protein coupled receptors, ion channels and transporters, targets in biological systems.

PHAR:5515 Perspectives in MNPC Research 2 s.h.
Contemporary research in medicinal chemistry and natural products.

PHAR:5520 Medicinal and Natural Products Chemistry Research arr.

PHAR:5537 Enzymatic Basis of Drug Metabolism 3 s.h.
Current literature on catalytic and physical properties, distribution, and substrate specificity of enzymes involved in mammalian drug metabolism. Prerequisites: CHEM:2220.

PHAR:5541 Total Synthesis of Biologically Active Natural Products 3 s.h.
Total synthesis of natural products; use of strategies and tactics for synthetic maneuvering; selectivity of important and complex medicinal compounds; modern chemical methods for construction of carbon-carbon bonds.

PHAR:5542 Molecular Recognition 1 s.h.
Focus on determinants in protein small molecule binding, particularly involving pharmaceutically relevant enzymes and receptors; how modern structure-based drug discovery is greatly aided by ability to employ protein structures in discovery and design of certain classes of drugs; structural approaches for predicting and improving drug affinity and selectivity, which have made a lasting impact across a number of diseases; important contemporary topics include in-depth lectures on fragment based drug discovery (FBDD), use and pitfalls of *in silico* docking and other screening methods, and emergence of covalent drugs. Requirements: introductory course in biochemistry. Same as BMB:5244.

PHAR:5545 Current Medicinal Chemistry 3 s.h.
Modern approaches to drug discovery with an emphasis on contemporary drug design and development. Course topics include, but are not limited to, driving factors for drug discovery and development in academia and the pharmaceutical industry; altering biological activity and biophysical properties of small molecules and biologicals through structural modification and conjugation; drug-target interactions and binding affinities; pharmacogenomics; bioconjugate chemistry; intellectual property topics and drug discovery and development; computational approaches and in silico resources for drug discovery and optimizing drug structures.

PHAR:5549 Analytical Biochemistry 3 s.h.
Application of modern chromatographic and detection methods used to isolate, characterize, and quantify drugs and macromolecules.

PHAR:5700 Quantitative Research Methods in Pharmacy I 3-4 s.h.
Collection and interpretation of analytical data; instrumental analysis and separation techniques.

PHAR:5720 Pharmaceutical Materials and Analysis 3 s.h.
Strong working knowledge in pharmaceutical solids; different types of solid phases, preparation, and methods of characterization in context of optimizing phase selection with respect to solubility, stability, and processability.

PHAR:5740 Drug Stability 2 s.h.
Principles of chemical and physical stability relevant to drug substances and various dosage forms. Key topics include mechanisms of instability, drug-excipient interactions, kinetics and stability testing, and shelf life predictions.

PHAR:5745 Advanced Biopharmaceutics and Drug Delivery arr.
Advanced design and development of drug delivery systems with emphasis on selection of materials and designs suitable for specific applications; comparison and evaluation of available and emerging technologies. Prerequisites: (BMB:3110 or BMB:3120) and (MATH:3600 or MATH:2560) and (CHEM:2220 or CHEM:2240) and PHAR:4736. Corequisites: PHAR:4146 (if not taken as a prerequisite). Requirements: one semester of human anatomy and physiology.

PHAR:5800 Concepts in Preclinical Drug Development 1 s.h.
Topics relevant to preclinical phase and early clinical stage of drug development; role of drug transporters in drug absorption, distribution, elimination; use of in vitro systems to evaluate drug metabolism, how to use in vitro metabolism data to predict drug clearance in humans; use of animal rule in drug development; biopharmaceutical classification system (BCS) and bioequivalence; biosimilar; use of minimum anticipated biological effect level (MABEL) to determine first-in-human (FIH) dose of protein drugs; drug-drug interaction including basic enzyme kinetics and inhibition (competitive, noncompetitive, uncompetitive); for students seeking to work in pharmaceutical industry.

PHAR:5875 Perspectives in Biotechnology 1 s.h.
Topics related to careers in biotechnology with an emphasis on preparing graduate students for careers outside of academia; discussions led by a series of guest speakers from leading biotech industries; understanding the societal impact of basic research; participation in round-table discussions; and presentation of student research findings. Requirements: graduate standing and good academic standing in a participating department supported by the Predoctoral Training Program in Biotechnology. Same as BMB:5875, CBE:5875, CEE:5875, CHEM:5875, MICR:5875.

PHAR:5880 Protein Pharmaceuticals 4 s.h.
Understanding the differences between proteins and small molecule therapeutics, protein structure and its characterization, manufacturing processes used for biological products, formulation and drug product development, stability issues, and more.

PHAR:6120 Clinical Pharmaceutical Sciences Research arr.

PHAR:6305 Foundation Literature in Health Services Research arr.
Issues related to pharmacy administration, social and behavioral pharmacy, pharmacy education.

PHAR:6320 Health Services Research arr.

PHAR:6330 Models of Patient Behavior and Choice 3 s.h.
Theoretical models used to describe behavior and choice in pharmaceutical socioeconomic research; models from economics, health services research, health behavior, clinical decision-making.

PHAR:6331 Models of Provider Behavior and Choice 3 s.h.
Theoretical background for study of provider decision-making and behavior; models based on a classic economic approach, models used to study provider behavior.

PHAR:6501 Principles and Mechanisms of Chemical Toxicology 3 s.h.
General principles and basic mechanisms of chemical and pharmaceutical toxicology; drug/toxicant disposition, including biotransformation and bioactivation to electrophiles.

PHAR:6504 Mastering Reproducible Science 1 s.h.
Training in methods for conducting rigorous and reproducible science; features an array of faculty who provide lectures and discussions based on their areas of expertise (i.e., research with animals, synthetic chemistry, high throughput screening, etc.) to provide broad exposure and training in these areas; critical evaluation of literature outside of student's own specific field of study.

PHAR:6515 Perspectives in Drug Discovery 1-2 s.h.
Contemporary research in drug discovery and experimental therapeutics.

PHAR:6700 Advanced Pharmacokinetics and Pharmacodynamics 3 s.h.
Application of pharmacokinetics and pharmacodynamics principles in pharmaceutical research. Prerequisites: PHAR:4146. Requirements: two semesters of calculus and one semester of statistics.

PHAR:6706 Equilibria Processes 3 s.h.
Equilibria pertaining to ionic systems, complexation, partitioning, solubility. Prerequisites: CHEM:2220 or CHEM:2240.

PHAR:6710 Pharmaceutics Graduate Seminar 1-2 s.h.

PHAR:6720 Pharmaceutics Research arr.

PHAR:6820 Drug Discovery and Experimental Therapeutics Research arr.
Participation in a variety of independent and supervised research projects required for doctoral degree in pharmacy.

PHAR:7101 Principles of Experimental Therapeutics 3 s.h.
Introduction to key principles and concepts for research in experimental therapeutics; basic principles related to drug disposition, toxicity, and efficacy.

PHAR:7102 Applied Clinical and Translational Science 3 s.h.
Application of clinical and translational science in a multidisciplinary collaborative environment to develop, conduct, and report research.

PHAR:7331 Analytic Issues in Health Services Research II 3 s.h.
Continuation of HMP:7960; advanced applications, including panel data and qualitative response models. Prerequisites: HMP:7960. Same as HMP:7965.

PHAR:7703 Transport Phenomena 3 s.h.
Diffusion and mass transport phenomena related to pharmaceutical systems.

PHAR:8130 Foundations of Pharmacy Practice I 4 s.h.
Introduction to contemporary pharmacy practice; small-group discussion, application of core concepts through active hands-on learning approaches; for first-year student pharmacists. Requirements: P1 standing.

PHAR:8131 Engagement: Professional Skills and Values 1 s.h.
Opportunity for student engagement in the College of Pharmacy prior to Professionalism Ceremony; development as a responsible partner in learning process by nurturing collaboration, leadership, service, compassion, community, self development, and social enrichment among students, faculty, and staff. Requirements: P1 standing.

PHAR:8132 Continuing Professional Development 1 s.h.
Engagement with profession of pharmacy and community through service and leadership activities, reflection; use of Continuous Professional Development Cycle (CPD) approach to learning. Requirements: P3 standing.

PHAR:8133 Introductory Pharmacy Practice Experience Career Exploration 1 s.h.
Hands-on exposure to various pharmacist career opportunities in four different pharmacy practice patient care settings; settings include practice areas and rotation types required for P4 Advanced Pharmacy Practice Experience (APPE) sites in community pharmacy, hospital pharmacy, ambulatory care/family practice, acute care medicine, and other elective practice settings; work with faculty mentor. Requirements: P1 standing.

PHAR:8134 Foundations of Health Services 3 s.h.
Foundation issues for pharmacist practice related to social, cultural, behavioral, economic, and organization design components of pharmacy care. Requirements: P1 standing.

PHAR:8135 Health Information Retrieval and Informatics 3 s.h.
Introduction and overview of health care information retrieval, organization, and dissemination; retrieval and organization of health information from pharmacy and medical primary and tertiary literature using secondary resources; knowledge and skills to manage, analyze, and legally share health information in electronic health records, pharmacy information systems, and automated systems. Requirements: P1 standing.

PHAR:8136 Foundations of Pharmaceutical Sciences 6 s.h.
Introduction and overview of foundations of pharmaceutical sciences. Requirements: P1 standing.

PHAR:8140 Foundations of Pharmacy Practice II 4 s.h.
Introduction to contemporary pharmacy practice for first-year student pharmacists; classroom methods include small group discussion-based and active hands-on learning approaches where students will apply core concepts.

PHAR:8148 Pharmacokinetics and Dose Optimization 2 s.h.

PHAR:8149 Foundations of Pharmacology and Toxicology 3 s.h.
Principles of pharmacology and toxicology.

PHAR:8150 Foundations of Health, Wellness, and Disease 2 s.h.
Overview of basic processes of good health and practices that promote wellness; emphasis on mechanistic causes of human disease.

PHAR:8151 Clinical Investigation I: Research Question, Study Design, and Methods 3 s.h.
Creation and dissemination of new knowledge related to pharmacy or health care; broadly based scholarly effort with topics ranging from patient case studies, literature reviews, and analysis of pharmacy practice problems or basic research. Requirements: P1 standing.

PHAR:8152 Fundamentals of Compounding 1 s.h.
Introduction to personalized drug delivery systems through the art of compounding. Requirements: P1 standing.

PHAR:8153 Integrated Pharmacotherapy: Dermatology and Sensory 2 s.h.
Key elements of science and practice of pharmacy presented in an integrated manner and focused on particular organ systems or disease states. Requirements: P1 standing.

PHAR:8207 Introductory Pharmacy Practice Experiences Community 3 s.h.
Exposure to the provision of care in a community pharmacy setting; activities focus on those experiences related to the community pharmacy environment, medication distribution, special products and populations, and related professional activities; delivered in set time blocks over winter break and during summer session before or after the P2 year.

PHAR:8209 Introductory Pharmacy Practice Experiences Hospital 3 s.h.
Exposure to the provision of care in a hospital pharmacy setting; activities focus on those experiences related to the hospital pharmacy environment, medication distribution, special products and populations, and related professional activities.

PHAR:8250 Applications of Pharmacy Practice I 2 s.h.
Expands on skills and concepts taught in the foundations of pharmacy practice course series and includes skills relevant to the disease states in the concurrent integrated pharmacotherapy courses; requires application of previously learned knowledge and skills to complex patient cases during Synthesis weeks; taught using a variety of classroom methods including small-group, discussion-based, and active hands-on learning approaches where students will apply core concepts. Requirements: P2 standing.

PHAR:8254 Integrated Pharmacotherapy: Endocrine 3 s.h.
Key elements of the science and practice of pharmacy presented in an integrated manner focused on particular organ systems or disease states.

PHAR:8256 Integrated Pharmacotherapy: Renal, Fluids, and Electrolytes 2 s.h.
Key elements of the science and practice of pharmacy presented in an integrated manner; focus on particular organ systems or disease states.

PHAR:8260 Integrated Pharmacotherapy: Cardiovascular 4 s.h.
Key elements of the science and practice of pharmacy presented in an integrated manner focused on particular organ systems or disease states.

PHAR:8261 Integrated Pharmacotherapy: Neurology and Psychiatry 4 s.h.
Key elements of the science and practice of pharmacy presented in an integrated manner focused on particular organ systems or disease states.

PHAR:8263 Integrated Pharmacotherapy: Infectious Diseases 4 s.h.
Key elements of the science and practice of pharmacy presented in an integrated manner focused on particular organ systems or disease states.

PHAR:8265 Applications of Pharmacy Practice II 2 s.h.
Expands on skills and concepts taught in the foundations of pharmacy practice course series and includes skills relevant to the disease states in the specific integrated pharmacotherapy courses; taught using a variety of classroom methods including small group, discussion-based, and active hands-on learning approaches where students apply core concepts.

PHAR:8275 Advanced Health Services 2 s.h.
Exploration of advanced topics in health service. Requirements: P2 standing.

PHAR:8276 Clinical Investigation II: Advanced Methods and Literature Interpretation 2 s.h.
Builds upon concepts in research methodology and study design introduced in PHAR:8151; advanced study designs with case examples will be discussed; students will learn the comparative strengths and weaknesses of different study designs to answer research questions and will develop evaluation skills necessary to critically interpret the findings of studies and apply results to patient care. Prerequisites: PHAR:8151. Requirements: P2 standing.

PHAR:8301 Introductory Pharmacy Practice Experience Clinical 1 s.h.
This third IPPE clinical is completed as an introduction to the Advanced Pharmacy Practice Experiences (APPE) to which student pharmacists are exposed during their P4 year; the IPPE clinical involves a P3 student observing and participating with a P4 student currently on an APPE rotation.

PHAR:8352 Integrated Pharmacotherapy: Musculoskeletal 4 s.h.
Key elements of the science and practice of pharmacy presented in an integrated manner focused on particular organ systems or disease states. Requirements: P3 standing.

PHAR:8353 Integrated Pharmacotherapy: Genitourinary and Reproductive 2 s.h.
Key elements of the science and practice of pharmacy presented in an integrated manner focused on particular organ systems or disease states. Requirements: P3 standing.

PHAR:8370 Integrated Pharmacotherapy: Respiratory and Allergy 2 s.h.
Key elements of the science and practice of pharmacy presented in an integrated manner focused on particular organ systems or disease states.

PHAR:8371 Integrated Pharmacotherapy: Oncology and Hematology 2 s.h.
Key elements of the science and practice of pharmacy presented in an integrated manner focused on particular organ systems or disease states.

PHAR:8372 Integrated Pharmacotherapy: Gastroenterology and Nutrition 3 s.h.
Key elements of the science and practice of pharmacy presented in an integrated manner focused on particular organ systems or disease states.

PHAR:8374 Applications of Pharmacy Practice III 2 s.h.
Expands on skills and concepts taught in the foundations of pharmacy practice course series and includes skills relevant to the disease states in the concurrent integrated pharmacotherapy courses; requires application of previously learned knowledge and skills to complex patient cases during Synthesis weeks; taught using a variety of classroom methods including small-group, discussion-based, and active hands-on learning approaches where students will apply core concepts.

PHAR:8378 Pharmacy Law and Ethics 2 s.h.
Topics include ethical behavior for pharmacists and student of pharmacy law.

PHAR:8384 Applications of Pharmacy Practice IV 1 s.h.
Expands on skills and concepts taught in the foundations of pharmacy practice course series and includes skills relevant to the disease states in the concurrent integrated pharmacotherapy courses; requires application of previously learned knowledge and skills to complex patient cases during synthesis weeks; taught using a variety of classroom methods including small-group, discussion-based, and active hands-on learning approaches where students will apply core concepts.

PHAR:8501 Introduction to Nuclear Pharmacy 2 s.h.
Nuclear pharmacy as a specialty area of pharmacy practice that involves preparation of radioactive materials for patient administration.

PHAR:8502 Advanced Pharmacopalliation of Pain 2 s.h.
Exploration of symptom management across the trajectory of serious illness through a series of longitudinal patient cases.

PHAR:8503 Advanced Pharmacopalliation of Non-Pain Symptoms 3 s.h.
Terminal extubation, terminal agitation, discontinuing life sustaining therapies, and pharmacokinetic and pharmaceutic issues in advanced illness.

PHAR:8505 Advanced Topics in Infectious Disease, HIV, and Antimicrobial Therapy 2 s.h.
Topics in antimicrobial treatment of infectious diseases beyond those in the required pharmacy curriculum, including topics covered in the infectious disease therapeutics course; lectures, case discussion, class participation, and summary presentations of an uncommon organism or antimicrobial agent.

PHAR:8509 Leaders Read: A Book Club Elective 2 s.h.
Introduction to concepts from *The Five Practices for Exemplary Leaders* by Kouzes and Posner; overview of all five practices with focus on first practice of "Modeling the Way;" values and skills of servant leadership through reading, reflection, and discussion; servant leadership philosophy where the main goal of the leader is to serve, and exploration of why servant leadership is critical; students articulate their own "why" and the importance of service in leadership.

PHAR:8510 Pediatric Elective 1 s.h.
Overview of pediatric developmental differences, disease state medication issues, and clinical decision skills specific to pediatric population. Requirements: P3 standing.

PHAR:8511 Introduction to Specialty Pharmacy 2 s.h.
Introduction to the rapidly growing field of specialty pharmacy; weekly interactive classes; students spend time in a specialty pharmacy environment and specialty clinic with a clinical pharmacy specialist to gain knowledge and understanding of clinical, business, distributive, and managed care aspects of specialty pharmacy. Requirements: P2 or P3 standing.

PHAR:8513 Advanced Literature Analysis and Evaluation 1 s.h.
Expansion of concepts introduced in first professional discovery course; improvement of knowledge and skills in practical evaluation of drug literature; emphasis on applied interpretation and application of study findings to patient care through active student journal club presentations and facilitation by faculty content experts. Prerequisites: PHAR:8276.

PHAR:8514 Clinical Toxicology 2 s.h.
Introduce students to topics in toxicology beyond those in the required pharmacy curriculum. Focus on developing students' basic understanding of drug mechanism of action, pharmacokinetic and pharmacodynamic changes associated with various toxicants, and the management of both pharmacologic and environmental toxicologic emergencies. Requirements: P2 standing.

PHAR:8515 Advanced Cardiotherapeutics 1 s.h.
Provide pharmacy students with a comprehensive understanding of cardiovascular diseases, their management, and the role of pharmacotherapy in optimizing patient outcomes. Students develop a strong foundation in cardiovascular pharmacology to gain the necessary skills to apply their knowledge in a clinical setting. Connect available primary literature evidence to tangible clinical decisions, weighing pros, cons, and potential clinical scenarios in which the clinical choice of therapy may change. Prerequisites: PHAR:8260. Requirements: P2 or P3 standing.

PHAR:8516 Advanced Pharmacopalliation 4 s.h.
Case-based, advanced pharmacotherapy course preparing student pharmacists with attitudes, knowledge, and skills to provide holistic, person-centered care for people with serious illnesses, with an exploration of symptom and medication management across pharmacy practice settings (e.g., community, inpatient, outpatient, transition of care, hospice). Requirements: P3 standing.

PHAR:8517 Fundamentals of Clinical Pharmacy for the Critically Ill 2 s.h.
Explores three core concepts as they relate to acute care clinical pharmacy practice: clinical skills, evidence-based practice, and communication and professionalism. Requirements: admission to the Certificate in Emergency Medicine and Critical Care Pharmacotherapy and P3 standing.

PHAR:8518 Innovating Healthcare: The Pharmacist Entrepreneur 2 s.h.
Introduction of key fundamentals and processes for starting a business or similar enterprise. From ideation to funding, operations, growth, and exit planning; students gain exposure to various real-world opportunities, challenges, and issues faced by entrepreneurs. Requirements: restricted to majors.

PHAR:8519 Pharmacy Calculations for NAPLEX-Readiness 2 s.h.
Overviews the calculations commonly used in pharmacy practice and assessed through the North American Pharmacist Licensure Examination (NAPLEX). Prepares students to apply calculation problem-solving skills to clinical practice; focuses on the pharmaceutical and clinical calculations critical to the safe and effective delivery of medications to the patient. Requirements: P2 or P3 standing.

PHAR:8706 Pharmacy Projects arr.
Basic and applied research problems of pharmaceutical interest.

PHAR:8707 Independent Study: Research arr.
Research projects working with collegiate faculty members.

PHAR:8708 Substances of Misuse 1 s.h.
Emphasis on the most important themes and concepts in the field of substance use and treatment; drugs of misuse including stimulants, opioids, sedative-hypnotics, alcohol, hallucinogens, marijuana, and performance enhancing compounds; drug use prevention and treatment; depiction of substance use in modern culture.

PHAR:8709 Pharmacist Role in Health Coaching and Nutrition 2 s.h.
Exploration of pharmacist role in health coaching and nutrition.

PHAR:8712 Nonprescription Pharmacotherapy and Self-Care 2 s.h.
Introduction to nonprescription medications; development of patient assessment and consultation skills; understanding of pharmacist's role in patient self-care. Requirements: P2 or P3 standing.

PHAR:8714 Independent Study: Academic arr.
Academic projects working with collegiate faculty members.

PHAR:8717 Ambulatory Care Pharmacy 2 s.h.
Additional experience in the practice of clinical pharmacy; focus on key therapeutic areas where ambulatory care clinical pharmacists currently have a significant impact improving patient care, including anticoagulation management, hyperlipidemia management, and diabetes management; opportunity to develop expertise in clinical decision-making, improve problem solving abilities, and continued development in writing and oral presentation skills. Requirements: P3 standing.

PHAR:8718 Special Topics in Acute Care 2 s.h.
Pharmacotherapy for common but varied inpatient medicine topics; review of disorder, therapeutic goals, treatment plans, patient education, monitoring; lecture or case-based classes; anticoagulation, hemostasis, diabetic ketoacidosis, ICU overview, hepatic failure, renal replacement therapies, ACLS, antimicrobial and antifungal selection, septic shock, cardiogenic shock, neurogenic shock and neuro/neurosurgical emergencies, burns, sedation.

PHAR:8721 Leadership and Advocacy arr.
Role of leadership and advocacy in shaping profession; promotes the development of advocacy and leadership skills essential to improve self, profession, and community. Requirements: P1, P2, or P3 standing.

PHAR:8724 Health System Pharmacy Practice Management 2 s.h.
Organizational structure of pharmacy departments in hospitals and health care systems; models for delivery of pharmaceutical care; pharmacy's role in drug policy decision-making; provision of drug information; clinical and distributive pharmacy services; control of pharmacy and pharmacy costs; use of information technology and automation for service delivery; supervisory management; quality improvement. Requirements: P2 or P3 standing.

PHAR:8790 Sustainable Clinical Pharmacy Services: Leadership, Management, and Implementation 1 s.h.
Practical knowledge and understanding of how to implement and sustain clinical pharmacy services in a variety of practice settings; how to identify outcomes to evaluate the success of ongoing services; students explore the perspective of leadership and management as it pertains to clinical pharmacy services.

PHAR:8793 Introduction to Global Health Studies 1 s.h.
Overview of topics pertaining to international health and cultural diversity in relation to pharmacy and global health; preparation for student pharmacists to become health care practitioners who optimize the health of patients and society; inspires students to advance the profession by fostering collaboration, global and public health leadership, professionalism and civic engagement; introduction and discussion of important topics in global health, focusing specifically on care of the underserved in a global context.

PHAR:8794 Emergency Medicine 2 s.h.
Overview and discussion of pathology and pharmacotherapy in emergency medicine.

PHAR:8795 More than Medications: Healthcare for the Whole Patient 2 s.h.
Explore the principles and practice of providing whole-person healthcare. Whole-person care is the integration of a variety of resources to support a patient's mind, body, and spirit in their healthcare journey. Additional topics to be covered include interprofessional care teams, palliative care as a public health need, communication strategies, and self-care.

PHAR:8796 Introduction to Travel Medicine 2 s.h.
Overview of services provided to travelers to prevent and management conditions that may arise prior to, during, and after international travel; students learn about topics pertaining to each of these areas.

PHAR:8797 Well-Being and Ethics in Healthcare 3 s.h.
Explore the relationship between the ethical provision of healthcare and the well-being of people living with serious illness and their care team, including healthcare providers, caregivers, and family; prepares students to identify and approach potential challenges and threats to well-being they may face in their personal or professional life. Topics explored via discussion, reflection, and examining multimedia sources include ethics and laws pertaining to living, receiving medical care, and dying; suffering, dignity, and grieving; cultural and spiritual contexts of illness and death; health equity in serious illness care; moral distress; and compassion fatigue. Requirements: P2 or P3 standing.

PHAR:8798 Continuing Professional Development in Palliative Care 1 s.h.
Self-directed learning and development in palliative care; creation and implementation of a professional development plan including activities in service, scholarship and education, leadership and advocacy, and self-care and personal resilience.

PHAR:8799 Active Residency Preparation 2 s.h.
Students develop the best understanding of what a residency is, what programs exist, the usual qualifications for placement, and the necessary pathway and components of residency attainment; hands-on experience with preparation process; for pharmacy students interested in pursuing residency training following graduation. Requirements: P3 standing.

PHAR:9401 Ambulatory Care Rotation 6 s.h.
Clinical experience in providing pharmaceutical care in outpatient clinic settings. Requirements: P4 standing.

PHAR:9404 Community Clinical Rotation 6 s.h.
Clinical experience in the community setting; emphasis on delivery of pharmaceutical care. Requirements: P4 standing.

PHAR:9410 Hospital Pharmacy Rotation 6 s.h.
Instruction and practical experience in various components of hospital pharmacy; emphasis on hospital organization, inpatient and outpatient services, IV admixtures, unit dose, and clinical services. Requirements: P4 standing.

PHAR:9413 Acute Care Medicine Rotation 6 s.h.
Clinical experience applying therapeutic skills for the pharmacotherapeutic management of patients on general medicine or specialty inpatient areas. Requirements: P4 standing.

PHAR:9435 Administrative Bye Rotation 6 s.h.

PHAR:9450 Elective: Patient Care Rotation 6 s.h.
Elective pharmacy practice experiences providing direct patient-centered care in a variety of settings aimed at personalizing student educational interests and career goals. Requirements: P4 standing.

PHAR:9451 Elective: Non-Patient Care Rotation 6 s.h.
Elective pharmacy practice experiences in unique nonpatient-facing practice settings aimed at personalizing student educational interests and career goals. Requirements: P4 standing.

Doctor of Pharmacy, PharmD

Requirements

The Doctor of Pharmacy (PharmD) program provides professional education in a number of areas, including pharmaceutical technology, biopharmaceutics, medicinal chemistry and natural products, pharmaceutical socioeconomics, pharmacotherapy, patient care, clinical and hospital pharmacy, and aspects of biotechnology. Graduates of the program are qualified to take examinations required for licensure as a pharmacist.

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Prerequisite Coursework

The program is preceded by at least two years of pre-pharmacy study in the College of Liberal Arts and Sciences at the University of Iowa or an accredited community or liberal arts college in the United States or Canada. During pre-pharmacy study, students complete the prerequisites for admission to the PharmD program. See Admission [p. 2063] in this section of the catalog for a list of prerequisite coursework.

Professional Curriculum

The PharmD degree requires four years of full-time study in the following coursework, including at least 10 s.h. of professional electives. The College of Pharmacy provides students with high-quality professional practice experiences. Faculty and adjunct faculty serve as preceptors, providing introductory and advanced practice experience at institutions and pharmacies in Iowa, nationwide, and around the world.

Students must meet progression requirements in accordance with Doctor of Pharmacy policies. See the Student Handbook on the PharmD Student Resources page of the College of Pharmacy website.

First Year, Fall

Course #	Title	Hours
PHAR:8130	Foundations of Pharmacy Practice I	4
PHAR:8131	Engagement: Professional Skills and Values	1
PHAR:8133	Introductory Pharmacy Practice Experience Career Exploration (fall or spring)	1
PHAR:8134	Foundations of Health Services	3
PHAR:8135	Health Information Retrieval and Informatics	3
PHAR:8136	Foundations of Pharmaceutical Sciences	6
PHAR:8152	Fundamentals of Compounding	1

First Year, Spring

Course #	Title	Hours
PHAR:8133	Introductory Pharmacy Practice Experience Career Exploration (fall or spring)	1
PHAR:8140	Foundations of Pharmacy Practice II	4
PHAR:8148	Pharmacokinetics and Dose Optimization	2
PHAR:8149	Foundations of Pharmacology and Toxicology	3
PHAR:8150	Foundations of Health, Wellness, and Disease	2
PHAR:8151	Clinical Investigation I: Research Question, Study Design, and Methods	3
PHAR:8153	Integrated Pharmacotherapy: Dermatology and Sensory	2

Second Year, Fall

Course #	Title	Hours
PHAR:8207	Introductory Pharmacy Practice Experiences Community (may be taken in a different semester)	3
PHAR:8209	Introductory Pharmacy Practice Experiences Hospital (may be taken in different semester)	3
PHAR:8250	Applications of Pharmacy Practice I	2
PHAR:8254	Integrated Pharmacotherapy: Endocrine	3
PHAR:8256	Integrated Pharmacotherapy: Renal, Fluids, and Electrolytes	2
PHAR:8260	Integrated Pharmacotherapy: Cardiovascular	4
PHAR:8276	Clinical Investigation II: Advanced Methods and Literature Interpretation	2

Second Year, Spring

Course #	Title	Hours
PHAR:8207	Introductory Pharmacy Practice Experiences Community (may be taken in a different semester)	3
PHAR:8209	Introductory Pharmacy Practice Experiences Hospital (may be taken in a different semester)	3
PHAR:8261	Integrated Pharmacotherapy: Neurology and Psychiatry	4
PHAR:8263	Integrated Pharmacotherapy: Infectious Diseases	4

PHAR:8265	Applications of Pharmacy Practice II	2
PHAR:8275	Advanced Health Services	2

Third Year, Fall

Course #	Title	Hours
PHAR:8301	Introductory Pharmacy Practice Experience Clinical	1
PHAR:8352	Integrated Pharmacotherapy: Musculoskeletal	4
PHAR:8370	Integrated Pharmacotherapy: Respiratory and Allergy	2
PHAR:8372	Integrated Pharmacotherapy: Gastroenterology and Nutrition	3
PHAR:8374	Applications of Pharmacy Practice III	2

Third Year, Spring

In addition to the required courses outlined in the following list, students must enroll in a minimum of 4 s.h. of professional elective courses or an early advanced pharmacy practice experience for a minimum of 12 s.h.

Course #	Title	Hours
PHAR:8132	Continuing Professional Development	1
PHAR:8353	Integrated Pharmacotherapy: Genitourinary and Reproductive	2
PHAR:8371	Integrated Pharmacotherapy: Oncology and Hematology	2
PHAR:8378	Pharmacy Law and Ethics	2
PHAR:8384	Applications of Pharmacy Practice IV	1

Professional Electives

PharmD students must complete at least 10 s.h. of didactic professional electives in College of Pharmacy courses (prefix PHAR) numbered 8501–8799 before progressing to advanced pharmacy practice experiences. See Courses [p. 2053] in this section of the catalog.

Fourth Year

During the fourth year, students must complete eight advanced pharmacy practice experiences. All students must complete the first four rotations in the following list (24 s.h.); the remaining advanced pharmacy practice experiences may be selected by each student from a variety of patient-care and non-patient care opportunities.

Course #	Title	Hours
All of these:		
PHAR:9401	Ambulatory Care Rotation	6
PHAR:9404	Community Clinical Rotation	6
PHAR:9410	Hospital Pharmacy Rotation	6
PHAR:9413	Acute Care Medicine Rotation	6
Four additional rotations from these categories:		
PHAR:9450	Elective: Patient Care Rotation	6
PHAR:9451	Elective: Non-Patient Care Rotation (taken up to two times)	6

Combined Programs

PharmD/MPH

The College of Pharmacy and the College of Public Health offer the combined Doctor of Pharmacy/Master of Public Health program. The combined program requires 42 s.h. of graduate credit in addition to the requirements of the PharmD degree. Students who complete the program are granted both degrees.

The PharmD/MPH program helps students develop expertise in public health related to pharmacotherapy, health promotion, disease prevention, and medication safety. Its graduates may work in areas of interest common to pharmacy and public health, such as the spread and treatment of disease, community health, and immunology; bioterrorism, terrorism, and preparedness; genetics; insurance; managed care; family and juvenile health; and protection of special populations. Employment opportunities are available in hospitals and clinics and with health care providers; private practice; insurance and managed care organizations; local, county, state, and federal government; public health governmental agencies; and colleges and universities.

Separate admission to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program.

See the Master of Public Health, MPH [p. 2092] (College of Public Health) in the catalog to learn about curriculum and admission requirements.

PharmD/MS in Informatics (Health Informatics Subprogram)

The College of Pharmacy and the Graduate College offer the combined Doctor of Pharmacy/Master of Science in informatics with a health informatics subprogram. The combined degree program requires the completion of 34 s.h. beyond the bachelor's degree. Students who complete the program are granted both degrees.

The PharmD/MS program assists students in developing special expertise in information technology, including management of electronic health records, health information exchange standards, electronic prescribing, medication management, decision support, as well as other competencies. Graduates will be prepared for employment in industry or academic institutions with skills to address pharmacotherapy issues as well as information technology management.

Separate application to each degree program is required. Applicants must be admitted to both programs before they may be admitted to the combined degree program. It is recommended that students apply to the Graduate College for admission to the MS program before entering the spring semester of their first year in the pharmacy program.

Health informatics coursework must be taken following the first professional pharmacy year. Therefore, PharmD graduation will be delayed by one year. For information about

the Master of Science degree, see the MS in informatics [p. 1753] (Graduate College) in the catalog.

Admission

Individuals apply to the PharmD program using PharmCAS, the American Association of Colleges of Pharmacy application service. See Doctor of Pharmacy on the College of Pharmacy website for more information.

By selecting the University of Iowa College of Pharmacy, students choose to be part of the legacy of leaders for which the College of Pharmacy has become well known. Iowa pharmacy shapes pharmacy practice nationally and internationally with evidence-based practice models and collaborative pharmacy care innovations.

As aspiring Doctor of Pharmacy students, the first two years are spent completing general education and prerequisite courses to prepare candidates for the PharmD degree. Prior to completing the required courses, students apply to the PharmD program.

Applicants must complete the college-level work listed in the following section, "Prerequisites for Admission." They must also submit official transcripts, two letters of recommendation, and a personal statement. Applicants considered for admission must have a personal interview; the college contacts applicants to arrange interview appointments.

Fulfillment of the admission requirements does not ensure admission to the College of Pharmacy. The admissions committee considers applicants who meet these requirements and selects individuals who, in their judgment, are the best qualified for the study and practice of pharmacy.

Applicants who are accepted for admission are required to submit to a criminal background check and pay an admission acceptance fee. The fee is applied to tuition for the student's first semester of enrollment in the college. The deposit is not refunded to applicants who do not enroll in the College of Pharmacy.

Entering health sciences students are required to have an annual tuberculin skin test (TST) and proof of immunization against mumps, measles, and rubella (two MMRs), tetanus, diphtheria, and varicella before classes begin. The usual regimen of three doses of the Hepatitis B vaccine and a Hepatitis B titer must be completed by the second semester of the first year. All students are required to have hospitalization and health insurance.

Prerequisites for Admission

Applicants to the PharmD program must have completed the following college-level work with a C-minus or higher. In addition to specific courses listed below, students complete a total of 16 s.h. of general education electives; 6 s.h. of those must be within the social sciences. Courses in moral reasoning or ethics, communications, computer science, business, behavioral, humanities, and social sciences are accepted for the Liberal Arts/UI GE CLAS Core area. Courses in physical education skills, applied music, and studio art are not accepted for this area.

Course #	Title	Hours
Rhetoric		
RHET:1030	Rhetoric: Writing and Communication	4-5
Or 6 s.h. of transfer credit in English composition and rhetoric and 3 s.h. in speech		
Biochemistry		
BMB:3110	Biochemistry	3
General Biology		
BIOL:1411	Foundations of Biology	4
BIOL:1412	Diversity of Form and Function	4
General Chemistry		
CHEM:1110	Principles of Chemistry I	4
CHEM:1120	Principles of Chemistry II	4
Human Anatomy		
ACB:3110	Principles of Human Anatomy	3
Human Physiology		
HHP:2400	Fundamentals of Human Physiology	3
Mathematics		
MATH:1460	Calculus for the Biological Sciences	4
Or 3-4 s.h. of a satisfactory differential and integral calculus course		
Microbiology		
One of these:		
MICR:2157	General Microbiology	3
MICR:3164	Microbiology and Human Health	4
Organic Chemistry		
CHEM:2210	Organic Chemistry I	3
CHEM:2220	Organic Chemistry II	3
Physics		
PHYS:1400	Basic Physics	3-4
Or one year of high school physics or one semester of college-level physics with or without a lab		
Statistics		
3 s.h. of statistics equivalent to STAT:1020 or higher		
Liberal Arts/UI GE CLAS Core Electives		
At least 16 s.h., 6 s.h. of which must be in the social sciences		

Financial Support

Each year the College of Pharmacy awards scholarships to student pharmacists through a variety of awards. The college typically awards over $1 million to help cover the cost of education. Around half of the student body receives a scholarship.

For more information, visit Scholarship Opportunities on the College of Pharmacy website.

Career Advancement

College of Pharmacy graduates enjoy a high placement rate in jobs, pharmacy residencies, or additional educational programs. Graduates commonly choose to practice in a community pharmacy or a hospital setting, but many also hold positions in government, home health care, consulting, clinical pharmacy, managed care facilities, higher education, the pharmaceutical industry, private businesses, and more.

Emergency Medicine and Critical Care Pharmacotherapy, Professional Certificate

Requirements

The professional Certificate in Emergency Medicine and Critical Care Pharmacotherapy requires at least 13 s.h. of credit.

The certificate provides an intensive, structured learning experience for students with an interest in careers in emergency medicine, toxicology, or critical care. Students who complete the certificate will possess the knowledge, skills, and attitudes to serve patients with a wide spectrum of disease states that present to the emergency department and intensive care unit. The program meets the educational needs of pharmacy students who are looking to advance their understanding of emergency medicine and critical care pharmacotherapy, and it provides the advanced knowledge necessary for postgraduate training in emergency medicine, toxicology, and critical care.

The Certificate in Emergency Medicine and Critical Care Pharmacotherapy requires the following coursework. When students enroll in PHAR:9450 Elective: Patient Care Rotation, they may focus on emergency medicine, critical care (cardiovascular, medical, surgical, or burn), or toxicology (poison center or toxicology consult service).

Course #	Title	Hours
All of these:		
PHAR:8517	Fundamentals of Clinical Pharmacy for the Critically Ill	2
PHAR:8718	Special Topics in Acute Care	2
PHAR:8794	Emergency Medicine	2
PHAR:9450	Elective: Patient Care Rotation	6
At least one of these:		
PHAR:8505	Advanced Topics in Infectious Disease, HIV, and Antimicrobial Therapy	2
PHAR:8513	Advanced Literature Analysis and Evaluation	1
PHAR:8514	Clinical Toxicology	2
EPID:5500	Introduction to Clinical Epidemiology	3

Admission

Students may apply to the certificate program by Feb. 20 of the second professional year (P2) for an acceptance notification prior to registering for fall of the third professional year (P3).

Applicants must be in good academic standing as defined in the student handbook and have a College of Pharmacy cumulative grade-point average of at least 3.00 to apply.

Palliative Care, Professional Certificate

Requirements

Admission to the professional Certificate in Palliative Care has been suspended; the program is not accepting students at this time.

The certificate program prepares students to practice as palliative care generalists or champions upon graduation from the Doctor of Pharmacy (PharmD) program. Students who complete the certificate will possess the knowledge, skills, and attitudes to serve patients living with serious illnesses across the trajectory of life in a variety of general pharmacy practice environments and non-palliative pharmacy specialties, including critical care, emergency medicine, geriatrics, and cardiology. The program addresses the educational needs of pharmacy students who may provide pharmaceutical care in a community pharmacy setting, a long-term care pharmacy, oncology, cardiology, infectious disease, critical care, transplant, and emergency medicine. The certificate also prepares graduates to pursue advanced postgraduate clinical training in palliative care and hospice, including palliative care residencies and fellowships.

Admission

Students may apply to the certificate program in the fall semester of the second professional year (P2). Accepted students start the longitudinal course, PHAR:8798 Continuing Professional Development in Palliative Care, in the spring semester of the second professional year (P2).

Applicants must be in good academic standing as defined in the Student Handbook and have a College of Pharmacy cumulative grade-point average of at least 2.70 to apply. The Certificate in Palliative Care admission committee reviews all applications holistically.

Admitted students demonstrate preparedness to engage in a challenging certificate curriculum without compromising their success in the PharmD program and an understanding of what palliative care is and of the program’s requirements.

Pharmacy, MS

The graduate program in pharmacy at the University of Iowa is primarily a PhD program with admission preference given to applicants with a PhD degree objective. Admission to the MS in pharmacy is granted under special circumstances only, which may include international government funding requirement, a Fulbright scholarship or another scholarship source that specifies a master's degree, or a person working in the industry seeking a specific set of knowledge or skills for the purpose of enhancing their value to that employer. A master's degree is not required to be eligible to apply to the PhD program.

Learning Outcomes

Graduates will exhibit the ability to:

- demonstrate both subject matter expertise and the ability to critically evaluate the current state of knowledge in that area of expertise;
- understand the fundamental concepts and applications of current methodology and techniques for the conduct and evaluation of research in their area of expertise;
- demonstrate the ability to conduct research under the direction of a faculty member and interact successfully with other members of a research team;
- effectively communicate research findings in both written and oral formats;
- know and apply the highest ethical standards in research and in the communication of the results of that research; and
- be prepared for career options in academia, industry, government, or other relevant fields.

Requirements

The Master of Science in pharmacy requires at least 30 s.h. of credit, which may include 9 s.h. of research. At least 24 s.h. must be completed at the University of Iowa after admission to a graduate program. Requirements for the master's degree include a final examination which, at the discretion of department, may be written or oral or both. The final examination will not duplicate course examinations. Various forms of extramural registration may qualify toward the 24 s.h. residence requirement. A master's degree can typically be earned in 3–4 semesters.

The Master of Science in pharmacy requires mastery of methodologies and practices of research and scholarship of the discipline. MS degrees may be designed to provide advanced study and accomplishment that serves a variety of career and other purposes. A thesis describing original scholarship or research may be required. No more than 9 s.h. of credit for thesis research and writing is counted toward the 30 s.h. requirement.

Three subprograms are available: drug discovery and experimental therapeutics, health services research, and pharmaceutics.

The drug discovery and experimental therapeutics curriculum provides a strong foundational base of knowledge along with options for a tailored experience for students. The thesis requirement provides an opportunity for engagement in cutting-edge scholarship, ongoing mentorship, and collaborative research interactions with multiple labs.

The health services research subprogram provides an innovative approach to studying the challenges facing the health care system and provides evidence to support policy-based solutions. The subprogram combines ideas across several distinct scientific paradigms (sociology, economics, psychology, business, and anthropology) to better understand the factors leading to decisions in health care and the consequences of these decisions. Students gain broad knowledge of health and pharmaceutical care, informed by theories from economics and social psychology. The subprogram teaches intellectual and practical skills to investigate research questions dealing with current issues.

The pharmaceutics subprogram is a multidisciplinary science that examines the development, production, and characterization of dosage forms, as well as the disposition and action of drugs in the body. As pharmaceutical scientists have been engaged in the development of novel biomaterials for sophisticated drug delivery systems, they also have expanded into research with applications in the development of medical devices and tissue engineering.

For more information about graduate study, visit the College of Pharmacy website.

Admission

The graduate program in pharmacy at the University of Iowa is mainly a PhD program with admission preference going to applicants with a PhD degree objective. Admission to the MS in pharmacy will be granted under special circumstances only, which may include the following: international government funding requirement, a Fulbright scholarship or some other scholarship source that specifies a master's degree, or a person working in the industry seeking a specific set of knowledge or skills for the purpose of enhancing their value to that employer. A master's degree is not required to be eligible to apply to the PhD program.

Applicants must meet the admission requirements of the Graduate College. They must:

- hold a bachelor's degree from a U.S. institution or an equivalent degree from another country as determined by University of Iowa Admissions;
- have a grade-point average of at least 3.00; and
- submit a Graduate Record Examination (GRE) General Test score.

Visit Graduate Degree: How to Apply on the College of Pharmacy website for a list of program requirements and application deadlines. Academic requirements for maintaining graduate registration are determined by the Graduate College and by the individual divisions in the College of Pharmacy.

Career Advancement

Advanced study in the pharmaceutical sciences prepares students for research, teaching, and administrative positions in the pharmaceutical industry, in colleges and universities, in government agencies, and in health-related institutions and organizations.

Pharmacy, PhD

The College of Pharmacy offers a Doctor of Philosophy degree in pharmacy with subprograms in three areas: drug discovery and experimental therapeutics, health services research, and pharmaceutics.

The drug discovery and experimental therapeutics subprogram offers a unique educational opportunity for students interested in drug discovery and the development of novel therapeutics. The changing landscape of drug discovery has created a need for scientists with interdisciplinary training to navigate the complex landscape of medicinal chemistry, biotherapeutics, pharmacogenetics/genomics, and basic pharmacology/toxicology.

The health services research subprogram provides an innovative approach to studying the challenges facing the health care system and provides evidence to support policy-based solutions. It combines ideas across several distinct scientific paradigms (sociology, economics, psychology, business, and anthropology) to better understand the factors leading to decisions in health care and the consequences of these decisions. Students gain a broad knowledge of health and pharmaceutical care, informed by theories from economics and social psychology. The subprogram teaches intellectual and practical skills to investigate research questions dealing with current issues.

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For more information about graduate study, visit the College of Pharmacy website.

Learning Outcomes

Graduates will demonstrate the ability to:

- identify important research problems through the development of subject matter expertise and critical evaluation of the current state of knowledge in that area of expertise;
- develop testable hypotheses and/or research questions and then utilize sound methodology to design research approaches to address them;
- conduct, analyze, and interpret independent original research that contributes new knowledge to the field of study;
- effectively communicate research results to a range of audiences in both written and oral formats;
- conduct all aspects of research and communication of results with the highest ethical standards; and
- be prepared for a diversity of career options in academia, industry, government, or other relevant fields.

Drug Discovery and Experimental Therapeutics

The Doctor of Philosophy in pharmacy with a subprogram in drug discovery and experimental therapeutics requires 72 s.h. of credit. The degree requires 25 s.h. of didactic coursework, including 15 s.h. of required courses and a minimum of 10 s.h. of interdisciplinary electives. The remaining hours may be fulfilled by research, seminars, additional electives, and the doctoral dissertation. The typical time to complete the degree is five years. Students must maintain a UI cumulative grade-point average of at least 3.00.

The curriculum provides a strong foundational base of knowledge along with options for a tailored experience for students. The program prepares scientists capable of bridging the complex landscape of medicinal chemistry, biotherapeutics, pharmacogenetics/genomics, and basic pharmacology/toxicology.

The Doctor of Philosophy in pharmacy with a subprogram in drug discovery and experimental therapeutics requires the following work.

Required Courses

Course #	Title	Hours
All of these to total 15 s.h.:		
PHAR:5510	Pharmaceutical Sciences and Experimental Therapeutics Seminar	1-2
PHAR:5545	Current Medicinal Chemistry	3
PHAR:6515	Perspectives in Drug Discovery	2
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	arr.
PHAR:7101	Principles of Experimental Therapeutics	3
BIOS:4120	Introduction to Biostatistics	3

Interdisciplinary Electives

Students select a minimum of 10 s.h. of electives chosen from the following courses. Additional electives can be selected from biochemistry, chemistry, genetics, neuroscience, and pharmacology at the discretion of the advisor.

Course #	Title	Hours
PHAR:5512	Drug Discovery and Mechanisms	3
PHAR:5537	Enzymatic Basis of Drug Metabolism	3
PHAR:5541	Total Synthesis of Biologically Active Natural Products	3
PHAR:5549	Analytical Biochemistry	3
PHAR:6501	Principles and Mechanisms of Chemical Toxicology	3
PHAR:6504	Mastering Reproducible Science	1
PHAR:6700	Advanced Pharmacokinetics and Pharmacodynamics	3
PHAR:7101	Principles of Experimental Therapeutics	3
PHAR:7102	Applied Clinical and Translational Science	3
BIOL:5512	Readings in Genetics	2
BIOS:5120/ IGPI:5120/ STAT:5610	Regression Modeling and ANOVA in the Health Sciences	3

CHEM:5321	Spectroscopic Methods in Organic Chemistry	3-4
CHEM:5328	Mechanisms of Organic Reactions	3

Comprehensive Examination

Students take the comprehensive examination between the beginning and end of their third year of graduate study.

Dissertation

The dissertation is defended in a final oral examination.

Health Services Research

The Doctor of Philosophy in pharmacy with a subprogram in health services research requires 74 s.h. of credit. Students must maintain a UI cumulative grade-point average of at least 3.00.

In the first two years in the program, students participate in ongoing research and complete coursework. In the third year, emphasis is placed on developing a dissertation topic. The following two years are spent on research and writing the dissertation.

The Doctor of Philosophy in pharmacy with a subprogram in health services research requires the following work.

Core Competencies

Students complete the following coursework before they take the core competency qualifying exam.

Health Services Research

Course #	Title	Hours
All of these:		
PHAR:6320	Health Services Research	arr.
PHAR:6330	Models of Patient Behavior and Choice	3
PHAR:6331	Models of Provider Behavior and Choice	3
HMP:4000	Introduction to the U.S. Health Care System (or equivalent as approved by advisor)	3

Research Methods and Statistics

Course #	Title	Hours
All of these:		
PHAR:5350	Introduction to Research Methods	3
PHAR:5360	Applied Research Methods: Primary Data	2
PHAR:5365	Applied Research Methods: Secondary Data	2
BIOS:4120	Introduction to Biostatistics	3
BIOS:5120/ IGPI:5120/ STAT:5610	Regression Modeling and ANOVA in the Health Sciences	3
Additional statistics coursework (biostatistics, economics, education, psychology, mathematics, or sociobiology)		6

Specialty

The specialty area requires at least 24 s.h. of coursework. With the guidance of their faculty advisor, students develop a plan of study that encompasses an area of expertise or specialty.

Additional Requirements

Students are expected to participate in specific aspects of ongoing research. These research activities are often paid graduate research assistantships; course credit is not available for paid assistantships. By the end of their third year, students are expected to present the results from one completed research project at a regional or national meeting.

Course #	Title	Hours
PHAR:5310	Health Services Research Seminar (students enroll in the seminar for 1 s.h. each semester they are on campus, excluding summer session)	1
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I (taken in second year)	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II (taken in second year)	0

Pharmaceutics

The Doctor of Philosophy in pharmacy with a subprogram in pharmaceutics requires 72 s.h. of credit. The degree requires 30 s.h. in didactic coursework, including a minimum of 15 s.h. in divisional courses and 15 s.h. of elective coursework. The remaining 42 s.h. can be fulfilled with research (PHAR:6720 Pharmaceutics Research) or electives. Students must maintain a UI cumulative grade-point average of at least 3.00.

Entering students who do not have basic knowledge in all subjects follow a plan of study in order to complete divisional requirements during their first and second years.

The Doctor of Philosophy in pharmacy with a subprogram in pharmaceutics requires the following work.

Divisional Courses

Course #	Title	Hours
15 s.h. from these:		
PHAR:4146	Drug Disposition and Pharmacokinetics	2
PHAR:4736	Properties of Dosage Forms I (or equivalent)	3
PHAR:4800	Chemical and Biophysical Properties of Drugs	2
PHAR:5720	Pharmaceutical Materials and Analysis	3
PHAR:5745	Advanced Biopharmaceutics and Drug Delivery	arr.
PHAR:5880	Protein Pharmaceuticals	4
PHAR:6700	Advanced Pharmacokinetics and Pharmacodynamics	3
PHAR:6706	Equilibria Processes	3

PHAR:6710	Pharmaceutics Graduate Seminar (enrollment required each semester until completion of comprehensive exam)	1
BMED:7270	Scholarly Integrity/ Responsible Conduct of Research I (taken in second year)	0
BMED:7271	Scholarly Integrity/ Responsible Conduct of Research II (taken in second year)	0

Elective Courses

Students choose appropriate electives for individual research objectives.

Comprehensive Examination

Students take the comprehensive examination between the beginning and end of their third year of graduate study.

Dissertation

The dissertation is defended in a final oral examination.

Admission

Applicants must meet the admission requirements of the Graduate College. They must:

- hold a bachelor's degree from a U.S. institution or an equivalent degree from another country as determined by University of Iowa Admissions; and
- have a minimum grade-point average of at least 3.00.

Students may submit a Graduate Record Examination (GRE) General Test score, but that is optional.

Visit Graduate Degree: How to Apply on the College of Pharmacy website for a list of program requirements and application deadlines. Academic requirements for maintaining graduate registration are determined by the Graduate College and by the individual divisions in the College of Pharmacy.

Career Advancement

Advanced study in the pharmaceutical sciences prepares students for research, teaching, and administrative positions in the pharmaceutical industry, in colleges and universities, in government agencies, and in health-related institutions and organizations.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Pharmacy, PhD

- Drug Discovery and Experimental Therapeutics Subprogram [p. 2069]
- Health Services Research Subprogram [p. 2070]
- Pharmaceutics Subprogram [p. 2071]

Drug Discovery and Experimental Therapeutics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
PHAR:5510	Pharmaceutical Sciences and Experimental Therapeutics Seminar	1 - 2
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	3
	Hours	**7-8**
Spring		
PHAR:5545	Current Medicinal Chemistry	3
PHAR:6515	Perspectives in Drug Discovery	2
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	3
	Hours	**8**
Second Year		
Fall		
PHAR:7101	Principles of Experimental Therapeutics	3
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	3
Interdisciplinary Elective [b]		2
	Hours	**8**
Spring		
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	6
Interdisciplinary Elective [b]		3
	Hours	**9**
Third Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [c]		
	Hours	**0**
Fall		
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	3
Interdisciplinary Elective [b]		3
	Hours	**6**
Spring		
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	3
Interdisciplinary Elective [b]		2
	Hours	**5**
Fourth Year		
Fall		
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	6

Elective course [b]		3
	Hours	**9**
Spring		
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	6
	Hours	**6**
Fifth Year		
Fall		
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	7
	Hours	**7**
Spring		
PHAR:6820	Drug Discovery and Experimental Therapeutics Research	7
Exam: Doctoral Final Exam [d]		
	Hours	**7**
	Total Hours	**72-73**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Work with faculty advisor to determine appropriate graduate coursework and sequence; see General Catalog and department website for specifics.
c Faculty advisor to determine when this exam will be, but typically by the end of third year.
d Dissertation defense.

Health Services Research Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
74 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
HMP:4000	Introduction to the U.S. Health Care System [b, c]	3
PHAR:5310	Health Services Research Seminar [d]	1
PHAR:5350	Introduction to Research Methods [c, e]	3
PHAR:6320	Health Services Research	2
	Hours	**12**
Spring		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
PHAR:5310	Health Services Research Seminar [d]	1
PHAR:5360	Applied Research Methods: Primary Data	2
PHAR:5365	Applied Research Methods: Secondary Data	2
PHAR:6320	Health Services Research	1
Research Methods and Statistics Elective [c, f, g]		3
	Hours	**12**
Second Year		
Fall		
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
PHAR:5310	Health Services Research Seminar [d]	1
PHAR:6320	Health Services Research	2
PHAR:6330	Models of Patient Behavior and Choice [c, e]	3
Research Methods and Statistics Elective [c, f, g]		3
Specialty Area Elective [g]		3
	Hours	**12**
Spring		
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
PHAR:5310	Health Services Research Seminar [d]	1
PHAR:6320	Health Services Research	2
PHAR:6331	Models of Provider Behavior and Choice [c, e]	3
Specialty Area Elective [g]		3
Specialty Area Elective [g]		3
	Hours	**12**
Third Year		
Any Semester		
Specialty Qualifying Exam [h]		
	Hours	**0**
Fall		
PHAR:5310	Health Services Research Seminar [d]	1
PHAR:6320	Health Services Research	1
Specialty Area Elective [g]		3
Specialty Area Elective [g]		3
Specialty Area Elective [g]		3
	Hours	**11**
Spring		
PHAR:5310	Health Services Research Seminar [d]	1
PHAR:6320	Health Services Research	2
Specialty Area Elective [g]		3
Specialty Area Elective [g]		3
	Hours	**9**
Fourth Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [i]		
	Hours	**0**
Fall		
PHAR:5310	Health Services Research Seminar [d]	1
PHAR:6320	Health Services Research	1
	Hours	**2**
Spring		
PHAR:5310	Health Services Research Seminar [d]	1
PHAR:6320	Health Services Research	1
	Hours	**2**

Fifth Year		
Fall		
PHAR:5310	Health Services Research Seminar [d]	1-2
PHAR:6320	Health Services Research	1
	Hours	**2-3**
Spring		
PHAR:5310	Health Services Research Seminar [d]	1-2
PHAR:6320	Health Services Research	1
Exam: Doctoral Final Exam [j]		
	Hours	**2-3**
	Total Hours	**76-78**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b May be waived for students who have had equivalent coursework.
c Must complete before taking the Core Competency Qualifying Exam.
d Registration required every semester; optional after fourth year.
e Offered every other year; work with faculty advisor to select appropriate first year classes if entering the program on a year when not taught.
f May be taken in biostatistics, economics, education, psychology, mathematics, or sociobiology.
g Work with faculty advisor to determine appropriate graduate coursework and sequence; see General Catalog and department website for specifics.
h Faculty advisor to determine when this exam will be, but typically by the end of third year.
i A required Core Competency Qualifying Exam; work with faculty advisor to determine when this exam may be completed (typically during fourth year).
j Dissertation defense.

Pharmaceutics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
The degree requires 30 s.h. in didactic coursework, including a minimum of 15 s.h. in divisional courses and 15 s.h. of pharmacy or elective coursework; the remaining 42 s.h. can be fulfilled with research or electives.		
	Hours	**0**
First Year		
Fall		
MATH:3600 or MATH:2560	Introduction to Ordinary Differential Equations [b] or Engineering Differential Equations	3
CHEM:4431 or CHEM:4430	Chemical Thermodynamics [b] or Principles of Physical Chemistry	3
PHAR:4736	Properties of Dosage Forms I [b]	3
PHAR:6710	Pharmaceutics Graduate Seminar [c]	1
Elective course [d]		2
	Hours	**12**
Spring		
PHAR:4800	Chemical and Biophysical Properties of Drugs	2
PHAR:6706	Equilibria Processes	3
PHAR:6710	Pharmaceutics Graduate Seminar [c]	1
Elective course [d]		3
Elective course [d]		3
	Hours	**12**
Second Year		
Fall		
PHAR:4146	Drug Disposition and Pharmacokinetics	2
BMED:7270	Scholarly Integrity/Responsible Conduct of Research I	0
PHAR:6720	Pharmaceutics Research	2
PHAR:6710	Pharmaceutics Graduate Seminar [c]	1
Elective course [d]		3
Elective course [d]		3
	Hours	**11**
Spring		
PHAR:5745	Advanced Biopharmaceutics and Drug Delivery	3
PHAR:6700	Advanced Pharmacokinetics and Pharmacodynamics	3
BMED:7271	Scholarly Integrity/Responsible Conduct of Research II	0
PHAR:6720	Pharmaceutics Research	2
PHAR:6710	Pharmaceutics Graduate Seminar [c]	1
Elective course [d]		2
	Hours	**11**
Third Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [e]		
	Hours	**0**
Fall		
Elective course [d]		3
Elective course [d]		3
PHAR:6720	Pharmaceutics Research	3
	Hours	**9**
Spring		
Elective course [d]		3
Elective course [d]		3
PHAR:6720	Pharmaceutics Research	3
	Hours	**9**
Summer		
Internship (optional)		
	Hours	**0**
Fourth Year		
Fall		
PHAR:6720	Pharmaceutics Research	2
	Hours	**2**

Spring		
PHAR:6720	Pharmaceutics Research	2
	Hours	**2**
Summer		
Internship (optional)		
	Hours	**0**
Fifth Year		
Fall		
PHAR:6720	Pharmaceutics Research	2
	Hours	**2**
Spring		
PHAR:6720	Pharmaceutics Research	2
Exam: Doctoral Final Exam [f]		
	Hours	**2**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b If equivalent course not taken previously; otherwise work with faculty advisor to select relevant elective in Pharmaceutics or outside the department.
c Enrollment required each semester until completion of comprehensive exam.
d Work with faculty advisor to determine appropriate graduate coursework and sequence.
e Written research proposal and oral exam; typically completed by the end of third year.
f Dissertation defense.

College of Public Health

Dean

- Edith A. Parker

Associate Dean, Academic Affairs

- Margaret L. Chorazy

Associate Dean, Faculty Affairs

- Diane Rohlman

Associate Dean, Research

- Hans-Joachim Lehmler

Associate Dean, Administration

- Lori J. Cranston

Assistant Dean, Student Services

- Scot H. Reisinger

Director, Undergraduate Programs

- Brandi Janssen

Undergraduate major: public health (BA, BS)

Undergraduate certificate: public health

Graduate degrees: MHA; MPH; MS; PhD

Graduate certificates: agricultural safety and health; biostatistics; emerging infectious disease epidemiology; healthcare management; public health; translational and clinical investigation

Website: https://www.public-health.uiowa.edu/

The College of Public Health, established in 1999, is a partner with the Carver College of Medicine and the colleges of Dentistry, Nursing, and Pharmacy in striving to improve human health and well-being. Consistent with the interdisciplinary traditions of public health, the college also collaborates with non-health science colleges across the university and with other Iowa Board of Regents institutions, state and local agencies, and the private sector.

Public health is the science of protecting and improving the health of communities. Professionals in this field use specialized knowledge and skills to better understand the root causes of diseases and injuries and, whenever possible, develop strategies to prevent them.

A population-based approach to health is a distinguishing feature of public health and of the college. For public health practitioners—a wide range of professionals including physicians, nurses, dentists, pharmacists, social workers, nutritionists, environmental scientists, health educators, and health service administrators—the primary focus is on the health of entire communities rather than individual patients. Tools that public health professionals use to improve and enhance quality of life include analytical methods to identify, describe, and monitor the health of communities and populations at risk; education and prevention programs, methods of assuring access to appropriate and cost-effective care; and formulation of sound public policies.

The public health approach has led to many important health improvements over the past century. Vaccination campaigns, improved sanitation, fluoridation of drinking water, and efforts to reduce tobacco use are among the most recognizable public health initiatives. Public health programs also have led to safer workplaces, a reduction of deaths from coronary heart disease and stroke, improved motor vehicle safety, and the creation of effective health systems to provide care to those who need it. Today, public health professionals play an important role worldwide in seeking better approaches to complex issues such as quality of life for the elderly, drug and alcohol abuse, teen pregnancy, new and reemerging infectious diseases, bioterrorism, health literacy, nutrition, and food safety.

The College of Public Health provides educational opportunities to students campuswide. In addition to training and educating public health students, the college welcomes students from the Tippie College of Business, the Carver College of Medicine, the Graduate College, and the colleges of Dentistry, Education, Engineering, Law, Nursing, and Pharmacy who enroll in public health courses. Undergraduate students in the College of Liberal Arts and Sciences and graduate students from programs such as anthropology, microbiology, and statistics also register for public health courses. The college's faculty members, staff members, and graduate and postdoctoral students contribute to teaching and research activities throughout the health sciences campus and provide services to Iowa and the nation. Partnerships for teaching and research extend across the campus. This background provides a rich array of educational opportunities.

The college includes the departments of Biostatistics [p. 2108], Community and Behavioral Health [p. 2117], Epidemiology [p. 2124], Health Management and Policy [p. 2139], and Occupational and Environmental Health [p. 2154]. It offers programs leading to two undergraduate degrees: Bachelor of Arts (BA) and Bachelor of Science (BS). It also offers programs leading to four graduate degrees: Master of Health Administration (MHA), Master of Public Health (MPH), Master of Science (MS), and Doctor of Philosophy (PhD). In addition, it offers the Certificate in Agricultural Safety and Health [p. 2107], the Certificate in Biostatistics [p. 2116], the Certificate in Emerging Infectious Disease Epidemiology [p. 2123], the Certificate in Healthcare Management [p. 2153], the undergraduate Certificate in Public Health [p. 2091], the graduate Certificate in Public Health [p. 2105], and the Certificate in Translational and Clinical Investigation [p. 2166].

The undergraduate and graduate programs of the college are accredited by the Council on Education for Public Health (CEPH), the accrediting body for schools and programs of public health. Three programs in the college are also accredited: the industrial hygiene MS training program is accredited by the Accreditation Board for Engineering and Technology (ABET), the Master of Health Administration is accredited by the Commission on Accreditation of Healthcare Management Education (CAHME), and the Occupational Medicine Residency is accredited by the Accreditation Council for Graduate Medical Education (ACGME).

Faculty

The college's faculty includes members with single appointments in the College of Public Health as well as secondary and adjunct appointments. See the Faculty A-to-Z List on the college's website for more information.

Programs

Undergraduate Programs of Study

The College of Public Health offers the Bachelor of Arts (BA) and the Bachelor of Science (BS); see the BA in public health [p. 2081] and the BS in public health [p. 2086] in the catalog for more information. The college also offers the undergraduate Certificate in Public Health [p. 2091].

Graduate Programs of Study

The College of Public Health offers the Master of Public Health [p. 2092] (MPH); the Master of Health Administration [p. 2142] (MHA), the Master of Science (MS), and the Doctor of Philosophy (PhD); see the Biostatistics [p. 2108], Community and Behavioral Health [p. 2117], Epidemiology [p. 2124], Health Management and Policy [p. 2139], and Occupational and Environmental Health [p. 2154] departmental sections of the catalog for more information.

The College of Public Health also offers graduate Certificates in Public Health [p. 2105], Agricultural Safety and Health [p. 2107], Biostatistics [p. 2116], Emerging Infectious Disease Epidemiology [p. 2123], Healthcare Management [p. 2153], and Translational and Clinical Investigation [p. 2166].

Undergraduate Rules and Procedures

Academic Advising

First-year students directly admitted to the College of Public Health major are advised by undergraduate program staff at the College of Public Health. First-year College of Liberal Arts and Sciences (CLAS) public health interest students are advised at the university's Academic Advising Center. CLAS public health interest students who apply and are admitted to the College of Public Health are advised at the College of Public Health by undergraduate program staff. All students are required to have a conference with their advisor before registering for classes each semester.

Application for Degree

Students who wish to be considered for graduation must submit an Application for Degree through MyUI the session before they are eligible to graduate or before the deadline date during the session in which they expect to graduate.

Students who do not graduate in the session they submitted their Application for Degree must submit another application through MyUI for the next applicable session. Students do not need to be registered to apply for a degree.

See Degree Application on the Office of the Registrar's website.

Academic Recognition

Dean's List

Undergraduate students in the College of Public Health who achieve a grade-point average (GPA) of 3.50 or higher on 12 s.h. or more of University of Iowa graded coursework during a given semester or summer session and who have no semester hours of I (incomplete) or O (no grade reported) during the same semester are recognized by inclusion on the Dean's List for that semester.

President's List

Undergraduate students in the College of Public Health who achieve a GPA of 4.00 on 12 s.h. or more of University of Iowa graded coursework and who have no semester hours of I (incomplete) or O (no grade reported) for two consecutive semesters (excluding summer sessions) are recognized by inclusion on the President's List.

Graduation With Distinction

Graduation with distinction recognizes high academic achievement based on grades. See Grading [p. 17] in the "Academics at Iowa" section of the catalog.

Graduation With Honors

Graduation with honors recognizes high academic achievement based on both grades and exceptional accomplishment.

Honors in the Major

Students majoring in public health have the opportunity to graduate with honors in the major. To graduate with honors in public health, students must successfully complete all college requirements with a GPA of at least 3.33 in all courses for the major, in all college coursework, and in all UI coursework.

In addition, students must complete an honors thesis in CPH:4990 Mentored Independent Undergraduate Research in Public Health, where they must write a brief research proposal summarizing the background and goals of honors research, defend their research proposal to an honors project faculty member and an honors advisor, conduct research, submit their honors thesis, and conclude with an oral and/or poster presentation.

Outstanding undergraduate students in the college have an opportunity to undertake independent study and to work closely with faculty members. Completion of requirements for honors in the major will also satisfy the experiential learning requirement.

Academic Standards

Maximum Schedule

Course schedules of more than 19 s.h. for a semester, 12 s.h. for a summer session, or 3 s.h. for a winter session require approval of the advising staff in the undergraduate program office.

Classification of Students

Students are classified by the number of semester hours of credit they have earned toward the bachelor's degree.

Requirements	Hours
First year	0-29 s.h.
Second year	30-59 s.h.
Junior	60-89 s.h.
Senior	90 s.h. or more

Credit and Grading

Credit by Examination

Students may earn up to 30 s.h. of credit by examination by taking selected tests from the College Level Examination

Program (CLEP) and the Advanced Placement Program (AP) of the College Board, the General Certificate of Education (GCE), or the International Baccalaureate Program (IB). For information about when and how to take the CLEP and AP examinations, contact the university's Office of Teaching, Learning, and Technology.

The College of Public Health has information on scores, credit, and course duplicates for all CLEP, AP, and IB tests accepted by the college. Ordinarily, credit earned through examination is applied first to the General Education Requirements. Credit may also be applied to requirements of a major, minor, or certificate, or as elective credit.

Credit From Other Colleges

Students who have taken courses at another institution that are similar to those approved for the public health major or the General Education Requirements may request that these courses be evaluated for transfer credit. When students apply for admission to the College of Public Health, they must submit official transcripts from each college attended along with their application for admission. After the credit has been certified by Admissions as college-level work from an accredited institution and after admission has been granted, the credit is evaluated by the undergraduate program either before or during the student's first semester of enrollment in the college.

Grading System

The college uses a letter grading system. A denotes superior performance, B denotes above average, C denotes average, D denotes below average, and F denotes failure of the course. Plus and minus designate gradations of performance between letter grades. Letter grades and their numerical equivalents are as follows.

A+	4.33
A (superior)	4.00
A-	3.67
B+	3.33
B (above average)	3.00
B-	2.67
C+	2.33
C (average)	2.00
C-	1.67
D+	1.33
D (below average)	1.00
D-	0.67
F (failing)	0

Adding and Dropping Courses

Students may drop courses, except College of Law courses, any time before the deadline published in the university's academic deadline calendar. Deadlines are different for regular and off-cycle courses. See Academic Calendar on the Office of the Registrar's website.

Students must obtain approval from the college that offers the course in order to request permission to add or drop a course after these deadlines.

Auditing Courses

College of Public Health students may choose to take courses without earning credit for them (audit) with the permission of the course instructor and their advisor. Students are still charged for auditing courses. The mark of AUS (audit successful) is assigned to students registered for zero credit if attendance and performance in the course are satisfactory; if unsatisfactory, the mark of AUU (audit unsuccessful) is assigned. Courses completed with a mark of AUS do not meet any requirements nor do they carry any credit toward graduation. Auditing may not be used as a second-grade-only option.

To register for a course on an audit basis, students must obtain the instructor's authorizing signature and their advisor's signature and must register for 0 s.h. To change registration from audit to credit or from credit to audit, a change in registration form is used. These changes must be made during the period when adding courses is allowed.

Pass/Nonpass Courses

Undergraduate students in the College of Public Health may not use courses taken P/N (pass/nonpass) to satisfy General Education Requirements, high school course requirements, prerequisite or major public health course requirements, or any course in the College of Public Health. Major public health requirements include any course that fulfills the major course requirements (including public health electives), regardless of the college offering the course. The College accepts a maximum of 15 s.h. of P (pass) credit from the University of Iowa toward the bachelor’s degree and a maximum of 30 s.h. of P (pass) and S (satisfactory) grades from all sources (UI as well as transfer work) toward the bachelor’s degree.

Pass/nonpass registration must be completed during the first 10 days of a fall or spring semester or the first one-and-one-half weeks of a summer session, and it requires the approval of the advisor and the instructor. For courses taken pass/nonpass, an earned grade of C-minus or higher is recorded as a P; an earned grade of D-plus or lower is recorded as an N. Pass/nonpass credit is not included in grade-point average calculations.

Satisfactory/Fail Courses

The College of Public Health Direct Admit Seminar and the Second and Third Year Career Planning Seminars are offered only satisfactory/fail (S/F). A grade of F (fail) earned for these seminars does not satisfy any portion of the professional development seminar requirement.

Certain other College of Public Health courses are offered satisfactory/fail (S/F). All students registered for these courses receive one of these marks.

Semester hours of S-graded coursework are not used in computing grade-point averages, but hours of F-graded coursework are used. Semester hours of S-graded coursework are counted as semester hours earned toward graduation; semester hours of F-graded coursework do not count as semester hours earned toward graduation.

College of Public Health undergraduates may not use S-graded coursework to fulfill General Education Requirements.

The college accepts a maximum of 15 s.h. of S credit from the University of Iowa toward the bachelor’s degree and a maximum of 30 s.h. of S and P grades from all sources (UI as well as transfer work) toward the bachelor’s degree.

Incomplete Grades

Instructors may report a mark of I (incomplete) only if the unfinished part of a student's work in a course other than research, thesis, or independent study is small; if the work is unfinished for reasons acceptable to the instructor; and if a student's standing in the course is satisfactory.

Students should not re-enroll in a course for which they have an incomplete. Incomplete grades must be removed by completing the unfinished part of the work. Faculty and students are encouraged to state clearly in a written agreement how the incomplete is to be completed and the due date for the remaining work. Both the faculty member and the student should keep a record of the written agreement.

Failure to remove the incomplete before the end of the next full semester, excluding summer and winter sessions, results in the replacement of the I with a grade of F, regardless of whether a student is enrolled during that semester. A grade change may be submitted to convert a grade of F to another letter grade, with the instructor's approval.

Students cannot graduate with an I mark on their record. They must either complete the course for a passing grade or allow the Incomplete to lapse to a grade of F.

Second-Grade-Only Option for CLAS Public Health Interest Students

Public health interest students must follow the rules established by the College of Liberal Arts and Sciences (CLAS). Contact the CLAS Undergraduate Programs office or consult the CLAS Academic Policies Handbook for more information.

Second-Grade-Only Option

College of Public Health students may repeat up to three courses taken at the University of Iowa regardless of the grade originally earned in the course and may only be used once per class. A course may not be repeated under the second-grade-only option once it has been used as a prerequisite for a more advanced course that the student has completed successfully. The second-grade-only option cannot be used to remove a grade of incomplete, which must be removed in the usual manner.

The second-grade-only option may only be used for University of Iowa courses. A course taken at another college or university may not be repeated at the University of Iowa under the second-grade-only option, nor may a UI course be repeated at another institution under the second-grade-only option.

Any second-grade-only options used before entry to the College of Public Health count toward the maximum of three second-grade-only options allowed.

If the course was taken for a grade the first time, it must be taken for a grade the second time.

If the course was taken satisfactory/fail the first time, a student may choose to take the course for a grade or as satisfactory/fail the second time.

Any University of Iowa course taken in any mode of delivery —during a regular semester, a summer session, an intensive session, through distance education, or through Distance and Online Education [p. 2194]—may be repeated in the same mode of delivery or in any other mode of delivery.

Students who have been awarded a degree from the University of Iowa may not use the second-grade-only option on a course taken before the degree was awarded.

Students must register as usual for the course that is to be repeated. After the session in which the course is being repeated has begun, students must request the second-grade-only option by completing the Second-Grade-Only Option Request Form. Students must follow this procedure or both grades will be counted in their University of Iowa grade-point average.

The permanent record is adjusted by placing a pound symbol (#) next to the first grade to indicate that it is no longer being included in the grade-point-average calculation, and only the semester hours from the second registration have been counted as semester hours earned. Once placed on the record, the option may not be retracted. Graduate or professional colleges may recalculate grade-point averages using all grades visible on the permanent record.

Student Academic Misconduct

Policies regarding cases of cheating or plagiarism are outlined in the Undergraduate Student Handbook; see Examples of Academic Misconduct on the College of Public Health website.

Academic Probation and Dismissal

College of Public Health students are expected to meet academic standards set by the college and to demonstrate reasonable progress toward a degree. To be considered in good academic standing, students must earn a minimum cumulative public health major GPA, a minimum UI cumulative GPA, and a minimum cumulative GPA for all college work of at least 2.00, and a required University of Iowa session GPA of 1.50 or higher during any spring, summer, or fall enrollment. If a student does not meet all grade-point average conditions, then the student is placed on academic probation.

Students usually are allowed only one session to return to good academic standing. They are required to meet with an academic advisor. Students on academic probation who withdraw registration after the deadline for dropping courses may be dismissed.

The college reviews academic records for all students at the end of the fall and spring semesters. There is no review at the end of the summer session. Students are placed on probation, dismissed for unsatisfactory progress (with or without previous probationary status), or restored to good standing only at the end of the fall and spring semesters.

Students who do not make satisfactory progress may be dismissed from the college without an intervening probationary period. Students who are dismissed from the college for unsatisfactory academic progress due to circumstances beyond their control, such as a death in their immediate family or extended personal illness, may appeal for a revocation of the dismissal. A student dismissed in January must submit a written appeal by the second day of spring semester classes. A student dismissed in May must submit the written appeal by June 15.

Students dismissed from the college for poor scholarship may appeal to re-enroll after an interval of at least one calendar year following the end of the term in which they were dismissed. A written appeal for reinstatement must be submitted to the Undergraduate Program Office. Appeals must be submitted before June 15 for reinstatement in a fall semester or before Dec. 1 for reinstatement in a spring semester.

For details, see the Undergraduate Student Handbook on the college's website.

Reinstatement

Students dismissed for unsatisfactory scholarship for the first time are not permitted to register again for one year. Students dismissed for the second time may or may not be granted a second reinstatement. Requests for reinstatement

must be made in writing and should be addressed to the Associate Dean for Academic Affairs, College of Public Health. Arrangements for a reinstatement interview must be made with the associate dean for academic affairs. The interview must take place between March 1 and July 1 for reinstatement for the fall semester, or between Oct. 1 and Dec. 1 for reinstatement to the spring semester. Late requests are deferred to the following semester.

Students who are permitted to register following dismissal are registered on academic probation and ordinarily are allowed two semesters to achieve good standing. Most reinstatements include a limit on the number of semester hours the student may take upon reinstatement. Very poor academic work in the first semester of reinstatement, however, may result in dismissal at the close of that semester.

Facilities

The College of Public Health Building, a state-of-the-art facility that opened in 2012 on the university's health sciences campus, houses the college's administrative, departmental, and faculty offices. The college's research centers, institutes, and specialized laboratories are located in Westlawn, on the health sciences campus; in University Capitol Centre, on the main campus east; and at the University of Iowa Research Park.

Four student computer laboratories are housed at the college. More than 55 software packages are available for student use, most without charge. Software includes Microsoft Office products, SAS, and S+. Some specialty labs are equipped with RedHat Linux and are loaded with R, Macanova, Xlispstat, Mathematica, and other software.

Students, faculty, and staff draw on extensive library resources available across campus. Hardin Library for the Health Sciences serves as a central resource for all of the health sciences colleges. Hardin Library's Information Commons, a state-of-the-art health sciences educational technology facility, provides central support and delivery for courseware development, classroom instruction, health-related research, and independent learning. It offers high-end multimedia development workstations, networked electronic classrooms, a case-based learning and conference room, and information research workstations for searching health-related databases and the internet.

Research Centers and Institutes

The College of Public Health is home to 21 centers and institutes that conduct research and provide public service. These multidisciplinary centers and institutes—most of which are supported by federal grants—focus their investigative efforts on important public health topics. They conduct an array of outreach, service, and policy activities through which the College of Public Health engages with agencies, communities, and organizations throughout Iowa, the Midwest, the nation, and the world. Students are encouraged to explore opportunities for involvement with any of the college's centers and institutes.

For more information, see Research Centers and Programs on the college's website.

Courses

College of Public Health Courses

CPH:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by faculty member; topics chosen by instructor; may include outside activities (e.g., films, readings, visits to research facilities).

CPH:1050 College of Public Health Direct Admit Seminar **1 s.h.**
Introduction for first-year students to student life and the public health profession; tips for student success, resources on campus, coping with adversity, advising responsibilities, curriculum choices and career objectives, and community building events.

CPH:1400 Fundamentals of Public Health **3 s.h.**
Introduction to public health; emphasis on issues, challenges, achievements, careers; historical events that serve as a foundation for public health practice. GE: Social Sciences.

CPH:1600 Public Health Science: Inquiry and Investigation in Public Health **3 s.h.**
Introduction to epidemiology, biostatistics, and the interdisciplinary nature of public health research and practice; how public policy and population-based interventions are subsequently shaped by public health evidence. GE: Quantitative or Formal Reasoning.

CPH:1800 Social and Psychological Determinants of Health: Changing Behavior, Improving Health **3 s.h.**
Study of the social and psychological aspects of health, including understanding behavior change to improve health.

CPH:2050 Career Planning: Exploring Careers in Public Health **1 s.h.**
Preparation for experiential learning opportunities, including development of interpersonal, teamwork, leadership, and communication skills; ethical decision-making; understanding the cultural contexts in which professionals work; working with communities and the role of advocacy; professionalism. Requirements: second-year College of Public Health major.

CPH:2200 Climageddon: Understanding Climate Change and Associated Impacts on Health **3 s.h.**
Discovery, underlying principles, and impacts of global climate change; scientific evidence, global climate models, international treaties, ethics, advocacy and denial of climate change; strategies for climate adaptation and mitigation of unsustainable practices. GE: Sustainability. GE: International and Global Issues; Sustainability.

CPH:2220 Building a Healthier Tomorrow: Public Health Methods to Minimize Disease and Pollutant Exposures **3 s.h.**
Introduction to historical public health practices developed to prevent exposures to environmental contaminants; major sources of those contaminants that adversely affect natural waters and air are evaluated relative to methods used to provide safe drinking water and clean air; in-class exercises involve critical thinking and creativity to understand concepts and tools needed to utilize prior public health successes and application to current and future environmental health events.

CPH:2230 Finding Patient Zero: The Exploration of Infectious Disease Transmission and Pandemic Threats **3 s.h.**
Exploration of lay and scientific literature, pandemic infection games, and popular culture television programming to evaluate past and fictional pandemics—are these pandemics rooted in fact or fiction?

CPH:2400 The U.S. Health System in a Global Context 3 s.h.
Fundamental organizational structures of the U.S. health system and the difference between systems globally; basic concepts of legal, ethical, economic, and regulatory dimensions of health care and policy and roles, influences, and responsibilities of government agencies.

CPH:2600 Introduction to Public Health Methods 3 s.h.
Introductory quantitative and qualitative methods used in public health practice and research. Prerequisites: CPH:1600 with a minimum grade of C-.

CPH:3050 Career Planning: Preparing Post-Graduation Plans 1 s.h.
Development and preparation for post-college plans, including how to conduct a job search, write a résumé and cover letter, interview, and apply to graduate programs in public health and related fields. Prerequisites: CPH:2050.

CPH:3100 Health Economics 3 s.h.
Introduction to microeconomic theory and applications to health and health care, including demand for health and health services, health insurance coverage, health care markets, behavior of health care providers, and role of government.

CPH:3200 Death at Work: Case Studies of Workplace Safety and Health 3 s.h.
Case-study approach to understanding the rights of workers to a safe and healthful workplace; relevant risk factors (physical, economic, social) among several working environments.

CPH:3210 Nutrition in Public Health 3 s.h.
Concepts and methods of obtaining and using food and nutrition information from federal databases and research publications; how food and nutrition knowledge, policy, and research are used for improvement of the health of populations.

CPH:3220 Public Health as a Public Good: Economics and Decision Making in Public Health Systems 3 s.h.
Role of government in the economy from a public health perspective; emphasis on the importance of public goods, behavioral economics in public health solutions, and key methods for evaluation of public programs.

CPH:3240 Global Health Today 1 s.h.
Attendance at diverse on-campus, local, and regional global health events. Same as GHS:3030.

CPH:3300 Undergraduate Independent Study in Public Health arr.
In-depth pursuit of an area of special interest in public health.

CPH:3400 Health, Work, and the Environment 3 s.h.
Survey of environmental and occupational health hazards and the associated health risks of exposure; how public health protects society from these hazards; how public health policy can be influenced by science. Same as SEES:3250.

CPH:3500 Global Public Health 3 s.h.
Exploration of historical, current, and forecasted trends in global public health, the factors influencing health demographics in human populations, sources of health inequalities, and appropriate policy and intervention approaches for addressing global public health challenges. Same as GHS:3500.

CPH:3600 Applied Public Health Methods 3 s.h.
Application of quantitative and qualitative methods used in public health practice and research. Prerequisites: CPH:1600 with a minimum grade of C- and CPH:2600 with a minimum grade of C-.

CPH:3700 Methods for Program Implementation and Evaluation 3 s.h.
Introduction of theory and practice of program implementation and evaluation for health care and public health interventions focusing on programs implemented at the community level, including projects in government and nonprofit organizations. Prerequisites: CPH:1600.

CPH:3750 Undergraduate Service Learning in Public Health arr.
Community service learning experience directly related to goals and objectives of a specific public health course for undergraduate students; faculty-guided planning and reflection; satisfies the experiential learning public health degree requirement for undergraduate public health majors. Recommendations: CPH:2050 strongly recommended.

CPH:3800 Why We Eat What We Eat: Public Health Theories and Society 3 s.h.
Examination of public health and social science theories as they relate to socioeconomics, policy, institutions, communities, individual decision-making, behavior, and health.

CPH:3900 Fundamentals in Public Health Emergency Preparedness and Response 3 s.h.
Basic concepts and principles used in emergency prevention, preparedness, response, and recovery at the local, state, and national levels with emphasis on roles and responsibilities of public health that align with policies, laws, and systems.

CPH:3999 Undergraduate Research Experience in Public Health arr.
Hands-on involvement in scholarly public health research activities under the supervision of faculty or research staff; satisfies the experiential learning degree requirement for undergraduate public health majors. Recommendations: CPH:2050 strongly recommended.

CPH:4200 Agriculture, Food Systems, and Sustainability 3 s.h.
Identification and development of tools to measure environmental and social sustainability of global agricultural practices, including interactions with the environment, social considerations, and the ability of agriculture to support farmers' livelihoods.

CPH:4210 Making a Difference: Public Health Policy and Advocacy 3 s.h.
Important role of policy in health, including policy structures, implementation, advocacy, and evaluation; students focus their work on a policy of their specific interest.

CPH:4220 Global Road Safety 3 s.h.
Road safety problem, data sources, research methods used in field, and how intervention and prevention programs are developed and evaluated; lecture, hands-on approaches. Same as GHS:4530, OEH:4530.

CPH:4230 Injury and Violence Prevention 3 s.h.
Theory, research, and practice of injury control; unintentional and intentional injuries; local, national, international injury issues. Same as EPID:4510, OEH:4510.

CPH:4240 Special Topics arr.
Didactic material in public health; may include tutorial, seminar, or faculty-directed work; may be a special topic or experience taught one time or on a first-time basis.

CPH:4250 Field Experiences in Public Health 1 s.h.
Direct involvement in actions being taken at local community level; topics include environmental health, infectious diseases, chronic diseases, and pediatric health; practical examples and hands-on experiences during site visits for topic-specific field investigations. Offered spring semesters. Prerequisites: BIOL:1140 or BIOL:1141 or BIOL:1411. Requirements: biology or microbiology coursework. Same as EPID:4314.

CPH:4260 College of Public Health Strike Force 0 s.h.
Provide support to public health organizations, health care systems, and nonprofit organizations throughout Iowa, nationally, and globally; students deploy to assist with diverse public health related projects; use of surge capacity, service learning, and just-in-time training models; hands-on learning opportunities that transition theory into practice while addressing real-life situations.

CPH:4650 Maternal Health in Migrant Communities 2 s.h.
Applied epidemiological and community-engaged research methods to understand clinical and social determinants of maternal and child health and reproductive care. Travel to La Casona territory in Costa Rica to learn about health systems in the context of the Costa Rica Social Security Fund. Same as EPID:4650.

CPH:4750 Undergraduate Global Learning in Public Health arr.
Global public health experience; satisfies the experiential learning public health degree requirement for undergraduate public health majors. Recommendations: CPH:2050 strongly recommended.

CPH:4755 International Perspectives: Xicotepec 2 s.h.
Interdisciplinary service-learning course to enrich understanding of Mexican culture and history; students hone teamwork, leadership, cultural sensitivity, cultural humility, and project management skills while developing and carrying out public health projects that address community-identified needs; coordinated with the support of Rotary International.

CPH:4850 Undergraduate Public Health Internship arr.
Public health internship experience; satisfies the experiential learning public health degree requirement for undergraduate public health majors. Recommendations: CPH:2050 strongly recommended.

CPH:4990 Mentored Independent Undergraduate Research in Public Health arr.
Independent student research project under the supervision of a faculty mentor; satisfies the experiential learning degree requirement for undergraduate public health majors. Corequisites: CPH:3600. Recommendations: CPH:2050 strongly recommended.

CPH:4999 Public Health Capstone: Practice of Evidence-Based Public Health 3 s.h.
Students in their final year synthesize and apply knowledge through cumulative and integrative activities that serve as a capstone to their educational experience. Prerequisites: CPH:1800 and CPH:2400 and CPH:3400 and CPH:3600 and CPH:3700.

CPH:5100 Introduction to Public Health 3 s.h.
Concepts, structures, and activities in public health practice. Offered fall semesters and summer sessions.

CPH:5203 Interprofessional Education and Practice for MPH Students 0 s.h.
Students gain knowledge and skills in interprofessional practice between health professionals including medicine, pharmacy, dentistry, physical therapy, nursing, health administration, and public health; understanding roles/responsibilities, values, and ethics across health professions; development of teamwork skills.

CPH:6100 Essentials of Public Health 2 s.h.
Introduction and overview of the scope of public health; emphasis on history, definitions, issues, achievements, and future challenges; examples of public health research and practice.

CPH:6500 Independent Study in Public Health arr.
In-depth pursuit of an area of special interest in public health. Requirements: approval from the College of Public Health.

CPH:6600 Service-Learning in Public Health arr.
Community service learning experience directly related to goals and objectives of a specific public health course; faculty-guided planning and reflection.

CPH:6700 Public Health Emergency Preparedness for Veterinarians and Other Public Health Disciplines 3 s.h.
Introduction to public health emergency preparedness from a one health perspective; emergency preparedness from federal, state, and local perspectives; important elements for preparing responders; preparedness information systems and communication techniques.

CPH:7000 MPH Practicum Experience 0-6 s.h.
Comprehensive and integrated application of knowledge acquired in the MPH program in a practice setting; demonstration of professional competence in public health practice. Prerequisites: CBH:4105 and (HMP:5005 or HMP:4000) and EPID:4400 and BIOS:4120 and OEH:4240 and CPH:5100. Requirements: an approved practicum proposal.

CPH:7200 MPH Capstone Experience 1 s.h.
Students gain knowledge and skills in public health practice by working on an interdisciplinary team to solve a real-world public health issue; each student has the opportunity to apply classroom and practical experience received throughout their MPH coursework into an integrative experience; students particularly gain skills in advocacy, communication with diverse audiences on public health issues, and the role of different public health disciplines in solving health issues in the community. Prerequisites: CBH:4105 and (HMP:5005 or HMP:4000) and EPID:4400 and BIOS:4120 and OEH:4240 and CPH:5100.

CPH:7270 Principles of Scholarly Integrity: Public Health 0-1 s.h.
Training in the responsible conduct of research and scholarly activities; discussion of student/mentor responsibilities in pursuit of scholarly work and intellectual dialogues; responsibilities to the institution/scholarly community/society; public health core discipline examples are utilized.

CPH:7500 MPH Applied Practice Experience 1-2 s.h.
Comprehensive and integrated application of knowledge acquired in the MPH program in a practice setting; demonstration of professional competence in public health practice. Prerequisites: CBH:4105 and (HMP:5005 or HMP:4000) and EPID:4400 and BIOS:4120 and OEH:4240 and CPH:5100.

CPH:7604 Principles of Scholarly Integrity: Public Health - Postdoc/K Awardees 0 s.h.
Training in the responsible conduct of research and scholarly activities; discussion of student/mentor responsibilities in pursuit of scholarly work and intellectual dialogues; responsibilities to institution/scholarly community/society; utilization of public health core discipline examples; for public health postdoc/K awardees.

CPH:7800 MPH Practicum 1-3 s.h.
A culminating applied practice experience in a public health setting that demonstrates a synthesis of foundational and concentration competencies. Prerequisites: CBH:4105 and HMP:4000 and EPID:4400 and BIOS:4120 and OEH:4240 and CPH:5100.

Public Health, BA

The Bachelor of Arts (BA) degree provides students with a basic understanding of the five core public health knowledge areas: biostatistics, social and behavioral sciences, epidemiology, health policy and management, and occupational and environmental health sciences. Students will be prepared to enter the workforce or continue their education.

A public health core provides the degree with breadth in the biological, social, economic, quantitative, geographic, and educational components of health and health disparities within and across populations. Students complete a cumulative capstone experience during which they will integrate, apply, and synthesize public health knowledge. As an integral part of their education, students also are exposed to public health professionals and agencies.

Requirements

The Bachelor of Arts with a major in public health requires a minimum of 120 s.h., including at least 45 s.h. of work for the major. Students must have a cumulative grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major; in all college coursework and in all UI coursework; and in all college coursework in public health and in all UI public health coursework, including any courses administered by the College of Public Health in the departments of Biostatistics, Community and Behavioral Health, Epidemiology, Health Management and Policy, and Occupational and Environmental Health. Students are required to earn a minimum of 30 s.h. in public health coursework at the University of Iowa.

The BA with a major in public health requires the following coursework.

College Success Requirement

All students are required to complete CSI:1600 Success at Iowa during the fall semester; students complete part one before participating in an orientation program. The course is designed to help students successfully transition to college life. The course covers information about online tools that are specific to the university, such as MyUI and Iowa Courses Online (ICON), and also discusses resources for navigating life on campus. Additional content includes financial aid literacy, strategies for making healthy behavior choices, sexual assault awareness and prevention, and the comprehensive transitional survey known as MAP-Works.

General Education Requirements

Course #	Title	Hours
RHET:1030	Rhetoric: Writing and Communication	4
ENGL:1200	The Interpretation of Literature	3
World Languages		0-10
Natural Sciences		7
Quantitative or Formal Reasoning		3
Social Sciences		3
Historical Perspectives		3
Understanding Cultural Perspectives		3
International and Global Issues		3
Literary, Visual, and Performing Arts		3
Values and Society		3
Sustainability [1]		0

[1] Sustainability courses will count for two core requirements (i.e., for sustainability and one other approved general education core course in natural, quantitative, and social sciences, or culture, society, and the arts.

World Languages

Students may complete the world languages requirement using one of the following three options. One year of high school language study is generally equivalent to one semester of college language study.

Option One

Attain fourth-level proficiency in a single world language, usually by completing four years of that language in high school or four semesters in college or an equivalent combination of high school and college coursework; or pass an achievement test or evaluation at fourth-level proficiency.

Option Two

Attain second-level proficiency in each of two world languages, usually by completing two years of each language in high school or two semesters of each language in college or an equivalent combination of high school and college coursework; or pass achievement tests and/or evaluations at second-level proficiency in each language. Option two does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Option Three

Attain second-level proficiency in a single world language, usually by completing two years of that language in high school or two semesters of that language in college plus one additional 3 s.h. course from the GE CLAS Core [p. 22] in International and Global Issues, Values and Society, Understanding Cultural Perspectives, or World Language and Cultural Exploration. Option three does not fulfill the World Languages requirement for the College of Liberal Arts and Sciences or qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Students may count courses taken to fulfill general education requirements toward other requirements for the BA degree.

Public Health Core Courses

Students must complete the following (29 s.h. for standard or transfer admission students, 30 s.h. for direct admission students). Only direct admission students complete CPH:1050 whereas standard admission students do not.

Course #	Title	Hours
CPH:1050	College of Public Health Direct Admit Seminar (only direct admission students complete this course)	1
CPH:1400	Fundamentals of Public Health	3
CPH:1600	Public Health Science: Inquiry and Investigation in Public Health	3

CPH:1800	Social and Psychological Determinants of Health: Changing Behavior, Improving Health	3
CPH:2050	Career Planning: Exploring Careers in Public Health	1
CPH:2400	The U.S. Health System in a Global Context	3
CPH:2600	Introduction to Public Health Methods	3
CPH:3050	Career Planning: Preparing Post-Graduation Plans	1
CPH:3400	Health, Work, and the Environment	3
CPH:3600	Applied Public Health Methods	3
CPH:3700	Methods for Program Implementation and Evaluation	3
CPH:4999	Public Health Capstone: Practice of Evidence-Based Public Health	3

Required Biology Course

Students complete 4 s.h. as indicated from the following.

Course #	Title	Hours
One of these:		
BIOL:1140	Human Biology: Nonmajors	4
BIOL:1141	Human Biology: Health Professions	4
BIOL:1411	Foundations of Biology	4

Public Health Electives

Students complete a minimum of 12 s.h. of College of Public Health courses from the following.

Course #	Title	Hours
CPH:2200	Climageddon: Understanding Climate Change and Associated Impacts on Health	3
CPH:2220	Building a Healthier Tomorrow: Public Health Methods to Minimize Disease and Pollutant Exposures	3
CPH:2230	Finding Patient Zero: The Exploration of Infectious Disease Transmission and Pandemic Threats	3
CPH:3100	Health Economics	3
CPH:3200	Death at Work: Case Studies of Workplace Safety and Health	3
CPH:3210	Nutrition in Public Health	3
CPH:3220	Public Health as a Public Good: Economics and Decision Making in Public Health Systems	3
CPH:3500	Global Public Health	3
CPH:3800	Why We Eat What We Eat: Public Health Theories and Society	3
CPH:3900	Fundamentals in Public Health Emergency Preparedness and Response	3
CPH:4200	Agriculture, Food Systems, and Sustainability	3
CPH:4210	Making a Difference: Public Health Policy and Advocacy	3
CPH:4220	Global Road Safety	3
CPH:4230	Injury and Violence Prevention	3
CPH:4250	Field Experiences in Public Health	1

Experiential Learning Requirement

Students must successfully complete at least one of these experiences from the following. Career Planning: Exploring Careers in Public Health (CPH:2050) is strongly recommended prior to enrollment in any of these courses. Contact the undergraduate program office for specific details.

Course #	Title	Hours
Research		
CPH:3999	Undergraduate Research Experience in Public Health	0-3
CPH:4990	Mentored Independent Undergraduate Research in Public Health	3
Internship		
CPH:4850	Undergraduate Public Health Internship	0-3
Global Learning		
CPH:4750	Undergraduate Global Learning in Public Health	0-3
Service Learning		
CPH:3750	Undergraduate Service Learning in Public Health	0

BA/CLAS Undergraduate Degree

Students admitted to or enrolled in the BA in public health program may pursue an additional degree in the College of Liberal Arts and Sciences (CLAS). Students pursuing an additional degree outside the College of Public Health are:

- expected to meet all degree requirements, general education requirements, and GE CLAS Core requirements for both degree programs;
- required to satisfy the collegiate residence requirements of both colleges;
- assigned two advisors, one in each college; and
- assessed tuition for the primary program of study in accordance with the rules of the Office of the Registrar.

Additional Considerations

Students may be awarded degrees in the two colleges simultaneously or separately without requiring additional coursework beyond the degree requirements. Current students enrolled in the College of Public Health who want to add a CLAS major should use the Change of College Application found in MyUI. Students who wish to

discontinue the additional degree program will need to file a Discontinuation of Combined Degree Program form in the collegiate office of the program of study they are dropping.

Students may change majors with either college in the college academic programs office and still remain in the additional degree program.

Combined Programs

BA/Graduate Degree

Combined undergraduate to graduate programs provide an opportunity for students to earn both their BA and a master's degree in five years by beginning to earn graduate credit during their fourth year of undergraduate study.

Students in the combined programs must complete all requirements for each degree. Students apply for admission to the combined program during their third year as undergraduates and enter the program at the beginning of their fourth year.

Applicants must also apply for admission to the master's degree program and must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. For more information, see Undergraduate to Graduate (U2G) on the College of Public Health website.

Public health majors intending to pursue the Undergraduate to Graduate (U2G) combined degree program in public health must complete 120 s.h. Up to 15 s.h. may be earned in graduate credit by the end of a student's fourth year.

Public health majors must complete all of the following requirements in addition to the 15 s.h. of graduate coursework.

Public Health Major Degree Requirements

Coursework for the following requirements total approximately 60 s.h.: public health core courses; BA coursework; public health elective coursework; experiential learning requirement; and general education requirement courses.

General Electives

University of Iowa nonmajor coursework must total 120 s.h. by the end of the fourth year; this could include up to 15 s.h. of graduate credit in public health coursework taken as an undergraduate student.

Graduate courses taken during the fourth year do not count toward major requirements (including public health electives) for the undergraduate public health major. However, these semester hours may count as general elective credits needed to complete the 120 s.h. required for a bachelor’s degree.

Honors

Honors in the Major

Students majoring in public health have the opportunity to graduate with honors in the major. To graduate with honors in public health, students must successfully complete all college requirements with a grade-point average of at least 3.33 in all courses for the major, in all college coursework, and in all UI coursework.

In addition, students must complete an honors thesis in CPH:4990 Mentored Independent Undergraduate Research in Public Health, where they must write a brief research proposal summarizing the background and goals of honors research, defend their research proposal to an honors project faculty member and an honors advisor, conduct research, submit their honors thesis, and conclude with an oral and/or poster presentation.

Outstanding undergraduate students in the college have an opportunity to undertake independent study and to work closely with faculty members. Completion of requirements for honors in the major will also satisfy the experiential learning requirement. Consult the College of Public Health undergraduate program office for more information.

University of Iowa Honors Program

Public health interest students interested in honors study are encouraged to participate in the University of Iowa Honors Program until they are admitted to the College of Public Health. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not a requirement for applying to or graduating with honors in the public health major.

Admission

Students may be admitted to the College of Public Health either through direct admission or standard admission.

Direct Admission

Direct admission is designed for students applying to the university as first-year students for the fall semester. Applicants who meet the high school course requirements and present a Regent Admission Index (RAI) of 265 or higher and a high school grade-point average (GPA) of at least 3.33 are directly admitted to the college. Applicants who meet course requirements and either the RAI or GPA requirement are carefully considered. Students who are denied direct admission may file an online petition for direct admission to the College of Public Health.

Students granted direct admission to the college are eligible to apply for first-year scholarships. The scholarship application process is competitive and is based on high school records and short essay responses.

First-year students not admitted directly to the College of Public Health may be admitted to the College of Liberal Arts and Sciences as a public health interest student.

Standard and Transfer Admission

University of Iowa students are eligible to apply for standard admission to the College of Public Health, typically after their first year, once they complete prerequisite courses and earn the required GPA.

The application deadline for fall admission is May 1. Application deadline for spring admission is Dec. 1. Students should meet the following requirements by the end of the semester in which they apply:

- completion of at least 12 s.h. at the University of Iowa; and
- a minimum GPA of 2.75 in all University of Iowa coursework and in all college coursework.

Students who are denied standard admission may file an online appeal for denial of admission to the College of Public Health if they can provide documentation of extenuating circumstances that affected their academic performance.

Transfer students who meet the GPA requirement may apply directly to the College of Public Health through standard admission.

Career Advancement

The BA program provides knowledge of the community and behavioral aspects of public health for students interested in working in health education, health communication, public health program development, or public health policy in local, federal, or international governmental or nongovernmental agencies. Students will be prepared for advanced education in the social sciences, communication studies, social and community health, health policy and management, and other fields.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

The Four-Year Graduation Plan applies only to students who are directly admitted to the College of Public Health or students who meet the prerequisites and submit an application for standard admission before the third semester begins (including public health interest students).

Before the second semester begins: CPH:1050 College of Public Health Direct Admit Seminar (for direct admits only).

Before the third semester begins: CPH:1400 Fundamentals of Public Health, CPH:1600 Public Health Science: Inquiry and Investigation in Public Health, and at least one-quarter of the semester hours required for graduation.

Before the fourth semester begins: CPH:2050 Career Planning: Exploring Careers in Public Health and CPH:2600 Introduction to Public Health Methods.

Before the fifth semester begins: one-half of the semester hours required for graduation.

Before the sixth semester begins: CPH:3600 Applied Public Health Methods.

Before the seventh semester begins: CPH:3700 Methods for Program Implementation and Evaluation and at least three-quarters of the semester hours required for graduation.

Before the eighth semester begins: all public health core courses, except CPH:4999 Public Health Capstone: Practice of Evidence-Based Public Health, and the experiential learning requirement.

During the eighth semester: all remaining General Education Requirement courses, enrollment in all remaining coursework in the major, including CPH:4999 Public Health Capstone: Practice of Evidence-Based Public Health, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Public Health, BA

Course	Title	Hours
Academic Career		
Any Semester		
Direct Admission is available only for high school students who meet the published criteria. All other students pursue Standard Admission.		
All College of Public Health undergraduate students must successfully complete at least one of these for the experiential learning requirement: research, internship, global learning, or a service learning course. [a]		
GE: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
CPH:1050	College of Public Health Direct Admit Seminar	1
CPH:1400	Fundamentals of Public Health [c, d]	3
CPH:1800	Social and Psychological Determinants of Health: Changing Behavior, Improving Health	3
BIOL:1411 or BIOL:1140 or BIOL:1141	Foundations of Biology [d] or Human Biology: Nonmajors or Human Biology: Health Professions	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
CSI:1600	Success at Iowa	1
	Hours	**15-16**
Spring		
CPH:1600	Public Health Science: Inquiry and Investigation in Public Health [c, d]	3
GE: Natural Sciences without Lab [e]		3
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
Elective course [f]		3
Elective course [f]		3
	Hours	**15-16**
Second Year		
Fall		
CPH:2050	Career Planning: Exploring Careers in Public Health	1
CPH:2600	Introduction to Public Health Methods	3
GE: World Languages First Level Proficiency or elective course [g]		4 - 5
Elective course [f]		3
Elective course [f]		3
	Hours	**14-15**

Spring		
CPH:2400	The U.S. Health System in a Global Context	3
Major: public health elective course [h]		3
GE: International and Global Issues [e]		3
GE: Values and Society [e]		3
GE: World Languages Second Level Proficiency or elective course [g]		4 - 5
	Hours	**16-17**
Third Year		
Fall		
CPH:3600	Applied Public Health Methods	3
GE: Historical Perspectives [e]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Spring		
CPH:3400	Health, Work, and the Environment	3
CPH:3700	Methods for Program Implementation and Evaluation	3
GE: Literary, Visual, and Performing Arts [e]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**15**
Fourth Year		
Fall		
CPH:3050	Career Planning: Preparing Post-Graduation Plans	1
Major: public health elective course [h]		3
Major: experiential learning course [a, i]		0 - 3
GE: Understanding Cultural Perspectives [e]		3
Elective course [f]		3
Elective course [f]		3
Elective course [f]		2
	Hours	**15-18**
Spring		
CPH:4999	Public Health Capstone: Practice of Evidence-Based Public Health [j]	3
Major: public health elective course [h]		3
Major: public health elective course [h]		3
Elective course [f]		3
Elective course [f]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [k]		
	Hours	**15**
	Total Hours	**120-127**

a Students complete the experiential learning requirement by choosing an approved option. CPH:2050 is strongly recommended prior to enrollment in experiential learning.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Prerequisite for admission to the College of Public Health.

d Fulfills a major requirement and may fulfill a GE requirement.

e GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

f Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

g Students must complete one of three options: (1) fourth-level proficiency in a single world language, (2) second-level proficiency in two different world languages, or (3) second-level proficiency in a single world language plus one additional 3 s.h. course from the GE CLAS Core in International and Global Issues, Values and Society, Understanding Cultural Perspectives, or World Language and Cultural Exploration.

h Students must complete a minimum of 12 s.h. of College of Public Health electives (prefix CPH). See the General Catalog for list of approved courses.

i Choose from: CPH:3999, CPH:4990, CPH:4850, CPH:4750, CPH:3750. A completed application and approval by the College of Public Health undergraduate program office are required.

j All core and experiential learning courses must be complete prior to enrollment in CPH:4999.

k Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Public Health, BS

The Bachelor of Science (BS) degree provides students with a basic understanding of the five core public health knowledge areas: biostatistics, social and behavioral sciences, epidemiology, health policy and management, and occupational and environmental health sciences. Students will be prepared to enter the workforce or continue their education.

A public health core provides the degree with breadth in the biological, social, economic, quantitative, geographic, and educational components of health and health disparities within and across populations. Students complete a cumulative capstone experience during which they will integrate, apply, and synthesize public health knowledge. As an integral part of their education, students also are exposed to public health professionals and agencies.

Requirements

The Bachelor of Science with a major in public health requires a minimum of 120 s.h., including at least 57 s.h. of work for the major. Students must have a cumulative grade-point average (GPA) of at least 2.00 in all courses for the major and in all UI courses for the major; in all college coursework and in all UI coursework; and in all college coursework in public health and in all UI public health coursework, including any courses administered by the College of Public Health in the departments of Biostatistics, Community and Behavioral Health, Epidemiology, Health Management and Policy, and Occupational and Environmental Health. Students are required to earn a minimum of 30 s.h. in public health coursework at the University of Iowa.

The BS with a major in public health requires the following coursework.

College Success Requirement

All students are required to complete CSI:1600 Success at Iowa during the fall semester; students complete part one before participating in an orientation program. The course is designed to help students successfully transition to college life. The course covers information about online tools that are specific to the university, such as MyUI and Iowa Courses Online (ICON), and also discusses resources for navigating life on campus. Additional content includes financial aid literacy, strategies for making healthy behavior choices, sexual assault awareness and prevention, and the comprehensive transitional survey known as MAP-Works.

General Education Requirements

Course #	Title	Hours
RHET:1030	Rhetoric: Writing and Communication	4
ENGL:1200	The Interpretation of Literature	3
World Languages		0-10
Natural Sciences		7
Quantitative or Formal Reasoning		3
Social Sciences		3
Historical Perspectives		3
Understanding Cultural Perspectives		3
International and Global Issues		3
Literary, Visual, and Performing Arts		3
Values and Society		3
Sustainability [1]		0

[1] Sustainability courses will count for two core requirements (i.e., for sustainability and one other approved general education core course in natural, quantitative, and social sciences, or culture, society, and the arts.

World Languages

Students may complete the world languages requirement using one of the following three options. One year of high school language study is generally equivalent to one semester of college language study.

Option One

Attain fourth-level proficiency in a single world language, usually by completing four years of that language in high school or four semesters in college or an equivalent combination of high school and college coursework; or pass an achievement test or evaluation at fourth-level proficiency.

Option Two

Attain second-level proficiency in each of two world languages, usually by completing two years of each language in high school or two semesters of each language in college or an equivalent combination of high school and college coursework; or pass achievement tests and/or evaluations at second-level proficiency in each language. Option two does not qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Option Three

Attain second-level proficiency in a single world language, usually by completing two years of that language in high school or two semesters of that language in college plus one additional 3 s.h. course from the GE CLAS Core [p. 22] (in International and Global Issues, Values and Society, or Understanding Cultural Perspectives) or a CLAS-approved World Language and Cultural Exploration course. Option three does not fulfill the World Languages requirement for the College of Liberal Arts and Sciences or qualify students to earn credit under the Furthering Language Incentive Program (FLIP).

Students may count courses taken to fulfill general education requirements toward other requirements for the BS.

Public Health Core Courses

Students must complete the following (29 s.h. for standard or transfer admission students, 30 s.h. for direct admission students). Only direct admission students complete CPH:1050 whereas standard admission students do not.

Course #	Title	Hours
CPH:1050	College of Public Health Direct Admit Seminar (only direct admission students complete this course)	1
CPH:1400	Fundamentals of Public Health	3
CPH:1600	Public Health Science: Inquiry and Investigation in Public Health	3

CPH:1800	Social and Psychological Determinants of Health: Changing Behavior, Improving Health	3
CPH:2050	Career Planning: Exploring Careers in Public Health	1
CPH:2400	The U.S. Health System in a Global Context	3
CPH:2600	Introduction to Public Health Methods	3
CPH:3050	Career Planning: Preparing Post-Graduation Plans	1
CPH:3400	Health, Work, and the Environment	3
CPH:3600	Applied Public Health Methods	3
CPH:3700	Methods for Program Implementation and Evaluation	3
CPH:4999	Public Health Capstone: Practice of Evidence-Based Public Health	3

Requirements

Students complete 16 s.h. as indicated from the following.

Course #	Title	Hours
All of these:		
BIOL:1411	Foundations of Biology	4
BIOL:1412	Diversity of Form and Function	4
CHEM:1110	Principles of Chemistry I	4
One of these:		
MATH:1440	Mathematics for the Biological Sciences	4
MATH:1460	Calculus for the Biological Sciences	4
MATH:1850	Calculus I	4

Public Health Electives

Students complete a minimum of 12 s.h. of College of Public Health courses from the following.

Course #	Title	Hours
CPH:2200	Climageddon: Understanding Climate Change and Associated Impacts on Health	3
CPH:2220	Building a Healthier Tomorrow: Public Health Methods to Minimize Disease and Pollutant Exposures	3
CPH:2230	Finding Patient Zero: The Exploration of Infectious Disease Transmission and Pandemic Threats	3
CPH:3100	Health Economics	3
CPH:3200	Death at Work: Case Studies of Workplace Safety and Health	3
CPH:3210	Nutrition in Public Health	3
CPH:3220	Public Health as a Public Good: Economics and Decision Making in Public Health Systems	3
CPH:3500	Global Public Health	3
CPH:3800	Why We Eat What We Eat: Public Health Theories and Society	3
CPH:3900	Fundamentals in Public Health Emergency Preparedness and Response	3
CPH:4200	Agriculture, Food Systems, and Sustainability	3
CPH:4210	Making a Difference: Public Health Policy and Advocacy	3
CPH:4220	Global Road Safety	3
CPH:4230	Injury and Violence Prevention	3
CPH:4250	Field Experiences in Public Health	1

Experiential Learning Requirement

Students must successfully complete at least one of these experiences from the following. Career Planning: Exploring Careers in Public Health (CPH:2050) is strongly recommended prior to enrollment in any of these courses. Contact the undergraduate program office for specific details.

Course #	Title	Hours
Research		
CPH:3999	Undergraduate Research Experience in Public Health	0-3
CPH:4990	Mentored Independent Undergraduate Research in Public Health	3
Internship		
CPH:4850	Undergraduate Public Health Internship	0-3
Global Learning		
CPH:4750	Undergraduate Global Learning in Public Health	0-3
Service Learning		
CPH:3750	Undergraduate Service Learning in Public Health	0

BS/CLAS Undergraduate Degree

Students admitted to or enrolled in the BS in public health program may pursue an additional degree in the College of Liberal Arts and Sciences (CLAS). Students pursuing an additional degree outside the College of Public Health are:

- expected to meet all degree requirements, general education requirements, and GE CLAS Core requirements for both degree programs;
- required to satisfy the collegiate residence requirements of both colleges;
- assigned two advisors, one in each college; and
- assessed tuition for the primary program of study in accordance with the rules of the Office of the Registrar.

Additional Considerations

Students may be awarded degrees in the two colleges simultaneously or separately without requiring additional coursework beyond the degree requirements. Current students enrolled in the College of Public Health who want to add a CLAS major should use the Change of College Application found in MyUI. Students who wish to discontinue the additional degree program will need to file a Discontinuation of Combined Degree Program form in the collegiate office of the program of study they are dropping.

Students may change majors with either college in the college academic programs office and still remain in the additional degree program.

Combined Programs

BS/Graduate Degree

Combined undergraduate to graduate programs provide an opportunity for students to earn both their BS and a master's degree in five years by beginning to earn graduate credit during their fourth year of undergraduate study.

Students in the combined programs must complete all requirements for each degree. Students apply for admission to the combined program during their third year as undergraduates and enter the program at the beginning of their fourth year.

Applicants must also apply for admission to the master's degree program and must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website. For more information, visit Undergraduate to Graduate (U2G) on the College of Public Health website.

Public health majors intending to pursue the U2G combined degree program in public health must complete 120 s.h. Up to 15 s.h. may be earned in graduate credit by the end of a student's fourth year.

Public health majors must complete all of the following requirements in addition to the 15 s.h. of graduate coursework.

Public Health Major Degree Requirements

The degree requires public health core courses; BS coursework; public health elective coursework; the experiential learning requirement; and general education requirement courses.

General Electives

University of Iowa nonmajor coursework must total 120 s.h. by the end of the fourth year; this could include up to 15 s.h. of graduate credit in public health coursework taken as an undergraduate student.

Graduate courses taken during the fourth year do not count toward major requirements (including public health electives) for the undergraduate public health major. However, these semester hours may count as general elective credits needed to complete the 120 s.h. required for a bachelor’s degree.

Honors

Honors in the Major

Students majoring in public health have the opportunity to graduate with honors in the major. To graduate with honors in public health, students must successfully complete all college requirements with a grade-point average of at least 3.33 in all courses for the major, in all college coursework, and in all UI coursework.

In addition, students must complete an honors thesis in CPH:4990 Mentored Independent Undergraduate Research in Public Health, where they must write a brief research proposal summarizing the background and goals of their honors research, defend their research proposal to an honors project faculty member and an honors advisor, conduct research, submit their honors thesis, and conclude with an oral and/or poster presentation.

Outstanding undergraduate students in the college have an opportunity to undertake independent study and to work closely with faculty members. Completion of requirements for honors in the major will also satisfy the experiential learning requirement. Consult the College of Public Health undergraduate program office for more information.

University of Iowa Honors Program

Public health interest students interested in honors study are encouraged to participate in the University of Iowa Honors Program until they are admitted to the College of Public Health. Visit Honors at Iowa to learn about the university's honors program.

Membership in the UI Honors Program is not a requirement for applying to or graduating with honors in the public health major.

Admission

Students may be admitted to the College of Public Health either through direct admission or standard admission.

Direct Admission

Direct admission is designed for students applying to the university as first-year students for the fall semester. Applicants who meet the high school course requirements and present a Regent Admission Index (RAI) of 265 or higher and a high school grade-point average (GPA) of at least 3.33 are directly admitted to the college. Applicants who meet course requirements and either the RAI or GPA requirement are carefully considered. Students who are denied direct admission may file an online petition for direct admission to the College of Public Health.

Students granted direct admission to the college are eligible to apply for first-year scholarships. The scholarship application process is competitive and is based on high school records and short essay responses.

First-year students not admitted directly to the College of Public Health may be admitted to the College of Liberal Arts and Sciences as a public health interest student.

Standard and Transfer Admission

University of Iowa students are eligible to apply for standard admission to the College of Public Health, typically after their first year, once they complete prerequisite courses and earn the required GPA.

The application deadline for fall admission is May 1. The application deadline for spring admission is Dec. 1. Students should meet the following requirements by the end of the semester in which they apply:

- completion of at least 12 s.h. at the University of Iowa; and
- a minimum GPA of 2.75 in all University of Iowa coursework and in all college coursework.

Students who are denied standard admission may file an online appeal for denial of admission to the College of Public Health if they can provide documentation of extenuating circumstances that affected their academic performance.

Transfer students who meet the GPA requirement may apply directly to the College of Public Health through standard admission.

Career Advancement

The BS program provides knowledge of the natural sciences for students interested in working in a research setting or preparing for advanced study in programs such as biostatistics, dentistry, environmental health, epidemiology, medicine, nursing, occupational health, pharmacy, public health, or veterinary medicine.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

The Four-Year Graduation Plan applies only to students who are directly admitted to the College of Public Health or students who meet the prerequisites and submit an application for standard admission before the third semester begins (including public health interest students).

Before the second semester begins: CPH:1050 College of Public Health Direct Admit Seminar (for direct admits only).

Before the third semester begins: CPH:1400 Fundamentals of Public Health, CPH:1600 Public Health Science: Inquiry and Investigation in Public Health, and at least one-quarter of the semester hours required for graduation.

Before the fourth semester begins: CPH:2050 Career Planning: Exploring Careers in Public Health and CPH:2600 Introduction to Public Health Methods.

Before the fifth semester begins: one-half of the semester hours required for graduation.

Before the sixth semester begins: CPH:3600 Applied Public Health Methods.

Before the seventh semester begins: CPH:3700 Methods for Program Implementation and Evaluation and at least three-quarters of the semester hours required for graduation.

Before the eighth semester begins: all public health core courses, except CPH:4999 Public Health Capstone: Practice of Evidence-Based Public Health, and the experiential learning requirement.

During the eighth semester: all remaining general education requirement courses, enrollment in all remaining coursework in the major, including CPH:4999 Public Health Capstone: Practice of Evidence-Based Public Health, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Public Health, BS

Course	Title	Hours
Academic Career		
Any Semester		
Direct Admission is available only for high school students who meet the published criteria. All other students pursue Standard Admission.		
All College of Public Health undergraduate students must successfully complete at least one of these for the experiential learning requirement: research, internship, global learning, or a service learning course. [a]		
GE: Sustainability [b]		
	Hours	**0**
First Year		
Fall		
CPH:1050	College of Public Health Direct Admit Seminar	1
CPH:1400	Fundamentals of Public Health [c]	3
CPH:1800	Social and Psychological Determinants of Health: Changing Behavior, Improving Health	3
CHEM:1070	General Chemistry I [c]	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric: Writing and Communication	3 - 4
CSI:1600	Success at Iowa	1
Elective course [d]		2
	Hours	**16-17**
Spring		
CPH:1600	Public Health Science: Inquiry and Investigation in Public Health [c]	3
CHEM:1110	Principles of Chemistry I [c, e]	4
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4
GE: Values and Society [f]		3
Elective course [d]		3
	Hours	**16-17**
Second Year		
Fall		
CPH:2050	Career Planning: Exploring Careers in Public Health	1

CPH:2600	Introduction to Public Health Methods	3
BIOL:1411	Foundations of Biology [c]	4
MATH:1460 or MATH:1440 or MATH:1850	Calculus for the Biological Sciences [c, g] or Mathematics for the Biological Sciences or Calculus I	4
GE: World Languages First Level Proficiency or elective course [h]		4 - 5
	Hours	**16-17**
Spring		
CPH:2400	The U.S. Health System in a Global Context	3
BIOL:1412	Diversity of Form and Function	4
GE: World Languages Second Level Proficiency or elective course [h]		4 - 5
Elective course [d]		3
	Hours	**14-15**
Third Year		
Fall		
CPH:3600	Applied Public Health Methods	3
Major: public health elective course [i]		3
GE: Historical Perspectives [f]		3
Elective course [d]		3
Elective course [d]		3
	Hours	**15**
Spring		
CPH:3400	Health, Work, and the Environment	3
CPH:3700	Methods for Program Implementation and Evaluation	3
Major: public health elective course [i]		3
GE: Literary, Visual, and Performing Arts [f]		3
Elective course [d]		3
Elective course [d]		2
	Hours	**17**
Fourth Year		
Fall		
CPH:3050	Career Planning: Preparing Post-Graduation Plans	1
Major: public health elective course [i]		3
Major: experiential learning course [a, j]		0 - 3
GE: Understanding Cultural Perspectives [f]		3
GE: International and Global Issues [f]		3
Elective course [d]		3
Elective course [d]		2
	Hours	**15-18**
Spring		
CPH:4999	Public Health Capstone: Practice of Evidence-Based Public Health [k]	3
Major: public health elective course [i]		3
Elective course [d]		3
Elective course [d]		3
Elective course [d]		3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) [l]		
	Hours	**15**
	Total Hours	**124-131**

a Students complete the experiential learning requirement by choosing an approved option. CPH:2050 is strongly recommended prior to enrollment in experiential learning.

b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.

c Fulfills a major requirement and may fulfill a GE requirement.

d Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.

e Enrollment in chemistry courses requires completion of a placement exam.

f GE courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.

g Enrollment in math courses requires completion of a placement exam.

h Students must complete one of three options: (1) fourth-level proficiency in a single world language, (2) second-level proficiency in two different world languages, or (3) second-level proficiency in a single world language plus one additional 3 s.h. course from the GE CLAS Core in International and Global Issues, Values and Society, Understanding Cultural Perspectives, or World Language and Cultural Exploration.

i Students must complete a minimum of 12 s.h. of College of Public Health electives (prefix CPH). See the General Catalog for list of approved courses.

j Choose from: CPH:3999, CPH:4990, CPH:4850, CPH:4750, CPH:3750. A completed application and approval by the College of Public Health undergraduate program office are required.

k All core and experiential learning courses must be complete prior to enrollment in CPH:4999.

l Please see Academic Calendar, on Office of the Registrar website, for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Degree Services.

Public Health, Undergraduate Certificate

Requirements

The undergraduate Certificate in Public Health requires 18 s.h. of credit. Students must maintain a grade-point average of at least 2.00 in work for the certificate. They should contact the certificate coordinator to complete a plan of study before they begin certificate coursework.

The certificate is intended for non-public health majors and anyone interested in obtaining knowledge about public health concepts to enhance their ability to succeed in their chosen field. Students completing the certificate will have an understanding of emerging issues in public health, the social and behavioral aspects of preventing disease, environmental health concepts, and the changing health care system in the United States.

The certificate may be earned by any student admitted to the University of Iowa who is not concurrently enrolled in a graduate or professional degree program, except for those students who are earning a BA or BS with a major in public health or by those who have received one of those degrees. The certificate may also be earned by non-degree-seeking students.

The undergraduate Certificate in Public Health requires the following coursework. Fundamentals of Public Health (CPH:1400) must be taken prior to or concurrent with other certificate courses.

Core Courses

Course #	Title	Hours
Both of these:		
CPH:1400	Fundamentals of Public Health	3
CPH:1600	Public Health Science: Inquiry and Investigation in Public Health	3

Required Courses

Course #	Title	Hours
9 s.h. from these:		
CPH:1800	Social and Psychological Determinants of Health: Changing Behavior, Improving Health	3
CPH:2400	The U.S. Health System in a Global Context	3
CPH:3400	Health, Work, and the Environment	3
CPH:3500	Global Public Health	3

Elective

Course #	Title	Hours
3 s.h. from these:		
One of the courses not taken from the "Required Courses" list		
Any College of Public Health course (prefix CPH) numbered 2200-2399, 3100-3499, 3800-3900, or 4200-4399		

For more information about the program, visit Undergraduate Certificate in Public Health on the College of Public Health website.

Master of Public Health, MPH

The Master of Public Health (MPH) is recognized as the primary professional degree in public health. The objective of Iowa's MPH program is to provide education and practical training in public health to students who will be leaders in their respective communities. The program is appropriate for individuals who already have professional experience and/or training in public health as well as for those whose expertise lies outside of public health.

Students may earn the Master of Public Health (MPH) as a single degree, or they may pursue one of several combined degree programs. The College of Public Health offers combined MPH/professional degree programs with the Carver College of Medicine and the Colleges of Law and Pharmacy. It also offers two programs in collaboration with the College of Veterinary Medicine at Iowa State University. See "MPH/DVM (Iowa State University)" and descriptions of the combined degree programs under Combined Programs [p. 2099] in this section of the catalog.

Undergraduate students can pursue an MPH degree in the following subprograms: biostatistics, community and behavioral health, epidemiology, occupational and environmental health, or policy. Undergraduate students work with their undergraduate advisor and the College of Public Health Undergraduate to Graduate (U2G) coordinator to determine eligibility. In addition, the College of Public Health collaborates with other private colleges in Iowa to offer bachelor's degrees and Master of Public Health programs for undergraduate students who would like to earn an MPH degree.

The Master of Public Health program is offered by the College of Public Health; the degree is awarded by the Graduate College.

Learning Outcomes

For further information regarding MPH subprogram learning outcomes, visit MPH Programs of Study on the Master of Public Health website.

MPH Foundational Public Health Knowledge

Profession & Science of Public Health

Students will be able to:

- explain public health history, philosophy, and values;
- identify the core functions of public health and the 10 essential services;
- explain the role of quantitative and qualitative methods and sciences in describing and assessing a population’s health;
- list major causes and trends of morbidity and mortality in the United States or other communities relevant to the school, with attention to disparities among populations, e.g., socioeconomic, ethnic, gender, racial, etc.;
- discuss the science of primary, secondary, and tertiary prevention in population health, including health promotion, screening, etc.; and
- explain the critical importance of evidence in advancing public health knowledge.

Factors Related to Human Health

Students will be able to:

- explain the effects of environmental factors on a population’s health;
- explain biological and genetic factors that affect a population’s health;
- explain behavioral and psychological factors that affect a population’s health;
- explain the cultural, social, political, and economic determinants of health and how the determinants relate to population health and health inequities;
- explain how globalization affects global burdens of disease; and
- explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., One Health).

MPH Foundational Competencies

Evidence-Based Approaches to Public Health

Students will be able to:

- apply epidemiological methods to settings and situations in public health practice;
- select quantitative and qualitative data collection methods appropriate for a given public health context;
- analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate; and
- interpret results of data analysis for public health research, policy, or practice.

Public Health & Health Care Systems

Students will be able to:

- compare the organization, structure, and function of health care, public health, and regulatory systems across national and international settings; and
- discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and systemic levels.

Planning & Management to Promote Health

Students will be able to:

- assess population needs, assets, and capacities that affect communities’ health;
- apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs;
- design a population-based policy, program, project, or intervention;
- explain basic principles and tools of budget and resource management; and
- select methods to evaluate public health programs.

Policy in Public Health

Students will be able to:

- discuss the policy-making process, including the roles of ethics and evidence;

- propose strategies to identify relevant communities and individuals and build coalitions and partnerships for influencing public health outcomes;
- advocate for political, social, or economic policies and programs that will improve health in diverse populations; and
- evaluate policies for their impact on public health and health equity.

Leadership

Students will be able to:

- apply leadership and/or management principles to address a relevant issue; and
- apply negotiation and mediation skills to address organizational or community challenges.

Communication

Students will be able to:

- select communication strategies for different audiences and sectors;
- communicate audience-appropriate public health content, both in writing and through oral presentation to a non-academic, non-peer audience with attention to factors such as literacy and health literacy; and
- describe the importance of cultural humility in communicating public health content.

Interprofessional and/or Intersectoral Practice

Students will be able to integrate perspectives from other sectors and/or professions to promote and advance population health.

Systems Thinking

Students will be able to apply a systems-thinking tool to visually represent a public health issue in a format other than a standard narrative.

Requirements

The Master of Public Health requires at least 42–44 s.h. of graduate credit; the minimum credit hours required are determined by a student's subprogram. Students must maintain a Graduate College major program grade-point average (GPA) of at least 3.00. The degree offers graduate preparation to students affiliated with College of Public Health (CPH) academic departments (biostatistics [p. 2093], community and behavioral health [p. 2094], epidemiology [p. 2095], occupational and environmental health [p. 2096], and policy [p. 2096]), students affiliated with specific combined degree programs (e.g., MD/MPH, PharmD/MPH), and other students with specific professional backgrounds (e.g., practicing veterinarians [p. 2097], practicing professionals [p. 2097]).

Degree requirements for all MPH subprograms include a core course in public health practice and in each of the five core disciplines of public health (biostatistics, epidemiology, environmental health, health policy and management, and social and behavioral sciences), a set of subprogram-specific required courses and electives, one interprofessional education course, and a practicum experience.

All MPH students complete the coursework listed under "Common Requirements." In addition, students complete the coursework listed for their chosen subprogram.

Common Requirements

The following coursework is required for all MPH students. Students must earn a B-minus or higher in each core course. A minimum 3.00 GPA in MPH core courses is required. Students may repeat a course to achieve this standard.

Core Courses

Course #	Title	Hours
All of these:		
CPH:5100	Introduction to Public Health	3
BIOS:4120	Introduction to Biostatistics (students in the biostatistics subprogram may substitute BIOS:5710)	3
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
EPID:4400	Epidemiology I: Principles	3
HMP:4000	Introduction to the U.S. Health Care System (students in the policy subprogram may substitute HMP:5005)	3
OEH:4240	Global Environmental Health	3

Interprofessional Education Course

CPH:5203 Interprofessional Education and Practice for MPH Students (0 s.h.) is required for all MPH students. Students in a combined/joint non-departmental professional degree program (i.e., MPH/MD, MPH/PharmD, MPH/DVM), the practicing veterinarians subprogram, or the practicing professionals subprogram will have this requirement waived since the content is covered in pharmacy, medicine, or veterinary courses, or professional experience prior to enrollment in the MPH program.

MPH Practicum

Students complete CPH:7800 MPH Practicum for 3 s.h. During the practicum, students must complete at least 200 work hours in a public health practice setting, applying knowledge and skills from their MPH courses.

Prior to registering for the course, students develop a project proposal in consultation with their host organization (preceptor) and the course director. A final written report with an oral presentation or a poster presentation is required. There are many practicum opportunities for MPH students locally, nationally, and internationally.

Subprograms

Biostatistics Subprogram

The Master of Public Health with the biostatistics subprogram requires 42 s.h. of graduate credit. The subprogram is offered by the Department of Biostatistics [p. 2108].

The subprogram is designed to train public health professionals who can provide leadership in the analysis of public health data and the design of studies for public health investigations. It is intended for individuals who are interested

in public health and who have quantitative ability but not advanced mathematics training.

Applicants to the subprogram must meet all MPH admission requirements; see Admission [p. 2100] in this section of the catalog. They also should have a cumulative grade-point average of at least 3.00 and should have completed the following math and computer science coursework: single variable calculus and matrix algebra, satisfied by one semester of calculus equivalent to AP Calculus AB and a high school algebra course involving matrices; and elementary computer programming instruction in any commonly used modern programming language (e.g., Python, Java, C++). Individuals who are admitted to the subprogram without having met all of these requirements must satisfy unmet requirements during their first semester of enrollment in the program.

In addition to the MPH coursework listed under "Common Requirements," the biostatistics subprogram requires the following courses.

Biostatistics Subprogram Core

Course #	Title	Hours
All of these:		
BIOS:4510	Data Science Foundations in R	2
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
BIOS:5130	Applied Categorical Data Analysis	3

Students with a sufficient mathematical background can substitute BIOS:5710 Biostatistical Methods I, BIOS:5720 Biostatistical Methods II, and BIOS:5730 Biostatistical Methods in Categorical Data in place of BIOS:4120 Introduction to Biostatistics (usually taken as part of the MPH Common Requirements), BIOS:5120 Regression Modeling and ANOVA in the Health Sciences, and BIOS:5130 Applied Categorical Data Analysis. The advanced sequence reduces the elective credit needed by 2 s.h.

Biostatistics Electives

Students fulfill the remainder of the 42 s.h. with elective courses. Electives may be chosen from the following list or may include any related course approved by the student's advisor.

Course #	Title	Hours
BIOL:4213	Bioinformatics	4
BIOS:6210	Applied Survival Analysis	3
BIOS:6310	Introductory Longitudinal Data Analysis	3
BIOS:6420	Survey Design and Analysis	3
BIOS:6610	Statistical Methods in Clinical Trials	3
BIOS:6650	Causal Inference	3
BIOS:6720	Statistical Machine Learning for Biomedical and Public Health Data	3
BIOS:6810	Bayesian Methods and Design	3
BIOS:7270	Scholarly Integrity in Biostatistics	1
BIOS:7600	Advanced Biostatistics Seminar	0-3
CS:4470	Health Data Analytics	3
CS:4740	Large Data Analysis	3
CS:5110	Introduction to Informatics	3
DATA:6200	Predictive Analytics	3
EPID:6920	Applied Administrative Data Analysis	2
ISE:4172	Big Data Analytics	3
STAT:3100	Introduction to Mathematical Statistics I	4
STAT:3101	Introduction to Mathematical Statistics II	3
STAT:3210	Experimental Design and Analysis	3
STAT:4100	Statistical Inference I	3
STAT:4101	Statistical Inference II	3
STAT:4520	Bayesian Statistics	3
STAT:4540	Statistical Learning	3
STAT:4580	Data Visualization and Data Technologies	3

Community and Behavioral Health Subprogram

The Master of Public Health with the community and behavioral health subprogram requires 42 s.h. of graduate credit. The subprogram is offered by the Department of Community and Behavioral Health.

The subprogram prepares public health practitioners for a variety of positions related to community development, health program implementation, and health education. Students learn how to design, implement, and evaluate evidence-based interventions directed toward identified public health problems in populations.

A bachelor's degree in the social and behavioral sciences is good preparation for this program, but students come from a variety of educational backgrounds. Preference is given to applicants who have professional experience.

In addition to the MPH coursework listed under "Common Requirements," the community and behavioral health subprogram requires the following courses.

Community and Behavioral Health Subprogram Core

Students earn 18 s.h. in the required subprogram core.

Course #	Title	Hours
All of these:		
CBH:5220	Health Behavior and Health Education	3
CBH:5305	Evaluation: Approaches and Applications	3
CBH:6205	Designing and Implementing Interventions	3
CBH:6230	Health Equity, Disparities, and Social Justice	3
CBH:6335	Research Methods in Community and Behavioral Health	3
One of these:		
CBH:5235	Community-Based Participatory Research (offered each fall)	3

CBH:5310	Qualitative Research for Public Health (offered each spring)	3

Community and Behavioral Health Electives

Students must take an additional 3 s.h. of elective community and behavioral health coursework or, with the approval of their advisor, coursework in another area.

The following is a list of suggested elective courses.

Course #	Title	Hours
CBH:4140	Feminist Activism and Global Health	3
CBH:4350	Maternal and Child Health Seminar	1
CBH:5235	Community-Based Participatory Research (if not taken as subprogram core course)	3
CBH:5310	Qualitative Research for Public Health (if not taken as subprogram core course)	3
CBH:5350	Foundations of Maternal and Child Health	3
CBH:5450	Foundations of Maternal and Child Health II	3
CBH:6115	Ethnographic Field Methods	3
CBH:6415	Independent Study in Community and Behavioral Health	arr.
HMP:6360	Nonprofit Organizational Effectiveness I	3
URP:6253	Designing Sustainable and Healthy Cities	1-3
URP:6260	Transportation Policy and Planning	3

Epidemiology Subprogram

The Master of Public Health with the epidemiology subprogram requires 44 s.h. of graduate credit. The subprogram is offered by the Department of Epidemiology [p. 2124].

The subprogram focuses on fundamental epidemiological concepts and methods and provides training in the use of public health data and methods for disease assessment and in methods for evaluating the need and outcome of programs and interventions. Graduates of the program work in public health departments and other health care settings.

Epidemiology subprogram students are required to attend departmental seminars and journal club. They must also present one scientific poster at an international, national, regional, state, university, or departmental poster session.

In addition to the MPH coursework listed under "Common Requirements," the epidemiology subprogram requires the following courses.

Epidemiology Subprogram Core

Course #	Title	Hours
All of these:		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
EPID:5540	Public Health Surveillance Mechanisms, Applications, and Data	3
EPID:5580	Public Health Laboratory Techniques	1
EPID:5600	Introduction to Epidemiology Data Management and Analysis	3
EPID:5610	Intermediate Epidemiology Data Analysis With SAS and R	3
EPID:5925	Epidemiology Journal Club: Evaluating the Literature (taken three times)	0
EPID:6400	Epidemiology II: Advanced Methods	4
One of these bioscience courses:		
HHP:4390	Understanding Human Disease	3
PATH:5270	Pathogenesis of Major Human Diseases	3

Students who already have completed a course equivalent to one of the bioscience courses, HHP:4390 Understanding Human Disease or PATH:5270 Pathogenesis of Major Human Diseases, may substitute additional elective credit.

Epidemiology Electives

Students fulfill the remainder of the 44 s.h. with elective courses. At least 3 s.h. of elective credit must be earned in courses offered by the Department of Epidemiology (prefix EPID) or in one of the following biostatistics courses.

Course #	Title	Hours
BIOS:6210	Applied Survival Analysis	3
BIOS:6310	Introductory Longitudinal Data Analysis	3

Epidemiology Other Requirements

Department of Epidemiology Seminar

Every week during the academic year, the Department of Epidemiology seminar provides a forum for speakers to present information or research pertaining to diverse topics in epidemiology. Contact information for the seminar coordinators is located on the Department of Epidemiology website under Preceptorship, Journal Club, and Seminar Contacts. Information about the schedule is distributed weekly each semester. Students are expected to achieve at least 80% attendance at the seminar during each semester of enrollment.

Journal Club

Students are required to enroll in EPID:5925 Epidemiology Journal Club: Evaluating the Literature three times, typically fall and spring semesters of their first year and fall semester of their second year. Through the class, students gain experience in reading, interpreting, and critically evaluating recently published journal articles. Journal Club for first-year students is for those who are new to the department and is offered in the fall semester. Students should register for section 1 of the course.

Full-time students enroll in this course for 0 s.h. Students enrolled part-time (less than 9 s.h.) who have a graduate research assistantship appointment may choose to register for 1 s.h. However, the credit earned for this course will not be

applied toward the minimum semester hours required for the MPH in epidemiology.

Every other week during the academic year, the Journal Club meets to discuss articles of interest in the field. Contact information for the Journal Club coordinators can be found on the Department of Epidemiology website under Preceptorship, Journal Club, and Seminar Contacts. Information about the schedule is distributed to students each semester. Students are required to achieve at least 80% attendance at Journal Club for three semesters during their time in the program.

Scientific Poster Requirement

Every MPH student in the epidemiology subprogram is required to present at least one scientific poster at the department level and is also encouraged to present a scientific poster at the international, national, regional, state, or university level at some point before graduation. The poster can be the same one used to meet the MPH program requirements for the practicum experience.

Occupational and Environmental Health Subprogram

The Master of Public Health with the occupational and environmental health subprogram requires 42 s.h. of graduate credit. The subprogram is offered by the Department of Occupational and Environmental Health [p. 2154].

The subprogram provides students with a broad perspective on public health and career preparation for a variety of professional positions in occupational and environmental health. Public health experience provides a desirable background for this subprogram.

In addition to the MPH coursework listed under "Common Requirements," the occupational and environmental health subprogram requires the following courses.

Occupational and Environmental Health Subprogram Core

Students earn 10 s.h. in the required subprogram core.

Course #	Title	Hours
All of these:		
OEH:5010	Occupational and Environmental Health Seminar (taken three times; twice for 0 s.h. and once for 1 s.h.)	0-1
OEH:5620	Occupational Health	3
OEH:6110	Rural Health and Agricultural Medicine	3
OEH:6230	Applied Environmental Health	3

Occupational and Environmental Health Electives

Students fulfill the remainder of the 42 s.h. with elective courses. Electives may be chosen from the following list of suggested courses or may include other related graduate-level coursework approved by the student's advisor.

Course #	Title	Hours
OEH:4310	Occupational Ergonomics: Principles	3
OEH:4510	Injury and Violence Prevention	3
OEH:4530	Global Road Safety	3
OEH:5410	Occupational Safety	3
OEH:6120	Current Topics in Agriculture and Rural Health	0-1
OEH:6420	Methods in Exposure Science	3
OEH:6431	Assessing Noise Hazards	1
OEH:6432	Assessing Nonionizing Radiation Hazards	1
OEH:6433	Assessing Ionizing Radiation Hazards	1
OEH:6510	Environmental and Occupational Epidemiology	3
OEH:6520	Injury Epidemiology	3
OEH:6710	Human Toxicology and Risk Assessment	3

Policy Subprogram

The Master of Public Health with the policy subprogram requires 42 s.h. of graduate credit. The subprogram is offered by the Department of Health Management and Policy [p. 2139].

The subprogram offers coursework and applied learning experiences that prepare students for careers in health policy analysis, system and organizational planning, and program evaluation. Graduates of the program find positions in federal, state, and local government; professional associations; and private agencies. Varied academic backgrounds are appropriate preparation for this program, including business, liberal arts and sciences, and the health professions.

In addition to the MPH coursework listed under "Common Requirements," the policy and administration subprogram requires the following courses. Policy subprogram students may count either HMP:5005 Introduction to Healthcare Organization and Policy or HMP:4000 Introduction to the U.S. Health Care System for the "Common Requirements."

Policy Subprogram Core

Course #	Title	Hours
All of these:		
HMP:5450	Health Insurance and Managed Care	3
HMP:5610	Health Policy	3
HMP:5650	Health Policy Analysis	3
HMP:6610	Legal Aspects of Healthcare	2-3
HMP:6750	Seminar in Health Policy	3

If HMP:5650 Health Policy Analysis is not offered during the semester, students can replace it with HMP:6710 Federalism and Health Policy (odd years) or HMP:5750 Medicare and Medicaid Policy (even years).

Policy Electives

Students fulfill the remainder of the 42 s.h. with elective courses selected from the following.

Course #	Title	Hours
At least 6 s.h. chosen from these:		
HMP:5230	Population Health	1,3
HMP:5320	Analytics for Healthcare Management	3
HMP:5310	Healthcare Quality and Operations Management	3

HMP:5350	Hospital Organization and Project Management	2-3
HMP:5410	Health Economics I	3
HMP:5750	Medicare and Medicaid Policy	3
HMP:6350	Medical Practice Administration	3
HMP:6360	Nonprofit Organizational Effectiveness I	3
HMP:6710	Federalism and Health Policy	3
HMP:6850	Independent Study and Research	arr.
HMP:7550	Cost Effectiveness and Decision Analysis	3
HMP:7940	Primary Data and Mixed Methods	3
LAW:8562	Health Law	3
POLI:3100	American State Politics	3

Practicing Veterinarians Subprogram

The practicing veterinarians subprogram is not currently accepting new applicants. Students interested in pursuing this program should inquire about the practicing professionals subprogram.

The Master of Public Health with the practicing veterinarians subprogram requires a minimum of 42 s.h. of graduate credit. The program is presented through a collaboration between the University of Iowa College of Public Health and the College of Veterinary Medicine at Iowa State University and is offered primarily by distance learning. It enables students to prepare for new career opportunities and equips them to respond to public health challenges such as zoonotic diseases, food security and foodborne illnesses, bioterrorism, and environmental health.

Students participate in two summer institutes, one on each campus during consecutive summers (two weeks in May or June); the rest of the program is online and students may complete requirements at times that fit their schedules. Specific courses are required each semester of the program.

In addition to the MPH coursework listed under "Common Requirements," the practicing veterinarians subprogram requires the following courses.

Practicing Veterinarians Subprogram Core

Course #	Title	Hours
All of these:		
CPH:6700	Public Health Emergency Preparedness for Veterinarians and Other Public Health Disciplines	3
EPID:5300	Food Safety	3
EPID:5470	Applied Veterinary Epidemiology/Biostatistics	3
EPID:5540	Public Health Surveillance Mechanisms, Applications, and Data	3
EPID:5550	Diagnostic Microbiology for Epidemiology	3
EPID:5570	Zoonotic Diseases	3
OEH:6110	Rural Health and Agricultural Medicine	3

Practicing Professionals Subprogram

The Master of Public Health with the practicing professionals subprogram is an individually defined concentration, requiring a minimum of 42 s.h. of graduate credit. Students and their advisor(s) identify courses to expand on foundational knowledge and skills and select a set of five competencies and corresponding courses for the individual student's plan of study from a preapproved list. Students have the option to complete this program in a hybrid modality.

Individuals who have already earned a professional degree may choose to complete the MPH practicing professionals subprogram, allowing greater flexibility in course selection. Typically, students who pick this subprogram are fellows, medical residents, practicing nurses, or physicians. Completion of the subprogram can enhance physicians' ability to receive primary certification from the American Board of Preventive Medicine. Physicians who are considering this certification should review the Become Certified requirements on the American Board of Preventive Medicine website. Students may take core courses on campus or online, accommodating a variety of schedules. Students work closely with their advisor to develop a plan of study that is tailored to their specific background and goals.

In addition to the MPH coursework listed under "Common Requirements," the practicing professionals subprogram requires the following courses.

Practicing Professionals Subprogram Core

In consultation with their academic advisor, students must select a set of five competencies mapped to corresponding courses for a minimum of 9 s.h. of graduate credit. Several competencies are available in each of the following areas: biostatistics [p. 2097], community and behavioral health [p. 2098], epidemiology [p. 2098], health management and policy [p. 2098], occupational and environmental health [p. 2098], professional [p. 2098], and veterinary [p. 2098].

Under certain circumstances, a student may be able to apply one course to two competency areas and thus be required to complete additional elective coursework to meet the 42 s.h. of graduate credit required to complete this subprogram. See MPH Concentration Competency Mapping on the College of Public Health website for a list of competencies.

Courses Mapped to Biostatistics Competencies

Students may select from biostatistics (BIOS) competencies numbered one through five.

Course #	Title	Hours
One of these (BIOS competency 1, 2, or 3):		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
BIOS:5720	Biostatistical Methods II	4
One of these (BIOS competency 4):		
BIOS:4510	Data Science Foundations in R	2
BIOS:5510	Biostatistical Computing	2
One of these (BIOS competency 5):		
BIOS:5130	Applied Categorical Data Analysis	3
BIOS:5730	Biostatistical Methods in Categorical Data	3

Courses Mapped to Community and Behavioral Health Competencies

Students may select from community and behavioral health (CBH) competencies numbered one through seven.

Course #	Title	Hours
CBH:5220	Health Behavior and Health Education (CBH competency 1)	3
CBH:5305 & CBH:6205	Evaluation: Approaches and Applications and Designing and Implementing Interventions (CBH competency 5)	6
CBH:6230	Health Equity, Disparities, and Social Justice (CBH competency 3 or 6)	3
Both of these (CBH competency 2):		
CBH:6335	Research Methods in Community and Behavioral Health	3
CBH:5310	Qualitative Research for Public Health	3
or CBH:5235	Community-Based Participatory Research	
One of these (CBH competency 4 or 7):		
CBH:6205	Designing and Implementing Interventions	3
CBH:6220	Health Communication Campaigns	3

Courses Mapped to Epidemiology Competencies

Students may select from epidemiology (EPID) competencies numbered one through seven.

Course #	Title	Hours
EPID:5540	Public Health Surveillance Mechanisms, Applications, and Data (EPID competency 3)	3
EPID:5580	Public Health Laboratory Techniques (EPID competency 1)	1
EPID:5600	Introduction to Epidemiology Data Management and Analysis (EPID competency 5)	3
EPID:6400	Epidemiology II: Advanced Methods (EPID competency 4, 6, or 7)	4
Both of these (EPID competency 2):		
EPID:5610	Intermediate Epidemiology Data Analysis With SAS and R	3
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3

Courses Mapped to Health Management and Policy Competencies

Students may select from health management and policy (HMP) competencies numbered one through five.

Course #	Title	Hours
HMP:5610	Health Policy (HMP competency 1 or 4)	1-3
HMP:6610	Legal Aspects of Healthcare (HMP competency 3)	2-3
HMP:6750	Seminar in Health Policy (HMP competency 5)	2-3
One of these (HMP competency 2):		
HMP:5650	Health Policy Analysis	3
HMP:5750	Medicare and Medicaid Policy	3
HMP:6710	Federalism and Health Policy	3

Courses Mapped to Occupational and Environmental Health Competencies

Students may select from occupational and environmental health (OEH) competencies numbered one through six.

Course #	Title	Hours
OEH:5620	Occupational Health (OEH competency 5 or 6)	3
OEH:6110	Rural Health and Agricultural Medicine (OEH competency 1 or 2; also see "Professional Competencies")	3
OEH:6230	Applied Environmental Health (OEH competency 3 or 4)	3

Courses Mapped to Professional Competencies

Students may select from professional (PROF) competencies numbered one through three.

Course #	Title	Hours
OEH:6110	Rural Health and Agricultural Medicine (PROF competency 2 or 3; also see "Occupational and Environmental Health Competencies")	3
One of these (PROF competency 1):		
EPID:5500	Introduction to Clinical Epidemiology	3
EPID:6910	Pharmacoepidemiology and Comparative Effectiveness Research	3

Courses Mapped to Veterinary Competencies

Students may select from veterinary (VET) competencies numbered one through six.

Course #	Title	Hours
CPH:6700	Public Health Emergency Preparedness for Veterinarians and Other Public Health Disciplines (VET competency 4 or 5)	3
EPID:5300	Food Safety (VET competency 3)	3
or EPID:5570	Zoonotic Diseases	
EPID:5570	Zoonotic Diseases (VET competency 1, 2, or 3)	3
OEH:6110	Rural Health and Agricultural Medicine (VET competency 6)	3

Professional Electives

Students earn the remainder of credit for their degree (typically 12 s.h.) in elective courses from biostatistics (prefix BIOS), community and behavioral health (prefix CBH), public health (prefix CPH), epidemiology (prefix EPID), health management and policy (prefix HMP), or occupational and environmental health (prefix OEH) courses numbered 3000 and above. Additional graduate courses may be eligible to count as electives but must be preapproved.

Exceptions

Petitions to waive these regulations may be made for appropriate and justifiable reasons on behalf of any graduate student through the department executive to the assistant dean for student services. Petitions must be approved by both the College of Public Health and the Graduate College.

Combined Programs

Graduate and Professional Combined Programs

The Master of Public Health offers the following graduate and professional degree combined programs.

- MPH (Law Subprogram/Juris Doctor (JD)
- MPH (Medicine Subprogram)/Doctor of Medicine (MD)
- MPH (Pharmacy Subprogram)/Doctor of Pharmacy (PharmD)
- MPH (Veterinary Medicine Subprogram)/Doctor of Veterinary Medicine (DVM)

Each combined degree program requires a minimum of 30 s.h. of graduate credit in addition to the requirements for the respective doctoral degree. The respective doctoral degree will count toward the 42 s.h. of graduate credit required to earn the MPH. Separate application to each degree program is required; applicants must be admitted to both programs before they may be admitted to the combined degree program. For MPH admission requirements, see Admission [p. 2100] in this section of the catalog.

Students must complete courses listed as "Common Requirements" in this section of the catalog. Students in a combined degree program will have the interprofessional education course requirement waived because the content is covered in pharmacy, medicine, or veterinary courses, or professional experience prior to enrollment in the MPH program.

MPH (Law Subprogram)/Juris Doctor (JD)

The MPH law subprogram helps students develop special expertise in public health legal issues. It is designed to train qualified students for leadership roles in both the public and private sectors. Students in the combined program must complete the curriculum of the JD program: see Juris Doctor, JD [p. 1833] (College of Law) in the catalog. Students must be enrolled in the College of Law to take law courses.

The MPH law subprogram requires the following coursework.

Course #	Title	Hours
At least 9 s.h. from these:		
HMP:5610	Health Policy	1-3
HMP:5650	Health Policy Analysis	3
HMP:6610	Legal Aspects of Healthcare	2-3
HMP:6750	Seminar in Health Policy	2-3

The following courses count toward both the MPH law subprogram and the Juris Doctor (JD).

Course #	Title	Hours
LAW:8467	Family Law	3-4
LAW:8562	Health Law	2-3
LAW:8753	Nonprofit Organizations: Structure, Governance, and Strategy	3
LAW:8755	Nonprofit Organizations: Advocacy, Collaboration, and Fundraising	3

MPH (Medicine Subprogram)/ Doctor of Medicine (MD)

Students who complete this combined program enjoy expanded career opportunities and are well-prepared to apply the principles of medicine and public health in their work.

The medicine subprogram core requires a minimum of 9 s.h. of graduate credit selected in consultation with an advisor. Students must identify five competencies that expand on foundational knowledge and skills and complete corresponding coursework for the selected competencies as detailed in the Practicing Professionals Subprogram Core in this section of the catalog. Courses must be approved by the student's advisor. Under certain circumstances, a single course may apply to two competency areas. More than 9 s.h. of subprogram coursework may be needed to fulfill all five competencies.

All of the following courses count toward the MD; only 12 s.h. from these count toward the MPH degree.

Course #	Title	Hours
MED:8121	Clinical and Professional Skills I	3
MED:8122	Medicine and Society I	3
MED:8132	Medicine and Society II	4
MED:8222	Medicine and Society III	4

Students in the combined MPH/MD program must complete the curriculum of the MD program; see Carver College of Medicine [p. 1881] in the catalog.

MPH (Pharmacy Subprogram)/ Doctor of Pharmacy (PharmD)

The MPH pharmacy subprogram/Doctor of Pharmacy helps students develop expertise in public health related to pharmacotherapy, health promotion, disease prevention, and medication safety. Graduates of the subprogram may work in areas of interest common to pharmacy and public health, such as spread and treatment of disease, community health, and immunology; bioterrorism, terrorism, and preparedness; genetics; insurance; managed care; family and juvenile health; and protection of special populations. Employment opportunities are available in hospitals and clinics and with health care providers; private practice; insurance and managed care organizations; local, county, state, and federal government; public health governmental agencies; and colleges and universities.

The pharmacy subprogram core requires a minimum of 9 s.h. of graduate credit selected in consultation with an

advisor. Students must identify five competencies that expand on foundational knowledge and skills and complete corresponding coursework for the selected competencies as detailed in the Practicing Professionals Subprogram Core in this section of the catalog. Courses must be approved by the student's advisor. Under certain circumstances, a single course may apply to two competency areas. More than 9 s.h. of subprogram coursework may be needed to fulfill all five competencies.

All of the following courses count toward the PharmD degree; only 12 s.h. from these count toward the MPH degree.

Course #	Title	Hours
PHAR:8250	Applications of Pharmacy Practice I	2
PHAR:8263	Integrated Pharmacotherapy: Infectious Diseases	4
PHAR:8265	Applications of Pharmacy Practice II	2
PHAR:8374	Applications of Pharmacy Practice III	2
PHAR:8378	Pharmacy Law and Ethics	2

Students in the combined MPH/PharmD program must complete the curriculum of the PharmD program; see (College of Pharmacy) in the catalog. Students must be enrolled in the College of Pharmacy in order to take College of Pharmacy courses.

MPH (Veterinary Medicine Subprogram)/Doctor of Veterinary Medicine (DVM)

The MPH veterinary medicine subprogram/Doctor of Veterinary Medicine is offered by the University of Iowa College of Public Health and the College of Veterinary Medicine at Iowa State University (see College of Veterinary Medicine in the Iowa State University catalog). The program prepares students for work as state veterinarians, as college and university faculty members, in local and state departments of public health, in the Public Health Service Commissioned Corps, in state agricultural departments, and for public health positions in the military.

A total of 12 s.h. in specific courses from the DVM degree count toward the MPH veterinary medicine subprogram.

The MPH veterinary medicine subprogram requires the following coursework taken at the University of Iowa.

Course #	Title	Hours
At least 9 s.h. from these:		
CPH:6700	Public Health Emergency Preparedness for Veterinarians and Other Public Health Disciplines	3
EPID:5300	Food Safety	3
or EPID:5570	Zoonotic Diseases	
OEH:6110	Rural Health and Agricultural Medicine	3

Exceptions

Petitions to waive these regulations may be made for appropriate and justifiable reasons on behalf of any graduate student through the department executive to the assistant dean for student services. Petitions must be approved by both the College of Public Health and the Graduate College.

Admission

Applicants to the MPH program must apply through the Schools of Public Health Application Service (SOPHAS) and then set up a University of Iowa account and pay the UI supplemental fee. For detailed application information, visit Prospective Graduate Students on the Master of Public Health website.

Applicants to the MPH program must have successfully completed one semester each of college algebra and biology.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Students may enter the MPH program in the fall and summer. The application deadline for fall or summer entrance to the MPH program is April 15.

The application deadline for the MPH for practicing veterinarians is March 1.

The application deadline for the Undergraduate to Graduate (U2G) program is Feb. 1.

Students may enter the MPH combined programs in fall, spring, and summer. Contact the individual combined programs for deadline information.

Career Advancement

For more information about careers in public health, visit Career Services in Public Health on the College of Public Health website or Student Journey on the Association of Schools & Programs of Public Health (ASPPH) website.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Master of Public Health, MPH

- Biostatistics Subprogram [p. 2100]
- Community and Behavioral Health Subprogram [p. 2101]
- Epidemiology Subprogram [p. 2102]
- Occupational and Environmental Health Subprogram [p. 2102]
- Policy Subprogram [p. 2103]
- Practicing Professionals Subprogram [p. 2104]

Biostatistics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
42 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		

Students must earn a grade of B- or better in each of the six MPH common core courses and must have a combined GPA of 3.00 or better in these courses. When necessary, a student may repeat a course to meet this requirement.		
	Hours	**0**
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
BIOS:4510	Data Science Foundations in R	2
CPH:5100	Introduction to Public Health	3
EPID:4400	Epidemiology I: Principles	3
OEH:4240	Global Environmental Health	3
	Hours	**14**
Spring		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
HMP:4000	Introduction to the U.S. Health Care System	3
Biostatistics Elective [c]		2 - 3
	Hours	**11-12**
Second Year		
Fall		
Meet with Applied Practice Director early during this semester to begin planning for spring semester		
BIOS:5130	Applied Categorical Data Analysis	3
BIOS:6310	Introductory Longitudinal Data Analysis [c]	3
CPH:5203	Interprofessional Education and Practice for MPH Students	0
Biostatistics Elective [c]		2 - 3
Biostatistics Elective [c]		3
	Hours	**11-12**
Spring		
BIOS:6210	Applied Survival Analysis [c]	3
CPH:7800	MPH Practicum	3
	Hours	**6**
	Total Hours	**42-44**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Work with faculty advisor for approval of appropriate graduate level coursework.

Community and Behavioral Health Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
42 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
Students must earn a grade of B- or better in each of the six MPH common core courses and must have a combined GPA of 3.00 or better in these courses. When necessary, a student may repeat a course to meet this requirement.		
	Hours	**0**
First Year		
Fall		
CBH:5220	Health Behavior and Health Education	3
CBH:6335	Research Methods in Community and Behavioral Health	3
CPH:5100	Introduction to Public Health	3
EPID:4400	Epidemiology I: Principles	3
	Hours	**12**
Spring		
BIOS:4120	Introduction to Biostatistics	3
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
CBH:6205	Designing and Implementing Interventions	3
HMP:4000	Introduction to the U.S. Health Care System	3
	Hours	**12**
Second Year		
Fall		
CBH:6230	Health Equity, Disparities, and Social Justice	3
CBH:5305	Evaluation: Approaches and Applications	3
CPH:5203	Interprofessional Education and Practice for MPH Students	0
OEH:4240	Global Environmental Health	3
Community and Behavioral Health Elective [c]		3
	Hours	**12**
Spring		
CBH:5310 or CBH:5235	Qualitative Research for Public Health [d] or Community-Based Participatory Research	3
CPH:7800	MPH Practicum	3
	Hours	**6**
	Total Hours	**42**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.
c Work with faculty advisor for approval of appropriate graduate level coursework.
d Work with faculty advisor to determine best fit for enrolling in one of the methods course options. Note: CBH:5235 is typically offered each fall and CBH:5310 is typically offered each spring.

Epidemiology Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
44 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
MPH Epidemiology students are also required to attend a departmental seminar series during each semester of enrollment in the program. [b]		
Graduate College program GPA of at least 3.00 is required. [c]		
Students must earn a grade of B- or better in each of the six MPH common core courses and must have a combined GPA of 3.00 or better in these courses. When necessary, a student may repeat a course to meet this requirement.		
Every student is required to present at least one scientific poster at the department level and is encouraged to present at the international, national, regional, state, or university level at some point before graduation. This may be the same poster presented during the MPH Applied Practice poster presentation.		
	Hours	**0**
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
CPH:5100	Introduction to Public Health	3
EPID:4400	Epidemiology I: Principles	3
EPID:5600	Introduction to Epidemiology Data Management and Analysis	3
EPID:5925	Epidemiology Journal Club: Evaluating the Literature [d]	0
	Hours	**12**
Spring		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
EPID:5925	Epidemiology Journal Club: Evaluating the Literature [d]	0
EPID:6400	Epidemiology II: Advanced Methods	4
HMP:4000	Introduction to the U.S. Health Care System	3
	Hours	**13**
Second Year		
Fall		
CPH:5203	Interprofessional Education and Practice for MPH Students	0
EPID:5540	Public Health Surveillance Mechanisms, Applications, and Data	3
EPID:5925	Epidemiology Journal Club: Evaluating the Literature [d]	0
OEH:4240	Global Environmental Health	3
HHP:4390 or PATH:5270	Understanding Human Disease or Pathogenesis of Major Human Diseases	3
	Hours	**9**
Spring		
CPH:7800	MPH Practicum	3
EPID:5580	Public Health Laboratory Techniques	1
EPID:5610	Intermediate Epidemiology Data Analysis With SAS and R	3
Epidemiology Elective [e]		3
	Hours	**10**
	Total Hours	**44**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Students are expected to achieve at least 80% attendance at the seminar during each semester of enrollment.
c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.
d Students are required to enroll in EPID:5925 three times, typically fall and spring semesters of their first year and fall semester of their second year, and achieve at least 80% attendance.
e At least 3 s.h. of elective credit must be earned in courses offered by the Department of Epidemiology (prefix EPID) or in one of the following biostatistics courses: BIOS:6210 or BIOS:6310. Work with faculty advisor for approval of appropriate graduate level coursework.

Occupational and Environmental Health Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
42 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		

Students must earn a grade of B- or better in each of the six MPH common core courses and must have a combined GPA of 3.00 or better in these courses. When necessary, a student may repeat a course to meet this requirement.		
	Hours	**0**
First Year		
Fall		
CPH:5100	Introduction to Public Health	3
EPID:4400	Epidemiology I: Principles	3
OEH:4240	Global Environmental Health	3
OEH:5010	Occupational and Environmental Health Seminar [c]	0
OEH:5620	Occupational Health	3
	Hours	**12**
Spring		
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
HMP:4000	Introduction to the U.S. Health Care System	3
OEH:5010	Occupational and Environmental Health Seminar [c]	0
OEH:6110	Rural Health and Agricultural Medicine	3
	Hours	**9**
Second Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
CPH:5203	Interprofessional Education and Practice for MPH Students	0
Occupational and Environmental Health Elective [d]		3
Occupational and Environmental Health Elective [d]		3
Occupational and Environmental Health Elective [d]		3
	Hours	**12**
Spring		
CPH:7800	MPH Practicum	3
OEH:5010	Occupational and Environmental Health Seminar [c]	1
OEH:6230	Applied Environmental Health	3
Occupational and Environmental Health Elective [d]		2 - 3
	Hours	**9-10**
	Total Hours	**42-43**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Students take OEH:5010 three times: twice for 0 s.h. and once for 1 s.h.

d Work with faculty advisor for approval of appropriate graduate level coursework.

Policy Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
42 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
Students must earn a grade of B- or better in each of the six MPH common core courses and must have a combined GPA of 3.00 or better in these courses. When necessary, a student may repeat a course to meet this requirement.		
	Hours	**0**
First Year		
Fall		
CPH:5100	Introduction to Public Health	3
HMP:5005 or HMP:4000	Introduction to Healthcare Organization and Policy or Introduction to the U.S. Health Care System	3
HMP:5610	Health Policy	3
OEH:4240	Global Environmental Health	3
	Hours	**12**
Spring		
BIOS:4120	Introduction to Biostatistics	3
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
HMP:5450	Health Insurance and Managed Care	3
HMP:5650	Health Policy Analysis	3
	Hours	**12**
Second Year		
Fall		
CPH:5203	Interprofessional Education and Practice for MPH Students	0
EPID:4400	Epidemiology I: Principles	3
HMP:6610	Legal Aspects of Healthcare	3
HMP:6750	Seminar in Health Policy	3
	Hours	**9**
Spring		
CPH:7800	MPH Practicum	3
Policy Elective [c]		3
Policy Elective [c]		3
	Hours	**9**
	Total Hours	**42**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Work with faculty advisor for approval of appropriate graduate level coursework.

Practicing Professionals Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
42 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b, c]		
	Hours	**0**
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
EPID:4400	Epidemiology I: Principles	3
OEH:4240	Global Environmental Health	3
	Hours	**9**
Spring		
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
Practicing Professionals Core Course [d]		3
Professional Elective [e]		3
	Hours	**9**
Summer		
CPH:5100	Introduction to Public Health	3
HMP:4000	Introduction to the U.S. Health Care System	3
	Hours	**6**
Second Year		
Fall		
CPH:5203	Interprofessional Education and Practice for MPH Students	0
Practicing Professionals Core Course [d]		3
Practicing Professionals Core Course [d]		3
Professional Elective [e]		3
	Hours	**9**
Spring		
CPH:7800	MPH Practicum	3
Professional Elective [e]		3
Professional Elective [e]		3
	Hours	**9**
	Total Hours	**42**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Students must earn a B-minus or higher in each core course. A minimum of 3.00 GPA in MPH core courses is required.

d In consultation with their academic advisor, students must select a set of five competences mapped to corresponding courses for a minimum of 9 s.h. of graduate credit. See the General Catalog for lists of approved courses.

e Work with faculty advisor for approval of appropriate graduate level coursework.

Public Health, Graduate Certificate

Requirements

The graduate Certificate in Public Health requires 18 s.h. of credit. Students must complete the certificate's required coursework within five years of entering the program and must maintain a grade-point average of at least 2.75 in work for the certificate. All certificate courses are offered online at least once a year, and all courses are offered on campus. Students who are only enrolled in the Certificate in Public Health program may not register for courses other than those required for the certificate.

The certificate program is designed to improve public health practice and public health workforce capacity in Iowa and the upper Midwest. It is intended primarily for individuals in public health practice, those in the workforce, and those interested in strengthening their knowledge and skills in basic public health competencies.

The graduate Certificate in Public Health requires the following coursework.

Course #	Title	Hours
All of these:		
CPH:5100	Introduction to Public Health	3
BIOS:4120	Introduction to Biostatistics	3
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
EPID:4400	Epidemiology I: Principles	3
HMP:4000	Introduction to the U.S. Health Care System	3
OEH:4240	Global Environmental Health	3

For more information about the program, visit Graduate Certificate in Public Health on the College of Public Health website.

Admission

Applicants to the certificate program must hold a bachelor's degree and must have a cumulative grade-point average of at least 2.75. They must submit official transcript(s), a statement of purpose, two reference letters, a résumé, and an online application.

For more information about how to apply, visit Graduate Certificate in Public Health on the College of Public Health website.

Agricultural Safety and Health

Head, Department of Occupational and Environmental Health

- Nathan Fethke

Director

- Diane Rohlman (Occupational and Environmental Health)

Graduate certificate: agricultural safety and health

Website: https://www.public-health.uiowa.edu/certificate-ash/

The Certificate in Agricultural Safety and Health trains students to detect safety and illness hazards and to treat and prevent farm-related illnesses and injuries. The program is available for students in related health science, environmental science, or occupational health and safety programs who want to supplement other training with agricultural health information.

The certificate may enhance employment opportunities in health care delivery, government, and the private sector.

The Certificate in Agricultural Safety and Health is administered by the Department of Occupational and Environmental Health [p. 2154]. The Graduate College grants the certificate.

Programs

Graduate Program of Study

- Certificate in Agricultural Safety and Health [p. 2107]

Agricultural Safety and Health, Graduate Certificate

Requirements

The graduate Certificate in Agricultural Safety and Health requires 12 s.h. of credit.

Course #	Title	Hours
OEH:5410	Occupational Safety	3
OEH:5620	Occupational Health	3
OEH:6110	Rural Health and Agricultural Medicine	3
OEH:6120	Current Topics in Agriculture and Rural Health (taken three times for 1 s.h. each)	3
Total Hours		**12**

For more information, visit Graduate Certificate in Agricultural Safety and Health on the College of Public Health website.

Admission

Admission requirements include:

- a bachelor's degree with a grade-point average of at least 2.50 from an accredited university or equivalent experience and education;
- a letter of interest that explains the applicant's current position and educational objectives;
- a résumé; and
- completion of the application form.

For more information, and how to apply, visit Graduate Certificate in Agricultural Safety and Health on the College of Public Health website.

Biostatistics

Head

- Joseph E. Cavanaugh

Graduate degrees: MS in biostatistics; PhD in biostatistics

Graduate certificate: biostatistics

Faculty: https://www.public-health.uiowa.edu/biostatistics-faculty-list/

Website: https://www.public-health.uiowa.edu/biostat/

The Department of Biostatistics prepares students for professional and academic careers in biostatistics. Graduates find positions in pharmaceutical, health care, and research companies and institutions; in universities and government agencies; and as consultants. The department also provides training for non-biostatistics students.

Biostatistics faculty members work closely with both clinical and basic science investigators on the University of Iowa health sciences campus in the design and analysis of research projects. The department has research expertise representing a broad array of methodological areas of statistics and biostatistics, including clinical trials, computational statistics, Bayesian modeling and inference, high-dimensional data analysis, statistical genetics and genomics, bioinformatics, informatics, statistical and machine learning, spatial and spatiotemporal modeling, time series analysis, survival data analysis, longitudinal data analysis, network analysis, causal inference, comparative effectiveness studies, model selection, epidemic modeling, and syndromic surveillance. Many of these areas represent current, cutting-edge areas of disciplinary focus in a rapidly evolving field.

In addition to the MS and the PhD degrees in biostatistics, the department offers a subprogram for the Master of Public Health (MPH) degree in biostatistics. See "MPH Subprogram."

MPH Subprogram

The Department of Biostatistics offers the biostatistics subprogram for the Master of Public Health degree. The subprogram is designed to train public health professionals for leadership in the analysis of public health data and the design of studies for public health investigations. See the Master of Public Health, MPH [p. 2092] in the catalog.

Programs

Graduate Programs of Study

- Biostatistics subprogram for the Master of Public Health [p. 2092] degree
- Master of Science in Biostatistics [p. 2111]
- Doctor of Philosophy in Biostatistics [p. 2113]
- Certificate in Biostatistics [p. 2116]

Facilities

Department of Biostatistics resources and activities include three centers. The Biostatistics Consulting Center provides opportunities for students to gain valuable experience working with faculty and staff in the health sciences at the University of Iowa. The Clinical Trials Statistical and Data Management Center serves the statistical design, data management, and analysis needs of a variety of multicenter clinical trials, and among those are Acute to Chronic Pain Signatures (A2CPS) Consortium, Network of Excellence in Neuroscience Clinical Trials (NeuroNEXT), and the Parkinson's Progression Markers Initiative (PPMI). The Center for Public Health Statistics facilitates the collection, analysis, and dissemination of health data in support of the research, teaching, and service missions of the College of Public Health. This includes collaborative relationships in the area of public health statistics including data management and statistical analysis services.

Courses

Biostatistics Courses

BIOS:4110 General Biostatistics 3 s.h.
Biostatistics and biostatistical computation; biostatistical aspects of health-related problems; clinical trials; statistical issues in big data problems; disease modeling; disease mapping; genetics and epidemiology; brief introduction to survival and longitudinal analyses.

BIOS:4120 Introduction to Biostatistics 3 s.h.
Application of statistical techniques to biological data including descriptive statistics, probability and distributions, sampling distributions, nonparametric methods, hypothesis tests, confidence intervals, analysis of categorical data, and simple linear regression; designed for non-biostatistics majors and MPH students. Requirements: college algebra or ALEKS score of 65% or higher.

BIOS:4510 Data Science Foundations in R 2 s.h.
Introduction to use of R tools for data wrangling and communication tasks commonly encountered in biostatistics; topics include preparation and manipulation of analytic datasets, data visualization, tabular summaries, and reporting.

BIOS:5120 Regression Modeling and ANOVA in the Health Sciences 3 s.h.
Continuation of BIOS:4120; correlation, simple and multiple linear regression, confounding, interactions, model selection, single and multiple factor ANOVA (analysis of variance) models, contrasts, multiple comparisons, nested and block designs; introduction to mixed models; for non-biostatistics majors. Offered spring semesters. Prerequisites: BIOS:4120. Same as IGPI:5120, STAT:5610.

BIOS:5130 Applied Categorical Data Analysis 3 s.h.
Analysis of proportions, risk measures, and measures of association; Mantel-Haenszel method; logistic regression for binary responses and for matched data; logistic regression for multi-category responses; analysis of count data (Poisson regression and negative binomial regression); analysis of clustered data (generalized estimating equations and generalized linear mixed effects model); special topics include the application of propensity score methods; designed for non-biostatistics majors. Offered fall semesters. Prerequisites: BIOS:5120. Same as IGPI:5130.

BIOS:5310 Research Data Management 3 s.h.
Introduction to data management techniques and problems encountered in gathering and processing data from biomedical investigations; introduction to SAS, techniques taught in SAS; designed for non-biostatistics majors. Recommendations: prior programming experience with C, C++, Python, Java, or other. Same as IGPI:5310, STAT:5810.

BIOS:5510 Biostatistical Computing 2 s.h.
Introduction to computer programming using SAS and R statistical software packages; programming language syntax, constructs, procedures, and techniques for data management, data analysis, and statistical programming commonly encountered in biostatistics; designed for first-year biostatistics majors. Offered fall semesters. Corequisites: BIOS:5710. Same as IGPI:5510.

BIOS:5710 Biostatistical Methods I 4 s.h.
Probability distributions, moments, estimation, parametric and nonparametric inference for one-sample and two-sample problems, analysis of frequency data; emphasis on use of computers; designed for first-year biostatistics majors. Offered fall semesters. Requirements: two semesters of calculus. Same as IGPI:5710.

BIOS:5720 Biostatistical Methods II 4 s.h.
Continuation of BIOS:5710; multi-factor ANOVA (analysis of variance), multiple comparisons, orthogonal contrasts, linear regression and correlation, regression diagnostics and remedial measures, model selection, and mixed models; designed for first-year biostatistics majors. Offered spring semesters. Prerequisites: BIOS:5710. Requirements: one semester of linear algebra. Same as IGPI:5720.

BIOS:5730 Biostatistical Methods in Categorical Data 3 s.h.
Estimation of proportions, rates, risks, relative risks, and odds ratios; Mantel-Haenszel method; logistic regression (including ordinal logistic regression and multi-category nominal logistic regression); Poisson regression and negative binomial regression; methods for correlated or clustered data (conditional logistic regression, generalized estimating equations, and mixed effects models); special topics include an introduction to generalized linear models and likelihood-based inferential techniques in this framework; designed for first-year biostatistics majors. Offered spring semesters. Prerequisites: BIOS:5510 and BIOS:5710. Corequisites: BIOS:5720. Same as IGPI:5730.

BIOS:6210 Applied Survival Analysis 3 s.h.
Nonparametric, parametric, and semi-parametric methods for time-to-event data; types of censoring; Kaplan-Meier estimation; Cox proportional hazards models, including methods for assessing adequacy of the proportional hazards assumption; time varying covariates; sample size calculations for comparison of two or more groups; focus on analysis of real data sets and examples using statistical software. Offered spring semesters. Prerequisites: BIOS:5120 or BIOS:5720. Same as IGPI:6210.

BIOS:6234 Basic Biostatistical Methods With Genetics Applications 1 s.h.
Introduction to terminology, fundamental concepts, and methods of biostatistics as applied to genetic research; genetic investigation examples used to illustrate statistical approaches. Same as GENE:6234.

BIOS:6310 Introductory Longitudinal Data Analysis 3 s.h.
Introduction to statistical models and estimation methods for outcome variables (normal and non-normal) clustered or measured repeatedly in time or space; focus on applications and computer software methods for ANOVA based methods, hierarchical linear models, linear mixed models, correlated regression models, generalized estimating equations, and generalized linear mixed models. Offered fall semesters. Prerequisites: BIOS:5120 or STAT:3200. Same as IGPI:6310, STAT:6550.

BIOS:6420 Survey Design and Analysis 3 s.h.
Methodological issues regarding design, sampling approach, implementation, analysis, and interpretation of surveys and questionnaires in public health research. Offered spring semesters of even years. Prerequisites: EPID:4400 and BIOS:5120. Same as EPID:6420.

BIOS:6610 Statistical Methods in Clinical Trials 3 s.h.
Survey of statistical methods commonly used in clinical trials; primary focus on methodologic perspective for the design, conduct, analysis, and interpretation of all phases of clinical trials; logistical and operational aspects of conducting multisite clinical trials; designed for biostatistics majors. Offered spring semesters. Prerequisites: BIOS:5720. Requirements: familiarity with SAS and R programming. Same as IGPI:6610.

BIOS:6650 Causal Inference 3 s.h.
Causal inference overview, emphasis on inference in observational research; conceptual issues (e.g., counterfactuals, causal graphs, time-varying treatments/confounding), methods (e.g., inverse probability weighting, doubly robust estimators), and related applications (e.g., causal mediation analysis, quantitative bias analysis); for advanced biostatistics or epidemiology students. Prerequisites: (BIOS:5720 and BIOS:5730) or (EPID:6400 and EPID:5241 and EPID:5610). Same as EPID:6655, IGPI:6650.

BIOS:6720 Statistical Machine Learning for Biomedical and Public Health Data 3 s.h.
Statistical machine learning techniques for analysis of biomedical and public health data; methodology and application of unsupervised learning, supervised learning for regression and classification, ensemble learning, model assessment, feature selection, and high-dimensional inference. Prerequisites: BIOS:5510 and BIOS:5720 and (STAT:4100 and STAT:4101) or (STAT:5100 and STAT:5101). Requirements: BIOS:5510 with topic of programming with R.

BIOS:6810 Bayesian Methods and Design 3 s.h.
Theory and application of Bayesian methods in biomedical research; foundations of Bayesian statistics including decision theory, study design, model development, inference and implementation of computational algorithms; designed for biostatistics majors. Offered fall semesters of even years. Prerequisites: BIOS:5510 and BIOS:5720 and BIOS:5730 and STAT:4100 and STAT:4101.

BIOS:7110 Likelihood Theory and Extensions 4 s.h.
Theoretical foundations of inferential methods based on likelihood and its extensions (e.g., profile, conditional, partial, marginal, pseudo likelihood). Prerequisites: (BIOS:5720 and STAT:5100 and STAT:5101) or (STAT:4100 and STAT:4101).

BIOS:7210 Survival Data Analysis 3 s.h.
Types of censoring and truncation; survival function estimation; parametric inference using exponential, Weibull, and accelerated failure time models; nonparametric tests; sample size calculation; Cox regression with stratification and time-dependent covariates; regression diagnostics; competing risks; topics may include analysis of correlated survival data and/or recurrent events; designed for biostatistics and statistics majors. Offered fall semesters of odd years. Prerequisites: BIOS:5720 and ((STAT:4100 and STAT:4101) or (STAT:5100 and STAT:5101)). Same as IGPI:7210, STAT:7570.

BIOS:7230 Advanced Clinical Trials 3 s.h.
Modules that address advanced topics and issues encountered when conducting a clinical trial; discussions of recent publications and FDA guidance documents dealing with current topics in clinical trials. Prerequisites: (STAT:4101 or STAT:5101) and BIOS:6610. Requirements: familiarity with SAS and R programming.

BIOS:7240 High-Dimensional Data Analysis 3 s.h.
Analysis of high-dimensional data with emphasis on use of penalized regression models such as lasso, elastic net, minimax concave penalty *(*MCP), smoothly clipped absolute deviation (SCAD), and group lasso; large-scale hypothesis testing and false discovery rate estimation; inference for penalized likelihoods. Prerequisites: (STAT:4100 and STAT:4101) or (STAT:5100 and STAT:5101) and BIOS:5510 and BIOS:5720. Requirements: BIOS:5510 with section subtitle of programming with R.

BIOS:7250 Theory of Linear and Generalized Linear Models 4 s.h.
Theoretical foundations of traditional linear models and generalized linear models; emphasis on modeling structures, estimability and identifiability, estimation and testing. Prerequisites: STAT:5100 and STAT:5101 and BIOS:5720.

BIOS:7270 Scholarly Integrity in Biostatistics 1 s.h.
Responsible conduct of research training; emphasis on issues of particular relevance to biostatisticians including authorship, communication, student/mentor relationships, plagiarism, fabrication and falsification of data, bias, Type I/II errors, reproducible research, data confidentiality and security, conflicts of interest, and human/animal subjects. Requirements: graduate standing in biostatistics.

BIOS:7310 Longitudinal Data Analysis 3 s.h.
Statistical models and estimation methods for outcome variables (normal and non-normal) clustered or measured repeatedly in time or space; includes ANOVA based methods, hierarchical linear models, linear mixed models, error structures, generalized estimating equations, and generalized linear mixed models; may include Bayesian approaches; designed for biostatistics and statistics majors. Offered spring semesters of odd years. Prerequisites: (BIOS:5720 and STAT:4100 and STAT:4101) or (STAT:5100 and STAT:5101). Same as IGPI:7310.

BIOS:7330 Advanced Biostatistical Computing 3 s.h.
Advanced topics in biostatistical computing and large or complicated data/models; matrix decomposition, optimization, Bayesian computing, parallel programming, working with campus high performance computing (HPC) resources; topics are explored in R, including package development and efficient R code. Prerequisites: MATH:2700 and BIOS:5510 and STAT:4101. Requirements: BIOS:5510 with section subtitle of programming with R.

BIOS:7410 Analysis of Categorical Data 3 s.h.
Distributions and inference for categorical data; descriptive and inferential methods for contingency tables; theory and application of generalized linear models including methods for parameter estimation and testing, model selection and assessment of model adequacy; models for binary, count, and multi-category outcomes; loglinear models for contingency tables; generalized additive models; generalized linear models for longitudinal and clustered data. Offered spring semesters of even years. Prerequisites: (BIOS:5720 or STAT:5200) and (STAT:5101 or STAT:4101). Same as STAT:7510.

BIOS:7500 Preceptorship in Biostatistics arr.
Work experience using knowledge and skill acquired in classroom; arranged in conjunction with ongoing departmental or collegiate activities or with governmental agencies or private industry; preparation of prospectus and presentation of research results in a department seminar.

BIOS:7600 Advanced Biostatistics Seminar 0-3 s.h.
Current topics; supervised experience in reading and interpreting biostatistical literature. Same as IGPI:7600.

BIOS:7604 Scholarly Integrity in Biostatistics for Postdocs 0 s.h.
Responsible conduct of research training; emphasis on issues of particular relevance to biostatisticians and statisticians including authorship, communication, student/mentor relationships, plagiarism, fabrication and falsification of data, bias, Type I/II errors, reproducible research, data confidentiality and security, conflicts of interest, human/animal subjects. Requirements: postdoctoral research scholar/fellow standing in biostatistics or statistics.

BIOS:7700 Problems/Special Topics in Biostatistics arr.
Didactic material in biostatistics; may include tutorials, seminars, faculty-directed independent work (e.g. literature search, project, short research project).

BIOS:7800 Independent Study in Biostatistics arr.
In-depth pursuit of an area of special interest in biostatistics requiring substantial creativity and independence.

BIOS:7850 Research in Biostatistics arr.
Research that may lead to a dissertation.

BIOS:7900 Thesis/Dissertation arr.

Biostatistics, MS

Learning Outcomes

Students will:

- summarize current statistical methods and practices used in the health sciences;
- develop statistical designs for a health science investigation;
- write computer programs in SAS and R for the management and analysis of data sets;
- apply quantitative and reasoning skills to analyze data from public health studies; and
- communicate key statistical principles resulting from health science studies to lay audiences.

Requirements

The Master of Science in biostatistics requires a minimum of 38 s.h. of graduate credit.

The program provides training in the design of experiments and in analysis of data related to biomedical or public health problems. It emphasizes mathematical, statistical, and computer methods for dealing with quantitative information and provides opportunities for students to gain statistical consulting experience with a variety of problems.

MS students are required to complete an in-depth preceptorship under the direction of a departmental faculty member and a final comprehensive-style examination.

The MS in biostatistics requires the following coursework.

Core Courses

All core courses must be taken on an A–F graded basis.

Course #	Title	Hours
All of these:		
BIOS:5510	Biostatistical Computing (taken twice for 2 s.h. each; topics should be programming with R and programming with SAS)	4
BIOS:5710 & BIOS:5720	Biostatistical Methods I and Biostatistical Methods II	8
BIOS:5730	Biostatistical Methods in Categorical Data	3
BIOS:6610	Statistical Methods in Clinical Trials	3
BIOS:7500	Preceptorship in Biostatistics	3
EPID:4400	Epidemiology I: Principles	3
One of these sequences:		
STAT:4100 & STAT:4101	Statistical Inference I and Statistical Inference II	6
STAT:5100 & STAT:5101	Statistical Inference I and Statistical Inference II (required for students who intend to earn a PhD)	6

Public Health Requirement

Course #	Title	Hours
This course:		
CPH:6100	Essentials of Public Health	2

Responsible Conduct of Research Training

Course #	Title	Hours
This course:		
BIOS:7270	Scholarly Integrity in Biostatistics	1

Electives

Students complete a minimum of 5 s.h. selected from the electives listed below. At least 3 s.h. must be in quantitative coursework in biostatistics (courses with prefix BIOS) or statistics (courses prefix STAT).

It is recommended that students consider a biology or public health course as the other elective, particularly if they have not had prior exposure to these areas. Electives must be approved by the advisor and the director of graduate studies; with their permission, courses not listed below may be completed as electives.

Course #	Title	Hours
At least 3 s.h. from these:		
BIOS:6210	Applied Survival Analysis	3
BIOS:6310	Introductory Longitudinal Data Analysis	3
BIOS:6420/ EPID:6420	Survey Design and Analysis	3
BIOS:6650/ EPID:6655	Causal Inference	3
BIOS:6720	Statistical Machine Learning for Biomedical and Public Health Data	3
BIOS:6810	Bayesian Methods and Design	3
BIOS:7110	Likelihood Theory and Extensions	4
BIOS:7210	Survival Data Analysis	3
BIOS:7230	Advanced Clinical Trials	3
BIOS:7240	High-Dimensional Data Analysis	3
BIOS:7250	Theory of Linear and Generalized Linear Models	4
BIOS:7310	Longitudinal Data Analysis	3
BIOS:7330	Advanced Biostatistical Computing	3
BIOS:7410	Analysis of Categorical Data	3
BIOS:7600	Advanced Biostatistics Seminar (topics include statistical methods in bioinformatics, model selection, spatial modeling, statistical analysis of network data)	1-3
BIOS:7700	Problems/Special Topics in Biostatistics	1
STAT:4520	Bayesian Statistics	3
STAT:4540	Statistical Learning	3
STAT:4580	Data Visualization and Data Technologies	3
STAT:6560	Applied Time Series Analysis	3
STAT:7400	Computer Intensive Statistics	3

May complete one of these to reach the 5 s.h. minimum:		
BIOL:4213	Bioinformatics	4
BME:5335	Computational Bioinformatics	3
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
CPH:5100	Introduction to Public Health	3
CS:5110	Introduction to Informatics	3
DATA:6200	Predictive Analytics	3
GENE:7191	Human Molecular Genetics	3
HHP:4390	Understanding Human Disease	3
HMP:4000	Introduction to the U.S. Health Care System	3
ISE:4172	Big Data Analytics	3
OEH:4240	Global Environmental Health	3
PATH:5270	Pathogenesis of Major Human Diseases	3
PATH:8133	Introduction to Human Pathology for Graduate Students	2-4

Admission

Applicants to the MS program in biostatistics must apply through the Schools of Public Health Application Service (SOPHAS). After the SOPHAS application is verified, the applicant pays a supplemental Graduate College admission fee to University of Iowa Admissions. For detailed application information, visit Requirements and How to Apply to Biostatistics on the Department of Biostatistics website.

The biostatistics faculty considers several factors when evaluating applications for admission, including grade-point averages, letters of recommendation, intent and motivation for graduate study, and research interests.

All applicants must hold a bachelor's degree and have a cumulative grade-point average of at least 3.00.

All biostatistics applicants are required to have strong written and oral communication skills.

All applicants must be competent in at least one computer programming language. They must also have mathematical sciences training in methods and techniques of single variable and multivariable differential and integral calculus, and linear algebra. Previous coursework or experience in statistical methods or data analysis is preferred.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Students may enter in the fall; the priority application deadline is Dec. 1.

Career Advancement

Graduates find career opportunities in many areas, including pharmaceutics, health care, research companies and institutions, consulting firms, universities, and government agencies.

Biostatistics, PhD

Learning Outcomes

Students will:

- describe current statistical theory, methods, and practices used in health sciences;
- analyze data from experimental and observational studies;
- design modern modeling structures used in health sciences analyses and research;
- communicate research findings to various audiences in writing and through oral presentation; and
- interpret analytical results from health science studies.

Requirements

The Doctor of Philosophy program in biostatistics requires a minimum of 79 s.h. of graduate credit, including credit from a master's degree. Students must maintain a UI cumulative grade-point average of at least 3.00. Those who receive a grade of C on 7 s.h. of coursework may be dismissed from the program.

All students must successfully complete a comprehensive examination and a dissertation. The research topic and content, which vary depending on the program of study, must be approved by a student's dissertation committee. Other degree requirements include approved electives chosen from the Department of Biostatistics and other University of Iowa courses.

The PhD in biostatistics requires the following work.

Master of Science Background

PhD students must take the following courses required for the Master of Science in biostatistics. Students who have completed equivalent coursework at other institutions may request waivers and/or transfers of credit. Students who earned a Master of Science with a major in biostatistics at the University of Iowa automatically receive credit for these courses.

Course #	Title	Hours
This sequence:		
STAT:5100 & STAT:5101	Statistical Inference I and Statistical Inference II	6
All of these:		
BIOS:5510	Biostatistical Computing (taken twice for 2 s.h. each; topics should be programming with R and programming with SAS)	4
BIOS:5710 & BIOS:5720	Biostatistical Methods I and Biostatistical Methods II	8
BIOS:5730	Biostatistical Methods in Categorical Data	3
BIOS:6610	Statistical Methods in Clinical Trials	3
BIOS:7500	Preceptorship in Biostatistics	3
EPID:4400	Epidemiology I: Principles	3

Public Health Requirement

Course #	Title	Hours
This course:		
CPH:6100	Essentials of Public Health	2

Responsible Conduct of Research Training

Course #	Title	Hours
This course:		
BIOS:7270	Scholarly Integrity in Biostatistics	1

Core Courses

Course #	Title	Hours
All of these:		
BIOS:6810	Bayesian Methods and Design	3
BIOS:7110	Likelihood Theory and Extensions	4
BIOS:7210	Survival Data Analysis	3
BIOS:7250	Theory of Linear and Generalized Linear Models	4
BIOS:7310	Longitudinal Data Analysis	3

Electives

With the approval of their advisor, students choose 16–23 s.h. of courses according to their interest in biostatistics, statistics, genetics, computing, public health, or in other areas. No more than 5 s.h. in nonquantitative courses (e.g., epidemiology, environmental health) may count toward the electives requirement. Courses required for the MS that are not previously listed may also be used to satisfy the electives requirement, although BIOS:7800 Independent Study in Biostatistics does not generally count as an elective. At least 6 s.h. of elective coursework must be taken on an A–F graded basis.

These courses are recommended, but other coursework may be selected; students should consult their advisor.

Course #	Title	Hours
BIOS:6420/ EPID:6420	Survey Design and Analysis	3
BIOS:6650/ EPID:6655	Causal Inference	3
BIOS:6720	Statistical Machine Learning for Biomedical and Public Health Data	3
BIOS:7230	Advanced Clinical Trials	3
BIOS:7240	High-Dimensional Data Analysis	3
BIOS:7330	Advanced Biostatistical Computing	3
BIOS:7410	Analysis of Categorical Data	3
BIOS:7600	Advanced Biostatistics Seminar (topics include model selection, spatial biostatistics, statistical methods in genetics/ genomics, analysis of network data)	1-3
BIOS:7850	Research in Biostatistics	arr.

BME:5335	Computational Bioinformatics	3
STAT:6560	Applied Time Series Analysis	3
STAT:7400	Computer Intensive Statistics	3

Dissertation

Students must enroll in the following dissertation course for at least two semesters in residence.

Course #	Title	Hours
BIOS:7900	Thesis/Dissertation	6-13

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and a PhD in biostatistics in a combined degree program offered by the Carver College of Medicine and the College of Public Health. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

Applicants to the PhD program in biostatistics must apply through the Schools of Public Health Application Service (SOPHAS). After the SOPHAS application is verified, the applicant pays a supplemental Graduate College admission fee to University of Iowa Admissions. For detailed application information, visit Requirements and How to Apply to Biostatistics on the Department of Biostatistics website.

The biostatistics faculty considers several factors when evaluating applications for admission, including grade-point averages, letters of recommendation, intent and motivation for graduate study, and research interests.

All applicants must hold a bachelor's degree and have a cumulative grade-point average of at least 3.00.

All biostatistics applicants are required to have strong written and oral communication skills.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

PhD application deadlines are posted on the Department of Biostatistics website. Application deadline is Dec. 1. Visit Requirements and How to Apply to Biostatistics on the department's website.

Career Advancement

The program prepares students for professional and academic careers in biostatistics, especially for positions that emphasize developing and applying statistical methodology to solve important biological and public health problems.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biostatistics, PhD

Course	Title	Hours
Academic Career		
Any Semester		
79 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
BIOS:5510	Biostatistical Computing [b]	2
BIOS:5510	Biostatistical Computing [b]	2
BIOS:5710	Biostatistical Methods I	4
CPH:6100	Essentials of Public Health	2
STAT:5100	Statistical Inference I	3
	Hours	**13**
Spring		
BIOS:5720	Biostatistical Methods II	4
BIOS:5730	Biostatistical Methods in Categorical Data	3
BIOS:7270	Scholarly Integrity in Biostatistics	1
STAT:5101	Statistical Inference II	3
	Hours	**11**
Summer		
Exam: Master's Core Exam [c]		
	Hours	**0**
Second Year		
Fall		
BIOS:7110	Likelihood Theory and Extensions [d]	4
BIOS:6810 or BIOS:7210	Bayesian Methods and Design [d] or Survival Data Analysis	3
BIOS:7500	Preceptorship in Biostatistics [e, f]	3
EPID:4400	Epidemiology I: Principles	3
	Hours	**13**
Spring		
BIOS:6610	Statistical Methods in Clinical Trials [e]	3
BIOS:7250	Theory of Linear and Generalized Linear Models [d, g]	4
BIOS:7310	Longitudinal Data Analysis [d, h, i]	3
	Hours	**10**
Summer		
Exam: Doctoral Comprehensive Exam		
	Hours	**0**
Third Year		
Fall		
BIOS:6810 or BIOS:7210	Bayesian Methods and Design [d] or Survival Data Analysis	3
Elective course [h, i]		3
Elective course [h, i]		3
	Hours	**9**
Spring		
BIOS:7310	Longitudinal Data Analysis [d, h, i]	3
Elective course [h, i]		3

Elective course [h, i]		3
	Hours	**9**
Fourth Year		
Fall		
BIOS:7900	Thesis/Dissertation [j]	3
Elective course [h, i]		3
	Hours	**6**
Spring		
BIOS:7900	Thesis/Dissertation [j]	3
Elective course [h, i]		3
	Hours	**6**
Fifth Year		
Fall		
BIOS:7900	Thesis/Dissertation [j]	1 - 4
Dissertation prospectus presentation		
	Hours	**1-4**
Spring		
BIOS:7900	Thesis/Dissertation [j]	1 - 4
Exam: Doctoral Final Exam [k]		
	Hours	**1-4**
	Total Hours	**79-85**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Complete two sections of BIOS:5510, Programming in R and Programming in SAS.
c Required if entering the program without an MS in statistics or biostatistics.
d Required core course. Additional information can be found in the General Catalog and department website.
e To fulfill MS degree requirements by the end of 4th semester, an approved PhD elective may substitute for BIOS:6610 or BIOS:7500. The substituted MS requirement would transfer to a PhD requirement. Contact the Grad Program Administrator to pursue this option.
f Course may also be completed in spring of second year.
g Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
h Refer to the Biostatistics Student Handbook, PhD in Biostatistics section, for sequencing of PhD elective courses.
i Students choose 16-23 s.h. of courses according to their interest in biostatistics, statistics, genetics, computing, public health, or in other areas. No more than 5 s.h. in nonquantitative courses (e.g., epidemiology, environmental health) may count toward the electives requirements. At least 6 s.h. of elective coursework must be taken on an A-F graded basis.
j Must register for at least two semesters; minimum of 6 s.h. required overall.
k Dissertation defense.

Biostatistics, Graduate Certificate

Learning Outcomes

- Propose and defend good statistical design as a collaborator on a public health project.
- Promote the use of sound statistical methods to answer open questions in public health science.
- Interpret results of data analysis for public health research, policy, or practice.
- Develop computer programs for the management and analysis of datasets.

Requirements

The graduate Certificate in Biostatistics requires a minimum of 14 s.h. of graduate credit. Students must earn a grade of at least B-minus in each certificate course and must achieve a major program grade-point average of at least 3.00 in order to earn the certificate. The certificate is designed for students who would like to add a formal biostatistics emphasis to their graduate programs.

The program is open to students enrolled in a University of Iowa graduate degree program outside the Department of Biostatistics. It is also open to individuals who hold graduate degrees in science disciplines or professional degrees in the health sciences and are admitted to the Graduate College as nondegree students.

The certificate requires two core courses (6 s.h.) and three electives (minimum 8 s.h.). Students should work with an advisor to plan their coursework carefully because some certificate courses have prerequisites, require permission for enrollment, or are not offered every year. They must complete at least 5 s.h. of the required coursework after being admitted to the certificate program and may count a maximum of 5 s.h. of certificate credit toward a degree or another certificate earned at the university. At least 5 s.h. of the certificate plan of study must be exclusively applied to the certificate.

The Certificate in Biostatistics requires the following coursework.

Core Courses

Course #	Title	Hours
Both of these:		
BIOS:4120	Introduction to Biostatistics	3
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3

Electives

Course #	Title	Hours
At least 8 s.h. from these:		
BIOS:4510	Data Science Foundations in R	2
BIOS:5130	Applied Categorical Data Analysis	3
BIOS:6210	Applied Survival Analysis	3
BIOS:6310	Introductory Longitudinal Data Analysis	3
BIOS:6420/ EPID:6420	Survey Design and Analysis	3
BIOS:6650/ EPID:6655	Causal Inference	3

Other courses may be approved as electives by the Department of Biostatistics director of graduate studies. See Certificate in Biostatistics on the College of Public Health website for more information.

Admission

Enrollment is limited; applicants who have completed at least one of the certificate's required courses and whose research will be advanced by biostatistics training are given priority for admission. Visit the Certificate in Biostatistics on the department's website for an application form.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Biostatistics, Graduate Certificate

Course	Title	Hours
Academic Career		
Any Semester		
The graduate certificate in biostatistics requires in minimum of 14 s.h. of graduate credit.		
	Hours	**0**
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
	Hours	**3**
Spring		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
	Hours	**3**
Second Year		
Fall		
Certificate: biostatistics elective course [a]		3
	Hours	**3**
Spring		
Certificate: biostatistics elective course [a]		3
	Hours	**3**
Third Year		
Fall		
Certificate: biostatistics elective course [a]		2 - 3
	Hours	**2-3**
	Total Hours	**14-15**

a Students must complete at least 8 s.h. of electives from BIOS:4510, BIOS:5130, BIOS:6210, BIOS:6310, BIOS:6420, BIOS:6650.

Community and Behavioral Health

Head

- Mark W. Vander Weg

Graduate degree: PhD in community and behavioral health

Faculty: https://www.public-health.uiowa.edu/cbh-faculty-list/

Website: https://www.public-health.uiowa.edu/cbh/

The Department of Community and Behavioral Health examines the relationship between human behavior and community health and focuses on creating effective strategies for change. Community and behavioral health students learn how to design, implement, and evaluate interventions directed toward identified public health problems in communities.

The Department of Community and Behavioral Health advances teaching, research, and practice in four strategic areas: rural health; community engagement and participatory approaches; theory-based culturally informed intervention development, implementation, and evaluation; and social justice, health equity, and health disparities.

Department faculty members come from a variety of disciplines within the social and health sciences, drawn together by an interest in health behavior and promoting healthy communities.

In addition to the PhD in community and behavioral health, the department offers a subprogram for the Master of Public Health (MPH).

MPH Subprogram

The Department of Community and Behavioral Health offers a subprogram for the Master of Public Health degree.

The MPH subprogram in community and behavioral health prepares public health practitioners for a variety of positions related to intervention development, implementation, and evaluation using community participatory approaches with a focus on decreasing health disparities and inequities.

For detailed information about the MPH, see the Master of Public Health, MPH [p. 2092] in the catalog.

Programs

Graduate Programs of Study

Majors

- Community and behavioral health subprogram for the Master of Public Health [p. 2092] degree
- Doctor of Philosophy in Community and Behavioral Health [p. 2119]

Facilities

The department houses two centers, the Prevention Research Center for Rural Health and the Native Center for Behavioral Health.

The Prevention Research Center for Rural Health (PRC–RH) advances health equity through collaborations that transform social, structural, and environmental conditions. More specifically, the PRC–RH promotes the health of the residents of micropolitan and rural communities in Iowa and conducts research to develop strategies that work and can bring long-term benefits to these communities. We offer training and technical assistance to the public health community. The PRC–RH is funded by the Centers for Disease Control and Prevention and is the only funded Prevention Research Center in the Midwest with an exclusive rural health focus.

The Native Center for Behavioral Health consists of three programs: the National American Indian and Alaska Native Childhood Traumatic Stress Center, the Mental Health Awareness Training program for Sioux City, and the Indigenous Motivational Training program. The main goals for all the programs are to disseminate culturally informed evidence-based and experience-based practices in behavioral health and provide training, technical assistance, and workforce development assistance to urban Indigenous and Tribal communities across the country.

Courses

Community and Behavioral Health Courses

CBH:3150 Media and Health **3 s.h.**
Potential and limits of mass media's ability to educate the public about health; research and theory on the influence of information and entertainment media; theories, models, assumptions of mass communication in relation to public health issues. Same as GHS:3150, JMC:3150.

CBH:4105 Introduction to Health Promotion and Disease Prevention **3 s.h.**
Basic concepts, strategies, and methods of health promotion and disease prevention; health promotion in the context of public health, theories and principles that underpin health promotion; overview of policy formation and health promotion planning, implementation, evaluation.

CBH:4140 Feminist Activism and Global Health **3 s.h.**
How female gender intersects with culture, environment, and political economy to shape health and illness; reproductive health, violence, drug use, cancer; readings in anthropology, public health. Prerequisites: ANTH:1101 or GWSS:1001 or CPH:1400 or GHS:2000. Same as ANTH:4140, GHS:4140, GWSS:4140.

CBH:4200 Colonialism and Indigenous Health Equity **3 s.h.**
Health problems and services for Indigenous populations worldwide, from perspective of Fourth World postcolonial politics. Prerequisites: ANTH:1101 or ANTH:2165 or GHS:2000 or HIST:1049 or CPH:1400. Same as ANTH:3110, GHS:3110, NAIS:3110.

CBH:4350 Maternal and Child Health Seminar **1 s.h.**
Historical and applied perspective on maternal and child health problems and programs aimed at reducing morbidity, mortality, and health disparities across the life span. Same as EPID:4350.

CBH:5220 Health Behavior and Health Education **3 s.h.**
Common theories of health behavior and health education and their application to varied public health problems and settings.

CBH:5235 Community-Based Participatory Research 3 s.h.
How community-based participatory research (CBPR) has emerged as a critical approach to conduct research and produce scholarship; opportunities, challenges, needed skills, and methods by which researchers and community members partner to conduct research that leads to community well-being and health; students share their experiences, explore, and learn through case studies, guest lectures, and interactive activities; application of research methods through a CBPR approach.

CBH:5305 Evaluation: Approaches and Applications 3 s.h.
Focus on program evaluation methods for use in public health and related educational and social service programs; exploration of methods and approaches, as well as planning strategies for conducting program evaluations; exposure to all components of evaluation from planning to dissemination of findings. Prerequisites: CBH:5220 and BIOS:4120 and EPID:4400. Requirements: enrollment in College of Public Health.

CBH:5310 Qualitative Research for Public Health 3 s.h.
Introduction to methods and theories of qualitative research that facilitate description and explanation of social phenomena related to health behavior, illness, prevention, and treatment in the public health domain.

CBH:5350 Foundations of Maternal and Child Health 3 s.h.
Life course approach to understanding determinants, mechanisms, and systems that promote and maintain health, safety, and well-being of mothers and their children. Prerequisites: EPID:4350. Same as EPID:5350.

CBH:5450 Foundations of Maternal and Child Health II 3 s.h.
Applied approach to developing, implementing, and evaluating programs to benefit pregnant and birthing individuals and their children; working with community and/or government organizations to meet the needs of children, adolescents, and parents/guardians. Prerequisites: EPID:4350 and EPID:5350. Same as EPID:5450.

CBH:6100 Public Health Responses to Substance Use and Misuse 3 s.h.
Introduction to substance use and misuse in the United States, using a population health perspective to examine relevant historical context, theories, empirical data, and interventions, with emphasis on critical analysis, health equity, and community engagement. Requirements: graduate program enrollment.

CBH:6115 Ethnographic Field Methods 3 s.h.
Basic data-gathering techniques for field research in sociocultural anthropology. Same as ANTH:6115.

CBH:6205 Designing and Implementing Interventions 3 s.h.
Theoretical foundations, phases, and skills necessary to plan, design, and implement a public health intervention program; techniques and strategies for designing and implementing public health interventions; emphasis on community engagement; evidence-based, culturally and contextually situated methods and skills to plan, design, and implement public health intervention program; analysis of case studies, individual and small group work on assignments and development of a data-driven program. Prerequisites: CBH:5220. Requirements: admission to College of Public Health.

CBH:6220 Health Communication Campaigns 3 s.h.
Intervention design and analysis of health campaigns; theory, practice, methods; mass media, community, organization, and interpersonal approaches. Same as COMM:6220.

CBH:6230 Health Equity, Disparities, and Social Justice 3 s.h.
Introduction to the concept of health equity and an overview of U.S. health disparities; students gain a better understanding of research and interventions through readings, lectures, reflection papers, in-class exercises, and research assignments. Same as EPID:6075.

CBH:6335 Research Methods in Community and Behavioral Health 3 s.h.
Overview of quantitative and qualitative research methods for community and behavioral health; major elements of behavioral and social science research, critical evaluation of research related to community and behavioral health, application of research methods in public health practice; opportunities for students to build skills for evaluation of research and application of quantitative and qualitative research methods.

CBH:6405 Global Maternal, Newborn, and Child Health 3 s.h.
Overview of global demographic trends in maternal, newborn, and child health; focus on low- and middle-income countries as well as programs, interventions, and policies that have successfully improved the health of women and children around the globe.

CBH:6410 Special Topics arr.
Didactic material in community and behavioral health that may include tutorial, seminar, or faculty-directed independent work (e.g., literature search, project, short research project).

CBH:6415 Independent Study in Community and Behavioral Health arr.
Pursuit of an interest in community and behavioral health requiring substantial creativity and independence.

CBH:7100 Community and Behavioral Health Doctoral Seminar 1 s.h.
Introduction to the Department of Community and Behavioral Health; essential skills for success in academia, individual faculty member's work, and doctoral program requirements; for incoming PhD students.

CBH:7200 Advanced Intervention Research 3 s.h.
Intervention research development and implementation including conceptualization, design, development of research team and intervention approaches, statistical power, and research ethics. Prerequisites: CBH:6205.

CBH:7300 Advanced Behavioral Theories 3 s.h.
Seminar on behavioral theory in public health; builds on student's previous training in theory with an emphasis on applications to guide research and thereby ensuring skills necessary to function as an independent scientist; examination of general principles of behavioral theory and several behavioral theories at different ecological levels; current state of theory development (i.e., gaps, future directions for research); emphasis on critical analysis and application of theory; students gain a better understanding of the role of behavioral theory in population health research. Prerequisites: CBH:5220. Requirements: doctoral standing.

CBH:7505 CBH Thesis/Dissertation arr.
Work on MS thesis or PhD dissertation in community and behavioral health, with thesis/dissertation advisor.

Community and Behavioral Health, PhD

Learning Outcomes

Graduates of the program will be able to:

- apply social and behavioral science theories in public health research;
- produce effective scientific writing;
- demonstrate grant-writing skills;
- participate in interdisciplinary research;
- communicate research findings to various audiences, including policymakers and community members;
- design a research study that incorporates knowledge of pertinent cultural, social, behavioral, and biological factors;
- design a theory-informed, community-based intervention research project;
- design an implementation and evaluation plan for a theory-informed, community-based intervention;
- formulate focused research questions to address gaps in community and behavioral health knowledge;
- evaluate social and behavioral science research design, methodology, and analysis related to public health; and
- evaluate how structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and societal levels.

Requirements

The PhD program in community and behavioral health requires at least 75 s.h. of graduate credit, including approved credit earned from a master's degree. Students must maintain a UI cumulative grade-point average of at least 3.00.

Students must successfully complete a qualifying exam, a comprehensive exam, and a dissertation. The research topic must be approved by a student's dissertation committee.

During the first semester, students work with their academic advisor to develop a plan of study that satisfies their interests and professional goals as well as the program's requirements.

College of Public Health Core

Students complete the following (13 s.h.).

Course #	Title	Hours
BIOS:4120	Introduction to Biostatistics	3
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
CBH:7100	Community and Behavioral Health Doctoral Seminar	1
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health	1
EPID:4400	Epidemiology I: Principles	3

Behavioral and Social Sciences Core

Students complete the following (21 s.h.).

Course #	Title	Hours
All of these:		
CBH:5220	Health Behavior and Health Education	3
CBH:5235	Community-Based Participatory Research	3
CBH:6205	Designing and Implementing Interventions	3
CBH:6220	Health Communication Campaigns	3
CBH:6230	Health Equity, Disparities, and Social Justice	3
CBH:7200	Advanced Intervention Research	3
CBH:7300	Advanced Behavioral Theories	3

Research Methods Core

Students complete the following (15 s.h.).

Course #	Title	Hours
Both of these:		
CBH:5305	Evaluation: Approaches and Applications	3
CBH:5310	Qualitative Research for Public Health	3
9 s.h. from these:		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
BIOS:5130	Applied Categorical Data Analysis	3
CBH:6115	Ethnographic Field Methods	3
CBH:6335	Research Methods in Community and Behavioral Health	3
EPLS:6209	Survey Research and Design	3
EPLS:6370	Quantitative Methods for Policy Analysis	3
HMP:7940	Primary Data and Mixed Methods	3
PSQF:6243	Intermediate Statistical Methods	3
PSQF:6244	Correlation and Regression	4
PSQF:6249	Factor Analysis and Structural Equation Models	3
PSQF:6252	Introduction to Multivariate Statistical Methods	3
PSQF:7375	Topics in Educational Measurement and Statistics	1-3
SOC:5160	Research Design and Methods	3
SOC:6170	Introduction to Sociological Data Analysis	3
SOC:6180	Linear Models in Sociological Research	3

SOC:7170	Advanced Statistical Modeling of Data	3

Content Area Electives

Students complete 14 s.h. of elective coursework in consultation with their advisor. The following is a list of suggested coursework; however, other courses may be approved with the consent of the advisor.

Course #	Title	Hours
CBH:4140	Feminist Activism and Global Health	3
CBH:5350	Foundations of Maternal and Child Health	3
CBH:6410	Special Topics	arr.
CBH:6415	Independent Study in Community and Behavioral Health	arr.
HMP:5005	Introduction to Healthcare Organization and Policy	3
HMP:7940	Primary Data and Mixed Methods	3
HMP:7950	Design Issues in Health Service Research	3
HMP:7960	Analytic Issues in Health Services Research I	3
HMP:7965	Analytic Issues in Health Services Research II	3

Dissertation

Students complete 12 s.h. in CBH:7505 CBH Thesis/ Dissertation.

Admission

PhD applicants must apply through the Schools of Public Health Application Service (SOPHAS). Applications must include academic transcripts, three letters of recommendation, a statement of purpose, and a writing sample. International transcripts should be evaluated by the World Education Service (WES) and submitted to SOPHAS. Interested PhD applicants are asked to connect with community and behavioral health faculty by Dec. 1. For detailed application information, visit How to Apply to the PhD in Community and Behavioral Health on the Department of Community and Behavioral Health website.

The community and behavioral health admissions committee considers several factors when evaluating applications for admission, including grade-point averages, letters of recommendation, intent and motivation for graduate study, and research interests. Students with deficiencies in one area may be admitted if all other components of their application are very strong.

Applicants must have a graduate grade-point average of at least 3.40 and have earned a graduate degree from an accredited college or university in a related public health, social science, or clinical health field. Applicants who do not hold a graduate degree should apply to a master's program prior to applying for the PhD program. PhD program applicants must also submit their master's thesis, or if no thesis is available, a sample of their scholarly writing.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

The application deadline is Jan. 15 for the fall semester. Applications are not accepted for spring or summer semesters.

Career Advancement

The program prepares individuals for academic, research, and policy-making work in the social and behavioral health sciences. This academic specialty offers many career opportunities in academic and research institutions.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Community and Behavioral Health, PhD

Course	Title	Hours
Academic Career		
Any Semester		
75 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
	Hours	**0**
First Year		
Fall		
CBH:5220	Health Behavior and Health Education	3
CBH:6230	Health Equity, Disparities, and Social Justice	3
CBH:7100	Community and Behavioral Health Doctoral Seminar	1
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health	0
EPID:4400	Epidemiology I: Principles	3
	Hours	**12**
Spring		
BIOS:4120	Introduction to Biostatistics	3
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
CBH:6205	Designing and Implementing Interventions	3
CPH:7270	Principles of Scholarly Integrity: Public Health	1
Content Area Elective [b]		3
	Hours	**13**
Second Year		
Fall		
Qualifying Exam [c]		
CBH:5235	Community-Based Participatory Research	3

CBH:5305	Evaluation: Approaches and Applications	3
CBH:7300	Advanced Behavioral Theories	3
Content Area Elective [b]		3
	Hours	**12**
Spring		
CBH:5310	Qualitative Research for Public Health	3
CBH:7200	Advanced Intervention Research	3
Research Methods Core course [d]		3
Content Area Elective [b]		3
	Hours	**12**
Third Year		
Fall		
CBH:6220	Health Communication Campaigns	3
Research Methods Core course [d]		3
Content Area Elective [b]		3
Content Area Elective [b]		2
	Hours	**11**
Spring		
CBH:7505	CBH Thesis/Dissertation	3
Research Methods Core course [d]		3
Exam: Doctoral Comprehensive Exam [e]		
	Hours	**6**
Fourth Year		
Fall		
CBH:7505	CBH Thesis/Dissertation	3
	Hours	**3**
Spring		
CBH:7505	CBH Thesis/Dissertation	3
	Hours	**3**
Fifth Year		
Fall		
CBH:7505	CBH Thesis/Dissertation	3
Exam: Doctoral Final Exam [f]		
	Hours	**3**
	Total Hours	**75**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b See General Catalog and website for list of suggested courses and specifics; work with faculty advisor to determine appropriate coursework and sequence.

c Taken at the end of first year second semester if entering with a relevant master's degree; taken at the end of second year first semester if entering without a relevant master's degree or enrolled part-time. See General Catalog and website for specifics.

d See General Catalog and website for list of approved methods courses; work with faculty advisor to determine appropriate coursework and sequence.

e Usually completed after most required coursework has been completed; see General Catalog and website for specifics.

f Oral dissertation defense.

Emerging Infectious Disease Epidemiology

Head, Department of Epidemiology

- Elizabeth A. Chrischilles

Graduate certificate: emerging infectious disease epidemiology

Website: https://www.public-health.uiowa.edu/certificate-in-emerging-infectious-disease-epidemiology/

Emerging infectious diseases increasingly are recognized as global and regional issues. Some infectious diseases are controlled effectively with the help of modern technology. But new diseases—such as SARS, West Nile, and avian influenza virus infections—appear frequently, and older ones, including malaria, tuberculosis, and bacterial pneumonia, are now appearing in forms that are resistant to drug treatments. All of them have the potential to seriously affect human and animal health as well as economies locally and worldwide. They pose novel and unceasing challenges for professionals in health care, government, and private agencies.

The Certificate in Emerging Infectious Disease Epidemiology is administered by the Department of Epidemiology [p. 2124]. The Graduate College grants the certificate.

Programs

Graduate Program of Study

- Certificate in Emerging Infectious Disease Epidemiology

Emerging Infectious Disease Epidemiology, Graduate Certificate

Requirements

The graduate Certificate in Emerging Infectious Disease Epidemiology requires 13 s.h. of graduate credit. Students must complete the certificate's required coursework within five years of entering the program and must maintain a grade-point average of at least 2.75 in work toward the certificate. Three of the required courses must be completed on campus: EPID:5570 Zoonotic Diseases, EPID:5580 Public Health Laboratory Techniques, and EPID:6550 Epidemiology of Infectious Diseases. The remaining courses may be completed on campus or by distance education.

The certificate program provides basic information and training related to infectious diseases. It is designed for a broad range of individuals, including graduate students, international public health professionals, laboratory professionals, physicians, nurses, veterinarians, and medical technologists.

The Certificate in Emerging Infectious Disease Epidemiology requires the following coursework.

Course #	Title	Hours
All of these (7 s.h.):		
EPID:5570	Zoonotic Diseases	3
EPID:5580	Public Health Laboratory Techniques	1
EPID:6550	Epidemiology of Infectious Diseases	3
Two of these (6 s.h.):		
BIOS:4120	Introduction to Biostatistics	3
EPID:4400	Epidemiology I: Principles	3
EPID:5550	Diagnostic Microbiology for Epidemiology	3
OEH:4240	Global Environmental Health	3

For more information about the program, visit the Certificate in Emerging Infectious Disease Epidemiology on the Department of Epidemiology website.

Admission

Applications are only being accepted from current University of Iowa degree-seeking graduate students.

Applicants to the certificate program must hold a baccalaureate degree from an accredited college or university and must have a grade-point average of at least 2.75 (or international equivalent). For more information about how to apply, visit Certificate in Emerging Infectious Disease Epidemiology on the Department of Epidemiology website.

Epidemiology

Head

- Elizabeth A. Chrischilles

Graduate degrees: MS in clinical investigation; MS in epidemiology; PhD in epidemiology

Faculty: https://www.public-health.uiowa.edu/epi-faculty-list/

Website: https://www.public-health.uiowa.edu/epi/

The Department of Epidemiology strives to improve public and personal health by conducting innovative research addressing the magnitude, determinants, prevention, and management of disease and its consequences; educating researchers and public health practitioners; and collaborating with clinicians, communities, and public health agencies in the measurement and evaluation of health status and prevention effectiveness.

Students are guided by faculty members whose research interests include pharmacoepidemiology, cancer epidemiology, infectious disease epidemiology, antimicrobial resistance, immunology, adverse reproductive outcome epidemiology, genetics, cardiovascular disease, nutrition, maternal and child health, clinical epidemiology, socioenvironmental determinants, occupational and environmental epidemiology, psychiatric epidemiology, social epidemiology, neuroepidemiology, injury and violence prevention, road traffic safety, substance use disorders, mental health, intervention trials, diabetes, global health, and effects of aging.

In addition to the MS in epidemiology, the MS in clinical investigation, and the PhD in epidemiology, the department offers the epidemiology subprogram for the Master of Public Health degree; see Master of Public Health, MPH [p. 2092] in the catalog. The subprogram focuses on fundamental concepts and methods, and provides training in the use of data and methods for disease assessment and for evaluation of programs and interventions.

The MS in epidemiology and the MPH with an epidemiology subprogram are offered as part of the Undergraduate to Graduate (U2G) program which provides an opportunity for University of Iowa students interested in health science to earn both their undergraduate and graduate degrees in five years. For more information about the U2G program that combines an undergraduate degree with the MS in epidemiology or the MPH (epidemiology subprogram), visit MS in Epidemiology—Undergraduate to Graduate on the Department of Epidemiology website or MPH in Epidemiology—Undergraduate to Graduate on the College of Public Health website.

Certificates

Emerging Infectious Disease Epidemiology

The Department of Epidemiology offers the graduate Certificate in Emerging Infectious Disease Epidemiology. The certificate program provides basic information and training related to infectious diseases. It is designed for a broad range of individuals, including graduate students, international public health professionals, laboratory professionals, physicians, nurses, veterinarians, and medical technologists. To learn more, see the Certificate in Emerging Infectious Disease Epidemiology [p. 2123] in the catalog.

Translational and Clinical Investigation

The Department of Epidemiology and the Institute for Clinical and Translational Science offer the graduate certificate program in translational and clinical investigation; see the Certificate in Translational and Clinical Investigation [p. 2166] in the catalog.

Programs

Graduate Programs of Study

- Epidemiology subprogram for the Master of Public Health [p. 2092] degree
- Master of Science in Clinical Investigation [p. 2128]
- Master of Science in Epidemiology [p. 2131]
- Doctor of Philosophy in Epidemiology [p. 2135]

Facilities and Resources

Clinical and Health Services and Chronic Disease Epidemiology

The Iowa Cancer Registry (ICR), a component of the State Health Registries of Iowa in cooperation with the Iowa Department of Public Health, collects medical data on every Iowan diagnosed with cancer and compiles survival and mortality data. The Iowa Cancer Registry is one of 18 registries nationwide reporting data to the National Cancer Institute.

The Iowa Registry for Congenital and Inherited Disorders is a component of the State Health Registries of Iowa that monitors the occurrence etiology of birth defects for the State of Iowa.

The Holden Comprehensive Cancer Center, including faculty leadership in the Cancer Epidemiology Program and the Population Science Core.

The Health Effectiveness Research Center (HERCe) is a collaborative research enterprise between the Department of Epidemiology and the College of Pharmacy which studies whether particular health care treatments or services are over- or under-utilized in practice. HERCe researchers study variation in practice patterns and associate outcome differences with this variation.

The Preventive Intervention Center conducts population-based intervention trials to prevent the occurrence and recurrence of disease and to promote wellness and health. Trials have focused on major health problems, particularly in elderly men and women, including the Fracture Intervention Trial, the Hormone Estrogen Replacement Study, and the Women's Health Initiative.

The Nutrition Center provides expertise in nutrition and dietary assessment, dietary interventions, and nutrition lifestyle change strategies with a focus on the research, teaching, and service missions of the Department of Epidemiology and the College of Public Health.

The Institute for Clinical and Translational Science partners with all University of Iowa colleges and emphasizes working in community partnerships between the academic medical center, local health care providers, and the rural patient population.

Infectious Disease Epidemiology

The UI Center for Emerging Infectious Diseases (CEID) research projects study infectious diseases, often zoonotic, whose incidence in humans has increased over the past two decades or threatens to increase in the near future.

Injury Epidemiology

- University of Iowa Injury Prevention Research Center
- Heartland Center for Occupational Health and Safety

Courses

Epidemiology Courses

EPID:4314 Field Experiences in Public Health 1 s.h.
Direct involvement in actions being taken at local community level; topics include environmental health, infectious diseases, chronic diseases, and pediatric health; practical examples and hands-on experiences during site visits for topic-specific field investigations. Offered spring semesters. Prerequisites: BIOL:1140 or BIOL:1141 or BIOL:1411. Requirements: biology or microbiology coursework. Same as CPH:4250.

EPID:4350 Maternal and Child Health Seminar 1 s.h.
Historical and applied perspective on maternal and child health problems and programs aimed at reducing morbidity, mortality, and health disparities across the life span. Same as CBH:4350.

EPID:4400 Epidemiology I: Principles 3 s.h.
Epidemiological concepts and methods; design of descriptive and analytic studies, such as aggregate, case series, cross-sectional, case-control, cohort studies, clinical trials; application of epidemiology to public health practice; communication and dissemination of epidemiological findings. Recommendations: junior or higher standing.

EPID:4510 Injury and Violence Prevention 3 s.h.
Theory, research, and practice of injury control; unintentional and intentional injuries; local, national, international injury issues. Same as CPH:4230, OEH:4510.

EPID:4650 Maternal Health in Migrant Communities 2 s.h.
Applied epidemiological and community-engaged research methods to understand clinical and social determinants of maternal and child health and reproductive care. Travel to La Casona territory in Costa Rica to learn about health systems in the context of the Costa Rica Social Security Fund. Same as CPH:4650.

EPID:5214 Meta-Analysis of Epidemiologic Studies 3 s.h.
Methods for quantitative pooling of analytic study associations (cohort and case-control) between exposure and a dichotomous outcome; literature searches, data abstraction, test of homogeneity, publication bias and consideration of adjusted risk ratios (effects of confounding). Offered spring semesters of odd years. Prerequisites: BIOS:5120 and EPID:4400.

EPID:5241 Statistical Methods in Epidemiology 4 s.h.
Overview of methods to analyze data from epidemiologic investigations; estimation of relative measures of risk, attributable risk, stratified analysis; model-fitting approaches using linear, logistic, and Poisson regression analysis; confounding and effect modification; analysis of epidemiologic data sets. Offered spring semesters.

EPID:5250 Physical Activity Epidemiology 3 s.h.
Overview of epidemiological evidence on how physical activity, sedentary behavior, and sleep affect health outcomes including cardiovascular disease, diabetes, cancer, and obesity; emphasis on research design, interpretation of studies, selection of appropriate measurement tools, and translating scientific findings to recommendations/policies for health promotion and disease prevention. Same as HHP:5200.

EPID:5300 Food Safety 3 s.h.
Current issues and concepts of food safety in the United States, from plant to table; foodborne illness from microbial agents, food toxins, adulterants; disease investigation, risk analysis, risk mitigation, prevention. Offered summer sessions.

EPID:5350 Foundations of Maternal and Child Health 3 s.h.
Life course approach to understanding determinants, mechanisms, and systems that promote and maintain health, safety, and well-being of mothers and their children. Prerequisites: EPID:4350. Same as CBH:5350.

EPID:5450 Foundations of Maternal and Child Health II 3 s.h.
Applied approach to developing, implementing, and evaluating programs to benefit pregnant and birthing individuals and their children; working with community and/or government organizations to meet the needs of children, adolescents, and parents/guardians. Prerequisites: EPID:4350 and EPID:5350. Same as CBH:5450.

EPID:5470 Applied Veterinary Epidemiology/ Biostatistics 3 s.h.
Epidemiology and biostatistics applied to veterinary public health; outbreak investigations, surveillance, analyzing and evaluating diagnostic tests, translation methodology, risk assessment, data analysis software programs. Offered summer sessions. Prerequisites: EPID:4400.

EPID:5500 Introduction to Clinical Epidemiology 3 s.h.
Epidemiologic applications and methods used in clinical settings to evaluate clinical medicine and other health profession disciplines including health measurement, health outcome determination, diagnostic process, risk assessment and communication, prognosis, study design, patient surveys, clinical trials, decision analysis and meta-analysis, health services research. Offered fall semesters. Corequisites: EPID:4400, if not taken as a prerequisite.

EPID:5540 Public Health Surveillance Mechanisms, Applications, and Data 3 s.h.
Introduction to fundamentals of public health surveillance with emphasis on cancer registration; use of resulting surveillance-based databases and information systems available to public health practitioners and researchers. Offered fall semesters. Prerequisites: EPID:4400.

EPID:5550 Diagnostic Microbiology for Epidemiology 3 s.h.
Introduction to microbiological culture, antigen detection, immunological and molecular amplification laboratory techniques for bacteria, viruses, parasites, fungi. Offered spring semesters. Prerequisites: MICR:2157 or MICR:3164.

EPID:5560 Biomarkers in Epidemiology 3 s.h.
Introduction to basic techniques of molecular biology (DNA, RNA, protein techniques) and their use in epidemiological research (e.g., diagnosis of disease, biomarker discovery, validation). Offered spring semesters of odd years. Corequisites: EPID:4400, if not taken as a prerequisite.

EPID:5570 Zoonotic Diseases 3 s.h.
Introduction to epidemiology and control of zoonotic diseases; zoonoses endemic to the midwestern United States. Offered summer sessions. Prerequisites: EPID:5550 or EPID:6550 or MICR:2157 or MICR:3164.

EPID:5580 Public Health Laboratory Techniques 1 s.h.
Common laboratory techniques in emerging infectious respiratory disease research and epidemiologic surveillance laboratories; emphasis on techniques for culturing, characterization, and serological surveillance of exposure to influenza viruses. Offered spring semesters. Requirements: completion of online Basic Biological Safety and Blood-Borne Pathogens courses; completed certificates must be brought to class.

EPID:5600 Introduction to Epidemiology Data Management and Analysis 3 s.h.
Organization, collection, management, and analysis of epidemiological data using computer programs. Offered fall semesters. Corequisites: EPID:4400, if not taken as a prerequisite.

EPID:5610 Intermediate Epidemiology Data Analysis With SAS and R 3 s.h.
Basic principles of data analysis and collaborative research; SAS fundamentals; data manipulation and interpretation techniques. Offered spring semesters.

EPID:5900 Problems and Special Topics in Epidemiology arr.
Didactic material in epidemiology; may include tutorial, seminar, faculty-directed independent work (e.g. literature search, project, short research project); topics may include comparative effectiveness and patient-centered outcomes, neuroepidemiology, and epidemiology of aging.

EPID:5925 Epidemiology Journal Club: Evaluating the Literature 0-1 s.h.
Critical evaluation of primary epidemiologic methods and research papers; informative, challenging, and current topics from scientific literature. Requirements: epidemiology MS, MPH, or PhD standing.

EPID:5950 Preceptorship in Epidemiology arr.
Quantitative research-oriented project performed with a preceptor; preparation of prospectus, presentation of research results in a publication-quality report and a scientific poster session.

EPID:6000 Independent Study in Epidemiology arr.
In-depth pursuit of an area of special interest in epidemiology requiring substantial creativity and independence.

EPID:6050 Research in Epidemiology arr.
Research that may lead to a dissertation.

EPID:6071 Theory and Methods in Social Epidemiology 3 s.h.
Application of social theory and methodological approaches to investigate relationships between social factors and health. Prerequisites: EPID:4400.

EPID:6075 Health Equity, Disparities, and Social Justice 3 s.h.
Introduction to the concept of health equity and an overview of U.S. health disparities; students gain a better understanding of research and interventions through readings, lectures, reflection papers, in-class exercises, and research assignments. Same as CBH:6230.

EPID:6100 Writing a Grant Proposal 3 s.h.
Small group projects to develop grant proposals using epidemiological study designs; presentation and defense of proposals before faculty site visitors. Offered fall semesters.

EPID:6150 Writing for Medical Journals 1 s.h.
Skill development in writing medical journal articles for publication. Offered spring semesters.

EPID:6200 Environmental and Occupational Epidemiology 3 s.h.
Overview of methods to interpret and perform environmental and occupational epidemiologic studies with focus on exposure assessment; valuable insights into identifying regional, national, global environmental, and occupational health-related issues. Prerequisites: EPID:4400. Same as OEH:6510.

EPID:6330 Global Nutrition Policy 2-3 s.h.
Concepts and methods used in setting public health nutrition policy; evidence-based aspects of nutrition policy formation in public health settings; evaluation of nutritional public health policy implementation and ways of changing policy in China, Korea, Micronesia, Hawaii, Italy, and the United States. Offered spring semesters.

EPID:6350 Nutritional Epidemiology 2 s.h.
Application of epidemiology study designs to nutrition variables and chronic disease; analysis of nutrition epidemiology studies; research protocol design. Offered spring semesters. Recommendations: a basic nutrition course.

EPID:6360 Nutrition Intervention in Clinical Trials Research 2 s.h.
Nutrition interventions in clinical trials; disease related to nutrition variables; research that links effects of diet on chronic diseases. Offered fall semesters. Recommendations: a basic nutrition course.

EPID:6370 Nutrition Intervention in Research Lab 3 s.h.
Development and demonstration of group counseling skills in ongoing nutrition research projects at the University of Iowa. Offered fall semesters. Corequisites: EPID:6360, if not taken as a prerequisite.

EPID:6400 Epidemiology II: Advanced Methods 4 s.h.
Epidemiologic study design and analysis; bias, confounding, and effect modification; case-control studies; cohort studies; field methods; measurement principles; exposure and disease classification; acute and chronic disease examples. Offered spring semesters. Prerequisites: EPID:4400 and EPID:5600.

EPID:6420 Survey Design and Analysis 3 s.h.
Methodological issues regarding design, sampling approach, implementation, analysis, and interpretation of surveys and questionnaires in public health research. Offered spring semesters of even years. Prerequisites: EPID:4400 and BIOS:5120. Same as BIOS:6420.

EPID:6510 Injury Epidemiology 3 s.h.
How epidemiology can be applied to injury prevention and control: epidemiology literature, specific methodological problems involved in the epidemiology of injuries, critical evaluation of research articles. Offered spring semesters of odd years. Prerequisites: EPID:4400. Same as OEH:6520.

EPID:6550 Epidemiology of Infectious Diseases 3 s.h.
Underlying epidemiological concepts of infection disease, including causation and surveillance; prevention and control; case studies. Offered fall semesters. Prerequisites: EPID:4400. Same as GHS:6550.

EPID:6560 Hospital Epidemiology 2 s.h.
Health care associated infections; surveillance, investigative methods, resistant organisms, and molecular epidemiology; methods for preventing spread of pathogens, including isolation precautions; environmental issues, construction, and sterilization; interactive exercises. Offered spring semesters of odd years. Prerequisites: EPID:4400.

EPID:6570 Infectious Causes of Chronic Disease 3 s.h.
Evidence linking various infectious agents with the development of different types of chronic disease. Offered spring semesters of even years. Corequisites: EPID:4400, if not taken as a prerequisite.

EPID:6600 Epidemiology of Chronic Diseases 3 s.h.
Chronic disease epidemiology; survey of leading chronic diseases including measurement of disease, lifestyle, nutrition, occupation, and family history. Offered spring semesters of even years. Prerequisites: EPID:4400.

EPID:6620 Neuroepidemiology 2 s.h.
Basic epidemiologic concepts of neurologic disease; concepts, methods, examples of neuroepidemiology; varied diseases, methods. Prerequisites: EPID:4400 and EPID:5600.

EPID:6655 Causal Inference 3 s.h.
Causal inference overview, emphasis on inference in observational research; conceptual issues (e.g., counterfactuals, causal graphs, time-varying treatments/ confounding), methods (e.g., inverse probability weighting, doubly robust estimators), and related applications (e.g., causal mediation analysis, quantitative bias analysis); for advanced biostatistics or epidemiology students. Prerequisites: (BIOS:5720 and BIOS:5730) or (EPID:6400 and EPID:5241 and EPID:5610). Same as BIOS:6650, IGPI:6650.

EPID:6900 Design of Intervention and Clinical Trials 3 s.h.
Methodologic introduction to rationale and design of clinical trials; basics of clinical trial design, variety of designs, and examples from clinical trials. Offered fall semesters.

EPID:6910 Pharmacoepidemiology and Comparative Effectiveness Research 3 s.h.
Survey of methodological topics central to pharmacoepidemiology and comparative effectiveness research, including measures of treatment effects, clinical trial and observational study designs, treatment selection bias, covariate balancing methods, and claims database studies. Prerequisites: EPID:4400.

EPID:6920 Applied Administrative Data Analysis 2 s.h.
Concepts and methods for analysis of administrative health insurance claims data; focus on understanding types and sources of data, useful resources for classifying data, and applying SAS programming skills and common analytic approaches to studies using such data. Offered fall semesters. Prerequisites: EPID:5610 or BIOS:5310 or BIOS:5510. Requirements: EPID:5610 or BIOS:5310 or BIOS:5510 or SAS programming experience; and (concurrent or prior enrollment in BIOS:5120 and BIOS:5730) or (EPID:5241 and EPID:5610) or prior equivalent biostatistical coursework or experience.

EPID:6950 Clinical Research Ethics 2-3 s.h.
Ethical and regulatory aspects of clinical research; historical background, current regulations, and Institutional Review Board (IRB) requirements related to human subjects protection issues. Offered spring semesters. Requirements: K30 training grant or enrollment in degree program with clinical research project.

EPID:7000 Thesis/Dissertation arr.

EPID:7200 Teaching in Epidemiology 3 s.h.
Teaching methods in epidemiology; guided practicum experience in teaching epidemiology, in preparation for academic careers. Prerequisites: EPID:4400 and EPID:5600 and EPID:6400.

EPID:7400 Epidemiology III: Theories 3 s.h.
How epidemiology fits into the wider context of scientific inquiry. Offered fall semesters of odd years. Prerequisites: EPID:4400 and EPID:5241 and EPID:6400.

Clinical Investigation, MS

Program Competencies

Graduates will be able to:

- discuss issues related to biomedical informatics impacting clinical research;
- summarize requirements for building and maintaining a multidisciplinary research team;
- describe health and disease measurement in clinical and community populations;
- describe how to implement a clinical research study;
- develop a clinical research question;
- apply principles of responsible research and clinical research ethics to a research project;
- determine a study aim, objectives, and appropriate design to address a hypothesis;
- analyze epidemiologic data with descriptive analysis and regression models, including linear and logistic regression;
- analyze literature to identify gaps in knowledge; and
- communicate clinical research findings effectively.

Requirements

The Master of Science in clinical investigation requires 37 s.h. of graduate credit. In addition to completing the program's required coursework, students must write a manuscript or a grant proposal for a National Institutes of Health (NIH) career award or its equivalent, with oral defense. Graduate students must maintain a Graduate College program grade-point average of at least 3.00. Those who receive a grade of C in 7 s.h. of coursework may be dismissed from the program.

The program, which is offered in collaboration with the university's Institute for Clinical and Translational Science, is designed for clinicians interested in pursuing careers in clinical research. It includes in-depth training in biostatistics, epidemiology, research ethics, and academic survival skills as well as didactic training applicable to clinical research careers. Graduates of the program are able to critically evaluate clinical literature, write competitive grant proposals, design and conduct clinical research projects, work effectively with other researchers and support staff, and disseminate research results through manuscripts and presentations.

The MS in clinical investigation requires the following coursework.

Core Courses

All core courses except CPH:6100 and CPH:7270 must be taken on an A–F graded basis. Students must retake CPH:7270 if they completed the course more than four years ago or if they have changed degree programs.

Course #	Title	Hours
All of these (25 s.h.):		
BIOS:4120	Introduction to Biostatistics	3
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
EPID:4400	Epidemiology I: Principles	3
EPID:5500	Introduction to Clinical Epidemiology	3
EPID:5610	Intermediate Epidemiology Data Analysis With SAS and R	3
EPID:6150	Writing for Medical Journals	1
EPID:6400	Epidemiology II: Advanced Methods	4
EPID:6950	Clinical Research Ethics	2
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health (taken first year in the fall and spring semesters for 0 s.h. and 1 s.h., respectively)	1

Capstone Requirement

While a student does not take a final examination of courses, the evaluation of the student for graduation is based upon a positive review of a mentored K or R grant or a mentored publishable research paper. The grant or paper is completed in the second year of the program and is based on the area of focus. The capstone is a mentored activity that requires approval by a clinical mentor and a Department of Epidemiology primary faculty member. Successful completion of the course is denoted with a satisfactory (S) grade. The complete grant or paper will be due no later than one month prior to graduation for review.

Course #	Title	Hours
EPID:6000	Independent Study in Epidemiology	2

Electives

Students must earn a minimum of 10 s.h. in elective coursework from any of the following content areas.

Course #	Title	Hours
Research Design and Communication		
EPID:5214	Meta-Analysis of Epidemiologic Studies	3
EPID:6100	Writing a Grant Proposal	3
EPID:6900	Design of Intervention and Clinical Trials	3
EPID:6910	Pharmacoepidemiology and Comparative Effectiveness Research	3
Community Studies		
CBH:5235	Community-Based Participatory Research	3
CBH:5305	Evaluation: Approaches and Applications	3
CBH:6205	Designing and Implementing Interventions	3
EPLS:5165	Introduction to Program and Project Evaluation	3
Epidemiology		
EPID:5560	Biomarkers in Epidemiology	3
EPID:5570	Zoonotic Diseases	3
EPID:6510	Injury Epidemiology	3
EPID:6550	Epidemiology of Infectious Diseases	3
EPID:6560	Hospital Epidemiology	2
EPID:6600	Epidemiology of Chronic Diseases	3

DPH:6004	Principles of Oral Epidemiology	3
SEES:3110	Geography of Health	3
Health Services Epidemiology		
EPID:6360	Nutrition Intervention in Clinical Trials Research	2
EPID:6655	Causal Inference	3
EPID:6920	Applied Administrative Data Analysis	2
BIOS:6610	Statistical Methods in Clinical Trials	3
BIOS:7600	Advanced Biostatistics Seminar	3
PCOL:5136	Pharmacogenetics and Pharmacogenomics	1
Informatics		
EPID:5600	Introduction to Epidemiology Data Management and Analysis	3
HMP:5315	Health Information Systems	3
Nutrition Science		
EPID:6330	Global Nutrition Policy	2-3
EPID:6350	Nutritional Epidemiology	2
EPID:6370	Nutrition Intervention in Research Lab	3
Outcomes and Health Services Research		
HMP:5410	Health Economics I	3
HMP:7550	Cost Effectiveness and Decision Analysis	3
HMP:7960	Analytic Issues in Health Services Research I	3
HMP:7965	Analytic Issues in Health Services Research II	3
Pharmacy Science		
PHAR:5310	Health Services Research Seminar	1
PHAR:5350	Introduction to Research Methods	3
PHAR:6305	Foundation Literature in Health Services Research	3
Statistical Methods		
BIOS:6210	Applied Survival Analysis	3
BIOS:6310	Introductory Longitudinal Data Analysis	3
Translational Biomedicine		
TBM:5001	Introduction to Translational Biomedicine	3

Admission

Applicants must apply through the Schools of Public Health Application Service (SOPHAS); they must also pay the required application fee to the Graduate College through University of Iowa Admissions when prompted. For detailed application information, visit How to Apply to the Department of Epidemiology on the department's website.

Applicants must hold a doctoral-level degree in a clinical discipline (e.g., MD, DO, DDS, PhD, PharmD, DVM) or be enrolled in the Medical Scientist Training Program [p. 1901] (Carver College of Medicine). They must hold a baccalaureate degree with a cumulative grade-point average of at least 3.00; internationally trained applicants must have an outstanding doctoral training record evidenced by research publications.

Applicants are considered based on their credentials, prior training, and research training plans. Applicants with deficiencies in one area may be admitted if all other components of their application are strong. Individuals must have a sponsoring department.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Application deadlines for fall admission are June 1 for U.S. citizens and April 15 for international applicants. For summer admission, the deadline is April 1; for spring admission, Dec. 1.

Prerequisites

The MS program requires at least 6 s.h. of prerequisite coursework in the disciplines of pathology, physiology, and/or pharmacology. Students accepted into the degree program who have not completed at least 6 s.h. from those disciplines may meet the requirement while they are enrolled.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Clinical Investigation, MS

Course	Title	Hours
Academic Career		
Any Semester		
37 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
A program GPA of at least 3.00 is required.		
	Hours	**0**
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
EPID:4400	Epidemiology I: Principles	3
EPID:5500	Introduction to Clinical Epidemiology	3
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health [b]	0
	Hours	**11**
Spring		
EPID:5241	Statistical Methods in Epidemiology	4
EPID:6400	Epidemiology II: Advanced Methods	4
EPID:5610	Intermediate Epidemiology Data Analysis With SAS and R	3
CPH:7270	Principles of Scholarly Integrity: Public Health [b]	1
	Hours	**12**

Second Year		
Fall		
Elective course [c]		3
Elective course [c]		3
Elective course [c]		3
	Hours	**9**
Spring		
Capstone Requirement [d]		
EPID:6150	Writing for Medical Journals	1
EPID:6950	Clinical Research Ethics	2
EPID:6000	Independent Study in Epidemiology [e]	2
	Hours	**5**
	Total Hours	**37**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Taken in the fall and spring of first year for 0 s.h. and 1 s.h., respectively.

c A minimum of 9 s.h. of graduate level coursework is required with at least 6 s.h. in a research interest area; see General Catalog and website for coursework and specifics. Work with faculty advisor to select appropriate coursework and to determine sequence.

d While no final examination of courses will be taken, the evaluation of the student for graduation is based upon a positive review by the student's faculty mentor of 1) a mentored K or R grant, or 2) a mentored publishable paper.

e The Capstone Requirement is completed under the Independent Study mentorship; work with faculty advisor for approval.

Epidemiology, MS

Program Competencies

Graduates will be able to:

- define the concepts and content of epidemiology;
- formulate a research hypothesis;
- determine a study aim, objectives, and appropriate design to address a hypothesis;
- apply concepts of ethics to research practice;
- develop study procedures and data collection instruments for conducting a study;
- collect data and manage data quality;
- use existing databases to provide supportive data to address a research question;
- analyze epidemiologic data with descriptive analysis and regression models, including linear and logistic regression; and
- compose an understandable and presentable report of research results.

Requirements

The Master of Science in epidemiology requires at least 39 s.h. of graduate credit and is offered with or without thesis. Students who choose to complete the degree without thesis must satisfy a final examination requirement; see the following section titled "Master's Final Examination for the MS Without Thesis." All students must maintain a Graduate College program grade-point average of at least 3.00. Those who receive a grade of C in 7 s.h. of coursework may be dismissed from the program.

The Master of Science in epidemiology requires the following coursework.

Core Courses

All core courses except CPH:6100, CPH:7270, EPID:5950, and EPID:7000 must be taken on an A–F graded basis.

Students must retake CPH:7270 Principles of Scholarly Integrity: Public Health if they completed the course more than four years ago or if they changed degree programs.

Course #	Title	Hours
All of these:		
EPID:4400	Epidemiology I: Principles	3
EPID:5600	Introduction to Epidemiology Data Management and Analysis	3
EPID:5610	Intermediate Epidemiology Data Analysis With SAS and R	3
EPID:6400	Epidemiology II: Advanced Methods	4
BIOS:4120	Introduction to Biostatistics	3
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health (taken first year in the fall semester for 0 s.h. and in the spring semester for 1 s.h.)	0-1
One of these:		
EPID:6510	Injury Epidemiology	3
EPID:6550	Epidemiology of Infectious Diseases	3
EPID:6600	Epidemiology of Chronic Diseases	3
One of these:		
EPID:5950	Preceptorship in Epidemiology (for nonthesis students)	3
EPID:7000	Thesis/Dissertation (for thesis students)	3

Epidemiology Journal Club

In addition to the above core courses, students are required to enroll in EPID:5925 Epidemiology Journal Club: Evaluating the Literature three times (typically the fall and spring semesters of their first year and the fall semester of their second year). Through the course, students gain experience reading, interpreting, and critically evaluating recently published journal articles.

Full-time students enroll in EPID:5925 for 0 s.h. Students enrolled part-time (less than 9 s.h.) who have a graduate research assistantship appointment may choose to register for 1 s.h., however, the credit earned for this course will not be applied toward the minimum semester hours required for the MS in epidemiology.

Every other week during the academic year, the journal club meets to discuss articles of interest in the field. Contact information for the journal club coordinators can be found on the Department of Epidemiology website under Preceptorship, Journal Club, and Seminar Contacts. Information about the schedule is distributed to students each semester. Students are required to achieve at least 80% attendance at journal club for three semesters during their time in the program.

Human Pathology Requirement

Students must take a human pathology course on an A–F graded basis. Most students choose to enroll in HHP:4390 Understanding Human Disease. Alternatively, students with a strong biosciences background may choose to enroll in PATH:5270 Pathogenesis of Major Human Diseases if it better complements their training plan; this is an advanced course that requires a strong foundation in molecular biology and related disciplines but may be suitable for some students.

Electives

Students must earn a minimum of 8 s.h. in elective coursework numbered 4000 and above, 6 s.h. of which must be from Department of Epidemiology courses (prefix EPID). The remaining 2 s.h., selected in consultation with the student's advisor, may be taken in an epidemiology course or other graduate coursework pertinent to the student's educational goals and background.

Students completing a thesis are required to take EPID:7000 Thesis/Dissertation once for 3 s.h.; see the preceding "Core Courses" section. They are permitted, but not required, to

repeat the course once for a maximum of 3 s.h. and apply it toward elective requirements.

The following courses are examples of recommended courses that can be taken outside of epidemiology toward the elective requirement.

Course #	Title	Hours
BIOS:6210	Applied Survival Analysis	3
BIOS:6310	Introductory Longitudinal Data Analysis	3
CBH:5220	Health Behavior and Health Education	3
HMP:4000	Introduction to the U.S. Health Care System	3
OEH:4240	Global Environmental Health	3

Other Requirements

Department of Epidemiology Seminar

Every week during the academic year, the Department of Epidemiology seminar provides a forum for speakers to present information or research pertaining to diverse topics in epidemiology. Contact information for the seminar coordinators is located on the Department of Epidemiology website under Preceptorship, Journal Club, and Seminar Contacts. Information about the schedule is distributed each semester and is also available on the University of Iowa Events Calendar. Students are expected to achieve at least 80% attendance at the seminar during each semester of enrollment.

Scientific Poster Requirement

Every student is required to present at least one scientific poster at the department level and is encouraged to present at the international, national, regional, state, or university level at some point prior to graduation. A student's advisor or thesis/preceptorship mentor can help determine the suitability and timeline for the poster presentation.

For nonthesis students, this poster requirement takes the place of an oral seminar presentation as part of the preceptorship requirement. Nonthesis students would typically formulate preceptorship research into a poster presentation, though the requirement may be met by a poster presentation of other research, such as from an independent study or research related to employment.

For thesis students, the poster requirement is in addition to the oral seminar presentation requirement for the thesis. Thesis students would typically formulate thesis research into a poster presentation, though the requirement may be met by a poster presentation of other research, such as from an independent study or research related to employment. The poster must be submitted for review to the student's advisor or thesis/preceptorship mentor a minimum of 10 days before the poster session. A Department of Epidemiology poster session is held at the end of the fall and spring semesters.

Master's Final Examination for the MS Without Thesis

The master's examination is a written in-class exam covering the competencies expected for master of science graduates. It specifically covers material from the following core courses: EPID:4400 Epidemiology I: Principles, EPID:6400 Epidemiology II: Advanced Methods, and BIOS:5120 Regression Modeling and ANOVA in the Health Sciences. This exam is offered twice per year.

Students who earn a grade of B or higher in each of the three courses addressed on the exam are not required to take the exam.

Master's Thesis Defense for the MS With Thesis

The master's thesis defense is an oral presentation of the purpose, methods, and results of the thesis research. A specially formed committee thoroughly examines a student's area of knowledge associated with the context of the work. The goal of the thesis is a document that is publishable in a peer-reviewed journal.

Seminar Presentation for the MS With Thesis

In addition to the thesis defense, students are strongly encouraged and may be required by the thesis committee chair to make a presentation at a Department of Epidemiology seminar. It is recommended that students complete the seminar presentation and dissertation defense in the same semester, with the seminar presentation scheduled before the master's thesis defense so the seminar can serve as preparation for the defense.

Combined Programs

Undergraduate Degree/MS

The Undergraduate to Graduate (U2G) program provides an opportunity for University of Iowa students interested in health science to earn their undergraduate and graduate degrees in five years. Undergraduate students should apply to the program by Feb. 1 of their junior year.

For additional information, visit MS in Epidemiology —Undergraduate to Graduate on the Department of Epidemiology website.

Admission

Applicants must apply through the Schools of Public Health Application Service (SOPHAS); they must also pay the required application fee to the Graduate College through University of Iowa Admissions when prompted. For detailed application information, visit How to Apply to the Department of Epidemiology on the department's website.

The epidemiology faculty considers several factors when evaluating applications for admission, including Graduate Record Exam (GRE) General Test scores, grade-point average, letters of recommendation, intent and motivation for graduate study, and research interests. Students with deficiencies in one area may be admitted if all other components of their application are very strong.

All applicants must hold a baccalaureate degree and have a cumulative grade-point average of at least 3.00. Undergraduate preparation must include two semesters of biological sciences and mathematics through algebra. Coursework in statistics is highly recommended.

All applicants and students are required to have strong written and oral communication skills.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Application deadlines for fall admission are June 1 for U.S. citizens and April 15 for international applicants.

Career Advancement

The program prepares graduate students for professional careers in which specialized knowledge of epidemiological methods and analytic techniques is essential. Graduates find employment in local, state, and federal health agencies; academic institutions; and private enterprises, such as hospitals, pharmaceutical and device companies, insurance companies, and foundations.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Epidemiology, MS

Course	Title	Hours
Academic Career		
Any Semester		
39 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
	Hours	**0**
First Year		
Any Semester		
Students must attend the Department of Epidemiology seminar and are expected to achieve at least 80% attendance at the seminar during each semester of enrollment.		
	Hours	**0**
Fall		
BIOS:4120	Introduction to Biostatistics	3
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health [d]	0
EPID:4400	Epidemiology I: Principles	3
EPID:5600	Introduction to Epidemiology Data Management and Analysis	3
EPID:5925	Epidemiology Journal Club: Evaluating the Literature [e]	0 - 1
	Hours	**11-12**
Spring		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
CPH:7270	Principles of Scholarly Integrity: Public Health [d]	1
EPID:5610	Intermediate Epidemiology Data Analysis With SAS and R	3
EPID:5925	Epidemiology Journal Club: Evaluating the Literature [e]	0 - 1
EPID:6400	Epidemiology II: Advanced Methods	4
	Hours	**11-12**
Second Year		
Any Semester		
Every student is required to present at least one scientific poster at the department level, and is encouraged to present at the international, national, regional, state, or university level at some point prior to graduation. [f]		
Students must attend the Department of Epidemiology seminar and are expected to achieve at least 80% attendance at the seminar during each semester of enrollment.		
	Hours	**0**
Fall		
EPID:5925	Epidemiology Journal Club: Evaluating the Literature [e]	0 - 1
EPID:6550	Epidemiology of Infectious Diseases [g]	3
HHP:4390	Understanding Human Disease [h]	3
Elective course [i]		3
	Hours	**9-10**
Spring		
EPID:5950	Preceptorship in Epidemiology	3
EPID:6600 or EPID:6510	Epidemiology of Chronic Diseases [g] or Injury Epidemiology	3
Elective course [i]		3
Elective course [i]		2
Confirm completion of degree requirements with program [j]		
	Hours	**11**
	Total Hours	**42-45**

a All core courses except CPH:6100, CPH:7270, EPID:5950, and EPID:7000 must be taken on an A-F graded basis.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Taken in the fall and spring of first year for 0 s.h. and 1 s.h., respectively.

e Full-time students enroll in EPID:5925 for 0 s.h. Students enrolled part-time (less than 9 s.h.) who have a graduate research assistantship appointment may choose to register for 1 s.h. However, the credit earned for this course will not be applied toward the minimum semester hours required for the MS in epidemiology.

f For nonthesis students, this poster requirement takes the place of an oral seminar presentation as part of the preceptorship requirement. Nonthesis students would typically formulate preceptorship research into a poster presentation, though the requirement may be met by a poster presentation of other research, such as from an

independent study or research related to employment. A student's advisor or thesis/preceptorship mentor can help determine the suitability and timeline for the poster presentation.

g Students are required to take one course from EPID:6550, EPID:6510, EPID:6600. EPID:6550 is offered every fall semester; EPID:6510 and EPID:660 are offered in the spring semesters of even numbered years.

h Students must take a human pathology course on an A-F graded basis. Most students enroll in HHP:4390, but those with a strong biosciences background may choose to enroll in PATH:5270.

i Students must earn a minimum of 8 s.h. in elective coursework numbered 4000 and above, 6 s.h. of which must be from Department of Epidemiology courses (prefix EPID). The remaining 2 s.h., selected in consultation with the student's advisor, may be taken in an epidemiology course or other graduate coursework pertinent to the student's educational goals and background.

j May include a qualifying exam that measures learning of epidemiological concepts and knowledge of epidemiological thoughts as presented in required courses; offered twice per year. See General Catalog and consult program for information and timing.

Epidemiology, PhD

Program Competencies

Graduates will be able to:

- summarize specific risk factors and disease processes in a specialized area;
- describe methods for primary data collection including quality assurance and quality control;
- use advanced statistical analysis methods appropriate for the study design and controlling for confounding variables;
- develop data collection instruments for research purposes;
- develop hypotheses that build upon literature and theoretical models of disease and causation;
- compose a proposal for grant funding;
- communicate epidemiological concepts and methods in both writing and orally; and
- defend the methods, results, and implications of a research study.

Requirements

The Doctor of Philosophy program in epidemiology requires a minimum of 78 s.h. of graduate credit. Graduate students in epidemiology must maintain a UI cumulative grade-point average of at least 3.00. Those who receive a grade of C in 7 s.h. of coursework may be dismissed from the program.

The Doctor of Philosophy in epidemiology requires the following coursework.

Core Courses

All core courses except CPH:6100, CPH:7270, and EPID:6050 must be taken on an A–F graded basis.

Students must retake CPH:7270 Principles of Scholarly Integrity: Public Health if they completed the course more than four years ago or if they have changed degree programs.

Course #	Title	Hours
All of these:		
EPID:4400	Epidemiology I: Principles	3
EPID:5600	Introduction to Epidemiology Data Management and Analysis	3
EPID:5610	Intermediate Epidemiology Data Analysis With SAS and R	3
EPID:5925	Epidemiology Journal Club: Evaluating the Literature	0-1
EPID:6050	Research in Epidemiology	3
EPID:6100	Writing a Grant Proposal	3
EPID:6400	Epidemiology II: Advanced Methods	4
EPID:6655	Causal Inference	3
EPID:7400	Epidemiology III: Theories	3
BIOS:4120	Introduction to Biostatistics	3
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health (taken first year in the fall semester for 0 s.h. and in the spring semester for 1 s.h.)	0-1
One of these:		
BIOS:6210	Applied Survival Analysis	3
BIOS:6310	Introductory Longitudinal Data Analysis	3

Human Pathology Requirement

Students must complete either HHP:4390 Understanding Human Disease or PATH:5270 Pathogenesis of Major Human Diseases on an A–F graded basis for a total of 3 s.h. Most students choose to enroll in HHP:4390 during the fall semester of their second year in the program. Alternatively, students with a strong biosciences background may choose to enroll in PATH:5270.

Electives

Students will work with their advisor to develop a plan of study (24–27 s.h.) that ensures substantive knowledge in topical and methodological areas, which will generate important original research in alignment with the student's dissertation interests. The department has many areas of research strength and several recommended Research Interest Area Plans of Study (under the Curriculum header in each of the interest pages).

Additional Epidemiology Electives

Students must select at least 3 s.h. from Department of Epidemiology courses (prefix EPID) outside their research interest area.

Dissertation

Students must successfully complete a PhD thesis.

Course #	Title	Hours
EPID:7000	Thesis/Dissertation	10-18

Other Requirements

Preceptorship Requirement

Doctoral students who did not complete the MS program in epidemiology at the University of Iowa are required to take EPID:5950 Preceptorship in Epidemiology or demonstrate that an equivalent course has been completed, such as a completed master's thesis at another institution. This requirement must be fulfilled within one year of admission to the PhD program.

Department of Epidemiology Seminar

Every week during the fall and spring semesters, the Department of Epidemiology seminar provides a forum for speakers to present information or research pertaining to diverse topics in epidemiology. Students are expected to achieve at least 80% attendance at the seminar during each semester of enrollment.

Epidemiology Journal Club

Students are required to enroll in EPID:5925 Epidemiology Journal Club: Evaluating the Literature five times, typically the first five fall and spring semesters before the end of their third

year, to gain experience in reading, interpreting, and critically evaluating recently published journal articles.

Full-time students enroll in this course for 0 s.h. Students enrolled part-time (less than 9 s.h.) who have a graduate research assistantship appointment may choose to register for 1 s.h. However, the credit earned for this course is not applied toward the minimum semester hours required for the PhD in epidemiology.

Every other week during the academic year, the journal club meets to discuss articles of interest in the field. Contact information for the journal club coordinators can be found on the Department of Epidemiology website under Preceptorship, Journal Club, and Seminar Contacts. Information about the schedule is distributed to students each semester. Students are required to achieve at least 80% attendance at journal club for three semesters during their time in the program.

Scientific Poster Requirement

Every student is required to present at least one scientific poster at the department level and one poster at the international, national, regional, state, or university level at some point prior to graduation. A student's advisor or dissertation mentor can help determine the suitability and timeline for the poster presentation.

Seminar Presentation

In addition to the dissertation defense, students are required to make a presentation at a Department of Epidemiology seminar. It is recommended that students complete the seminar presentation and dissertation defense in the same semester, with the seminar presentation scheduled before the defense so the seminar can serve as preparation for the defense.

Human Subjects Protections (IRB) Certification

Students are required to provide evidence that they have completed an approved education program in human subjects protection. This should be done at the time of appointment to a graduate research assistantship position, at the start of the preceptorship, or at the start of thesis/dissertation research. More information is available about the human subjects protection certification on the University of Iowa's Human Subjects Office website.

Examinations

All doctoral students must successfully complete a qualifying examination, a comprehensive examination, a dissertation prospectus, and a dissertation. The research topic and content, which vary depending on the program of study, must be approved by a student's dissertation committee.

Combined Programs

PhD/MD

Students may work toward the Doctor of Medicine degree and PhD in epidemiology in a combined degree program offered by the Carver College of Medicine and the College of Public Health. Applicants must be admitted to both programs before they may be admitted to the combined degree program. See the Medical Scientist Training Program [p. 1901] (Carver College of Medicine) in the catalog.

Admission

Applicants must apply through the Schools of Public Health Application Service (SOPHAS); they must also pay the required application fee to the Graduate College through University of Iowa Admissions when prompted. For detailed application information, visit How to Apply to the Department of Epidemiology on the department's website.

The epidemiology faculty considers several factors when evaluating applications for admission, including Graduate Record Exam (GRE) General Test scores, grade-point average, letters of recommendation, intent and motivation for graduate study, and research interests. Students with deficiencies in one area may be admitted if all other components of their application are very strong.

All applicants must hold a baccalaureate degree (an MS or MPH is usually required) and must have a cumulative grade-point average of at least 3.00. Courses in the biological, physical, and mathematical sciences provide important background; one semester of calculus, one semester of statistics or biostatistics, and two semesters of biological sciences are highly recommended. Computing skills are also desirable.

All applicants and students are required to have strong written and oral communication skills.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

The application deadline for fall admission is April 1.

Career Advancement

The program prepares graduate students for careers as scientists, teachers, and practitioners of epidemiologic methods. Employment opportunities exist in academic institutions; local, state, and federal health agencies; and private enterprises.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Epidemiology, PhD

Course	Title	Hours
Academic Career		
Any Semester		
78 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b, c]		
Graduate College program GPA of at least 3.00 is required.		
	Hours	**0**
First Year		
Any Semester		
Preceptorship Requirement [d]		
PhD Qualifying Exam [e]		

Department Seminar [f]		
	Hours	**0**
Fall		
BIOS:4120	Introduction to Biostatistics	3
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health [g]	0
EPID:4400	Epidemiology I: Principles	3
EPID:5600	Introduction to Epidemiology Data Management and Analysis	3
EPID:5925	Epidemiology Journal Club: Evaluating the Literature [h]	0 - 1
	Hours	**11-12**
Spring		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
CPH:7270	Principles of Scholarly Integrity: Public Health [g]	1
EPID:5610	Intermediate Epidemiology Data Analysis With SAS and R	3
EPID:5925	Epidemiology Journal Club: Evaluating the Literature [h]	0 - 1
EPID:6400	Epidemiology II: Advanced Methods	4
	Hours	**11-12**
Summer		
EPID:6050	Research in Epidemiology [i]	3
	Hours	**3**
Second Year		
Any Semester		
Department Seminar [f]		
	Hours	**0**
Fall		
BIOS:6310	Introductory Longitudinal Data Analysis [j, k]	3
EPID:5925	Epidemiology Journal Club: Evaluating the Literature [h]	0 - 1
EPID:6100	Writing a Grant Proposal	3
EPID:7400	Epidemiology III: Theories	3
HHP:4390	Understanding Human Disease [l]	3
	Hours	**12-13**
Spring		
BIOS:6210	Applied Survival Analysis [j, k]	3
EPID:5925	Epidemiology Journal Club: Evaluating the Literature [h]	0 - 1
EPID:6655	Causal Inference	3
Elective course [k]		3 - 4
Elective course [k]		2 - 3
	Hours	**11-14**
Third Year		
Any Semester		
Exam: Doctoral Comprehensive Exam [m]		
Prospectus Defense		
Department Seminar [f]		
	Hours	**0**
Fall		
EPID:5925	Epidemiology Journal Club: Evaluating the Literature [h]	0 - 1
Elective course [k]		3 - 4
Elective course [k]		3 - 4
Elective course [k]		3 - 4
	Hours	**9-13**
Spring		
Elective course [k]		3 - 4
Elective course [k]		3 - 4
Elective course [k]		3 - 4
Elective course [k]		2 - 3
	Hours	**11-15**
Fourth Year		
Any Semester		
Department Seminar [f]		
	Hours	**0**
Fall		
EPID:7000	Thesis/Dissertation	9
	Hours	**9**
Spring		
EPID:7000	Thesis/Dissertation	1 - 9
Exam: Doctoral Final Exam [n]		
	Hours	**1-9**
	Total Hours	**78-100**

a All core courses except CPH:6100, CPH:7270, and EPID:6050 must be taken on an A-F graded basis.

b Every student is required to present at least one scientific poster at the department level and one poster at the international, national, regional, state, or university level at some point prior to graduation. A student?s advisor or dissertation mentor can help determine the suitability and timeline for the poster presentation.

c Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

d Doctoral students who did not complete the MS program in epidemiology at the University of Iowa are required to take EPID:5950 or demonstrate that an equivalent course has been completed. This requirement must be fulfilled within one year of admission to the PhD program.

e Taken during spring semester of the first year (or after completion of epidemiology core coursework); same as the MS final examination with the addition of an essay exam.

f Students must attend the Department of Epidemiology seminar and are expected to achieve at least 80% attendance at the seminar during each semester of enrollment; PhD students are required to make one presentation, preferably during the semester of their dissertation defense.

g Taken first year in the fall semester for 0 s.h. and in the spring semester for 1 s.h.

h Full-time students enroll in EPID:5925 for 0 s.h. five times, typically the first five fall and spring semesters before the end of their third year. Students enrolled part-time (less than 9 s.h.) who have a graduate research assistantship appointment may choose to register for 1 s.h. However, the credit earned for this course will not be applied toward the minimum semester hours required for the PhD in epidemiology.

i Students complete EPID:6050 to conduct a thorough literature review to frame a targeted research question/ specific aim as part of the approval process to register for EPID:6100.

j Students must complete either BIOS:6310 (typically during second year fall semester) or BIOS:6210 (typically during second year spring semester).
k Students must complete 24-27 s.h. of electives, as well as at least 3 s.h. from Department of Epidemiology courses (prefix EPID) outside their research interest area. Work with faculty advisor to select appropriate graduate elective coursework.
l Students must take a human pathology course on an A-F graded basis. Most students enroll in HHP:4390, but those with a strong biosciences background may choose to enroll in PATH:5270.
m Taken after the majority of coursework for the PhD degree has been completed.
n Dissertation defense.

Health Management and Policy

Head

- George L. Wehby

Graduate degrees: MHA; MS in health services and policy research; PhD in health services and policy

Faculty: https://www.public-health.uiowa.edu/hmp-faculty-list/

Website: https://www.public-health.uiowa.edu/hmp/

The Department of Health Management and Policy educates health care professionals for leadership roles in an increasingly complex and dynamic health care system. Graduates hold key executive, academic, research, government, and consulting positions in all areas of health management and policy, both in the United States and abroad.

The department offers the MHA in a traditional program track and an executive track. It also collaborates with the Tippie College of Business and the College of Law to provide concurrent and combined MHA/graduate and professional degree programs. In addition, the MS in health services and policy research, the policy subprogram for the Master of Public Health (MPH), the PhD in health services and policy, and the graduate Certificate in Healthcare Management [p. 2153] are offered.

The department's degree programs rank among the foremost in the field. The MHA is accredited by the Commission on Accreditation of Healthcare Management Education. The PhD program, established in 1950, was the nation's first doctoral program in health care management.

MPH Subprogram

The subprogram prepares individuals for careers in health policy analysis, system and organizational planning, and program evaluation. Graduates find positions in federal, state, and local government as well as in professional associations and private agencies. See the Master of Public Health, MPH [p. 2092] in the catalog.

Alumni Relations

An active alumni association with more than 1,000 members supports the MHA program in a number of ways including scholarships, consultation on curriculum, continuing education, research, and fund development. Alumni serve as visiting faculty, consultants, mentors, and preceptors for summer internships, residencies, and fellowships. The alumni association also provides a network for graduates entering the profession.

Graduates maintain their Iowa connection and learn about news of their classmates, the department, and faculty members and students through the website and social media.

Samuel Levey Healthcare Leadership Symposium

The Department of Health Management and Policy and its alumni association jointly sponsor the annual Samuel Levey Healthcare Leadership Symposium, which is held in the spring. Renowned speakers from across the country present a variety of symposium topics. Health care leaders, alumni, educators, students, and friends of the department attend the symposium, which offers students a high-quality educational experience in addition to the opportunity to network with faculty and alumni.

Programs

Graduate Programs of Study

- Master of Health Administration [p. 2142]
- Master of Science in Health Services and Policy Research [p. 2146]
- Doctor of Philosophy in Health Services and Policy [p. 2148]

Facilities

The Center for Health Policy and Research, the research arm of the Department of Health Management and Policy, is a university-wide interdisciplinary research facility. Faculty members from the Carver College of Medicine, the Tippie College of Business, and the colleges of Dentistry, Liberal Arts and Sciences, Nursing, Pharmacy, and Public Health serve as investigators in a variety of studies at the center. Graduate students assist with ongoing research projects.

Primary project funding for the center comes from the National Institutes of Health, the state of Iowa, the Agency for Healthcare Research and Quality, and the Patient-Centered Outcomes Research Initiative, as well as from foundations and private organizations.

The center also sponsors educational activities and promotes collaboration among health organizations through frequent exchanges with professional and provider associations, policy and planning groups, insurance organizations, health delivery institutions, and other members of the health services research community.

Courses

Health Management and Policy Courses

HMP:4000 Introduction to the U.S. Health Care System **3 s.h.**
The U.S. health care system; socioeconomic, political, and environmental forces that influence the organization, financing, and delivery of personal and public health services; health services, policy, concepts, terminology.

HMP:5000 Professional Development Seminar **0-1 s.h.**
Development of critical foundational management skills: business writing, personal presentation, teamwork, providing feedback, self-assessment, engaging other professionals, and organizational ethics.

HMP:5001 Interprofessional Health Care Administration I **3 s.h.**
Concepts and methods related to developing and leading interprofessional teams; emphasis on roles and responsibilities in health care teams, communication, and conflict management; team development.

HMP:5002 Interprofessional Health Care Administration II 3 s.h.
Concepts and methods related to developing and leading interprofessional teams with an emphasis on values and ethics, including human resources concepts and skills, and building an organizational culture that supports interprofessional collaborative practice. Prerequisites: HMP:5001.

HMP:5005 Introduction to Healthcare Organization and Policy 3 s.h.
Organization of U.S. healthcare system, health policies that shape its development; historical, socioeconomic, political, environmental forces that influence the organization, financing, and delivery of personal and public health services; health services, policy concepts, and terminology, including health determinants, access to care, system integration, policy development, federalism.

HMP:5200 Healthcare Management 3 s.h.
Application of basic management principles such as leadership, goal setting, decision-making, and human resource management to healthcare organizations.

HMP:5230 Population Health 1,3 s.h.
Relationship between health care needs and utilization; emphasis on epidemiological concepts related to presence of disease and health care needs in a community; approaches to forecasting need and utilization of services.

HMP:5291 Performance Improvement in Healthcare 1-2 s.h.
General lean and six sigma principles; application to health care solutions; examples from University of Iowa Health Care, other institutions.

HMP:5310 Healthcare Quality and Operations Management 2-3 s.h.
Fundamentals of patient safety, quality improvement techniques, performance measurement approaches, and analytical tools including data collection methodologies used by managers in healthcare and public health settings.

HMP:5315 Health Information Systems 2-3 s.h.
Conceptual, practical aspects of analysis, development, and use of computer-based information systems; emphasis on application to the health sciences environment.

HMP:5320 Analytics for Healthcare Management 3 s.h.
Introduction to analytical techniques for making business decisions with emphasis on health care; using Excel and associated tools in practical problem solving; probability and statistical concepts and applications in strategic settings.

HMP:5342 Lean Six Sigma in Health Care 2-3 s.h.
Managerial approach combining Six Sigma methods and tools with lean manufacturing enterprise philosophy; eliminating waste of physical resources, time, effort, and talent while assuring quality in production and organizational processes; provides basic understanding of Six Sigma and Lean and DMAIC process (Six Sigma structure); application of basic tools to reduce waste while augmenting satisfaction among health care customers.

HMP:5350 Hospital Organization and Project Management 2-3 s.h.
Role of hospitals, governance, organizational structure, medical staff organization, departmental operations. Prerequisites: HMP:5005 and HMP:5200.

HMP:5402 Corporate Financial Reporting arr.
Introduction to accounting concepts, principles, and analyses; contemporary financial reporting practices with emphasis on preparation, analysis, and use of financial statement information for management decisions; fundamentals of accounting measurement and disclosure.

HMP:5410 Health Economics I 3 s.h.
Microeconomic principles applied to health care, health insurance, information and uncertainty, models of physician and hospital behavior, theory of the firm, market structure, regulation, competitive reform, managed care.

HMP:5450 Health Insurance and Managed Care 3 s.h.
History and theory of insurance, comparative health systems, health systems and networks, HMOs, public health insurance, care for uninsured; emphasis on public policy. Prerequisites: HMP:5005. Corequisites: PHAR:6330 or HMP:5410. Same as GHS:5455.

HMP:5610 Health Policy 1-3 s.h.
Policy process, policies and programs that shape provision of health care in the United States; health policies such as Medicare, Medicaid, Older Americans Act.

HMP:5650 Health Policy Analysis 3 s.h.
Introduction to analysis of contemporary health policy issues; frameworks for conducting analysis of health policy process and content; qualitative and quantitative methods for policy analysis; how to present policy-relevant information effectively. Prerequisites: HMP:5005.

HMP:5750 Medicare and Medicaid Policy 3 s.h.
Health policies most pertinent to Americans over age of 65. Same as ASP:5750.

HMP:5810 MHA Internship arr.

HMP:6055 Topics in Health Administration 3 s.h.
Topics related to contemporary problems that concern health care students, administrators.

HMP:6110 Healthcare Strategy and Business Development 3-4 s.h.
Strategy in health care including role of mission, vision, values, environmental analysis, strategic alternatives, organizational design, and evaluation of strategic decisions. Prerequisites: HMP:5200.

HMP:6150 MHA Integrative Capstone 2-3 s.h.
Integration and application of theories, concepts, principles; case studies. Prerequisites: HMP:5200 and HMP:6110.

HMP:6310 Human Resources and Performance Improvement in Healthcare 3 s.h.
Overview of human resource management theories and practices for health care organizations; strategic human resource management, equal employment, staffing, training and development, appraisal, compensation. Prerequisites: HMP:5200.

HMP:6315 Healthcare Ethics 1-2 s.h.
Biomedical and organization ethics in the contemporary healthcare environment; ethical concepts and principles, ethical issues that confront executive, clinical, and governance leaders in context of complex health organizations.

HMP:6350 Medical Practice Administration 3 s.h.
Survey of medical practice culture, operations, governance, financials, role(s) in health care system, and future. Prerequisites: HMP:5005 and HMP:5200.

HMP:6355 Healthcare Leadership and Ethics 3 s.h.
Management and leadership concepts and their application in healthcare organizations. Prerequisites: HMP:5200.

HMP:6360 Nonprofit Organizational Effectiveness I 3 s.h.
Operational and financing aspects of nonprofit management; mission and governance of organization; strategic planning for effective management, including finance, budget, income generation, fund-raising. Same as MGMT:9150, PBAF:6278, RELS:6070, SPST:6010, SSW:6247, URP:6278.

HMP:6365 Nonprofit Organizational Effectiveness II 3 s.h.
Qualities for leadership of nonprofit organizations, including relationships with staff and volunteers; relationship of nonprofit and outside world; marketing, public relations, advocacy strategies for nonprofits. Same as MGMT:9160, PBAF:6279, RELS:6075, SPST:6020, SSW:6248, URP:6279.

HMP:6410 Healthcare Financial Management 3 s.h.
Issues in working capital management, capital financing, cost analysis and rate setting, budgeting, reimbursement, managed care contracting and health reform initiatives; emphasis on use of information from accounting, financial management systems.

HMP:6610 Legal Aspects of Healthcare 2-3 s.h.
Statutory and common law frameworks applicable to healthcare system; court decisions that illustrate applications of general legal doctrines in hospital and health settings.

HMP:6710 Federalism and Health Policy 3 s.h.
How American government's organization shapes development and implementation of health policy, programs, services.

HMP:6750 Seminar in Health Policy 2-3 s.h.
Contemporary health policy issues; theoretical and applied perspectives; social justice and health care for vulnerable populations (e.g., mental health, nursing homes); readings, discussion. Prerequisites: HMP:5610.

HMP:6850 Independent Study and Research arr.
Supervised tutorial.

HMP:6855 Administrative Practicum 2-3 s.h.
Experience with operational and planning matters in a health care setting. Requirements: second-year standing and GPA of at least 3.00 for two consecutive semesters.

HMP:6860 Administrative Residency/Fellowship arr.

HMP:7250 Organizational Behavior and Theory in Health Care 3 s.h.
Key concepts of organizational behavior and organizational theory and their application to health care organizations and health services; perspectives from theoretical writings and empirical studies. Requirements: PhD standing and knowledge of human services organizations.

HMP:7550 Cost Effectiveness and Decision Analysis 3 s.h.
Methods of cost-effectiveness analysis and decision analysis; applications to resource allocation decisions in public health and medicine.

HMP:7930 PhD Independent Research 1-3 s.h.
Experience in empirical research through one or more substantive research experiences, with faculty mentor; authorship or coauthorship of at least one manuscript suitable for publication in peer review journal. Requirements: PhD in health services and policy and satisfactory completion of PhD preliminary exams.

HMP:7940 Primary Data and Mixed Methods 3 s.h.
Overview of research design and methods used to address health services research questions; collection of primary data and use of qualitative and mixed methods approaches.

HMP:7950 Design Issues in Health Service Research 3 s.h.
Design and causal inference reliability and validity in measurement; rules of evidence; research design for randomized-control trials, observational studies, meta-analysis.

HMP:7960 Analytic Issues in Health Services Research I 3 s.h.
Analytic tools used in health services research; focus on applications in nonexperimental research settings, such as analyses using administrative claims data or preexisting public use data sets.

HMP:7965 Analytic Issues in Health Services Research II 3 s.h.
Continuation of HMP:7960; advanced applications, including panel data and qualitative response models. Prerequisites: HMP:7960. Same as PHAR:7331.

HMP:7970 Seminar in Instruction and Professional Development 1-3 s.h.
Opportunity for PhD students to develop research and teaching skills through presentations, readings, and workshops on professional development topics. Requirements: satisfactory completion of PhD preliminary exams.

HMP:7990 Thesis/Dissertation arr.
Research for preparation of dissertation; seminar presentation.

Master of Health Administration, MHA

Learning Outcomes

The MHA program prepares graduates for their initial positions as health care managers and provides a solid foundation for executive career development in a variety of health organizations.

Core Competencies

Personal and Professional Development

- Effectively communicate in written and spoken form.
- Demonstrate evaluation of multiple sources of information and perspectives in arriving at decisions.
- Demonstrate ethical decision-making.
- Demonstrate growth through self-reflection and professional development.

Leading People

- Effectively lead teams toward a common vision and goals.
- Understand strategies in professionally developing others.
- Integrate the knowledge and experiences of other professions and sectors, as appropriate.

Leading in Communities

- Understand the complexity of communities and how to engage with them.

Managing Resources

Finances

- Describe how payment models impact healthcare delivery, quality, costs, access to care, population health, and the community.
- Create and analyze standard financial reports.
- Analyze the impact of financial decisions.

Operations

- Evaluate strategic and operational goals.
- Use various improvement tools to evaluate and improve operations.
- Apply organizational behavior concepts, strategies, and policies related to human resources.
- Assess healthcare workforce needs, projections, and critical issues.
- Analyze ethical and legal situations, including recognizing when to seek legal or ethical counsel.

Information

- Explain the roles of health, human resource, and financial information systems in clinical and strategic decision making.
- Analyze data to evaluate and improve strategic, operational, financial, and quality performance indicators.

Setting Strategic Direction

- Demonstrate organizational strategic planning, implementation, and evaluation with relevant constituent groups.
- Apply appropriate organizational designs consistent with its mission and strategies.

Requirements

The Master of Health Administration (MHA) requires 45–60 s.h. of graduate credit: 45 s.h. for the executive subprogram and 60 s.h. earned in two academic years of full-time study for the general program. Transfer credit and course waivers may be accepted, but all general program students are expected to complete a minimum of 54 s.h. at the University of Iowa during their course of study. Students must maintain a Graduate College program grade-point average of at least 3.00 to earn the degree.

The program prepares students for a wide variety of positions in health care management. It is designed to provide a comprehensive understanding of issues encountered by health care delivery organizations and strong business skills. Graduates are well prepared to advance to senior executive roles in a variety of health care organizations.

Students work with their advisors to create a plan of study that incorporates required and elective coursework that supports their career goals in areas such as operations management, managed care, or financial management. Required courses in management, economics, law, managerial finance, and financial accounting focus on health care applications. Students may also take coursework in other University of Iowa departments and programs, such as business, planning and public affairs, and aging and longevity studies.

During the first year, students are introduced to the social, political, economic, and financial environments of health care organizations. The concepts, tools, and techniques necessary for effective management are also presented. During the second year, courses focus on in-depth health care applications of management concepts that integrate prior coursework and develop skills in areas relating to students' special interests and career objectives.

The Master of Health Administration requires the following coursework.

General Program

Students complete a combination of core courses and electives for a total of 60 s.h.

Core Courses

Students complete 54 s.h. in the following core courses, with the exception of students in the law subprogram who do not complete HMP:5810 MHA Internship; the law subprogram core courses total 51 s.h.

Course #	Title	Hours
All of these:		
HMP:5000	Professional Development Seminar (taken four times for 1 s.h. each)	4
HMP:5005	Introduction to Healthcare Organization and Policy	3
HMP:5200	Healthcare Management	3
HMP:5230	Population Health	3
HMP:5310	Healthcare Quality and Operations Management	3
HMP:5315	Health Information Systems	3
HMP:5320	Analytics for Healthcare Management	3

HMP:5402	Corporate Financial Reporting	3
HMP:5410	Health Economics I	3
HMP:5610	Health Policy	3
HMP:5810	MHA Internship	1
HMP:6055	Topics in Health Administration (when topic is health care payment methods)	3
HMP:6110	Healthcare Strategy and Business Development	3
HMP:6150	MHA Integrative Capstone	3
HMP:6310	Human Resources and Performance Improvement in Healthcare	3
HMP:6355	Healthcare Leadership and Ethics	3
HMP:6410	Healthcare Financial Management	3
HMP:6610	Legal Aspects of Healthcare	2
CPH:6100	Essentials of Public Health	2

Electives

Students select elective courses to reach 60 s.h. total earned for the degree. Students complete at least 6 s.h. of elective coursework from the following list, or they may count a maximum of 6 s.h. of elective credit earned outside the Department of Health Management and Policy toward the MHA degree with their faculty advisor's approval.

Students in the business or law subprogram instead complete 6 s.h. or 9 s.h., respectively, from electives in their complementary fields; see "Combined Programs" in this section of the catalog for elective course options.

Course #	Title	Hours
HMP:5350	Hospital Organization and Project Management	2-3
HMP:5450	Health Insurance and Managed Care	3
HMP:5650	Health Policy Analysis	3
HMP:5750	Medicare and Medicaid Policy	3
HMP:6350	Medical Practice Administration	3
HMP:6360	Nonprofit Organizational Effectiveness I	3
HMP:6365	Nonprofit Organizational Effectiveness II	3
HMP:6710	Federalism and Health Policy	3
HMP:6850	Independent Study and Research	arr.
HMP:6855	Administrative Practicum	2-3
HMP:7550	Cost Effectiveness and Decision Analysis	3

Summer Internships, Fellowships, Residencies

The department facilitates the placement of MHA students in required summer internships between the first and second years of study. Internships offer opportunities for practical experience interacting with executives in a health care setting. Internships are full-time positions that usually last 10–12 weeks. Students typically receive a salary or stipend and, in some cases, assistance with living arrangements.

Most MHA students complement their academic training with a postgraduate fellowship or residency. Such experiences provide opportunities to observe, develop, and demonstrate management skills and to develop connections with colleagues. The department takes an active role in helping students identify and secure fellowship and residency positions.

Executive MHA Subprogram

The executive Master of Health Administration subprogram (EMHA) requires 45 s.h. of graduate credit and is typically completed in two years. The plan of study is designed for working professionals who wish to advance their knowledge and skills in order to become effective health care administrators. The EMHA objectives are to:

- provide working professionals with advanced knowledge and skills in health care management;
- position experienced professionals to become effective health care administrators; and
- meet the need for leadership in transforming health care financing and delivery in dynamic environments.

The EMHA's curricular emphases are administrative skills specific to health care, population health administration, and interprofessional health care administration.

Courses are taught online synchronously by healthcare-experienced academic and practitioner faculty members. The program can typically be completed in two years, including the two summer sessions.

The Master of Health Administration (executive MHA subprogram) requires the following coursework.

Course #	Title	Hours
All of these:		
HMP:5001	Interprofessional Health Care Administration I	3
HMP:5002	Interprofessional Health Care Administration II	3
HMP:5200	Healthcare Management	3
HMP:5230	Population Health	1
HMP:5310	Healthcare Quality and Operations Management	3
HMP:5315	Health Information Systems	2
HMP:5320	Analytics for Healthcare Management	3
HMP:5342	Lean Six Sigma in Health Care	3
HMP:5402	Corporate Financial Reporting	3
HMP:5410	Health Economics I	3
HMP:5610	Health Policy	3
HMP:6110	Healthcare Strategy and Business Development	3
HMP:6150	MHA Integrative Capstone	2
HMP:6355	Healthcare Leadership and Ethics	3
HMP:6410	Healthcare Financial Management	3
HMP:6610	Legal Aspects of Healthcare	2

CPH:6100	Essentials of Public Health	2
Total Hours		**45**

For more information, visit Executive MHA Track on the College of Public Health website.

Combined Programs

Students interested in combining an MHA with a master's or professional degree in another field should discuss their plans with both academic units and indicate their interest when they apply to the MHA program. Separate application to each degree program is required; applicants must be admitted to both programs before they may be admitted to the combined degree program. For information about the MBA, see Master of Business Administration, MBA (Tippie College of Business) in the catalog. For information about the JD, see Juris Doctor, JD [p. 1833] (College of Law) in the catalog.

MHA (Business Subprogram)/MBA

The MHA with a subprogram in business allows students to gain training in both health care management and business. Students in this subprogram complete the required courses for the General Program [p. 2142].

MHA (Business) Electives

For the general program's elective requirement, MHA with a subprogram in business students complete 6 s.h. selected from the following MBA courses.

Course #	Title	Hours
MBA:8110	Marketing Management	3
MBA:8120	Management in Organizations	3
MBA:8140	Corporate Financial Reporting	3
MBA:8160	Managerial Economics	3
MBA:8180	Managerial Finance	3
MBA:8240	Operations and Supply Chain	3
MBA:8300	Foundations in Strategy	3
MBA:8310	Business Integration	3
MBA:8320	Strategic Business Growth	3
MBA:9300	Strategy in Action	3

MHA (Law Subprogram)/JD

The MHA with a subprogram in law allows students to gain training in both health care management and law. Students typically complete the program in four years; they enroll only in law courses during the first two years. Students in this subprogram complete the required courses for the General Program [p. 2142].

MHA (Law) Additional Courses

For the general program's elective requirement, MHA with a subprogram in law students complete 9 s.h. selected from the following JD courses, which also contribute to the JD. Additional law courses may be selected with MHA program director approval.

Course #	Title	Hours
LAW:8010	Constitutional Law I	3
LAW:8280	Constitutional Law II	3
LAW:8421	Employment Law	3
LAW:8562	Health Law	3
LAW:8987	Veterans Benefits Law	3
LAW:9882	Public Health Law	3

Admission

Applicants must apply through the Schools of Public Health Application Service (SOPHAS) or the Health Administration, Management, and Policy Centralized Application Service (HAMPCAS). All applicants must also submit the supplemental University of Iowa application fee. For detailed application information, visit HMP Degree Programs on the Department of Health Management and Policy website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Students begin the program in the fall semester. Personal interviews are required before admission; the admissions committee conducts Skype interviews with applicants unable to visit campus.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Master of Health Administration, MHA

Course	Title	Hours
Academic Career		
Any Semester		
60 s.h. of graduate level coursework must be completed; more information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
	Hours	**0**
First Year		
Fall		
HMP:5000	Professional Development Seminar [d]	1
HMP:5005	Introduction to Healthcare Organization and Policy	3
HMP:5200	Healthcare Management	3
HMP:5230	Population Health	3
HMP:5402	Corporate Financial Reporting	3
HMP:5610	Health Policy	3
	Hours	**16**
Spring		
HMP:5000	Professional Development Seminar [d]	1
HMP:5310	Healthcare Quality and Operations Management	3
HMP:5320	Analytics for Healthcare Management	3
HMP:5410	Health Economics I	3
HMP:6055	Topics in Health Administration	3

HMP:6410	Healthcare Financial Management	3
	Hours	**16**
Second Year		
Fall		
CPH:6100	Essentials of Public Health	2
HMP:5000	Professional Development Seminar[d]	1
HMP:5315	Health Information Systems	3
HMP:5810	MHA Internship	1
HMP:6110	Healthcare Strategy and Business Development	3
HMP:6310	Human Resources and Performance Improvement in Healthcare	3
HMP:6610	Legal Aspects of Healthcare	2
	Hours	**15**
Spring		
HMP:5000	Professional Development Seminar[d]	1
HMP:6150	MHA Integrative Capstone	3
HMP:6355	Healthcare Leadership and Ethics	3
Elective course[e]		3
Elective course[e]		3
	Hours	**13**
	Total Hours	**60**

a Minimum of 54 s.h. must be completed at UI; up to 6 s.h. of graduate transfer credits from an accredited institution or other units at UI may be allowed upon approval.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Take four times for 1 s.h. each.

e Students select elective courses (at least 6 s.h.) to reach 60 s.h. total earned for the degree; see the General Catalog for list of approved courses. Students may count a maximum of 6 s.h. of elective credit earned outside the Department of Health Management and Policy toward the MHA degree with their faculty advisor's approval.

Health Services and Policy Research, MS

Learning Outcomes

Upon completion of the MS in health services and policy research, students will be able to:

- evaluate the organization, financing, and delivery of U.S. health services;
- evaluate policies for their impact on public health and health equity;
- analyze the behavior of health care market stakeholders using the principles of health economics;
- select the appropriate study design and statistical models for health services research questions and outcomes;
- use statistical computing programs to analyze quantitative data; and
- conduct a study using health services research methods.

Requirements

The Master of Science in health services and policy research requires a minimum of 30 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average of at least 3.00 to earn the degree.

Students are provided with content knowledge and methodological skills pertaining to the practice of health services research. Evaluating the organization, delivery, and outcomes of health services and the impacts of health policies on health services use and health outcomes is intrinsically interdisciplinary. As such, students will acquire theoretical knowledge of U.S. health policy, health economics, and the organization and delivery of health services as well as a range of analytic skills that will allow them to design and execute health services research studies.

The MS includes coursework in health services research design, statistical methods, health policy, health economics, and the organization and delivery of health care services. Additionally, students will be required to complete a final research project. Students have the opportunity to work with faculty mentors on research projects and participate in cocurricular learning opportunities that focus on health services research, such as seminars, journal clubs, and conferences. The MS is a pathway to the PhD in health services and policy.

The MS in health services and policy research requires the following coursework.

Core Courses

All core courses except CPH:6100 and CPH:7270 are required to be taken on an A–F graded basis.

Course #	Title	Hours
All of these:		
HMP:4000	Introduction to the U.S. Health Care System	3
or HMP:5005	Introduction to Healthcare Organization and Policy	
HMP:5410	Health Economics I	3
HMP:5610	Health Policy	3
HMP:7950	Design Issues in Health Service Research	3
BIOS:4120	Introduction to Biostatistics	3
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health (taken in the fall and spring semesters for 0 s.h. and 1 s.h., respectively)	1

Electives

Students choose 6 s.h. of elective coursework in courses numbered 3000 and above. Faculty advisors must approve elective coursework. The following are possible elective choices.

Course #	Title	Hours
HMP:5650	Health Policy Analysis	3
HMP:6610	Legal Aspects of Healthcare	3
HMP:6710	Federalism and Health Policy	3
HMP:6750	Seminar in Health Policy	3
HMP:7550	Cost Effectiveness and Decision Analysis	3
HMP:7940	Primary Data and Mixed Methods	3
HMP:7960	Analytic Issues in Health Services Research I	3
EPID:4400	Epidemiology I: Principles	3

Independent Research

Students complete 3 s.h. of independent research work in HMP:6850 Independent Study and Research.

Admission

Applicants must apply through the Schools of Public Health Application Service (SOPHAS). All applicants must also submit the supplemental University of Iowa application fee. For detailed application information, visit HMP Degree Programs on the Department of Health Management and Policy website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Students begin the program in the fall semester. Campus visits are encouraged.

Career Advancement

The MS in health services and policy research prepares graduates for research careers in a variety of applied settings including academia, think tanks, government agencies, private sector organizations, and other settings where health services research skills are sought.

The program is designed to provide clinicians with the skills needed to work as health services researchers in a wide variety of settings. Given the program's strong emphasis on research design, evaluation, and quantitative methods, it is a pathway for students who desire to prepare themselves to be competitive applicants for doctoral studies in health services research, health policy, health economics, and other

closely related fields at the University of Iowa or other leading institutions.

The program also is designed in a way that allows students in the department's PhD in health services and policy program to earn the MS degree as they complete coursework and exam requirements for the PhD program en passant.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Health Services and Policy Research, MS

Course	Title	Hours
Academic Career		
Any Semester		
30 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a, b]		
Graduate College program GPA of at least 3.00 is required. [c]		
	Hours	**0**
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
HMP:4000 or HMP:5005	Introduction to the U.S. Health Care System or Introduction to Healthcare Organization and Policy	3
HMP:5610	Health Policy	3
	Hours	**9**
Spring		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
HMP:5410	Health Economics I	3
Elective course [d]		3
	Hours	**9**
Second Year		
Fall		
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health	0
HMP:7950	Design Issues in Health Service Research	3
	Hours	**5**
Spring		
CPH:7270	Principles of Scholarly Integrity: Public Health	1
HMP:6850	Independent Study and Research	3
Elective course [d]		3
	Hours	**7**
	Total Hours	**30**

a All core courses except CPH:6100 and CPH:7270 are required to be taken on an A-F graded basis.

b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

c Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

d Students choose 6 s.h. of elective coursework in courses numbered 3000 and above. Faculty advisors must approve elective coursework. See the General Catalog for list of approved courses.

Health Services and Policy, PhD

Learning Outcomes

Students will be able to:

- demonstrate breadth of health services research theoretical and conceptual knowledge by applying alternative models from a range of relevant disciplines;
- apply in-depth disciplinary knowledge and skills relevant to health services research;
- apply knowledge of the structures, performance, quality, policy, and environmental context of health and health care to formulate solutions for health policy problems;
- pose innovative and important health service research questions, informed by systematic reviews of the literature, stakeholder needs, and relevant theoretical and conceptual models;
- select appropriate interventional, observational, or qualitative study designs to address specific health services research questions;
- know how to collect primary health and health care data obtained by survey, qualitative, or mixed methods;
- know how to assemble secondary data from existing public and private sources;
- use conceptual models and operational measures to specify study constructs for a health services research question and develop variables that reliably and validly measure these constructs;
- implement research protocols with standardized procedures that ensure the reproducibility of the science;
- use appropriate analytical methods to clarify associations between variables and to delineate causal inferences;
- ensure the ethical and responsible conduct of research in the design, implementation, and dissemination of health services research;
- work collaboratively in multidisciplinary teams;
- effectively communicate the findings and implications of health services research through multiple modalities to technical and lay audiences;
- understand the importance of collaborating with stakeholders, such as policymakers, organizations, and communities to plan, conduct, and translate health services research into policy and practice; and
- demonstrate hands-on teaching experience.

Requirements

The Doctor of Philosophy program in health services and policy requires a minimum of 72 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average of at least 3.25 to earn the degree. Those who enter with a master's degree can apply to use transfer credit toward their doctorate degree with approval of the health services and policy program.

The PhD program is oriented toward applied, interdisciplinary research and scholarly inquiry. Students develop mastery of theories and research methodologies necessary to study the complex American health system. They work closely with faculty mentors on research projects and develop research design and methodology skills through coursework and an apprenticeship model of training.

Individual plans of study allow students to prepare for specific careers, and small class size encourages frequent student-faculty interaction, including participation in research projects as well as scholarly publications.

The PhD program provides students the flexibility to create a plan of study that allows them to either specialize in one of three research interest areas—health economics, health management and organization, or health policy—or to create a plan of study that includes elective courses from multiple research interest areas. Students work with a faculty advisor and a mentorship team of faculty members from their interest area(s). The advisor and mentorship team participate in initial planning with students during orientation and in annual professional development reviews. Students conduct required independent study and thesis research in their interest area(s); their comprehensive exam and dissertation committees include faculty members from their chosen research interest area(s).

Research Interest Areas

The health economics research interest area provides students with in-depth training in economic theory and its applications to health and health care. Students in this area acquire advanced theoretical knowledge and state-of-the-art analytical and econometric skills that enable them to build careers as health economists in academic departments, research organizations, and health care industries. The health economics interest area provides comprehensive coursework covering all main areas in health and health care economics, including demand for health and health care, economic determinants and consequences of health behaviors, health insurance, economic organization of health care markets, impact of government policy and regulation, econometric methods, and economic evaluation methods.

The health management and organization research interest area prepares students to conduct research on organizational, strategic, and operational issues that confront health institutions and systems. Emphasis is placed on health care applications of theories, concepts, and models from the fields of organizational theory (macro), organizational behavior (micro), strategic management, and operations management. Students in this area may conduct research on topics such as the effectiveness of health care organizations; improving the organization and management of health delivery processes; measuring performance and productivity of health care organizations; examining the relative influence of mission, culture, and financial incentives in hospitals and health organizations; and management of professional groups. Graduates of the health management and organization research interest area should find employment in academic and research organizations, integrated delivery systems, and governmental units that are interested in the impact of organizational structures and managerial practices on performance.

The health policy research interest area prepares students to undertake health services and policy research aimed at improving care and management of illness and disability and enhancing individual and community health outcomes. Students develop the skills necessary to conduct health services and policy research. They take courses in the basic disciplines that contribute to the fields of public and social policy (e.g., law, political science, public affairs) and courses that focus on the structure and organization of health

policymaking in the United States. They study the formation and implementation of health policies; the effect of health policies on the organization, financing, and delivery of health services; the effect of health policies on access to, use of, and costs of health services; and approaches to improve access and effectiveness of care for vulnerable populations. Students who complete the health policy research interest area are prepared for employment in academic research institutions, policy organizations, and governmental agencies and departments.

The PhD in health services and policy requires the following coursework.

Coursework

Students take coursework in core content areas covering health care systems, health economics, health management and organizations, and health policy and courses in research design and statistical analysis. Credit may be awarded for guided and independent research project work. Students may waive specific courses, depending on their background. For more detailed information about PhD and focus area curricula, see the PhD in Health Services and Policy on the Department of Health Management and Policy website.

Core Courses

Course #	Title	Hours
Both of these:		
HMP:5450	Health Insurance and Managed Care	3
CPH:6100	Essentials of Public Health	2

Foundation Courses in Research Interest Areas

Course #	Title	Hours
All of these:		
HMP:5005	Introduction to Healthcare Organization and Policy	3
HMP:5410	Health Economics I	3
HMP:5610	Health Policy	3
HMP:5750	Medicare and Medicaid Policy	3
HMP:7250	Organizational Behavior and Theory in Health Care	3
HMP:7550	Cost Effectiveness and Decision Analysis	3
HMP:7930	PhD Independent Research	3

Design and Analysis Courses

Course #	Title	Hours
All of these:		
HMP:7940	Primary Data and Mixed Methods	3
HMP:7950	Design Issues in Health Service Research	3
HMP:7960	Analytic Issues in Health Services Research I	3
HMP:7965	Analytic Issues in Health Services Research II	3
HMP:7990	Thesis/Dissertation	8-15
BIOS:4120	Introduction to Biostatistics	3
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
CPH:7270	Principles of Scholarly Integrity: Public Health (must be taken twice; in the first semester for 0 s.h., in the second semester for 1 s.h.)	1

Advanced Research Interest Area Courses

Health Economics

Course #	Title	Hours
At least three of these:		
ECON:4140	Labor Economics	3
ECON:5100	Microeconomics I	3
ECON:5115	Fundamentals of Microeconomics	3
ECON:5800	Econometrics	3
ECON:5810	Applied Econometrics	3
ECON:6310	Industrial Organization	3
ECON:6900	Contemporary Topics in Economics	3

Health Management and Organization

Course #	Title	Hours
At least three of these:		
MGMT:7340	Group Processes (PhD)	3
MGMT:7350	Leadership (PhD)	3
MGMT:7360	Motivation and Attitudes (PhD)	3
SOC:6610	Complex Organizations	3

Health Policy

Course #	Title	Hours
Both of these:		
HMP:5650	Health Policy Analysis	3
HMP:6750	Seminar in Health Policy	3
At least one of these:		
HMP:6710	Federalism and Health Policy	3
POLI:5100	American Politics	4
POLI:7202	Public Opinion and Electoral Behavior	4
SOC:6810	Social Stratification	3

Electives

Students take elective coursework so that they are exposed to other areas or to gain greater depth within their area of interest.

Examinations

Students must pass a preliminary examination that tests mastery of core material covered during the first year in the department, including American health systems, health services research methods, and foundation courses in their research interest area.

Students take the comprehensive examination at or near the end of their formal coursework. The comprehensive

exam focuses on a student's specific area of research and theoretical interest.

Dissertation

Doctoral candidates prepare dissertations based on original research that tests, extends, or applies concepts or principles to a health care problem related to their chosen research interest area(s). Students may complete a traditional dissertation or a dissertation based on three publishable papers.

Admission

Applicants must apply through the Schools of Public Health Application Service (SOPHAS). All applicants must also submit the supplemental University of Iowa application fee. For detailed application information, visit HMP Degree Programs on the Department of Health Management and Policy website.

Applicants must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Students begin the program in the fall semester. Personal interviews are required before admission; the admissions committee conducts video interviews with applicants.

Career Advancement

The program prepares students for careers in health services research, education, and policy leadership in universities, government agencies, and health organizations.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Health Services and Policy, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. of graduate level coursework must be completed; maximum of 30 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.25 is required. [b]		
	Hours	**0**
First Year		
Any Semester		
Complete Preliminary Exam [c]		
	Hours	**0**
Fall		
BIOS:4120	Introduction to Biostatistics	3
CPH:7270	Principles of Scholarly Integrity: Public Health [d]	0
HMP:5005	Introduction to Healthcare Organization and Policy	3
HMP:5610	Health Policy	3
HMP:7250	Organizational Behavior and Theory in Health Care	3
Departmental Research Seminar [e]		
	Hours	**12**
Spring		
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
CPH:7270	Principles of Scholarly Integrity: Public Health [d]	1
HMP:5410	Health Economics I	3
HMP:5450	Health Insurance and Managed Care	3
Advanced Research Interest Area course [f]		3
Departmental Research Seminar [e]		
	Hours	**13**
Second Year		
Fall		
CPH:6100	Essentials of Public Health	2
HMP:7550	Cost Effectiveness and Decision Analysis	3
HMP:7960	Analytic Issues in Health Services Research I	3
Advanced Research Interest Area course [f]		3
Advanced Research Interest Area course [f]		3
Departmental Research Seminar [e]		
	Hours	**14**
Spring		
HMP:5750	Medicare and Medicaid Policy	3
HMP:7930	PhD Independent Research	3
HMP:7965	Analytic Issues in Health Services Research II	3
Departmental Research Seminar [e]		
	Hours	**9**
Third Year		
Fall		
HMP:7940	Primary Data and Mixed Methods	3
HMP:7990	Thesis/Dissertation	3
Elective course [g]		3
Departmental Research Seminar [e]		
	Hours	**9**
Spring		
HMP:7950	Design Issues in Health Service Research	3
HMP:7990	Thesis/Dissertation	6
Departmental Research Seminar [e]		
	Hours	**9**
Fourth Year		
Fall		
HMP:7990	Thesis/Dissertation	2
Departmental Research Seminar [e]		
Exam: Doctoral Comprehensive Exam [h]		
	Hours	**2**
Spring		
HMP:7990	Thesis/Dissertation	2
Departmental Research Seminar [e]		
	Hours	**2**

Fifth Year

Any Semester

Prospectus Defense [i]		
	Hours	**0**
Fall		
HMP:7990	Thesis/Dissertation	1
Departmental Research Seminar [e]		
Comprehensive Exam [h]		
	Hours	**1**
Spring		
HMP:7990	Thesis/Dissertation	1
Departmental Research Seminar [e]		
Exam: Doctoral Final Exam [j]		
	Hours	**1**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c Students must pass a preliminary examination that tests mastery of core material covered during the first year in the department, including American health systems, health services research methods, and foundation courses in their research interest area.

d Must be taken twice; in the first semester for 0 s.h., in the second semester for 1 s.h.

e No formal registration required.

f See the General Catalog for list of approved courses.

g Work with faculty advisor to select appropriate elective coursework.

h Written and oral examination; usually completed by fourth year fall semester if entering with a master's degree or by fifth year fall semester if entering without a master's degree. See the General Catalog and department website for specifics.

i Typically completed within a year after passing the comprehensive exam.

j Dissertation defense.

Healthcare Management

Head, Department of Health Management and Policy

- George L. Wehby

Graduate certificate: healthcare management

Website: https://www.public-health.uiowa.edu/healthcare-management-certificate/

The graduate Certificate in Healthcare Management provides physicians, nurses, other clinicians, and managers with the foundational business and leadership skills specific to health care. The certificate is administered by the Department of Health Management and Policy [p. 2139]. The Graduate College grants the certificate.

Programs

Graduate Program of Study

- Certificate in Healthcare Management [p. 2153]

Healthcare Management, Graduate Certificate

Requirements

The graduate Certificate in Healthcare Management requires a minimum of 15 s.h. of graduate credit. Students must maintain a UI cumulative grade-point average of at least 3.00 in order to earn the certificate. Enrollment is limited to 10 students.

The required courses provide foundational business and leadership skills specific to health care. They are offered in five-week blocks at University of Iowa campuses in Iowa City and Des Moines. Students complete the five health care courses over a period of 15 months; all 15 s.h. earned in the certificate program may be used toward degree requirements for the Master of Health Administration, MHA [p. 2142] executive subprogram (EMHA).

The Certificate in Healthcare Management requires the following coursework.

Course #	Title	Hours
HMP:5200	Healthcare Management	3
HMP:5402	Corporate Financial Reporting	3
HMP:5610	Health Policy	3
HMP:6355	Healthcare Leadership and Ethics	3
HMP:6410	Healthcare Financial Management	3

For more information, visit Graduate Certificate in Healthcare Management on the Department of Health Management and Policy website.

Occupational and Environmental Health

Head

- Nathan B. Fethke

Graduate degrees: MS in occupational and environmental health; PhD in occupational and environmental health

Faculty: https://www.public-health.uiowa.edu/oeh-faculty-list/

Website: https://www.public-health.uiowa.edu/oeh/

The Department of Occupational and Environmental Health focuses on the assessment of risk factors in the physical environment and their relationship to disease—particularly health problems of agricultural and industrial workers. Students are guided by faculty members whose research interests include rural health care delivery, agricultural health, environmental health, occupational medicine, occupational lung disease, mammalian toxicology, inhalation toxicology, ergonomics, indoor air quality, occupational injury, injury epidemiology, injury prevention programs, aerosol physics, air and water quality, environmental chemistry, analytical toxicology, and environmental health in developing countries.

In addition to the MS and PhD degrees in occupational and environmental health, the department offers a subprogram for the Master of Public Health (MPH) degree in occupational and environmental health. The subprogram provides students with a broad perspective on public health and career preparation for a variety of professional positions in occupational and environmental health. Students have the option of selecting focused coursework in the following areas: global environmental health, occupational health, rural health and safety, and injury and violence prevention. For more information, see the Master of Public Health [p. 2092] in the catalog.

The department also offers the College of Public Health's graduate Certificate in Agricultural Safety and Health; see Agricultural Safety and Health [p. 2106] in the catalog.

Programs

Graduate Programs of Study

- Occupational and environmental health subprogram for the Master of Public Health [p. 2092] degree
- Master of Science in Occupational and Environmental Health [p. 2157]
- Doctor of Philosophy in Occupational and Environmental Health [p. 2162]

Facilities

The Department of Occupational and Environmental Health is housed in the College of Public Health Building, on the university's health sciences campus, and at the Institute for Rural and Environmental Health at the University of Iowa Research Park. College of Public Health-based laboratory facilities give researchers and students access to cutting-edge technologies for the study of occupational and environmental health.

Pulmonary Toxicology Facility

The Pulmonary Toxicology Facility provides a full array of inhalation toxicology, aerosol science, and bioaerosol assay services. A primary focus of the facility is the study of toxicants found in the agricultural environment and related exposure situations. The facility is particularly well-equipped for studying organic dusts and bioaerosols.

Industrial Hygiene Laboratory

The Industrial Hygiene Laboratory provides expertise and equipment for exposure assessment in occupational settings. The laboratory offers a range of sample collection capabilities and an extensive inventory of sampling equipment. Field and laboratory services are available through laboratory support exposure-response studies and control technology development studies in a variety of occupational arenas, including agriculture, construction, and indoor environments (home and office).

Heartland Center for Occupational Health and Safety

The Heartland Center for Occupational Health and Safety, one of 18 education and research centers funded by the National Institute of Occupational Safety and Health, provides training, education, and outreach. Its program areas are industrial hygiene, occupational safety, ergonomics, agricultural safety and health, occupational injury prevention, and continuing education.

Courses

Occupational and Environmental Health Courses

OEH:4240 Global Environmental Health 3 s.h.
Environmental health comprised of aspects of human health determined by interactions with physical, chemical, biological, and social factors in global environment; worldview and survey; focus on issues most relevant today; sustainability; air, water, and soil pollution and remediation; occupational health; injury prevention; food safety and security; risk assessment; environmental health policy.

OEH:4260 Global Water and Health 3 s.h.
Overview of global water and health; microbial and toxicant identification, water-related adverse health effects, risk assessment, approaches to reduce water-related disease, distal water-related influences (e.g., global warming), and historic cases. Same as GHS:4260.

OEH:4310 Occupational Ergonomics: Principles 3 s.h.
Fundamental topics of occupational ergonomics important to future industrial hygienists, engineers, and other occupational safety and health practitioners; introduction to principles of ergonomics with focus on physiological and anatomical capabilities of the worker and interaction of workers with their environments; topics include anthropometry, physiological and biomechanical basis of work, occupational musculoskeletal disorders, risk factors for musculoskeletal disorders, workplace and tool design, manual materials handling, workplace environment, job analysis, and elements of ergonomics process to improve job design.

OEH:4510 Injury and Violence Prevention 3 s.h.
Theory, research, and practice of injury control; unintentional and intentional injuries; local, national, international injury issues. Same as CPH:4230, EPID:4510.

OEH:4530 Global Road Safety 3 s.h.
Road safety problem, data sources, research methods used in field, and how intervention and prevention programs are developed and evaluated; lecture, hands-on approaches. Same as CPH:4220, GHS:4530.

OEH:4920 Solid and Hazardous Wastes 3 s.h.
Sources, characteristics, collection, disposal of solid and hazardous wastes; environmental impacts of hazardous waste management; resource recovery systems. Requirements: for OEH:4920—OEH:4240. Same as CEE:4158.

OEH:5010 Occupational and Environmental Health Seminar 0-1 s.h.
Contemporary topics in occupational health, agricultural and comparative medicine, environmental health.

OEH:5110 Managing and Sharing Your Research Data 1 s.h.
Overview of essential practices in managing the data you collect and generate during research. Topics include file organization; documenting your work and lab notebooks; optimizing spreadsheet data and cleanup tools; reproducibility; funder and publisher requirements; and conclude with how and where to share and publish data, from choosing a repository to creating a data record, including licensing, ownership, preservation of access, reuse, and citation. Applicable for any student currently doing research, or planning to do so. Same as CEE:5110.

OEH:5410 Occupational Safety 3 s.h.
Principles and practices of occupational safety; applications in industrial and other occupational settings; interactions with other disciplines.

OEH:5620 Occupational Health 3 s.h.
Introduction to occupational health and safety; for graduate students in agricultural health and safety, environmental health, ergonomics, industrial hygiene, injury prevention, occupational epidemiology, and occupational medicine.

OEH:6110 Rural Health and Agricultural Medicine 3 s.h.
Clinical orientation of specific health problems of rural residents, agricultural workers; rural health care delivery, socioeconomic issues in agriculture and their effects on health and safety of the agricultural population; occupational health problems, environmental health hazards in rural areas.

OEH:6120 Current Topics in Agriculture and Rural Health 0-1 s.h.
Current issues that affect the health of rural populations including agricultural hazards, pesticide exposure, mental health, global agricultural health, and food safety.

OEH:6230 Applied Environmental Health 3 s.h.
Advanced concepts in environmental health, from current issues to policy and risk management; application of methods to minimize health outcomes and disparities resulting from exposure to environmental hazards found in water, food, soil, and air. Prerequisites: OEH:4240.

OEH:6420 Methods in Exposure Science 3 s.h.
Principles, with emphasis on recognition of chemical health hazards, physical health hazards at work. Corequisites: OEH:5620, if not taken as a prerequisite.

OEH:6431 Assessing Noise Hazards 1 s.h.
Scientific methods to measure noise, assess human noise exposure, and implement technology to control noise exposure.

OEH:6432 Assessing Nonionizing Radiation Hazards 1 s.h.
Scientific methods to measure nonionizing, assess human nonionizing exposure, and implement technology to control nonionizing exposure.

OEH:6433 Assessing Ionizing Radiation Hazards 1 s.h.
Scientific methods to measure ionizing radiation, assess human ionizing radiation exposure, and implement technology to control ionizing radiation exposure.

OEH:6440 Control of Occupational Hazards 3 s.h.
Physical science concepts applied to control of occupational hazards ranging from dusts to mists to vapors; strategies, management issues, personal protective equipment, implementation skills; in-depth instruction on local exhaust ventilation system design.

OEH:6450 Aerosol Technology 3 s.h.
Particle statistics and physics of aerosols, including inertia, diffusion, nucleation, evaporation, condensation, optics, electrical properties; relationship to fields such as agriculture, nanotechnology, environmental and occupational health, atmospheric chemistry, drug delivery.

OEH:6460 Quantitative Exposure Assessment: Study Design and Evaluation 1,3 s.h.
Principles of designing occupational and environmental exposure assessment studies, analyzing exposure data, and conducting exposure-response evaluations. Requirements: prior experience in statistics.

OEH:6510 Environmental and Occupational Epidemiology 3 s.h.
Overview of methods to interpret and perform environmental and occupational epidemiologic studies with focus on exposure assessment; valuable insights into identifying regional, national, global environmental, and occupational health-related issues. Prerequisites: EPID:4400. Same as EPID:6200.

OEH:6520 Injury Epidemiology 3 s.h.
How epidemiology can be applied to injury prevention and control: epidemiology literature, specific methodological problems involved in the epidemiology of injuries, critical evaluation of research articles. Offered spring semesters of odd years. Prerequisites: EPID:4400. Same as EPID:6510.

OEH:6710 Human Toxicology and Risk Assessment 3 s.h.
Sources, routes of absorption, effects of environmental toxicants affecting man; pathophysiology of toxicant actions, including those of air and water pollutants, metals, pesticides, solvents, food toxicants, chemicals. Requirements: college chemistry and biology.

OEH:6720 Advanced Toxicology 4 s.h.
Hepatic metabolism and toxification mechanisms, pulmonary and immunotoxicology, nervous system poisons and their mechanisms of action, general and molecular concepts of chemical carcinogenesis. Prerequisites: OEH:6710 or PHAR:6501.

OEH:7000 Thesis/Dissertation arr.

OEH:7010 Problems in Occupational and Environmental Health arr.
Didactic material in occupational and environmental health; may include tutorial, seminar, faculty-directed independent work (e.g., literature search, project, short research project).

OEH:7020 Independent Study in Occupational and Environmental Health arr.
In-depth pursuit of an area in occupational and environmental health requiring substantial creativity and independence.

OEH:7040 Preceptorship in Occupational and Environmental Health arr.
Work experience using knowledge and skills acquired in the classroom; arranged in conjunction with departmental or collegiate activities or with governmental agencies or private industry.

OEH:7050 Occupational and Environmental Health Internship 0,3 s.h.
Comprehensive and integrated application of knowledge acquired in a workplace setting; structured approach to demonstrate skills and knowledge obtained through a workplace experience. Corequisites: OEH:5620 or OEH:4240, if not taken as a prerequisite.

OEH:7060 Research Design in Occupational and Environmental Health 3 s.h.
Development of a research grant proposal based on student's independent research aims and hypotheses, preparation of accompanying documents for a grant proposal submission, and development of a comprehensive dissemination plan that articulates how academic and lay audiences will be reached with research findings.

OEH:7070 Interpreting Occupational and Environmental Health Research 3 s.h.
Systematic evaluation of methodological strengths and weaknesses of published research studies in occupational and environmental health. Prerequisites: (OEH:5620 or OEH:4240) and BIOS:4120 and EPID:4400.

Occupational and Environmental Health, MS

An MS in occupational and environmental health (OEH) is offered with optional subprograms in agricultural safety and health and industrial hygiene.

Learning Outcomes

General Outcomes

Students will be able to:

- describe major environmental hazards that adversely affect human health;
- demonstrate the use of regulatory guidelines enacted to control occupational health and injury issues;
- apply epidemiological principles used to assess associations between exposure to occupational health and injury hazards on health outcomes;
- use statistical methods and related software to test a hypothesis; and
- apply interventions to prevent occupational health and injury hazards.

Agricultural Safety and Health Subprogram Outcomes

Students will be able to:

- describe the basic concepts of agricultural safety and health;
- summarize epidemiological and toxicological principles that can be used to determine health outcomes associated with exposure to occupational hazards;
- explain appropriate research design and methodology related to the field of agricultural safety and health;
- communicate agricultural safety and health concepts both orally and in writing;
- interpret the significance of research data relative to an exposure or health outcome;
- apply best practice safety guidance to develop products and interventions to prevent injuries related to agricultural hazards; and
- develop skills to design and evaluate a research project relative to peer-reviewed literature in agricultural safety and health.

Industrial Hygiene Subprogram Outcomes

Students will be able to:

- anticipate and recognize occupational and environmental hazards (i.e., physical, chemical, and biological agents, factors, and stressors) generated by or associated with defined sources, unit operations, and/or processes;
- describe qualitative and quantitative aspects of the generation of hazards;
- apply scientific principles, instrumentation, and methods to adequately assess exposures to hazards;
- organize and interpret exposure data using qualitative and quantitative methods in the context of physiological, epidemiological, and toxicological knowledge of the response of the human body to hazards;
- recommend and evaluate controls to reduce or eliminate hazards with regard to traditional hierarchy considerations;
- understand applicable business, managerial, and leadership practices with an emphasis on program and project management;
- communicate effectively and appropriately to advocate for continuous improvement in worker health and safety to pertinent audiences, including the workforce, management, the public, and professional peers;
- interpret and apply applicable and emerging regulations, consensus standards, and best practices affecting occupational and environmental health;
- demonstrate an understanding of the professional code of ethics; and
- understand the value of and path to attain professional certification in industrial hygiene and allied fields.

Requirements

The Master of Science in occupational and environmental health requires 38–43 s.h. of graduate credit. The degree program is offered with three options—the MS in occupational and environmental health (38 s.h.) without a subprogram, the MS with an agricultural safety and health subprogram (42 s.h.), or the MS with an industrial hygiene subprogram (43 s.h.).

MS Without Subprogram

The Master of Science in occupational and environmental health without a subprogram requires a minimum of 38 s.h. and includes the following coursework. Completion of a thesis is required.

Core Courses

All core courses except OEH:5010, CPH:6100, and CPH:7270 must be taken on an A–F graded basis.

Course #	Title	Hours
All of these (16 s.h.):		
OEH:4240	Global Environmental Health	3
OEH:5010	Occupational and Environmental Health Seminar (taken three times, twice for 0 s.h. and once for 1 s.h.)	1
OEH:5620	Occupational Health	3
BIOS:4120	Introduction to Biostatistics	3
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health (taken twice, once for 0 s.h. and once for 1 s.h.)	1
EPID:4400	Epidemiology I: Principles	3
6 s.h. from these:		
OEH:4310	Occupational Ergonomics: Principles	3
OEH:4510	Injury and Violence Prevention	3
OEH:5410	Occupational Safety	3
OEH:6110	Rural Health and Agricultural Medicine	3

OEH:6230	Applied Environmental Health	3
OEH:6710	Human Toxicology and Risk Assessment	3

Electives

Students complete 16 s.h. in elective coursework. This may include any occupational and environmental health (prefix OEH), biostatistics (prefix BIOS), community and behavioral health (prefix CBH), epidemiology (prefix EPID), health management and policy (prefix HMP), or college of public health (CPH) course numbered 4000 or above. Students work with an advisor to select courses appropriate for their professional goals, which may include coursework outside the College of Public Health.

Thesis

Completion and acceptance of a master's thesis is required. Students are permitted, but not required, to enroll in OEH:7000 Thesis/Dissertation for a maximum of 6 s.h. and apply it toward the elective requirement.

MS With Agricultural Safety and Health Subprogram

The Master of Science in occupational and environmental health with an agricultural safety and health subprogram requires a minimum of 42 s.h. and includes the following coursework. Completion of a thesis is required. The program prepares students for careers in education, health care, insurance, and agribusiness as specialists in agricultural safety and health.

Core Courses, Agricultural Safety and Health Subprogram

All core courses except OEH:5010, OEH:7040, CPH:6100, and CPH:7270 must be taken on an A–F graded basis.

Course #	Title	Hours
All of these (29 s.h.):		
BIOS:4120	Introduction to Biostatistics	3
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health (taken twice, once for 0 s.h. and once for 1 s.h.)	1
EPID:4400	Epidemiology I: Principles	3
OEH:4240	Global Environmental Health	3
OEH:5010	Occupational and Environmental Health Seminar (taken three times, twice for 0 s.h. and once for 1 s.h.)	1
OEH:5410	Occupational Safety	3
OEH:5620	Occupational Health	3
OEH:6110	Rural Health and Agricultural Medicine	3
OEH:6120	Current Topics in Agriculture and Rural Health (taken three times for 1 s.h. each)	3
OEH:6710	Human Toxicology and Risk Assessment	3
OEH:7040	Preceptorship in Occupational and Environmental Health	1

Electives, Agricultural Safety and Health Subprogram

Students complete 13 s.h. in elective coursework. This may include any occupational and environmental health (prefix OEH), biostatistics (prefix BIOS), community and behavioral health (prefix CBH), epidemiology (prefix EPID), health management and policy (prefix HMP), or college of public health (CPH) course numbered 4000 or above. Students work with an advisor to select courses appropriate for their professional goals, which may include coursework outside the College of Public Health.

Thesis, Agricultural Safety and Health Subprogram

Completion and acceptance of a master's thesis is required. Students are permitted, but not required, to enroll in OEH:7000 Thesis/Dissertation for a maximum of 4 s.h. and apply it toward the elective requirement.

MS With Industrial Hygiene Subprogram

The Master of Science in occupational and environmental health with an industrial hygiene subprogram requires a minimum of 43 s.h. and includes the following coursework.

Students choose either the thesis or nonthesis option. Those who select the thesis option conduct a research project and write a thesis. Those who select the nonthesis option complete an internship. The program prepares students for careers in industrial hygiene as well as the broad field of occupational safety and health. Career opportunities are available in health and safety departments of industries; in consulting firms; in academic institutions; and in local, state, and federal public health agencies.

Core Courses, Industrial Hygiene Subprogram

All core courses except OEH:5010, CPH:6100, and CPH:7270 must be taken on an A–F graded basis.

Course #	Title	Hours
All of these (22 s.h.):		
BIOS:4120	Introduction to Biostatistics	3
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health (taken twice, once for 0 s.h. and once for 1 s.h.)	1
EPID:4400	Epidemiology I: Principles	3
OEH:5010	Occupational and Environmental Health Seminar (taken three times, twice for 0 s.h. and once for 1 s.h.)	1
OEH:5620	Occupational Health	3
OEH:6420	Methods in Exposure Science	3
OEH:6440	Control of Occupational Hazards	3

OEH:6710	Human Toxicology and Risk Assessment	3
12 s.h. from these:		
OEH:4240	Global Environmental Health	3
OEH:4310	Occupational Ergonomics: Principles	3
OEH:4510	Injury and Violence Prevention	3
OEH:5410	Occupational Safety	3
OEH:6431	Assessing Noise Hazards	1
OEH:6432	Assessing Nonionizing Radiation Hazards	1
OEH:6433	Assessing Ionizing Radiation Hazards	1
OEH:6450	Aerosol Technology	3
OEH:6520	Injury Epidemiology	3

Electives, Industrial Hygiene Subprogram

Thesis (Research Option)

Students completing a thesis are required to complete 9 s.h. in elective coursework; they are permitted, but not required, to enroll in OEH:7000 Thesis/Dissertation for a maximum of 6 s.h. This may include any occupational and environmental health (prefix OEH), biostatistics (prefix BIOS), community and behavioral health (prefix CBH), epidemiology (prefix EPID), health management and policy (prefix HMP), or college of public health (CPH) course numbered 4000 or above. Students work with their advisor to select courses appropriate for their professional goals, which may include coursework outside the College of Public Health.

Nonthesis (Internship Option)

Students not completing a thesis are required to complete an internship and an internship report. Students enroll in OEH:7050 Occupational and Environmental Health Internship for 3 s.h. Students are required to complete a minimum 150-hour internship.

Students complete an additional 6 s.h. in elective coursework. This may include any occupational and environmental health (prefix OEH), biostatistics (prefix BIOS), community and behavioral health (prefix CBH), epidemiology (prefix EPID), health management and policy (prefix HMP), or college of public health (CPH) course numbered 4000 or above. Students work with an advisor to select courses appropriate for their professional goals, which may include coursework outside the College of Public Health.

Admission

Applicants must apply through the Schools of Public Health Application Service (SOPHAS); they also must apply for admission to the Graduate College through University of Iowa Admissions. For detailed application information and admission requirements, visit How to Apply to Occupational and Environmental Health on the department's website.

The occupational and environmental health faculty considers several factors when evaluating applications for admission, including grade-point averages, letters of recommendation, intent and motivation for graduate study, and research interests. Students with deficiencies in one area may be admitted if all other components of their application are very strong.

MS applicants must hold a bachelor's degree and have a cumulative grade-point average of at least 3.00. Undergraduate preparation for applicants should include coursework in mathematics, biology, chemistry, and either physical sciences or engineering, depending on the applicant's chosen specialty area.

Students may enter in the fall. May 1 is the final application deadline.

Career Advancement

The program prepares students for professional and academic careers in environmental and occupational health. Graduates will be qualified for a career in a range of private, public, and academic positions; consulting firms; state and federal occupational and environmental agencies; chemical and consumer products areas; pharmaceutical industries; and universities.

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Occupational and Environmental Health, MS

- Agricultural Safety and Health Subprogram [p. 2159]
- Industrial Hygiene Subprogram [p. 2160]

Agricultural Safety and Health Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
42 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
All core courses except OEH:5010 OEH Seminar, OEH:7040 Preceptorship in OEH, CPH:6100 Essentials of Public Health, and CPH:7270 Princ Scholarly Integrity: Public Health must be taken on an A-F graded basis.		
Maintain at least a 2.75 cumulative GPA.		
	Hours	**0**
First Year		
Fall		
CPH:6100	Essentials of Public Health [b]	2
CPH:7270	Principles of Scholarly Integrity: Public Health [c]	0
EPID:4400	Epidemiology I: Principles	3
OEH:4240	Global Environmental Health	3
OEH:5010	Occupational and Environmental Health Seminar [d]	0
OEH:5620	Occupational Health	3
OEH:6120	Current Topics in Agriculture and Rural Health [e]	1
	Hours	**12**

Spring		
CPH:7270	Principles of Scholarly Integrity: Public Health [c]	1
OEH:5010	Occupational and Environmental Health Seminar [d]	0
OEH:6110	Rural Health and Agricultural Medicine	3
OEH:6120	Current Topics in Agriculture and Rural Health [e]	1
OEH:6710	Human Toxicology and Risk Assessment	3
OEH:7010	Problems in Occupational and Environmental Health	0
Elective course [f]		3
	Hours	**11**
Second Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
OEH:7040	Preceptorship in Occupational and Environmental Health	1
Elective course [f]		3
Elective course [f]		3
	Hours	**10**
Spring		
OEH:5010	Occupational and Environmental Health Seminar [d]	1
OEH:5410	Occupational Safety [g]	3
OEH:6120	Current Topics in Agriculture and Rural Health [e]	1
OEH:7000	Thesis/Dissertation [h]	4
Exam: Master's Final Exam [i]		
	Hours	**9**
	Total Hours	**42**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Course must be completed in the first semester of the program.
c Complete CPH:7270 twice, first for 0 s.h. and then for 1 s.h.
d Complete OEH:5010 three times, twice for 0 s.h. and then once for 1 s.h.
e Complete OEH:6120 three times, each for 1 s.h.
f Students complete 13 s.h. in elective coursework and should work with an advisor to select courses appropriate for their professional goals, which may include coursework outside the College of Public Health.
g Typically this course is offered in spring semesters of even years only. Check MyUI for course availability since offerings are subject to change.
h Completion and acceptance of a master's thesis is required. Students are permitted, but not required, to enroll in OEH:7000 for a maximum of 4 s.h. and apply it toward the elective requirement.
i Consists of an oral defense of the thesis.

Industrial Hygiene Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
43 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
All core courses except OEH:5010 OEH Seminar, CPH:6100 Essentials of Public Health, and CPH:7270 Princ Scholarly Integrity: Public Health must be taken on an A-F graded basis.		
Maintain at least a 2.75 cumulative GPA.		
Students pursuing the nonthesis option are required to complete a minimum 150-hour internship and submit an internship report.		
	Hours	**0**
First Year		
Fall		
CPH:6100	Essentials of Public Health [b]	2
CPH:7270	Principles of Scholarly Integrity: Public Health [c]	0
BIOS:4120 or EPID:4400	Introduction to Biostatistics or Epidemiology I: Principles	3
OEH:5010	Occupational and Environmental Health Seminar [d]	0
OEH:5620	Occupational Health	3
OEH:6420	Methods in Exposure Science	3
	Hours	**11**
Spring		
CPH:7270	Principles of Scholarly Integrity: Public Health [c]	1
OEH:5010	Occupational and Environmental Health Seminar [d]	0
OEH:6710	Human Toxicology and Risk Assessment	3
OEH:7050	Occupational and Environmental Health Internship [e]	0
Core elective course [f]		3
Core elective course [f]		3
	Hours	**10**
Second Year		
Fall		
BIOS:4120 or EPID:4400	Introduction to Biostatistics or Epidemiology I: Principles	3
Core elective course [f]		3
Core elective course [f]		3
Elective course [g]		3
	Hours	**12**
Spring		
OEH:5010	Occupational and Environmental Health Seminar [d]	1
OEH:6440	Control of Occupational Hazards [h]	3
OEH:7050	Occupational and Environmental Health Internship [e]	3
Elective course [g]		3
	Hours	**10**
	Total Hours	**43**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Course must be completed in the first semester of the program.
c Complete CPH:7270 twice, first for 0 s.h. and then for 1 s.h.
d Complete OEH:5010 three times, twice for 0 s.h. and once for 1 s.h.
e Complete OEH:7050 twice, first for 0 s.h. and then for 3 s.h.
f Complete at least 12 s.h. in core electives; see the General Catalog for list of approved courses. Work with faculty advisor to determine appropriate graduate coursework and sequence.
g Students complete 6 s.h. in elective coursework and should work with an advisor to select courses appropriate for their professional goals, which may include coursework outside the College of Public Health.
h Typically this course is offered in spring semesters of even years only. Check MyUI for course availability since offerings are subject to change.

Occupational and Environmental Health, PhD

A PhD in occupational and environmental health (OEH) is an advanced research degree that emphasizes depth of knowledge and original research skills. The degree is designed to develop leaders in environmental and occupational health research and practice.

Students work with their faculty advisor to design a specialized curriculum of coursework and research projects in the following areas: agricultural safety and health, environmental health, environmental toxicology, ergonomics, industrial hygiene, and occupational injury prevention.

Learning Outcomes

In addition to mastering the learning outcomes for the MS in occupational and environmental health, PhD students will:

- develop a proposal for grant funding;
- use appropriate analytic methods to interpret data relevant to the field of occupational and environmental health;
- develop a plan to communicate research findings to various audiences;
- design a research study in the field of occupational and environmental health; and
- evaluate the strengths and limitations of peer-reviewed studies in the field of occupational and environmental health.

Requirements

The Doctor of Philosophy program in occupational and environmental health requires 72 s.h. of graduate credit. All students must complete a dissertation.

The Doctor of Philosophy in occupational and environmental health requires the following coursework.

Required Courses

Students may use a course only once to fulfill a requirement.

Course #	Title	Hours
All of these:		
OEH:4240	Global Environmental Health	3
OEH:5010	Occupational and Environmental Health Seminar (taken three times, twice for 0 s.h. and once for 1 s.h.)	1
OEH:5620	Occupational Health	3
OEH:7060	Research Design in Occupational and Environmental Health	3
OEH:7070	Interpreting Occupational and Environmental Health Research	3
BIOS:4120	Introduction to Biostatistics	3
EPID:4400	Epidemiology I: Principles	3
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health (taken twice, once for 0 s.h. and once for 1 s.h.)	1
One of these:		
OEH:6460	Quantitative Exposure Assessment: Study Design and Evaluation	1,3
OEH:6520	Injury Epidemiology	3
At least 9 s.h. from these:		
OEH:6110	Rural Health and Agricultural Medicine	3
OEH:6420	Methods in Exposure Science	3
OEH:6431	Assessing Noise Hazards	1
OEH:6432	Assessing Nonionizing Radiation Hazards	1
OEH:6433	Assessing Ionizing Radiation Hazards	1
OEH:6440	Control of Occupational Hazards	3
OEH:6450	Aerosol Technology	3
OEH:6460	Quantitative Exposure Assessment: Study Design and Evaluation	3
OEH:6520	Injury Epidemiology	3
OEH:6710	Human Toxicology and Risk Assessment	3
OEH:6720	Advanced Toxicology	4
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
BIOS:5130	Applied Categorical Data Analysis	3
BIOS:6310	Introductory Longitudinal Data Analysis	3
EPID:6400	Epidemiology II: Advanced Methods	4
STAT:6516	Design of Experiments	3

Electives

Students must earn a minimum of 18 s.h. in non-research-related courses, including classroom courses or equivalent web-based courses. Students work with their advisor to select courses appropriate for their professional goals.

Research Credit

Students earn the remaining credit for the PhD by completing any combination of the following courses or other classroom courses. All students must complete a dissertation.

Course #	Title	Hours
OEH:7000	Thesis/Dissertation	arr.
OEH:7020	Independent Study in Occupational and Environmental Health	arr.

Admission

Applicants must apply through the Schools of Public Health Application Service (SOPHAS); they also must apply for admission to the Graduate College through University

of Iowa Admissions. For detailed application information and admission requirements, visit the How to Apply to Occupational and Environmental Health on the department's website.

The occupational and environmental health faculty takes several factors into consideration when evaluating applications for admission, including grade-point averages, letters of recommendation, intent and motivation for graduate study, and research interests. Students with deficiencies in one area may be admitted if all other components of their application are very strong.

PhD applicants must hold a bachelor's degree and have a cumulative grade-point average of at least 3.25. Completion of a master's program before beginning PhD study is recommended.

Students may enter in the fall. May 1 is the final application deadline.

Career Advancement

The program prepares students for professional and academic careers in environmental and occupational health. Graduates will be qualified for a career in a range of private, public, and academic positions; consulting firms; state and federal occupational and environmental agencies; chemical and consumer products areas; pharmaceutical industries; and universities.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Occupational and Environmental Health, PhD

Course	Title	Hours
Academic Career		
Any Semester		
72 s.h. must be graduate level coursework; up to 33 s.h. of graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Required courses listed below may be waived if already taken at the graduate level. Course waivers do not reduce the total number of s.h. required for the degree. Students should work with their advisor to select appropriate elective course(s) to replace the s.h. needed to reach 72 s.h.		
Maintain at least a 3.00 cumulative GPA.		
	Hours	**0**
First Year		
Fall		
OEH:4240	Global Environmental Health	3
OEH:5620	Occupational Health	3
OEH:5010	Occupational and Environmental Health Seminar [b]	0
EPID:4400	Epidemiology I: Principles	3
CPH:6100	Essentials of Public Health [c]	2
CPH:7270	Principles of Scholarly Integrity: Public Health [d]	0
	Hours	**11**
Spring		
BIOS:4120	Introduction to Biostatistics	3
OEH:5010	Occupational and Environmental Health Seminar [b]	0
CPH:7270	Principles of Scholarly Integrity: Public Health [d]	1
Required Selective course [e]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**13**
Second Year		
Any Semester		
Preliminary Assessment [g]		
	Hours	**0**
Fall		
OEH:6460	Quantitative Exposure Assessment: Study Design and Evaluation [h]	3
OEH:7070	Interpreting Occupational and Environmental Health Research	3
Required Selective course [e]		3
Elective course [f]		3
	Hours	**12**
Spring		
OEH:5010	Occupational and Environmental Health Seminar [b]	1
OEH:7060	Research Design in Occupational and Environmental Health	3
Required Selective course [e]		3
Elective course [f]		3
Elective course [f]		3
	Hours	**13**
Third Year		
Any Semester		
Proposal Review [i]		
Exam: Doctoral Comprehensive Exam [j]		
	Hours	**0**
Fall		
Elective course [f]		3
OEH:7000	Thesis/Dissertation [k]	9
	Hours	**12**
Spring		
OEH:7000	Thesis/Dissertation [k]	9
	Hours	**9**
Fourth Year		
Fall		
OEH:7000	Thesis/Dissertation [k]	1
	Hours	**1**
Spring		
OEH:7000	Thesis/Dissertation [k]	1
Exam: Doctoral Final Exam [l]		
	Hours	**1**
	Total Hours	**72**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
b Complete OEH:5010 three times, twice for 0 s.h. and then once for 1 s.h.
c Take during the first semester of the program; not required if student has earned an MPH degree.
d Complete CPH:7270 twice, first for 0 s.h. and then for 1 s.h.
e See the General Catalog for list of approved courses; work with faculty advisor to determine appropriate graduate coursework and sequence.
f Students must earn a minimum of 18 s.h. in non-research-related courses, including classroom courses or equivalent web-based courses. Students work with their advisor to select courses appropriate for their professional goals.
g Complete by the end of the third semester.
h Or take OEH:6520 during second year spring semester.
i Complete prior to semester in which the dissertation defense takes place.
j Consists of a written and oral component; complete by the end of the fifth semester.
k Research credits may also be earned by taking any combination of OEH:7000, OEH:7020, and additional classroom courses. Work with faculty advisor to determine appropriate coursework and sequence.
l Dissertation defense.

Translational and Clinical Investigation

Head, Department of Epidemiology

- Elizabeth A. Chrischilles

Graduate certificate: translational and clinical investigation

Website: https://www.public-health.uiowa.edu/certificate-in-translational-and-clinical-investigation/

The Department of Epidemiology [p. 2124] and the Institute for Clinical and Translational Science (ICTS) offer the Certificate in Translational and Clinical Investigation to practicing academic clinicians who have completed doctoral training.

Programs

Graduate Program of Study

- Certificate in Translational and Clinical Investigation [p. 2166]

Translational and Clinical Investigation, Graduate Certificate

Requirements

The graduate Certificate in Translational and Clinical Investigation requires 17 s.h. of graduate credit and may be completed in one year. Certificate requirements include didactic coursework, clinical research preceptorships, and clinical research seminar participation.

The Department of Epidemiology [p. 2124] and the Institute for Clinical and Translational Science (ICTS) offer the certificate for clinicians who seek advanced training in clinical methodology and applied patient-oriented research skills. The certificate program is open to individuals who hold a doctoral-level degree in a clinical discipline (e.g., MD, DO, DDS, PhD, PharmD, DVM), are practicing academic clinicians, and are admitted as graduate students to the College of Public Health or are enrolled in a basic or health science doctoral program at the University of Iowa. Other admission requirements are similar to those for the MS program in epidemiology.

The Certificate in Translational and Clinical Investigation requires the following coursework.

Required Courses

Course #	Title	Hours
All of these:		
BIOS:4120	Introduction to Biostatistics	3
EPID:4400	Epidemiology I: Principles	3
EPID:5500	Introduction to Clinical Epidemiology	3
EPID:6950	Clinical Research Ethics	2

Electives

Course #	Title	Hours
6 s.h. from these:		
BIOS:6210/ IGPI:6210	Applied Survival Analysis	3
BIOS:6310/ IGPI:6310/ STAT:6550	Introductory Longitudinal Data Analysis	3
BIOS:6610/ IGPI:6610	Statistical Methods in Clinical Trials	3
BIOS:7600/ IGPI:7600	Advanced Biostatistics Seminar	0-3
CBH:5235	Community-Based Participatory Research	3
CBH:5305	Evaluation: Approaches and Applications	3
CBH:6205	Designing and Implementing Interventions	3
DPH:6004	Principles of Oral Epidemiology	0-3
EPID:5214	Meta-Analysis of Epidemiologic Studies	3
EPID:5560	Biomarkers in Epidemiology	3
EPID:5610	Intermediate Epidemiology Data Analysis With SAS and R	3
EPID:5570	Zoonotic Diseases	3
EPID:5600	Introduction to Epidemiology Data Management and Analysis	3
EPID:6000	Independent Study in Epidemiology	arr.
EPID:6100	Writing a Grant Proposal	3
EPID:6150	Writing for Medical Journals	1
EPID:6330	Global Nutrition Policy	2-3
EPID:6350	Nutritional Epidemiology	2
EPID:6360	Nutrition Intervention in Clinical Trials Research	2
EPID:6370	Nutrition Intervention in Research Lab	3
EPID:6400	Epidemiology II: Advanced Methods	4
EPID:6510/ OEH:6520	Injury Epidemiology	3
EPID:6550/ GHS:6550	Epidemiology of Infectious Diseases	3
EPID:6560	Hospital Epidemiology	2
EPID:6600	Epidemiology of Chronic Diseases	3
EPID:6655/ BIOS:6650/ IGPI:6650	Causal Inference	3
EPID:6900	Design of Intervention and Clinical Trials	3
EPID:6910	Pharmacoepidemiology and Comparative Effectiveness Research	3
EPID:6950	Clinical Research Ethics	2
EPLS:5165/ PSQF:5165	Introduction to Program and Project Evaluation	3
HMP:5315	Health Information Systems	2-3
HMP:5410	Health Economics I	3
HMP:7550	Cost Effectiveness and Decision Analysis	3
HMP:7960	Analytic Issues in Health Services Research I	3
HMP:7965/ PHAR:7331	Analytic Issues in Health Services Research II	3
PCOL:5136	Pharmacogenetics and Pharmacogenomics	1
PHAR:5310	Health Services Research Seminar	1-2
PHAR:5350	Introduction to Research Methods	3
PHAR:6305	Foundation Literature in Health Services Research	arr.
SEES:3110/ GHS:3111	Geography of Health	3
TBM:5001	Introduction to Translational Biomedicine	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Translational and Clinical Investigation, Graduate Certificate

Course	Title	Hours
Academic Career		
Any Semester		
The graduate certificate in translational and clinical investigation requires 17 s.h. of graduate credit.		
	Hours	**0**
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
EPID:5500	Introduction to Clinical Epidemiology	3
Certificate: translational and clinical investigation elective course [a]		3
	Hours	**9**
Spring		
EPID:4400	Epidemiology I: Principles	3
EPID:6950	Clinical Research Ethics	2
Certificate: translational and clinical investigation elective course [a]		3
	Hours	**8**
	Total Hours	**17**

a See the General Catalog for list of approved courses.

University College

Dean

- Tanya M. Uden-Holman

Associate Dean

- Andrew Beckett

Undergraduate majors: BAS; BLS

Undergraduate minors: aerospace studies; military science; public policy; urban studies

Undergraduate certificates: clinical and translational science; leadership studies; nonprofit leadership and philanthropy

Website: https://uc.uiowa.edu

University College (UC) is home to a wide range of programs for University of Iowa students and precollege students. The following overviews the many programs that are housed in University College.

Undergraduate Degrees

Two online degree programs, the Bachelor of Applied Studies [p. 2174] (BAS) and the Bachelor of Liberal Studies [p. 2177] (BLS), are administered through University College. Both programs enable students to complete a bachelor's degree through Distance and Online Education [p. 2194]. The BAS, designed for graduates of community college technical programs, provides alternatives to traditional academic majors, permitting students to plan their own emphasis areas in consultation with their advisors. The BLS is an interdisciplinary undergraduate degree program without a traditional academic major; students select a track and work with their advisors to enroll in courses that meet their individual objectives.

Undergraduate Certificates, Minors, Training, and Coursework

The college offers undergraduate Certificates in Clinical and Translational Science [p. 2188], Leadership Studies [p. 2199], and Nonprofit Leadership and Philanthropy [p. 2209]. University College is also home to many undergraduate research opportunities in the science, technology, engineering, and mathematics (STEM) fields as well as in microbiology and medical scientist training.

An affiliated program, Lifetime Leisure Skills [p. 2204], offers a broad range of sports and fitness activities, while the Reserve Officer Training Corps programs, Aerospace Studies (Air Force ROTC) [p. 2170], and Military Science (Army ROTC) [p. 2206] prepare undergraduate students for commissions as officers and offer minors. An undergraduate minor is offered in Urban Studies [p. 2243] that allows students to understand and address urban issues. Public Policy [p. 2212] offers a minor so that students are able to analyze public policies and the process of policymaking. In addition, there are major college-level programs such as the University of Iowa Honors Program [p. 2236], Study Abroad, [p. 2215] and Career Center Programs [p. 2185].

Students from the University of Iowa, Iowa State University, and the University of Northern Iowa may take courses at Iowa Lakeside Laboratory [p. 2196], and Summer Research Experiences for Undergraduates [p. 2232] develops research skills in students led by UI faculty members.

University College offers courses in the K–12 program University of Iowa Upward Bound [p. 2242].

Student Success and Outreach

Associate Dean: Andrew Beckett

Many University College programs serve the entire undergraduate population (particularly first-year students) and are designed to smooth entering students' transition to college life. Students begin their connection to the University College when they take their first online course, CSI:1600 Success at Iowa, at around the same time they attend orientation. When they arrive on campus, they experience campus life for the first time with the On Iowa! program.

Other programs that promote success include Excelling@Iowa, Tutor Iowa, and the Academic Resource Center (ARC). These direct service programs support students when they need support in their college careers.

Academic Support and Retention

Director of Academic Success: Stephanie Preschel
Director of Student Retention: Danielle Martinez
Website: https://asr.uiowa.edu/

On Iowa!

Website: https://oniowa.uiowa.edu/

Orientation

Director: Tina M. Arthur
Website: https://newstudents.uiowa.edu/orientation/what-to-expect

Success at Iowa

Coordinator: Andy Kutcher
Website: https://newstudents.uiowa.edu/success-iowa-online-course

Distance and Online Education

Associate Dean: Andrew Beckett
Website: https://distance.uiowa.edu

Distance and Online Education [p. 2194] combines leading-edge technology and support with nationally recognized faculty to provide the best educational experience possible—online and on location. In partnership with University of Iowa colleges and departments, online and on-location coursework provide degree and certificate opportunities for students looking to complete their degree from a highly ranked public institution. Courses offered through University College are taught by University of Iowa faculty and staff members.

Programs

College-Level Degree Programs

- Bachelor of Applied Studies [p. 2174]
- Bachelor of Liberal Studies [p. 2177]

College-Level Certificate Programs

- Clinical and Translational Science [p. 2188]
- Leadership Studies [p. 2199]
- Nonprofit Leadership and Philanthropy [p. 2209]

Other College-Level Programs

- Aerospace Studies (Air Force ROTC) [p. 2170]
- Career Center Programs [p. 2185]
- College Success Initiatives [p. 2191]
- Intercollegiate Athletic Participation [p. 2195]
- Iowa Lakeside Laboratory [p. 2196]
- Lifetime Leisure Skills [p. 2204]
- Military Science (Army ROTC) [p. 2206]
- Public Policy [p. 2212]
- Study Abroad [p. 2215]
- Summer Research Experiences for Undergraduates [p. 2232]
- Undergraduate Research Experiences [p. 2233]
- University Libraries [p. 2235]
- University of Iowa Honors Program [p. 2236]
- Urban Studies [p. 2243]

Precollege Program

- University of Iowa Upward Bound [p. 2242]

Aerospace Studies (Air Force ROTC)

Director

- Jared J. Sandstrom

Undergraduate minor: aerospace studies

Website: https://veterans.uiowa.edu/air-force-rotc

The Aerospace Studies Program administers the Air Force Reserve Officer Training Corps (AFROTC) at the University of Iowa. AFROTC prepares highly qualified undergraduate students for commissions as officers in the United States Air Force and the United States Space Force.

While AFROTC is structured primarily for students pursuing active-duty Air Force and Space Force commissions, any undergraduate or graduate student may take aerospace studies courses for academic credit, with the exception of the leadership laboratories. The amount of credit that may be applied toward a degree varies from college to college at the University of Iowa. The College of Liberal Arts and Sciences, for example, accepts a maximum of 20 s.h. of aerospace studies credit. Additionally, any undergraduate student may apply the courses toward the minor in aerospace studies.

In order to receive a commission, AFROTC cadets must satisfactorily complete all University of Iowa degree requirements as well as courses specified by the U.S. Air Force.

Undergraduate and Graduate Programs

AFROTC offers programs lasting two, three, or four years. Joining early allows students to try AFROTC without obligation and can also provide them with an advantage in the scholarship selection process.

The AFROTC program's three main components are the general military course (GMC), the professional officer course (POC), and the Field Training (FT) program.

General Military Course

The general military course (GMC) consists of one AFROTC course (1 s.h.), physical fitness training, and a leadership laboratory taken each semester for two years. Any student who meets AFROTC qualifications and is in good academic standing is eligible to participate in the GMC. Students normally apply for the GMC up to the time they earn 60 s.h. Students who have earned more than 60 s.h. may enroll in the GMC if they are willing to extend their academic plan by a semester or more.

Professional Officer Course

The professional officer course (POC) consists of one AFROTC course (3 s.h.), physical fitness training, and a leadership laboratory taken each semester for two years. Students accepted into the POC make a commitment to serve a minimum of four years as U.S. Air Force or Space Force officers. To enter the POC, students must be selected to attend and must successfully complete field training. Students generally take the POC during their last 60 s.h.

Field Training

All POC applicants must successfully complete Field Training (FT) at a U.S. Air Force base. Selection to attend FT is competitive; if selected, students experience an intensive, two-week program generally completed the summer after the sophomore year. It provides a first-hand look at the active duty Air Force and Space Force and develops military leadership and discipline. Students participate in junior officer education, marksmanship, hand-to-hand combat training, physical fitness training, and expeditionary skills training in a simulated environment. After completing FT, cadets are ready to return to school and assume leadership positions in the AFROTC program.

Activities

Students may compete for acceptance to a variety of optional AFROTC summer training programs. If selected, a student may return to Field Training as a cadet training assistant (CTA), travel to another country for a cultural immersion program, or compete for other Air Force immersion programs as available. The Air Force provides transportation, meals, lodging, and a daily expense allowance for all summer programs.

The AFROTC cadet corps also sponsors community service projects, intramural athletics, and social events, including formal and informal dinners.

Educational Delay

Cadets may request an educational delay to postpone entry to active duty until after completion of an advanced degree or professional training program. Selection for an educational delay is highly competitive.

Financial Aid

In-College Scholarship Program (ICSP)

If a prospective cadet is already in college, they can still experience the benefits of joining AFROTC. Freshman and sophomore students may be eligible for the In-College Scholarship Program (ICSP). The program awards scholarships based on merit during two selection phases (fall and spring semesters). They provide varying awards for tuition and fees, a stipend for books, and a monthly tax-free subsistence allowance. Applicants are selected based on objective and subjective factors. This scholarship does not cover room and board.

General Charles McGee Leadership Award (CMLA)

Cadets who are not already on scholarship and are selected to commission into the Air Force or Space Force are awarded a scholarship that pays $18,000 per year for two years upon successful completion of field training. Any scholarship awardee has the option to convert their award for a $10,000-per-academic-year “housing scholarship” used for on-campus housing. This is for room only; board is not included, and the conversion must begin at the start of the fall academic term if exercised.

All uniforms and required AFROTC textbooks are furnished free of charge.

Programs

Undergraduate Program of Study

Minor

- Minor in Aerospace Studies [p. 2173]

Courses

Aerospace Studies Courses

AERO:1100 Air Force Heritage and Values I 1 s.h.
Introduction to the United States Air Force and Air Force Reserve Officer Training Corps (AFROTC); featured topics include structure of the U.S. Air Force, the Air Force's capabilities, career opportunities, benefits, Air Force installations, core values, leadership, teambuilding, and communication skills. Requirements: first-year or sophomore standing.

AERO:1119 Crosstown Air Force Mentoring 0 s.h.
Mentoring opportunity from an Air Force Officer as needed to provide guidance on the Air Force way of life; for crosstown enrolled Air Force ROTC students. Requirements: crosstown enrollment as AFROTC cadet.

AERO:1150 AFROTC Leadership Laboratory (LLAB) AS 100-FA 1 s.h.
A progression of experiences designed to develop leadership ability; military customs and courtesies, drill and ceremonies, military professional development, the life and work of a junior officer; leadership skills in a practical, supervised military lab setting. Offered fall semesters. Corequisites: AERO:1100. Requirements: first-year or sophomore standing.

AERO:1159 Crosstown Air Force ROTC 0 s.h.
A progression of experiences designed to develop leadership ability; military customs and courtesies, drill and ceremonies, and military professional development. Requirements: crosstown enrollment as AFROTC cadet.

AERO:1200 Air Force Heritage and Values II 1 s.h.
Introduction to the United States Air Force (USAF) and Air Force Reserve Officer Training Corps (AFROTC); featured topics include evolution of the U.S. Air Force/Air Force history, principles of war/tenets of air power, what the Air Force brings to the joint fight, Department of the Air Force, and Air Force major commands; leadership concepts including ethical decision-making, communication, and professional speaking opportunities. Requirements: first-year or sophomore standing.

AERO:1250 AFROTC Leadership Laboratory (LLAB) AS 100-SP 1 s.h.
A progression of experiences designed to develop leadership ability; military customs and courtesies, drill and ceremonies, military professional development, the life and work of a junior officer; leadership skills in a practical, supervised military lab setting. Offered spring semesters. Corequisites: AERO:1200. Requirements: first-year or sophomore standing.

AERO:2100 Team and Leadership Fundamentals I 1 s.h.
Foundation for leadership and team building; concepts applied in team-building activities and class discussion, including demonstration of basic verbal and written communication; featured topics include listening, followership, and problem solving efficiently.

AERO:2150 AFROTC Leadership Laboratory (LLAB) AS 200-FA 1 s.h.
See AERO:1150. Offered fall semesters. Corequisites: AERO:2100.

AERO:2200 Team and Leadership Fundamentals II 1 s.h.
Foundation for leadership and team building; concepts applied in team building activities and class discussion, including demonstration of basic verbal and written communication; featured topics include conflict management, comprehensive airman fitness, and a leadership capstone.

AERO:2250 AFROTC Leadership Laboratory (LLAB) AS 200-SP 1 s.h.
See AERO:1150. Offered spring semesters. Corequisites: AERO:2200.

AERO:3100 Leadership Studies: Leading People and Effective Communication I 3 s.h.
Builds on leadership fundamentals taught in AERO:2100 and AERO:2200; students study leadership and leadership skills to use in their future Air Force environment; profession of arms, communications skills, and ethics; case studies used to examine Air Force leadership situations and demonstrate and exercise practical application of the concepts studied. Requirements: junior or higher standing.

AERO:3150 AFROTC Leadership Laboratory (LLAB) AS 300-FA 1 s.h.
See AERO:1150. Offered fall semesters. Corequisites: AERO:3100.

AERO:3200 Leadership Studies: Leading People and Effective Communication II 3 s.h.
Leadership and leadership skills used in the Air Force environment; continued study of the profession of arms, communication skills, and ethics taught in AERO:3100; creating a vision, mentoring, and other leadership fundamentals; students continue to hone their reading, writing, and speaking skills via several communication studies applications; case studies used to examine Air Force leadership situations, and to demonstrate and exercise practical application of the concepts studied; goal is to instill a more in-depth understanding of how to effectively lead people and organizations. Requirements: junior or higher standing.

AERO:3250 AFROTC Leadership Laboratory (LLAB) AS 300-SP 1 s.h.
See AERO:1150. Offered spring semesters. Corequisites: AERO:3200.

AERO:4100 National Security/Leadership Responsibilities and Commissioning Preparation I 3 s.h.
Introduction to the national security process, regional studies, advanced leadership ethics, and Air Force doctrine; focus specifically on current Air Force organization, leadership, and practical knowledge needed for a student's future as an Air Force officer; students improve oral and written communication skills and delve into military professionalism and ethics. Requirements: junior or higher standing.

AERO:4150 AFROTC Leadership Laboratory (LLAB) AS 400-FA 1 s.h.
See AERO:1150. Offered fall semesters. Corequisites: AERO:4100.

AERO:4200 National Security/Leadership Responsibilities and Commissioning Preparation II 3 s.h.
Continuation of AERO:4100 which introduced the national security process, regional studies, advanced leadership ethics, and Air Force doctrine; students expand their knowledge to comprehend the responsibility, authority, and functions of an Air Force commander and selected provisions of the military justice system; designed to prepare cadets for life as a second lieutenant; students continue to improve oral and written communication skills. Requirements: junior or higher standing.

AERO:4250 AFROTC Leadership Laboratory (LLAB) AS 400-SP 1 s.h.
See AERO:1150. Offered spring semesters. Corequisites: AERO:4200.

Aerospace Studies, Minor

Requirements

The undergraduate minor in aerospace studies requires a minimum of 16 s.h. in aerospace studies program courses. Students must maintain a grade-point average of at least 2.50 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. In order to count transfer coursework taken at other institutions toward the minor, students must have approval from the director of the Aerospace Studies Program.

The minor in aerospace studies requires the following coursework.

Course #	Title	Hours
AERO:1100	Air Force Heritage and Values I	1
AERO:1200	Air Force Heritage and Values II	1
AERO:2100	Team and Leadership Fundamentals I	1
AERO:2200	Team and Leadership Fundamentals II	1
AERO:3100	Leadership Studies: Leading People and Effective Communication I	3
AERO:3200	Leadership Studies: Leading People and Effective Communication II	3
AERO:4100	National Security/Leadership Responsibilities and Commissioning Preparation I	3
AERO:4200	National Security/Leadership Responsibilities and Commissioning Preparation II	3

Bachelor of Applied Studies

Associate Dean

- Andrew Beckett

Program Director

- Dawn Freerks

Undergraduate major: BAS

Website: https://basbls.uc.uiowa.edu/degree-requirements/bachelor-applied-studies

The Bachelor of Applied Studies (BAS) is designed for graduates of community colleges who wish to complete a bachelor's degree through online education. The degree may be completed completely online or through a combination of on-site and online coursework. Students may earn credit toward the degree with a selection of several types of courses, including semester-based online courses, on-site courses at off-campus locations throughout Iowa, and regular-session on-campus courses.

The BAS is a general undergraduate degree without a traditional academic major. Students can design an individual program or select from four optional emphasis areas: creative writing, human relations, justice studies, and political science. BAS students may complete multiple emphasis areas and earn undergraduate minors and certificates offered by the University of Iowa. They may not enroll in a second college at the University of Iowa while completing the BAS degree.

Working with their academic advisors, BAS students may plan programs designed to advance their careers, begin new careers, or prepare for graduate or professional study. Students who have specific career goals or advanced degree programs in mind should determine what educational background they will need in order to achieve their goals, and they should include appropriate coursework in their BAS programs.

The BAS is awarded by University College [p. 2168] and is administered by Distance and Online Education [p. 2194].

Programs

Undergraduate Program of Study

Major

- Bachelor of Applied Studies [p. 2175]

Bachelor of Applied Studies, BAS

Requirements

The Bachelor of Applied Studies requires a minimum of 120 s.h. and is intended to be completed entirely by distance education. Students must maintain a cumulative grade-point average of 2.00 or higher in all coursework attempted, all coursework taken at the University of Iowa, and all upper-level coursework.

After admission to the University of Iowa, one of the following residence requirements must be met—at least 90 s.h. completed at the University of Iowa, or 45 of the final 60 s.h. completed at the University of Iowa, or the final 30 s.h. completed at the University of Iowa.

Students must earn at least 60 s.h. of the minimum 120 s.h. required for the degree at four-year colleges, including 45 s.h. in upper-level coursework. University of Iowa upper-level courses are numbered from 3000 to 4999. Some courses numbered below 3000 may be considered upper level for the BAS; for details, see BAS Upper-Level Coursework on the Bachelor of Applied Studies website.

Students must also complete the following core requirements and a set of distribution areas; see BAS Core Requirements and Distribution Areas on the Bachelor of Applied Studies website for more information.

Core Requirements

Requirements	Hours
Rhetoric coursework equivalent to composition II and speech	
Quantitative or formal reasoning	3
Social sciences	3
Values and society	3
Business/management	6

Distribution Areas

Students must complete 12 s.h. in three of the following five distribution areas (total of 36 s.h.). In each distribution area, 6 of the required 12 s.h. must be earned in upper-level courses.

Requirements	Hours
Communication and arts (e.g., journalism, communication studies, creative writing, art, music)	
Humanities (e.g., literature, history, philosophy, religion)	
Natural sciences and mathematics (e.g., mathematics, biology, statistics, computer science)	
Professional fields (e.g., business, education, nursing, social work, aging and longevity studies)	
Social sciences (e.g., sociology, psychology, economics, political science, anthropology)	

All University College policies regarding grading, course drops, withdrawals, academic standards, and so forth apply to BAS students. For more information, see Taking University College Courses on the University College website.

Optional Emphasis Area

Students may include an emphasis area in their BAS program.

Creative Writing Emphasis Area

The creative writing emphasis area requires 18 s.h. It provides students with an understanding of the multiple facets of written communication. The emphasis area requires the following coursework.

Course #	Title	Hours
All of these:		
CLSA:3742/ WRIT:3742	Word Power: Building English Vocabulary	3
CW:2100	Creative Writing	3
CW:4897	Novel Writing	3
At least three of these:		
CINE:1150	Introduction to Screenwriting for Nonmajors	3
CNW:1620	Introduction to Creative Nonfiction	3
CW:2870	Fiction Writing	3
CW:2875	Poetry Writing	3
CW:3005/ INTD:3005/ WRIT:3005	Professional and Creative Business Communication	3
CW:3870	Advanced Fiction Writing	3
CW:3875	Advanced Poetry Writing	3
CW:4745/ WRIT:4745	The Sentence: Strategies for Writing	3
CW:4760/ WRIT:4760	The Art of Revision: Rewriting Prose for Clarity and Impact	3
WRIT:1500	Writing Commons: A Community of Writers	3

For additional details about the emphasis area and related careers, see Creative Writing Emphasis Area on the Bachelor of Applied Studies website. Students who earn the creative writing emphasis may not earn the creative writing minor (College of Liberal Arts and Sciences) or the Certificate in Writing (College of Liberal Arts and Sciences).

Human Relations Emphasis Area

The human relations emphasis area requires 18 s.h. It focuses on human development, personality theory, interpersonal and group communication, multiculturalism, professional ethics, and the development of helping skills. The emphasis area requires the following coursework.

Course #	Title	Hours
All of these:		
CSED:4194	Interpersonal Effectiveness	3
CSED:4197	Citizenship in a Multicultural Society	3
CSED:4199	Counseling for Related Professions	3
At least three of these:		
CSED:4131	Loss, Death, and Bereavement	3
CSED:4162/ PSQF:4162	Introduction to Couple and Family Therapy	3
CSED:4174	Positive Psychology	3

CSED:4176	Child Abuse: Assessment, Intervention, and Advocacy	3
CSED:4178	Microcounseling	3
CSED:4179	Sexuality Within the Helping Professions	3
CSED:4185	Introduction to Substance Abuse	3
CSED:4195	Ethics in Human Relations and Counseling	3
SSW:3712/ NURS:3712	Human Sexuality, Diversity, and Society	3

For additional details about the emphasis area and related careers, see Human Relations Emphasis Area on the Bachelor of Applied Studies website. Students who earn the human relations emphasis may not earn the human relations minor (College of Liberal Arts and Sciences).

Justice Studies Emphasis Area

The justice studies emphasis area requires 18 s.h. It is a good choice for students who hold associate degrees in disciplines such as community service, corrections, criminal justice, law enforcement, police science, or public safety. The emphasis area requires the following coursework.

Course #	Title	Hours
Two of these:		
CRIM:1410	Introduction to Criminology	3
CSED:4197	Citizenship in a Multicultural Society	3
POLI:3111	American Public Policy	3
SOC:1030	Contemporary Social Problems	3-4
SOC:4225	The Social Psychology of Leadership	3
At least four of these:		
CRIM:3250	Drugs, Deviance, and Social Control	3
CRIM:4410	Treatment Interventions in Corrections	3
CSED:4176	Child Abuse: Assessment, Intervention, and Advocacy	3
CSED:4185	Introduction to Substance Abuse	3
CSED:4194	Interpersonal Effectiveness	3
HRTS:2115/IS:2115	Introduction to Human Rights	3
MGMT:2000	Introduction to Law	3
POLI:3503	Politics of Terrorism	3
SOC:2810	Social Inequality	3
SSW:3797	Child Welfare Policy and Practice	3
SSW:4100	Social Work in the Criminal Justice System	3

For additional details about the emphasis area and related careers, see Justice Studies Emphasis Area on the Bachelor of Applied Studies website.

Political Science Emphasis Area

The political science emphasis area requires 18 s.h. It focuses on the political role of the United States in shaping social and public policy worldwide and on the interplay between foreign and domestic politics. The emphasis area requires the following coursework.

Course #	Title	Hours
Two of these:		
POLI:1100	Introduction to American Politics	3
POLI:1200	Introduction to Political Behavior	3
POLI:1400	Introduction to Comparative Politics	3
POLI:1500	Introduction to International Relations	3
POLI:1501	Introduction to American Foreign Policy	3
At least four of these:		
IS:2020	World Events Today!	3
POLI:3100	American State Politics	3
POLI:3102	The U.S. Congress	3
POLI:3110	Local Politics	3
POLI:3111	American Public Policy	3
POLI:3116	The Presidency	3
POLI:3202	Political Psychology	3
POLI:3203	Campaigns, Elections, and Voting Behavior	3
POLI:3405	Authoritarian Politics	3
POLI:3503	Politics of Terrorism	3
POLI:3504	Globalization	3
POLI:3506	Consequences of War	3

For additional details about the emphasis area and related careers, see Political Science Emphasis Area on the Bachelor of Applied Studies website. Students who earn the political science emphasis may not earn a political science minor (College of Liberal Arts and Sciences)

Admission

Individuals who wish to earn a BAS must apply for admission to the program by completing an application through Admissions. Additional information on the BAS program may be found on the Bachelor of Applied Studies website.

Applicants to the BAS program must have earned an associate degree from a regionally accredited institution. They must have a minimum of 60 s.h. of approved transfer credit. There is no limit on the amount of career-technical credit accepted as a part of the 60 s.h. of approved transfer credit.

Students who have an AA degree from a two-year institution participating in articulation agreements with the University of Iowa are considered to have satisfied the BAS core requirements, except for the business/management courses. Additional information on articulation agreements can be found on the Admissions website.

Applicants who graduated from an Iowa community college or Waldorf College must have a cumulative grade-point average (GPA) of at least 2.00; those who graduated from Black Hawk College in Illinois must have a cumulative GPA of at least 2.25; those who graduated from other institutions outside Iowa must have a cumulative GPA of at least 2.50.

Bachelor of Liberal Studies

Associate Dean

- Andrew Beckett

Program Director

- Dawn Freerks

Undergraduate major: BLS

Website: https://basbls.uc.uiowa.edu/degree-requirements/bachelor-liberal-studies

The Bachelor of Liberal Studies (BLS) is designed for students who have earned college credit at a regionally accredited institution and would like to complete a bachelor's degree by online education. The degree may be completed completely online or through a combination of on-site and online coursework. Students may earn credit toward the degree with a selection of several types of courses, including semester-based online courses, off-campus courses at sites throughout Iowa, and regular session on-campus courses.

The BLS emphasizes workplace and leadership skills. Students must select at least one track from the following six options: expression in writing and arts; family, community, and social support; global studies; health and human studies; justice and ethics; and organizational studies. BLS students may complete multiple tracks and earn undergraduate minors and certificates offered by the University of Iowa. They may not enroll in a second college at the University of Iowa while completing the BLS degree.

The BLS is awarded by University College and is administered by Distance and Online Education [p. 2194].

Programs

Undergraduate Program of Study

Major

- Bachelor of Liberal Studies [p. 2178]

Bachelor of Liberal Studies, BLS

Requirements

The Bachelor of Liberal Studies (BLS) requires a minimum of 120 s.h. of credit. Students must maintain a grade-point average of at least 2.00 in all coursework for the degree, all University of Iowa coursework, and all coursework for the BLS track.

After admission to the University of Iowa, one of the following residence requirements must be met—at least 90 s.h. completed at the University of Iowa, or 45 of the final 60 s.h. completed at the University of Iowa, or the final 30 s.h. completed at the University of Iowa.

Students must earn at least 60 s.h. of the minimum 120 s.h. required for the degree at four-year colleges, including 30 s.h. in upper-level coursework. University of Iowa upper-level courses are numbered from 3000 to 4999.

BLS students must complete a required set of common core courses and a BLS track, as part of the total number of semester hours required for the degree. Students select at least one track from six options: expression in writing and arts; family, community, and social support; global studies; health and human studies; justice and ethics; and organizational studies. Students may complete more than one track.

All University College policies regarding grading, course drops, withdrawals, academic standards, and so forth apply to BLS students. For more information, see the For Students section on the University College website.

The following coursework is required for all BLS students.

BLS Common Core

Common core courses develop fundamental skills in writing, critical thinking, information literacy, and leadership and give students the opportunity to explore ideas from multiple perspectives.

Some courses in the common core are part of the General Education College of Liberal Arts and Sciences Core (GE CLAS Core). Students should contact the BLS advisor for information about additional courses that will fulfill their common core requirements.

Rhetoric

Rhetoric courses develop speaking, writing, listening, and critical reading skills and build competence in research, analysis, and argumentation. Each entering student's degree audit shows the course(s) that must be completed in order to fulfill the rhetoric requirement.

Courses approved for the Rhetoric area of the GE CLAS Core satisfy the BLS rhetoric requirement.

Course #	Title	Hours
RHET:1030	Rhetoric: Writing and Communication	4-5

Students who have transfer credit in composition, speech, and argumentation may instead be held to one of the following.

Course #	Title	Hours
RHET:1040	College Writing and Reading	3
RHET:1060	College Communication and Reading	3

Students should contact a BLS advisor if they have questions about which rhetoric course they may need to fulfill this requirement.

Find Rhetoric courses offered by distance education on MyUI.

Interpretation of Literature

Courses in the Interpretation of Literature area focus on the major genres of literature (short and long fiction, nonfiction, poetry, and drama), improving students' abilities to read and analyze a variety of texts. Small group discussions in these courses challenge students to think critically, share insights, and listen thoughtfully to the arguments of others.

Students must complete one approved course (3 s.h.) in this area. They may use any 3 s.h. course approved for the Interpretation of Literature area of the GE CLAS Core.

Find Interpretation of Literature courses offered by distance education on MyUI.

Natural Sciences

Courses in the Natural Sciences area explore the scope and major concepts of a scientific discipline. Students learn the attitudes and practices of scientific investigators: logic, precision, experimentation, tentativeness, and objectivity.

Students must complete one approved course (3 s.h.) in this area. They may use any 3 s.h. course approved for the Natural Sciences area of the GE CLAS Core.

Find Natural Sciences courses offered by distance education on MyUI.

International and Global Issues

Courses in the International and Global Issues area focus predominantly on countries or issues outside the United States, encouraging students to understand contemporary issues from an international perspective. Students develop knowledge of one or more contemporary global or international issues, gain a greater awareness of varied international perspectives, and improve their skills of analysis and critical inquiry.

Students must complete one approved course (3 s.h.) in this area. They may use any 3 s.h. course approved for the International and Global Issues area of the GE CLAS Core.

International and Global Issues Requirement and Military Overseas Service

BLS students who have or are serving in the military and have been deployed overseas may have the International and Global Issues (IGI) requirement satisfied by military service if such service is noted on the Veteran’s DD-214 form. DD-214 forms should be submitted to the University College Academic Standards Committee [uc-asc@uiowa.edu]. The IGI requirement is satisfied by overseas service, but no credit is awarded and there is no reduction in the hours needed for graduation.

Find International and Global Issues courses offered by distance education on MyUI.

Values and Society

Courses in the Values and Society area focus on how culture shapes the human experience and the role of values in society, with students asking fundamental questions regarding the human experience while exploring their own values and beliefs. They may use any 3 s.h. course approved for the Values and Society area of the GE CLAS Core.

Find Values and Society courses offered by distance education on MyUI.

Students may also use one of the following distance education courses, which are not part of the GE CLAS Core, to satisfy the BLS Values and Society requirement.

Course #	Title	Hours
CSED:4187/ EDTL:4987	Introduction to Assistive Technology	3
CSED:4197	Citizenship in a Multicultural Society	3
SSW:3712/ NURS:3712	Human Sexuality, Diversity, and Society	3

Statistics/Quantitative or Formal Reasoning

Students must complete one approved statistics course (3–4 s.h.). They may use any 3–4 s.h. course offered by the Department of Statistics and Actuarial Science (prefix STAT) except STAT:1000 First-Year Seminar.

Find statistics courses (prefix STAT) offered through distance education on MyUI.

Students may also use any 3 s.h. course approved for the Quantitative or Formal Reasoning area of the GE CLAS Core.

Find Quantitative or Formal Reasoning courses offered through distance education on MyUI.

Students may also use these distance education courses, which are not part of the GE CLAS Core, to satisfy the BLS Statistics/Quantitative or Formal Reasoning requirement.

Course #	Title	Hours
BIOS:4120	Introduction to Biostatistics	3
LING:1003/ WRIT:1003	English Grammar	3

Information Literacy

Students must complete one approved course (2–3 s.h.) focusing on information literacy. The following courses are offered by distance education.

Course #	Title	Hours
BAIS:1500	Business Computing Essentials	2
CCP:3106	Career Computing Skills	2

Students may also use one of these courses, which are not offered by distance education, to satisfy the BLS Information Literacy requirement.

Course #	Title	Hours
CS:1020	Principles of Computing	3
CS:1110	Introduction to Computer Science	3

Critical Thinking

Students must complete one approved course (3 s.h.) focusing on critical thinking. The following courses are offered by distance education.

Course #	Title	Hours
COMM:2070	Social Media and Society	3
HHP:2280	Cultural Competency and Health	3
HRTS:2115/IS:2115	Introduction to Human Rights	3
JMC:1100	Introduction to Media Effects	3
JMC:2700	Media Ethics	3
PHIL:1033	The Meaning of Life	3
RELS:1015	Global Religious Conflict and Diversity	3
RHET:2135/ SJUS:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
RELS:2260/ GHS:2260	Hard Cases in Healthcare at the Beginning of Life	3
RELS:2265/ ASP:2265/ GHS:2265	Hard Cases in Healthcare at the End of Life	3

Students may also use one of these courses, which are not offered by distance education, to satisfy the BLS Critical Thinking requirement.

Course #	Title	Hours
LING:1050	Language and Formal Reasoning	3
PHIL:1034	Liberty and the Pursuit of Happiness	3
PHIL:1636	Principles of Reasoning: Argument and Debate	3

Leadership and Career Development

Students must complete two or more approved courses (total of 6 s.h.) focusing on leadership and career development, chosen from the following list of distance education courses.

Course #	Title	Hours
CCP:2001	Graduate Admissions 101	1
CCP:3102	Job Search Essentials	1-3
CCP:3104	Defining Your Career Path	2
CCP:3107	Social Media for Your Job Search	1
COMM:1818	Communication Skills for Leadership	3
COMM:1819	Organizational Leadership	3
CSED:2081	Making a Vocational-Educational Choice	2-3
CSED:4111	Building Leadership and Success at Work	3
CSED:4194	Interpersonal Effectiveness	3
CSED:4197	Citizenship in a Multicultural Society	3
CSI:1410	Life Design	2
CW:3005/ INTD:3005/ WRIT:3005	Professional and Creative Business Communication	3

ENTR:1350	Foundations in Entrepreneurship	3
LS:2002	Career Leadership Academy Part 1: Leadership in Practice	3
SOC:4225	The Social Psychology of Leadership	3

BLS Tracks

BLS students must complete one of the following tracks.

- Expression in Writing and Arts Track [p. 2180]
- Family, Community, and Social Support Track [p. 2180]
- Global Studies Track [p. 2181]
- Health and Human Studies Track [p. 2182]
- Justice and Ethics Track [p. 2183]
- Organizational Studies Track [p. 2183]
- Professional Studies Track [p. 2184]

Expression in Writing and Arts Track

This track embraces interconnections between literature, writing, visual arts, and creative expression. The track requires 12 s.h. of foundation coursework and 18 s.h. of upper-level coursework (courses numbered 3000 or above) offered by distance education.

Foundation Coursework—Expression in Writing and Arts

Course #	Title	Hours
12 s.h. from these offered by distance education:		
ARTH:1030	Themes in Global Art	3
ARTH:1060	From Mona Lisa to Modernism: Survey of Western Art II	3
ARTH:1070	Asian Art and Culture	3
ARTH:2120	Art and Architecture of the Islamic World	3
CINE:1150	Introduction to Screenwriting for Nonmajors	3
CLSA:2016	Classical Mythology	3
CNW:1620	Introduction to Creative Nonfiction	3
COMM:1816	Business and Professional Communication	3
COMM:2048	Transforming Media: From Telegraph to Internet	3
CW:2100	Creative Writing	3
CW:2870	Fiction Writing	3
CW:2875	Poetry Writing	3
EDTL:2630/ MUS:2630	Introduction to the Psychology of Music	3
EDTL:2821/ COMM:2821	Oral Interpretation	3
HRTS:2907/IS:2907	Literature and Human Rights	1-3
ITAL:2440	Italian Arts for International Success	3
JMC:1200	Introduction to Media and Culture	3
MUS:1066	Introduction to Film Music	3
RHET:2135/ SJUS:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
WRIT:1003/ LING:1003	English Grammar	3
WRIT:1500	Writing Commons: A Community of Writers	1-3

Upper-Level Coursework—Expression in Writing and Arts

Course #	Title	Hours
18 s.h. from these offered by distance education:		
CLSA:3742/ WRIT:3742	Word Power: Building English Vocabulary	3
CLSA:3750	Medical and Technical Terminology	2
CLSA:3821/ ANTH:3821/ HIST:3403	City of Athens: Bronze Age to Roman World	3
CW:3870	Advanced Fiction Writing	3
CW:3875	Advanced Poetry Writing	3
CW:4745/ WRIT:4745	The Sentence: Strategies for Writing	3
CW:4760/ WRIT:4760	The Art of Revision: Rewriting Prose for Clarity and Impact	3
CW:4897	Novel Writing	3
EALL:4130/ MUSM:4150	Introduction to Grant Writing	3
EDTL:3382/ ENGL:3190	Language and Learning	2-3
EDTL:3393/ ENGL:3191	Reading and Teaching Adolescent Literature	3
INTD:3005/ CW:3005/ WRIT:3005	Professional and Creative Business Communication	3
JMC:3720/ MUSM:3720	Nonprofit Communications	3
MUSM:3001/ ANTH:3001/ EDTL:3001/ SIED:3001	Introduction to Museum Studies	3
MUSM:3100/ ANTH:3122	Historic House Management and Preservation	3
MUSM:3105	Engaging Museum Audiences	3
MUSM:3120	Museum Origins	3
MUSM:3125	Museums in a Digital World	3
POLI:3603	War and Film	3
SRM:3178	Communications and Public Relations in Sports	3

Family, Community, and Social Support Track

This track focuses on human relations effectiveness in the social service sector. It explores mechanisms for the exchange of assistance through social relationships, especially as they relate to home, school, and community improvement. The track requires 12 s.h. of foundation coursework and 18 s.h. of upper-level coursework (courses numbered 3000 or above) offered by distance education.

Foundation Coursework—Family, Community, and Social Support

Course #	Title	Hours
12 s.h. from these offered by distance education:		
AFAM:2500	Black Culture and Experience: Contemporary Issues	3
ANTH:2100	Anthropology and Contemporary World Problems	3
ASP:1800/ CSD:1800/ NURS:1800/ SSW:1800/TR:1800	Aging Matters: Introduction to Gerontology	3
COMM:2070	Social Media and Society	3
GWSS:1310/ SOC:1310	Gender and Society	3
GWSS:2052/ RELS:2852	Women in Islam and the Middle East	3
NAIS:2165/ AMST:2165/ ANTH:2165	Native Peoples of North America	3
POLI:1800	Introduction to the Politics of Class and Inequality	3
PSQF:1075	Educational Psychology and Measurement	3
RELS:2000	Engaging Religious Diversity for Leadership and Entrepreneurship	3
RHET:2135/ SJUS:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
SOC:1010	Introduction to Sociology	3-4
SOC:2710	The American Family	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3

Upper-Level Coursework—Family, Community, and Social Support

Course #	Title	Hours
18 s.h. from these offered by distance education:		
ASP:3135/ GHS:3050/ SSW:3135	Global Aging	3
CRIM:3250	Drugs, Deviance, and Social Control	3
CSED:4132	Introduction to Addictions and Impulse Control Disorders	3
CSED:4145/ PSQF:4145	Marriage and Family Interaction	3
CSED:4162/ PSQF:4162	Introduction to Couple and Family Therapy	3
CSED:4173	Trauma Across the Lifespan	3
CSED:4176	Child Abuse: Assessment, Intervention, and Advocacy	3
CSED:4179	Sexuality Within the Helping Professions	3
CSED:4194	Interpersonal Effectiveness	3
EALL:4130/ MUSM:4150	Introduction to Grant Writing	3
EDTL:4900	Foundations of Special Education	3
EDTL:4934/ PSQF:4134	Parent-Teacher Communication	1-3
EDTL:4936/ PSQF:4136	Home/School/Community Partnerships	3
EDTL:4940	Characteristics of Disabilities	3
HHP:4030	Social Determinants of Health	3
PHIL:3920	Philosophy in Public	1-3
PSQF:3104	Multicultural Issues in Counseling and Psychology	3
SSW:3500/ ENTR:3595/ MGMT:3500/ MUSM:3500/ NURS:3595/ RELS:3700	Nonprofit Organizational Effectiveness I	3
SSW:3712/ NURS:3712	Human Sexuality, Diversity, and Society	3
SSW:3729	Substance Use and Abuse	2-3
SSW:3797	Child Welfare Policy and Practice	3
SSW:4700	Motivational Interviewing in Diverse Application	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Global Studies Track

This track enables students to understand global issues and perspectives. The track requires 12 s.h. of foundation coursework and 18 s.h. of upper-level coursework (courses numbered 3000 or above) offered by distance education.

Foundation Coursework—Global Studies

Course #	Title	Hours
12 s.h. from these offered by distance education:		
ANTH:2100	Anthropology and Contemporary World Problems	3
ANTH:2261	Human Impacts on the Environment	3
ARTH:1070	Asian Art and Culture	3
ARTH:2120	Art and Architecture of the Islamic World	3
CBE:2040	Environment, Energy, and Climate Change	3
CLSA:1181/ GHS:1181	Ancient Medicine	3
CLSA:1840	Roman Civilization	3
ECON:1200	Principles of Macroeconomics	4
FREN:1006	Global Sports and National Cultures	3
GHS:2000/ ANTH:2103	Introduction to Global Health Studies	3
HRTS:2115/IS:2115	Introduction to Human Rights	3
IS:2020	World Events Today!	3
LATS:2280/ HIST:2280	Introduction to Latina/o/x Studies	3

POLI:1400	Introduction to Comparative Politics	3
POLI:1500	Introduction to International Relations	3
POLI:1501	Introduction to American Foreign Policy	3
POLI:1510	International Politics of Environmental Issues	3
RELS:1015	Global Religious Conflict and Diversity	3
RELS:1130/ HIST:1030	Introduction to Islamic Civilization	3
RELS:2852/ GWSS:2052	Women in Islam and the Middle East	3
RELS:2955/IS:2955	Human Rights and Islam	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
World Languages General Education courses (maximum of two courses and 6 s.h.)		6

Upper-Level Coursework—Global Studies

Course #	Title	Hours
18 s.h. from these offered by distance education:		
CSED:4194	Interpersonal Effectiveness	3
CSED:4197	Citizenship in a Multicultural Society	3
ENTR:4460	Entrepreneurship and Global Trade	3
GHS:3050/ ASP:3135/ SSW:3135	Global Aging	3
GHS:3850/ HHP:3850	Promoting Health Globally	3
GHS:4002	Working in Global Health	3
OEH:4240	Global Environmental Health	3
POLI:3405	Authoritarian Politics	3
POLI:3503	Politics of Terrorism	3
POLI:3504	Globalization	3
POLI:3506	Consequences of War	3
POLI:3505	Civil Wars	3
POLI:3603	War and Film	3
SEES:3210	Principles of Paleontology	3
SOC:3510	Medical Sociology	3
SOC:4225	The Social Psychology of Leadership	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Health and Human Studies Track

This track provides a foundation in the health sciences with a focus on social aspects of health care. It draws from courses in psychological and brain sciences and counselor education. The track requires 12 s.h. of foundation coursework and 18 s.h. of upper-level coursework (courses numbered 3000 or above) offered by distance education.

Foundation Coursework—Health and Human Studies

Course #	Title	Hours
12 s.h. from these offered by distance education:		
ASP:1800/ CSD:1800/ NURS:1800/ SSW:1800/TR:1800	Aging Matters: Introduction to Gerontology	3
CLSA:1181/ GHS:1181	Ancient Medicine	3
GHS:2000/ ANTH:2103	Introduction to Global Health Studies	3
HHP:2100	Human Anatomy	3
HHP:2130	Human Development Through the Life Span	3
HHP:2200	Physical Activity and Health	3
HHP:2280	Cultural Competency and Health	3
HHP:2310	Nutrition and Health	3
HHP:2400	Fundamentals of Human Physiology	3
MED:1100	Introduction to Health Care Professions	3
PSY:1001	Elementary Psychology	3
PSY:2301	Introduction to Clinical Psychology	3
PSY:2401	Introduction to Developmental Science	3
PSY:2601	Introduction to Cognitive Psychology	3
RELS:2260/ GHS:2260	Hard Cases in Healthcare at the Beginning of Life	3
RELS:2265/ ASP:2265/ GHS:2265	Hard Cases in Healthcare at the End of Life	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
or PSY:2811	Research Methods and Data Analysis in Psychology I	

Upper-Level Coursework—Health and Human Studies

Course #	Title	Hours
18 s.h. from these offered by distance education:		
ASP:3150	Psychology of Aging	3
ASP:3170	Health and Aging	3
BMB:3110	Biochemistry	3
CLSA:3750	Medical and Technical Terminology	2
CSED:4110	Psychology of Food and Mood	3
CSED:4113	Sleep, Sleep Deprivation, and Sleep Disorders	3
CSED:4131	Loss, Death, and Bereavement	3
CSED:4173	Trauma Across the Lifespan	3
CSED:4174	Positive Psychology	3
CSED:4179	Sexuality Within the Helping Professions	3

CSED:4185	Introduction to Substance Abuse	3
CSED:4187/ EDTL:4987	Introduction to Assistive Technology	3
GHS:3035	Engaging in Global Health	1
HHP:3030	Lifestyle Medicine	3
HHP:3050	Obesity	3
HHP:3105	Anatomy for Human Physiology	3
HHP:3300	Human Growth and Motor Development	3
HHP:4390	Understanding Human Disease	3
HHP:4440	Physiology of Nutrition	3
NURS:3740/ ASP:3740/ MED:3740	End-of-Life Care for Adults and Families	3
PSY:3330	Childhood Psychopathology	3
PSY:3620	Human Memory	3
RSCI:4110	Vascular Anatomy	3
SOC:3510	Medical Sociology	3
SOC:4225	The Social Psychology of Leadership	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3
or BIOS:4120	Introduction to Biostatistics	

Justice and Ethics Track

This track explores ethical and moral solutions for contemporary social issues related to criminal, justice, and political systems. The track requires 12 s.h. of foundation coursework and 18 s.h. of upper-level coursework (courses numbered 3000 or above) offered by distance education.

Foundation Coursework—Justice and Ethics

Course #	Title	Hours
12 s.h. from these offered by distance education:		
CRIM:1410	Introduction to Criminology	3
GHS:2260/ RELS:2260	Hard Cases in Healthcare at the Beginning of Life	3
HRTS:2115/IS:2115	Introduction to Human Rights	3
JMC:2600	Freedom of Expression	3
JMC:2700	Media Ethics	3
MGMT:2000	Introduction to Law	3
PHIL:1033	The Meaning of Life	3
POLI:1100	Introduction to American Politics	3
POLI:1601	Introduction to Social Media and Politics	3
POLI:1800	Introduction to the Politics of Class and Inequality	3
POLI:1900	Introduction to the Politics of Race	3
RELS:1015	Global Religious Conflict and Diversity	3
RELS:2330	Wealth, Inequality, and Islam	3
SOC:1030	Contemporary Social Problems	3-4
SOC:2810	Social Inequality	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3

Upper-Level Coursework—Justice and Ethics

Course #	Title	Hours
18 s.h. from these offered by distance education:		
ASP:3519/ POLI:3519	Politics of Aging	3
CRIM:3250	Drugs, Deviance, and Social Control	3
CRIM:4400	Internship in Criminal Justice and Corrections	3
CRIM:4410	Treatment Interventions in Corrections	3
CSED:4176	Child Abuse: Assessment, Intervention, and Advocacy	3
CSED:4185	Introduction to Substance Abuse	3
CSED:4195	Ethics in Human Relations and Counseling	3
CSED:4197	Citizenship in a Multicultural Society	3
MGMT:4600/ MUSM:4600	Nonprofit Ethics and Governance	3
POLI:3100	American State Politics	3
POLI:3102	The U.S. Congress	3
POLI:3111	American Public Policy	3
POLI:3116	The Presidency	3
POLI:3202	Political Psychology	3
POLI:3405	Authoritarian Politics	3
POLI:3503	Politics of Terrorism	3
SRM:3151	Liability in Sport and Recreation	3
SRM:3700	Ethics in Sport	3
SSW:3797	Child Welfare Policy and Practice	3
SSW:4100	Social Work in the Criminal Justice System	3

Organizational Studies Track

This track focuses on management skills used in business enterprises. The track requires 12 s.h. of foundation coursework and 18 s.h. of upper-level coursework (courses numbered 3000 or above) offered by distance education.

Foundation Coursework—Organizational Studies

Course #	Title	Hours
12 s.h. from these offered by distance education:		
BAIS:2800	Foundations of Business Analytics	3
BUS:2300	Searching for Business Information	1
COMM:1816	Business and Professional Communication	3
COMM:1819	Organizational Leadership	3
COMM:2010	Communication and Organizational Culture	3
ECON:1100	Principles of Microeconomics	4

ECON:1200	Principles of Macroeconomics	4
ENTR:2000	Entrepreneurship and Innovation	3
JMC:1500	Introduction to Social Media	3
MGMT:2000	Introduction to Law	3
MGMT:2100	Introduction to Management	3
RELS:2000	Engaging Religious Diversity for Leadership and Entrepreneurship	3
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3

Upper-Level Coursework—Organizational Studies

Course #	Title	Hours
18 s.h. from these offered by distance education:		
BAIS:3000	Operations Management	2
BAIS:3005	Information Systems	2
CSED:4140	Foundations of Leadership for Community Agencies	3
CSED:4187/ EDTL:4987	Introduction to Assistive Technology	3
CSED:4197	Citizenship in a Multicultural Society	3
EALL:4130/ MUSM:4150	Introduction to Grant Writing	3
ECON:3100	Intermediate Microeconomics	3
ECON:3150	Intermediate Macroeconomics	3
ECON:3325	Personnel Economics	3
ENTR:3100	Entrepreneurial Finance	3
ENTR:3200	Entrepreneurial Marketing	3
ENTR:4400	Managing the Growth Business	3
FIN:3000	Introductory Financial Management	3
GHS:4002	Working in Global Health	3
HHP:3700	Health Care Communications	1
INTD:3005/ CW:3005/ WRIT:3005	Professional and Creative Business Communication	3
JMC:3530	Social Media Marketing	3
MGMT:4600/ MUSM:4600	Nonprofit Ethics and Governance	3
MKTG:3000	Introduction to Marketing Strategy	3
SOC:4225	The Social Psychology of Leadership	3
SRM:3153	Sport Business Practices	3
SRM:3154	Foundations of Event Management	3
or EVNT:3154	Foundations of Event Management	
SRM:3158	Sport and Recreation Promotion	3
SSW:3600/ MGMT:3600/ NURS:3600/ RELS:3701	Nonprofit Organizational Effectiveness II	3
STAT:4143/ PSQF:4143	Introduction to Statistical Methods	3

Professional Studies Track

More information related to the professional studies track will be provided at a later date.

Admission

Individuals who would like to earn the Bachelor of Liberal Studies degree must apply for admission to the program.

Applicants to the BLS program must meet one of the following sets of requirements:

- they must have at least 24 s.h. of graded college-level transfer credit with a grade-point average (GPA) of 2.00 or higher; or
- they must hold an associate degree with a GPA of 2.00 or higher in all college-level transfer credit.

Career Center Programs

Director

- Angi McKie

Website: https://careers.uiowa.edu/

The University of Iowa Marvin A. and Rose Lee Pomerantz Career Center administers the university's Career Center Programs. Students may use the Pomerantz Career Center's services at any time during their academic careers. The center encourages entering first-year and transfer students to visit after they arrive on campus and to make use of all of the center's services throughout their studies at Iowa.

The center offers tailored professional career coaching for students who are deciding on majors that connect with career interests, résumé and cover letter help, job and internship strategies, ways to gain hands-on experience, interview strategies, preparing for graduate school, and other career-related topics. Students also can drop in daily for assistance from career peer advisors. Workshops and programs are presented to students across campus on career and professional development-related topics each semester.

Academic courses in career-related topics, such as career exploration and job search skills, are available each semester for academic credit ranging from 1–3 s.h. per course. See the following section, "Professional Development Courses," for more information. Other courses are offered through the Leadership Studies Program [p. 2199].

The center hosts several career fairs and events each fall and spring, offering students the opportunity to talk with and learn about prospective employers.

The Pomerantz Career Center facilitates job and internship interviewing with a wide range of employers: regional, national, and international; profit and nonprofit; state and federal government. Employers conduct on-campus and virtual interviews at specific times during the year, and many post immediate openings year-round for internships and for full-time positions. On-campus recruiting and job, internship, and student employment postings are available online; visit Handshake on the Pomerantz Career Center website.

The center helps students find internships in Iowa, the Midwest, nationwide, and sometimes in other countries. For internship course options through the Career Center, see Courses in this section of the catalog.

For more information about the center's services and facilities, contact the Pomerantz Career Center.

Professional Development Courses

Professional development courses give students the opportunity to engage in practical, hands-on, skills-based instruction relevant to careers and leadership development. The topics and curricula for the following courses incorporate input from employers, who were surveyed about their experiences, real-world examples, guidance, and the skills they most often seek when hiring new graduates.

Course #	Title	Hours
CCP:1301	Communication for the Workplace	1
CCP:1302	Office Etiquette for the Workplace	1
CCP:1303	Successful Teamwork for the Workplace	1
CCP:1306	Student Employment for Career Success	2
CCP:3105	Transitioning From Campus to the Workplace	1
CCP:3106	Career Computing Skills	2

Courses

Career Center Programs Courses

CCP:1005 Internship in Liberal Arts and Sciences 0 s.h.
Recognition of practical work experience and internships.

CCP:1006 Internship in Business 0 s.h.
Recognition of practical work experience and internships.

CCP:1007 Internship in Education 0 s.h.
Recognition of practical work experience and internships. Requirements: admission to Teacher Education Program for undergraduates.

CCP:1010 Internship in Nursing 0 s.h.
Recognition of practical work experience and internships. Requirements: admission to College of Nursing.

CCP:1015 Internship 0 s.h.
Recognition of practical work experience and internships.

CCP:1017 Winterim Externship 0 s.h.
Recognition of practical work experience for career exploration; externships are shorter in duration and can include job shadowing, small projects, and informational meetings under the mentorship of a supervising professional; experiential education course that provides students with an opportunity to expand on their externship by reflecting on their experience through a self-assessment and evaluation; does not meet the Tippie RISE requirement for business students or CPT/Academic Training requirements for students on an F-1 or J-1 visa.

CCP:1018 Hawkeye Experience Grant 0 s.h.
Opportunity to expand on internship, research/creative scholarship, service, or community-engagement experience by developing learning objectives, reflecting on experience, and networking with fellow awardees; students relate experiences to academic coursework and career goals; for students who have been awarded the Hawkeye Experience Grant. Requirements: Hawkeye Experience Grant awarded for the semester of registration, and at least 50 s.h. of university credit earned prior to this semester.

CCP:1091 Internship in Law 0 s.h.
Recognition of practical work experience and internships.

CCP:1170 Internship in Public Health 0 s.h.
Recognition of practical work experience and internships. Requirements: admission to the College of Public Health.

CCP:1201 Academic Internship 1-3 s.h.
Opportunity for students to expand on internship experiences by developing learning objectives and reflecting on experience; how internship experience relates to academic coursework and future career goals. Prerequisites: a minimum g.p.a. of 2.00. Requirements: secured internship, cumulative GPA of at least 2.00, and completion of 24 s.h. of UI coursework (12 s.h. for transfer students).

CCP:1300 Major and Career Explorations 1 s.h.
Helps students identify their interests, skills, and values relative to majors and careers; self-assessment, informational interviews, research on majors and careers.

CCP:1301 Communication for the Workplace 1 s.h.
How effective verbal and written communication is utilized in the workplace; how email and social media communication is used at work; appropriate ways to utilize assertiveness skills; development of refined presentation skills necessary for the workplace; hands-on, skills-based learning environment. Requirements: sophomore or higher standing.

CCP:1302 Office Etiquette for the Workplace 1 s.h.
How professionalism and work ethic is demonstrated in the workplace; time management and organization skills relevant to full-time employment; succeeding in multigenerational workplaces; hands-on, skills-based learning environment. Requirements: sophomore or higher standing.

CCP:1303 Successful Teamwork for the Workplace 1 s.h.
Demonstration of problem solving and self-awareness skills relevant to the workplace; application of listening and critical thinking skills; how to perform with a global mindset in the workplace; hands-on, skills-based learning environment. Requirements: sophomore or higher standing.

CCP:1306 Student Employment for Career Success 2 s.h.
All-in-one assistance with career and professional preparation, relevant across all degree programs and academic years. Using current work experience (on or off campus) as the foundation, topics include the impact of student employment on future employability, strategies for proactive job or graduate school searching and networking, résumé and cover letter writing to stand out to employers, interview preparation and execution, and personal branding. Requirements: concurrent student employment, on- or off-campus.

CCP:2001 Graduate Admissions 101 1 s.h.
Preparation for graduate school application and admissions process; graduate entrance examinations, how to select a graduate program, graduate school applications and personal statements, securing a graduate assistantship, and graduate school interviews. Recommendations: junior standing or one-to-two years before start of graduate school for an intentional and less stressful application process.

CCP:2004 Internships: Search, Secure, and Succeed 1 s.h.
Types of internships; how to find and succeed at an internship; identifying internship priorities; creating résumés; interviewing skills; successful networking; tips for professionalism.

CCP:2005 Pursuing Purpose: Preparing for Experiential Education 1 s.h.
Preparation for students to find and apply for experiential education opportunities that fit their interests, strengths, abilities, and values—pursuing career development purposefully; experiential education may include internships, co-ops, service learning, employment, study abroad, research, and practicums; ways that students can experience areas of career that allow for exploration and development of future career goals.

CCP:2020 Washington Center Internship Program arr.
Internship placements for all UI majors; sample internships include United Way Worldwide, U.S. Department of Education, Federal Trade Commission, Financial Services Roundtable, Congressional offices, Urban Institute, Pan American Health Organization, U.S. Department of the Interior, Peace Corps, C-SPAN, Voice of America, U.S. Marshals Service, Federal courts, and law offices; in addition to the internship, program includes the LEAD Colloquium (Leadership, Civic Engagement, Achievement, and Career Development), an academic course with professional networking, participation in Presidential Lecture Series, and Congressional Breakfast Series.

CCP:2021 Washington Center Seminar arr.
Combined classroom instruction, faculty-led discussions, and experiential work opportunities; usually offered in Washington, D.C., occasionally at other locations tied to an event (e.g., political convention); one or two weeks.

CCP:2202 International Student Full-Time Academic Internship 9 s.h.
Academic credit for full time internship (minimum of 40 hours per week) that relates to student's major field. Requirements: occupies an academic term (fall or spring) and must participate in the internship and the course during the same semester, F-1 or J-1 visa international student, undergraduate standing in the Tippie College of Business, minimum 3.00 GPA, must be approved by International Student and Scholar Services (ISSS) for F-1 Curricular Practical Training (CPT) or J-1 Academic Training (AT), and concurrent registration in approved singular 3 s.h. distance education course to reach full-time (12 s.h.) student standing.

CCP:3102 Job Search Essentials 1-3 s.h.
Essential skills for finding full-time employment; creating and polishing a résumé, techniques for interviewing and networking, and developing a personal job search plan; for students thinking about graduation and wanting to get serious about a job search. Recommendations: junior or higher standing.

CCP:3103 MoneyWise 1-2 s.h.
Basics of personal finance for success at work and in life; savings, debt, mortgages, loans, employer benefits, insurance and student loans; may include investment basics (e.g., stocks, bonds, mutual funds, 401Ks, IRAs).

CCP:3104 Defining Your Career Path 2 s.h.
Transitioning between career fields; understanding personal interests, values, and abilities; methods of researching information on careers; career development models and student preferences in making career-related decisions; preparation for making career-related decisions through participation in class and individual activities; balancing current responsibilities such as finances and family during a career transition. Requirements: 60 s.h. completed.

CCP:3105 Transitioning From Campus to the Workplace 1 s.h.
Essential skills for transitioning from college life to successful career; tools for professional and personal success—networking, professionalism, workplace communication, managing personal image, and financial planning. Recommendations: junior or higher standing.

CCP:3106 Career Computing Skills 2 s.h.
Students learn to use a variety of software to complete projects that will be relevant in advancing their careers (i.e., improving résumés, creating job search documents, utilizing various tools for meetings, developing professional presentations); email etiquette and efficiency; effective file storage.

CCP:3107 Social Media for Your Job Search 1 s.h.
Effective use of social media for networking as part of preparing for a job search; efficient identification and utilization of online tools (e.g., Linkedin, Twitter); building a professional online presence; creating a plan for utilizing social networks for an entry-level job search.

CCP:3108 Happiness at Work 2 s.h.
Explores the intersection of career development, happiness, and well-being. Examine key concepts from positive psychology, career theory, and emotional resilience to rethink success, align work with personal values, and cultivate fulfillment. Topics include the role of purpose, mindset shifts, and practical strategies for enhancing well-being in work and life.

CCP:3169 Internship in Graduate Studies 0 s.h.
Recognition of practical work experience and internships. Requirements: admission to Graduate College.

CCP:3203 Investment Wise: Personal Investment Basics 2 s.h.
Basic understanding of general principles of personal investing; topics may include compounding, stocks, bonds, mutual funds, 401K/403B, IRAs, diversification, and asset allocation.

Clinical and Translational Science

Coordinator

- Donna A. Santillan (Obstetrics and Gynecology)

Committee Members

- Lori Adams (Biology), Vincent G. Rodgers (Physics and Astronomy)

Undergraduate certificate: clinical and translational science

Website: https://icts.uiowa.edu/undergraduate-certificate-clinical-and-translational-science

Translational science focuses on applying biomedical discoveries to health care. It requires team-based interdisciplinary approaches to move research-generated discoveries into clinical trials and to facilitate the adoption of best practices in clinical and community settings. Investigators in translational science understand the principles involved in foundational research and how such research relates to epidemiology, behavioral medicine, and patient-oriented research.

Opportunities for training in translational science are available through graduate and professional study in medicine, public health, nursing, dentistry, pharmacy, and other allied health professions, including biostatistics, behavioral medicine, clinical pharmacology, and epidemiology.

The certificate program in clinical and translational science provides undergraduates with opportunities to connect their research activities to translational science and begin training in the discipline.

The Certificate in Clinical and Translational Science is presented by the Institute for Clinical and Translational Science and Iowa Sciences Academy; it is administered by University College.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Clinical and Translational Science [p. 2189]

Clinical and Translational Science, Certificate

Requirements

The undergraduate Certificate in Clinical and Translational Science requires 16 s.h. of credit. Students must maintain a grade-point average of at least 3.00 in the certificate's core courses. Work for the certificate includes core courses and electives. Students must complete all coursework for the certificate within three years of entering the program.

The Certificate in Clinical and Translational Science requires the following coursework.

Core Courses

Course #	Title	Hours
All of these (10 s.h.):		
EPID:4400	Epidemiology I: Principles	3
STAT:3510/ IGPI:3510	Biostatistics (or an equivalent course)	3
URES:3001	Introduction to Translational Research (must take EPID:4400 before or at the same time as this course)	2
URES:3002	Practicum in Clinical and Translational Science (capstone course; must take URES:3001 before this course)	2

Electives

Students must earn a total of 6 s.h. in courses chosen from the following lists.

Creative Writing

Course #	Title	Hours
CNW:3664/ ENGL:3764	Writing About Science	3

Life Sciences

Course #	Title	Hours
BIOL:2254	Endocrinology	3
BIOL:2723	Cell Biology	3
BIOL:2753	Introduction to Neurobiology	3
BIOL:3233	Introduction to Developmental Biology	3
BIOL:3253	Neurobiology I	4
BIOL:3713	Molecular Genetics	4
BIOL:4213/ GENE:4213/ IGPI:4213	Bioinformatics	2,4
BIOL:4333	Genes and Development	3
BMB:3110	Biochemistry	3
BMB:3120	Biochemistry and Molecular Biology I	3
BMB:3130	Biochemistry and Molecular Biology II	3
MICR:2157	General Microbiology	3
MICR:3147	Immunology and Human Disease	3

Global Health

Course #	Title	Hours
GHS:3010/ IGPI:3011	Social Science Approaches to Global Health (when topic is research design in global health)	3
GHS:3111/ SEES:3110	Geography of Health	3
GHS:3720	Contemporary Issues in Global Health	3

Health, Sport, and Human Physiology

Course #	Title	Hours
ACB:3110	Principles of Human Anatomy	3
HHP:2100	Human Anatomy	3
HHP:2130	Human Development Through the Life Span	3
HHP:2200	Physical Activity and Health	3
HHP:2310	Nutrition and Health	3
HHP:2400	Fundamentals of Human Physiology	3
HHP:3500	Human Physiology	3
HHP:3850/ GHS:3850	Promoting Health Globally	3
NURS:1030	Human Development and Behavior	3

Psychological and Brain Sciences

Course #	Title	Hours
PSY:2301	Introduction to Clinical Psychology	3
PSY:2401	Introduction to Developmental Science	3
PSY:2501	Introduction to Social Psychology	3
PSY:2601	Introduction to Cognitive Psychology	3
PSY:2701	Introduction to Behavioral Neuroscience	4

Public Health

Course #	Title	Hours
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
CPH:1400	Fundamentals of Public Health	3
CPH:3400/ SEES:3250	Health, Work, and the Environment	3
CPH:3500/ GHS:3500	Global Public Health	3
HMP:4000	Introduction to the U.S. Health Care System	3
OEH:4240	Global Environmental Health	3

Admission

Admission to the certificate program is selective. Applicants must fulfill the following requirements by the end of the semester in which they apply:

- have a cumulative grade-point average of at least 3.00;
- have earned a minimum of 45 s.h. of college-level credit;
- have been engaged in mentored scientific research at the University of Iowa;
- have completed BIOL:1411 Foundations of Biology or BIOL:1141 Human Biology: Health Professions; and
- have completed MATH:1460 Calculus for the Biological Sciences or MATH:1550 Engineering Calculus I or MATH:1850 Calculus I.

Application

Interested students should apply through the certificate program's student application system. Applications are accepted on a rolling basis and are reviewed by the Certificate in Clinical and Translational Science steering committee. Students will receive an email after an admissions decision has been made. Consult the Undergraduate Certificate in Clinical and Translational Science website for more information.

Applications should include the following:

- a description of the student's undergraduate research (maximum of 1,000 words), including the approximate number of hours per week the student spends conducting this research and the name and email address of the student's research mentor;
- a personal statement outlining the student's professional and career goals;
- a copy of the student's grade report from MyUI; and
- a letter of recommendation from the student's research mentor.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Clinical and Translational Science, Certificate

Course	Title	Hours
Academic Career		
Any Semester		
The graduate certificate in translational and clinical investigation requires 17 s.h. of graduate credit.		
	Hours	**0**
First Year		
Fall		
BIOS:4120	Introduction to Biostatistics	3
EPID:5500	Introduction to Clinical Epidemiology	3
Certificate: translational and clinical investigation elective course [a]		3
	Hours	**9**
Spring		
EPID:4400	Epidemiology I: Principles	3
EPID:6950	Clinical Research Ethics	2
Certificate: translational and clinical investigation elective course [a]		3
	Hours	**8**
	Total Hours	**17**

a See the General Catalog for list of approved courses.

College Success Initiatives

Coordinator

- Maureen M. Schafer

College Success Initiatives (CSI) courses are designed to support new first year and transfer students in their transition to the University of Iowa. In addition, CSI courses enrich students' experiences, develop their academic skills, and prepare them for college-level learning.

College Success Initiatives courses are administered by the associate provost for undergraduate education through the Academic Advising Center and University College.

Undergraduate Program

The Iowa Edge

The Iowa Edge Program strives to cultivate a community of leaders and future professionals among all students, including transfer and first-generation college students. The program achieves this by connecting participants with faculty and staff, campus resources, and transformative career and leadership development activities. Participants are connected with a peer leader who is trained to help students with their transition to the University of Iowa.

Courses

College Success Initiatives Courses

CSI:1010 Kirkwood Joint Admission Program 0 s.h.
Requirements: enrollment in the Kirkwood Joint Admission program.

CSI:1015 Living Learning Community Seminar 1 s.h.
Provides participants an opportunity to reflect on their transition to the University of Iowa, engage with fellow students, and learn about campus resources. Requirements: placement in a living learning community.

CSI:1020 Academic Seminar I 3 s.h.
Development of knowledge and skills essential for academic success at college level; reading, writing, and communication skills; focus on reading comprehension, class discussion, and development of writing process; various narratives including published collections of essays and peers' texts; writing process and techniques, and components that bring each piece together. Requirements: IowaLink participant.

CSI:1021 Academic Seminar II 3 s.h.
Continued development of knowledge and skills necessary for academic success; reading, writing, and communication skills; experimentation with ethnographic research methods, exploration of cultures and subcultures; writing about findings in various experimental forms, using as a model, short ethnographic essays, excerpts from a graphic novel; focus on reading comprehension strategies, class discussion, and development of writing process. Requirements: IowaLink participant. Recommendations: CSI:1020.

CSI:1100 College Transition Seminar 1 s.h.
College culture, University of Iowa resources, refinement of study skills, test taking, identification of personal values, self-motivation, goal setting; taught in small sections with emphasis on classroom discussion. Requirements: entering first-year student.

CSI:1110 College Transition for Pre-Health: Seminar I 1 s.h.
Explores the skills, values, and mindsets that are important in healthcare professions and how to cultivate them in college; identify and strengthen study skills and strategies for success in pre-health coursework and explore how healthcare professionals confront complex problems that have several possible answers; identify personal values, engage in meaningful extracurricular activities, explore personal interests and how they relate to career goals, and hone academic/study skills; first in a two-course series. Corequisites: CSI:1160 and CHEM:1070.

CSI:1115 College Transition for Pre-Health: Seminar II 1 s.h.
Explores the skills, values, and mindsets that are important in healthcare professions and how to cultivate them in college; identify and strengthen study skills and strategies for success in pre-health coursework and explore how healthcare professionals confront complex problems that have several possible answers; identify personal values, engage in meaningful extracurricular activities, explore personal interests and how they relate to career goals, and hone academic/study skills. Corequisites: CSI:1165 and CHEM:1110.

CSI:1150 College Transition Workshop 1 s.h.
Preparation for affiliated lecture course; practical context to apply, evaluate, and refine study skills strategies explored in CSI:1100; expand study strategies, enhance grasp of affiliated course material, and apply study skills to future coursework. Corequisites: CSI:1100. Requirements: concurrent enrollment in a CIC affiliated lecture course.

CSI:1160 College Transition for Pre-Health: Workshop I 1 s.h.
Facilitated group study for connected anchor course; workshop setting to apply, evaluate, and develop study skills explored in CSI:1110; deepen grasp of connected anchor course material; expand and refine study strategies; apply study skills to future coursework and academic/professional goals. Corequisites: CSI:1110 and CHEM:1070.

CSI:1165 College Transition for Pre-Health: Workshop II 1 s.h.
Facilitated group study for connected anchor course; workshop setting to apply, evaluate, and develop study skills explored in CSI:1115; deepen grasp of connected anchor course material; expand and refine study strategies; apply study skills to future coursework and academic/professional goals.

CSI:1180 College Transition 1 s.h.
College culture, University of Iowa resources, refinement of study skills, test taking, identification of personal values, self-motivation, goal setting; taught in small sections with emphasis on classroom discussion.

CSI:1200 First-Year Seminar 1 s.h.
Introduction to the intellectual life of the university; opportunity to work closely with a faculty member or senior administrator; active participation that eases the transition to college-level learning.

CSI:1210 Peer Led Undergraduate Study (PLUS) 0 s.h.
Peer guided and facilitated academic support focusing on quantitative problem-solving skills; students discuss course material, address multiple course concepts, and develop tools and skills for effective study habits. Corequisites: CHEM:1070 and MATH:1005.

CSI:1213 Special Topics I 0-6 s.h.
Special topics offered through University College.

CSI:1214 Special Topics II 0-6 s.h.
Special topics offered through University College.

CSI:1270 Strategies for Veteran Success 1 s.h.
Promotion of academic success, improve retention of student veterans, and assist in cultivating a systematic approach to career planning and decision-making; primary focus on available resources, identification of individual goals and strengths, development and application of study skills and time management strategies, and problem solving related to personal issues or barriers that could impede student transition and academic performance; for student veterans and service members in academic transition from active duty military or guard/reserve status to the University of Iowa. Requirements: veteran status.

CSI:1280 Steps to Success for TRIO: Step I 1 s.h.
Learning about and adjusting to the University of Iowa for TRIO Student Support Services (SSS) students; first in a series of courses.

CSI:1281 Steps to Success for TRIO: Step I 1 s.h.
Learning about and adjusting to the University of Iowa for TRIO Student Support Services (SSS) students; second in a series of courses.

CSI:1290 Steps to Success for TRIO: Step II 1 s.h.
Learning about and adjusting to the University of Iowa for TRIO Student Support Services (SSS) students; third in a series of courses.

CSI:1291 Steps to Success for TRIO: Step II 1 s.h.
Learning about and adjusting to the University of Iowa for TRIO Student Support Services (SSS) students; fourth in a series of courses.

CSI:1380 Steps to Success for TRIO: Step III 1 s.h.
Learning about and adjusting to the University of Iowa for TRIO Student Support Services (SSS) students; fifth in a series of courses.

CSI:1381 Steps to Success for TRIO: Step III 1 s.h.
Learning about and adjusting to the University of Iowa for TRIO Student Support Services (SSS) students; sixth in a series of courses.

CSI:1390 Steps to Success for TRIO: Step IV 1 s.h.
Learning about and adjusting to the University of Iowa for TRIO Student Support Services (SSS) students; seventh in a series of courses.

CSI:1391 Steps to Success for TRIO: Step IV 1 s.h.
Learning about and adjusting to the University of Iowa for TRIO Student Support Services (SSS) students; eighth in a series of courses.

CSI:1400 The Three Ms: Strategies for Success in College and Beyond 2 s.h.
Introduction to the Three Ms for Effective Learning (mindset, metacognition, and memory) and the practical tools to apply these concepts and achieve goals in college and beyond.

CSI:1410 Life Design 2 s.h.
Students discover what they are innately drawn to do through readings, activities, and reflective writing; integration of worldview and professional life; practical skills and exercises for investigating different career paths; cultivating mentors; relationship between ambition, drive, and the value of creating a meaningful life.

CSI:1420 Life Design II: A Better World 2 s.h.
Once you start unraveling who you are, the next matter becomes what world do you want to live in? Readings, structured experiments, and written reflections provide generalizable knowledge about the science of empathy, passion, and perseverance; students apply these insights to efforts "bigger than themselves" and a deliberate path to become agents of social and environmental change.

CSI:1450 Explore Iowa Colloquium 3 s.h.
Opportunities for peer mentors involved in CSI:1400; activities include short readings and media screenings related to innovative and best practices in learning and teaching; emphasis on multimodal writing online for peers; informal presentations and reflections; may include work with Passport Projects students, collaboration on development of guidelines and handouts for best practices in writing, and supplemental writing reflections.

CSI:1460 Athletic Transition Seminar 1 s.h.
Focus on the comprehensive development of UI student-athletes through the Hawkeye Life Program pillars of leadership, community engagement, academic success, career development, and health and wellbeing).

CSI:1500 College Success Seminar 1 s.h.
Skills, habits, and mindsets essential for college success: goal setting, motivation, resiliency, time management, preparing for exams, working with instructors, and using campus resources including academic advisors, the Pomerantz Career Center, and University Counseling Service; emphasis on class participation and completion of assignments related to course topics. Requirements: selected students with first-year standing in the College of Liberal Arts and Sciences.

CSI:1550 Strategies for Academic Success 1 s.h.
Designed for second-year students; focus on academic strategies to help students improve their academic performance; topics include organization, goal setting, motivation, time management, study skills, test preparation, and campus resources; requires class participation and completion of assignments related to course topics. Requirements: second-year standing in the College of Liberal Arts and Sciences and no prior credit earned for CSI:1500.

CSI:1600 Success at Iowa 0-1 s.h.
Online course designed to help students transition successfully to the University of Iowa; required of all new undergraduate first-year and transfer students.

CSI:2010 Undergraduate Engagement Corps Grant 0 s.h.
Builds on the foundations of community engagement; provides support and reflection space for students implementing community-engaged projects with UEC grant funding. Requirements: selection as an Undergraduate Engagement Corps Grant awardee.

CSI:2021 First Gen Hawks Seminar 1 s.h.
Opportunity to be part of a class planned specifically for First Gen Hawks; students connect with the UI in a meaningful way through one of three learning track areas—civic engagement and leadership, on-campus student employment, or undergraduate research; course format includes small class size with lots of classroom discussion; assignments emphasize self-reflection; content areas equip students with information and skills they need to thrive at the University of Iowa. Requirements: participation in First Gen Hawks program.

CSI:2100 The Transfer Transition 1 s.h.
Adjustment to university life and academics; strategies for academic success including study and test-taking skills, time management, utilization of campus resources for success in courses; planning a major and learning about Career Center services; exposure to university culture; opportunities to reflect on adjustment to the university. Requirements: entering transfer student standing.

CSI:2150 Open Minded 1 s.h.
Focus on self-reflection and use of resources to research majors; topics include values, strengths, goals, identity, managing uncertainty, critical reading and thinking skills, recognizing transferable skills cultivated by majors; class participation and assignments related to course topics; for students with open majors.

CSI:3000 The Hawkeye Life Experience: Life After Sport 1 s.h.
Prepares student-athletes for transitioning out of college and into life after sport. Explore topics such as professional development, athletic identity, strength, conditioning, and nutrition in life after sport, and post-graduate financial literacy. With a hands-on approach, participants leave class with a better understanding of how to navigate today's professional world.

Distance and Online Education

Associate Dean

- Andrew Beckett

Website: https://distance.uiowa.edu/

Distance and Online Education (DOE) increases access to the services and resources at the University of Iowa to students and other constituents across the state. In partnership with the university's colleges and departments, DOE provides high-quality credit coursework, degrees, and certificate programs to traditional and nontraditional learners. Using a variety of locations, schedules, and technologies, DOE helps provide a University of Iowa learning environment beyond the physical borders of the Iowa City campus. In addition, many on-campus students enjoy the flexibility that online coursework affords them. Courses offered through Distance and Online Education are taught by University of Iowa faculty and staff members.

Programs of Study Online or on Location in Iowa

There are over 100 undergraduate, graduate, and professional degrees and certificates available either online or on location in Iowa. DOE consistently offers support for over 700 online or on-location courses during the academic year.

For additional information on a particular program, see the program finder on the DOE website.

Resource Centers

Distance and Online Education partners with resource centers across the state of Iowa. The primary goal of the centers is to increase access to high-quality undergraduate and graduate educational opportunities for students in the region where they live. These opportunities are delivered in a variety of formats including online and on location. Community partnerships also have been created through the centers which further benefit Iowans.

Western Iowa Regents Resource Center

Director: Steve Warnstadt
Website: https://wirrc.org

Western Iowa Regents Resource Center (WIRRC) works with community colleges in their service areas to provide access to quality education to students in western Iowa. Offices are located in Council Bluffs, Sioux City, and Sheldon. Coursework and degree programs are provided by the three state universities.

Iowa Lakeside Laboratory and Regents Resource Center

Executive Director: Mary P. Skopec
Website: https://iowalakesidelab.org

This center is located near Milford, Iowa, on scenic West Okoboji Lake on Little Miller’s Bay. Iowa Lakeside Laboratory is a field station run cooperatively by the University of Iowa, Iowa State University, and the University of Northern Iowa, and administered by the University of Iowa. The laboratory offers summer courses and research opportunities for undergraduate and graduate students. Courses focus on the ecology, taxonomy, and conservation of northern plains animals, plants, microorganisms, and ecosystems.

Des Moines Programs

Contact: Rayf Schmidt

Website: https://desmoines.uiowa.edu

The Master of Social Work (MSW) program, graduate degrees, and certificates are offered at the John and Mary Pappajohn Education Center (JMPEC), located in downtown Des Moines, Iowa. Close to many corporate businesses and government offices, JMPEC is an ideal location for a variety of students who want to further their education.

Intercollegiate Athletic Participation

Director

- Elizabeth A. Tovar

Faculty: https://academics.athletics.uiowa.edu/staff

Website: https://academics.athletics.uiowa.edu/

Associated Courses

Students who are members of University of Iowa intercollegiate athletics teams may register for CSI:1460 Athletic Transition Seminar and CSI:3000 The Hawkeye Life Experience: Life After Sport.

First-year student-athletes who enroll in CSI:1460 Athletic Transition Seminar receive 1 s.h. of graded credit. This eight week course provides new student-athletes with an overview of the Iowa athletics department, Hawkeye Life student development programs, and campus resources.

Continuing students may enroll in CSI:3000 The Hawkeye Life Experience: Life After Sport and receive 1 s.h. of credit, graded on an S/F basis. This eight week seminar is designed to prepare student-athletes for their transition out of collegiate athletics and life after sport.

Registration for CSI:1460 and CSI:3000 requires permission from Student-Athlete Academic Services. Members of University of Iowa sport clubs are not eligible to enroll.

Iowa Lakeside Laboratory

Director

- Mary P. Skopec (Geographical and Sustainability Sciences)

Iowa State University Participating Faculty

- Lori Biederman (Ecology, Evolution, and Organismal Biology), Alexander Braidwood (College of Design), Brianna Burke (English and American Indian Studies), James Colbert (Ecology, Evolution, and Organismal Biology), Elizabeth Swanner (Geological and Atmospherical Sciences)

University of Iowa Participating Faculty

- Matthew P. Dannenberg (Earth, Environment, and Sustainability Studies), John F. Doershuk (Anthropology), Andrew A. Forbes (Biology), Marc A. Linderman (Earth, Environment, and Sustainability Studies), Corey D. Markfort (Civil and Environmental Engineering/Mechanical Engineering), Susan Meerdink (Earth, Environment, and Sustainability Studies), Silvia Secchi (Earth, Environment, and Sustainability Studies), Adam Skibbe (University College)

University of Northern Iowa Participating Faculty

- Laura Jackson (Biology), Mark Meyers (Biology), Patrick Pease (Geography/Social Science and History Education), Daryl D. Smith (Biology)

Website: https://iowalakesidelab.org/

Iowa Lakeside Laboratory is a field station run cooperatively by the University of Iowa, Iowa State University, and the University of Northern Iowa. Students at all three institutions, as well as visiting students, nationally and internationally, may take Iowa Lakeside Laboratory courses for credit through their home institution.

Iowa Lakeside Laboratory was established in 1909 for the conservation and study of the rich flora and fauna of northwest Iowa, especially the numerous lakes, wetlands, and prairies of the Iowa Great Lakes region. The campus is located on approximately 140 acres of restored prairie, wetland, and gallery forest along the west shore of West Okoboji Lake. Teaching and research facilities include eight laboratory buildings, a library, and a lecture hall. Living accommodations include cottages, motel-style units, and a large mess hall. All students are encouraged to stay at Lakeside while they are taking courses to derive full advantage of its educational, professional, and social life.

Mission

Lakeside's mission is to provide undergraduate and graduate students an opportunity for hands-on experience in a variety of natural and human environments through its field-oriented courses and to provide research facilities and support for graduate students and faculty members working on research projects in northwestern Iowa.

Summer Session

Each summer Iowa Lakeside Laboratory offers students a unique educational experience—small, inquiry-based, full-immersion, field-oriented courses in the natural sciences (archaeology, biology, botany, ecology, hydrology, soils, zoology) and related areas, such as environmental sciences, environmental humanities, sustainability, and the health sciences. Courses are taught at the sophomore/junior level and the senior/graduate level. Enrollment usually is limited to 10 or fewer students per course. Most courses meet all day Monday through Friday, last up to four weeks, and offer 1 s.h. of credit for each week (40 clock hours) in class. One- and two-week courses are also available, including courses designed especially for teachers and professionals.

Not all courses are offered every year; visit the Course Catalog on the Iowa Lakeside Laboratory website or consult summer course offerings at the University of Iowa or the other public universities in Iowa to learn which courses will be offered during a particular summer session. Students should check with their advisors to determine whether specific courses count toward requirements for their majors or minors or toward other requirements.

Research

Research projects by undergraduates, graduate students, and faculty members can be completed either on the Iowa Lakeside Laboratory campus or at many nearby natural areas. Undergraduate and graduate students are strongly encouraged to work on independent projects at the laboratory, and graduate students are welcome to use Lakeside as a base for their thesis and dissertation research. Laboratory space and other facilities are available for long- or short-term research projects.

Registration

Students may enroll in Iowa Lakeside Laboratory courses by submitting an online registration and housing form on the Iowa Lakeside Laboratory website. Information about scholarships, tuition, and housing can also be found on this website under the Student Resources section.

Registration usually opens in early January. Enrollment is limited, so students should register early. When they register, they must apply for housing or indicate that they plan to live off campus.

Financial Support

Financial support is available for undergraduate and graduate students. The Friends of Lakeside Lab organization provides a merit scholarship that is equivalent to the cost of room and board. Additional financial support may be available from Iowa Lakeside Laboratory and from other sources. Consult the Office of Student Financial Aid for information about support, including work-study and loan programs.

Courses

Iowa Lakeside Laboratory Courses

IALL:1010 Earth, Air, and Sky **1-4 s.h.**
Essentials of earth science, including astronomy, meteorology, geology, and paleontology; includes laboratory and fieldwork.

IALL:1030 Natural History Workshop 1-2 s.h.
A specific aspect of the upper Midwest's natural history, or techniques for studying natural history; amphibians and reptiles, birds and birding, nature photography, mushrooms and other fungi, Iowa's trees and forests, fish biology, prairies, common algae, common insects, aquatic plants, life in rivers, life in lakes, mosses and liverworts, natural history of Iowa Great Lakes region, field archaeology, scuba diving, astronomy, nature sketching; five-day, nontechnical introductions.

IALL:1040 Field Archaeology 3-4 s.h.
Nature of cultural and environmental evidence in archaeology, how such evidence is used to model past human behavior and land use; emphasis on Iowa prehistory; basic reconnaissance surveying, excavation techniques.

IALL:1045 Illustrating Nature: Photography 1-2 s.h.
Beginning/intermediate technique and composition in color photography of natural areas, their plants and animals.

IALL:3034 Topics in Ecology and Sustainability 1-4 s.h.
Scientific introduction at intermediate level to ecology and evolution of important groups of organisms: algae to vertebrates, different ecological phenomena (e.g., fire and climate change), varying landforms, different ecosystems (e.g., prairies and aquatic systems); emphasis on sustainability with introduction to concepts, issues, and practices; ability to communicate environmental information through a variety of means. Requirements: one general biology course.

IALL:3075 Acoustic Ecology arr.
Build a strong understanding of the role sound plays in the environment; explore a variety of tactics for exploring, documenting, and analyzing soundscapes at various locations surrounding Lakeside Lab and beyond.

IALL:3099 Earth and Environmental Science for Educators 1-4 s.h.
How to introduce, explore, and understand Earth systems, processes, and environment; use of experiential, immersive, and place-based approaches to build confidence with subject matter and deepen understanding of landforms, landscapes, climate, geology, and geologic time; for in-service teachers, pre-service teachers, and informal educators.

IALL:3103 Aquatic Ecology 2,4 s.h.
Analysis of aquatic ecosystems; emphasis on basic ecological principles; ecological theories tested in the field; identification of common plants and animals. Requirements: ecology course.

IALL:3106 Plant Taxonomy 2-4 s.h.
Principles of classification and evolution of vascular plants; taxonomic tools and collection techniques; use of keys; emphasis on field and laboratory studies to identify local flowering plants; recognition of major plant families.

IALL:3109 Ecology and Systematics of Algae 2,4 s.h.
Ecology, morphological structure, phylogeny, and taxonomy of freshwater algae based on field material collected; emphasis on genus-level identifications, biodiversity, ecology; habitat visits to lakes, fens, streams, rivers; algal ecology.

IALL:3113 Undergraduate Independent Study 1-4 s.h.
Requirements: junior or senior standing.

IALL:3114 Field Mycology 2 s.h.
Identification and classification of common fungi; techniques for identification, preservation, and culture practiced with members of various fungi groups.

IALL:3117 Ecology and Systematics of Diatoms 2,4 s.h.
Field and laboratory study of freshwater diatoms; techniques in collection, preparation, and identification of diatom samples; study of environmental factors affecting growth, distribution, taxonomic characters; project design and execution, including construction of reference and voucher collections; data organization and analysis.

IALL:3123 Prairie Ecology I 2 s.h.
Recognition of Iowa prairie plants and understanding the systems in which they exist; emphasis on identification of tallgrass prairie flora by sight recognition, family, genus, species, and common names. Requirements: basic familiarity with biology and ecology.

IALL:3125 Prairie Ecology II 2 s.h.
Hands-on learning experiences demonstrating dynamic, human-influenced (anthropogenic) systems which have impacted prairie ecosystems for the past 10,000 years or more; emphasis on identification of tallgrass prairie flora by sight recognition, family, genus, species, and common names. Requirements: general familiarity with biology and ecology.

IALL:3126 Ornithology 2-4 s.h.
Biology, ecology, and behavior of birds; emphasis on field studies of local avifauna; group projects with focus on techniques of population analysis and methodology for population studies.

IALL:3131 Ecology 4 s.h.
Introduction to the principles of ecology at the population, community, ecosystem levels; field studies of local lakes, wetlands, and prairies used to examine factors that control distributions, interactions, and roles of plants and animals in native ecosystems. Requirements: two semesters of introductory biology.

IALL:3134 Wildlife Field Techniques 1-4 s.h.
Practical training in the methods used to monitor and manage wildlife populations. Topics include proper animal handling and permitting, wildlife capture techniques, measuring morphometrics and marking, radio telemetry, camera traps, sampling protocols, research design, and Iowa wildlife identification. Students learn to enter and analyze data using database and GIS tools.

IALL:3141 Environmental Policy 3 s.h.
Theory and practice of environmental policies, including the study of U.S. federal environmental policies with direct and indirect bearings on water issues; focus on policy history, implementation, and effectiveness; how policies interact with each other, how local stakeholders perceive their pros and cons, and linkages between local implementation efforts and regional and large-scale impacts.

IALL:3162 Restoration Ecology 2 s.h.
Ecological principles for restoration of native ecosystems; establishment (site preparation, selection of seed mixes, planting techniques) and management (fire, mowing, weed control) of native vegetation; evaluation of restorations; emphasis on prairie restoration and wetland vegetation. Requirements: ecology course.

IALL:3164 Animal Behavior 2 s.h.
Examination of ecological and evolutionary theories of animal behavior through field studies of animal coloniality, courtship, territoriality, predator defense, habitat selection, foraging, mating systems, and parental care. Requirements: two biology courses.

IALL:3175 Soil Formation and Landscape Relationships 2-4 s.h.
Relationships between soil formation, geomorphology, environment; soil description, classification, geography, mapping, interpretation for land use.

IALL:3176 Glacial Geomorphology 2,4 s.h.
Field-based introduction to glacial environments and processes including the origin of sediments, landforms, and landscapes produced in glacial and associated environments; aeolian (wind) processes, river and lacustrine systems, and mechanisms and chronologies of climate change.

IALL:3200 Introduction to Research and Inquiry 1-3 s.h.
How data transforms to information and ultimately knowledge through scientific investigations; examinations and applications include steps formulating the scientific method using 21st-century data, conditions, and related challenges; deliverables include a thoroughly documented scientific experiment beginning with research questions and hypotheses, recommended methods, and concluding with anticipated results.

IALL:3210 Paleontology Field School 1-3 s.h.
Participants will be introduced to essential methods of field paleontology including prospecting; identification and comparative anatomy; site mapping; and excavation, preservation, and preparation techniques; as well as the process of interpreting fossil finds. The field school includes learning opportunities on the history, development, and current state of the science of paleontology, with a focus on dinosaur paleontology. Requirements: minimum age 18.

IALL:5113 Literature and Multispecies Kinship: Making Kin With(in) Place 1-3 s.h.
Exploration of what it means to build kin within a place, while in a place (specifically NW Iowa); human impact on the planet and inherent demand from climate change to abandon anthropocentrism and fundamentally alter human relationship with environments, places, and species therein; interdisciplinary; readings include texts by ecologists, botanists, climatologists, indigenous writers and theorists, fiction writers and playwrights, poets, and podcasters.

IALL:5164 Animal Behavior 2 s.h.
Examination of ecological and evolutionary theories of animal behavior through field studies of animal coloniality, courtship, territoriality, predator defense, habitat selection, foraging, mating systems, and parental care. Requirements: two biology courses.

IALL:5213 Graduate Independent Study 1-4 s.h.

IALL:5217 Ecology and Systematics of Diatoms 1-4 s.h.

Leadership Studies

Director

- Matthew Augeri

Undergraduate certificate: leadership studies

Website: https://careers.uiowa.edu/alp

Leadership studies is a multidisciplinary academic field that draws upon theories and applications from a wide variety of related disciplines, such as the social sciences (e.g., psychology, sociology, political science, and anthropology) and the humanities (e.g., philosophy and history), as well as professional fields, including management and education. The Leadership Studies Program examines ethical issues, principles, theories, and styles of leadership; the dynamics of interactions between leaders, followers, and group members; leaders' impact on organizations and communities; and leadership skills such as goal setting, communicating effectively, creating a vision, and empowering others.

The Leadership Studies Program offers the undergraduate Certificate in Leadership Studies as well as the Career Leadership Academy, a two-course sequence designed to help undergraduate students develop leadership and employment skills. The program also offers professional development courses.

Certificate in Leadership Studies

The Certificate in Leadership Studies is an interdisciplinary program coordinated by the Pomerantz Career Center and supported by the Tippie College of Business, the colleges of Education and Liberal Arts and Sciences, and the Office of Leadership, Service, and Civic Engagement.

Career Leadership Academy

The Career Leadership Academy is a two-semester sequence of courses designed to help undergraduate students develop vital skills for leadership and career development: communication, interpersonal, and presentation skills and the ability to work well with others. This highly interactive program consists of weekly seminars, activities, and events. Participants also engage in career exploration opportunities, professional networking, and leadership development experiences.

Course #	Title	Hours
LS:2002	Career Leadership Academy Part 1: Leadership in Practice	3
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3

For more information, see Career Leadership Academy on the Pomerantz Career Center website.

Professional Development

Professional development courses provide students with opportunities to engage in practical, hands-on, skills-based instruction relevant to careers and leadership development. The topics and curricula for the following courses incorporate input from employers, who were surveyed about their experiences, real-world examples, guidance, and which skills they most often seek when hiring new graduates.

Course #	Title	Hours
LS:2013	Strengths-Based Leadership	1

Programs

Undergraduate Program of Study

Certificate

- Certificate in Leadership Studies [p. 2201]

Courses

Leadership Studies Courses

LS:1014 Pedagogy: Creating Collaborative Learning Environments 0-3 s.h.
Enhancement of skills that lead to success in facilitating collaborative learning; helping skills, knowledge, and peer support to promote deeper reflection, learning, and application of content; use of collaborative activities and discussions to highlight concepts and skills, and individual reflection assignments to promote metacognition; led by UI Academic Support and Retention; for learning assistants in first semester of role.

LS:1015 Learning Assistant Advanced Practicum 0-2 s.h.
Opportunity to continue to develop skills in facilitating collaborative learning environments; application of pedagogy concepts to learning assistant experience; students facilitate activities in assigned lecture courses and reflect on their experience in advanced practicum sessions; topics include helping skills, metacognition, study strategies, diversity, equity, inclusion, and motivation in learning environments; exploration of problem solving and personal growth. Requirements: LS:1014 and acceptance to learning assistant program as a returning learning assistant.

LS:1017 Orientation Leader Development: Understanding Your University 0-3 s.h.
Preparation for a leadership role in the Office of Orientation Services.

LS:1020 Introduction to Leadership 3 s.h.
Examination of leadership behaviors and actions that turn challenging opportunities into remarkable success; the Five Practices of Exemplary Leadership; discussions with campus leaders; development of a plan to improve leadership skills; exploration of the experience of present-day leaders and movements with a common reading selected annually; for emerging student leaders.

LS:1021 Current Issues and Leadership in Fraternity and Sorority Life 3 s.h.
Current issues facing leaders (alcohol and hazing education, conflict management, lasting impact of organizations on members); lifetime membership and values based decision-making; for leaders of fraternity and sorority community.

LS:1022 President's Leadership Class 3 s.h.
Inside look at the University of Iowa; focus on development of student leadership through team and campus projects; opportunity to interact with campus leaders, including the University of Iowa president. Requirements: sophomore standing and application.

LS:1024 Hawkeye Service Breaks arr.
Introduction to theoretical approaches to service learning and shared experiential learning; concepts of intersectionality of varied social and community issues, reflection and reciprocity, active citizenship and community building, practical implementation of skills from student's academic disciplines, leadership development; includes overnight service immersion experience during spring break in a designated team location where students complete approximately 24 total hours of direct service with nonprofit partners and participate in critical reflection; emphasis on stretch and serve components of the IOWA Challenge.

LS:2002 Career Leadership Academy Part 1: Leadership in Practice 3 s.h.
How to become a successful leader; opportunity to increase understanding of self, others, and the skills sought by employers; work and lead effectively in teams; creation of a group presentation focused on community needs; career components of résumé writing, LinkedIn profile development, and networking; first in a two-course series.

LS:2013 Strengths-Based Leadership 1 s.h.
Examination and evaluation of personal unique talents, be more engaged, and gain better understanding of leadership from a "Strengths" perspective; how to maximize strengths to stand out from the crowd; how society encourages people to be well-rounded (according to Gallup Organization's Strengths research) and how this pursuit of many goals can actually result in mediocrity.

LS:2020 Women in Leadership 3 s.h.
Overview of relevant history, theory, and practice of women in effective leadership; women leaders from historical to modern times; focus on exploring obstacles and challenges faced by women in leadership and how people of all genders can work to overcome these barriers.

LS:2022 Leading From the Margins 3 s.h.
Examination of those with historically marginalized identities who rise to prominence as leaders; demonstration of knowledge and ability to analyze key issues and events through an intersectional leadership lens; focus on developing tools to assemble pathways and structures that foster diverse and equitable leadership.

LS:2024 Hawkeye Service Breaks Leadership 0,2 s.h.
Focus on techniques for planning trip logistics, education on social issues, and facilitation of critical reflection; development in theoretical approaches to service learning specifically connected to service immersion leadership; varied concepts including intersectionality of varied social and community issues, reflection and reciprocity, active citizenship and community building, practical implementation of skills from student's academic disciplines, leadership development, and other related areas. Requirements: LS:1024, and application and acceptance to leadership position.

LS:3002 Career Leadership Academy Part 2: Leadership in Action 3 s.h.
Leadership development and career readiness; application of strengths, building effective teams, motivation, and delegation skills to a service-learning project designed by the class through engagement with a community partner; explore interviewing, personal branding, job searching, professional etiquette, salary negotiation, and transitioning successfully into the workplace; second in a two-course series. Prerequisites: LS:2002.

LS:3004 Perspectives on Leadership: Principles and Practices 3 s.h.
Broad foundation of leadership knowledge representing diverse approaches to studying and practicing leadership; core course for students pursuing the leadership certificate. Requirements: sophomore or higher standing.

LS:3011 Leadership Certificate Capstone 0-2 s.h.
Registration of practical work experience (internship or career position) with leadership components, or meaningful and educational cocurricular experience in on-campus leadership position (i.e., student organization leader, student government leader, residence assistant, student orientation advisor, peer educator, fraternity/sorority leader) with active leadership roles and responsibilities (i.e., executive leadership position, initiating and organizing a major event); application of leadership models and theories to practical experiences; for students completing the leadership certificate. Prerequisites: LS:3004. Requirements: an additional 6 s.h. of approved leadership coursework and meet with advisor prior to enrollment.

LS:3012 Leadership Theory to Practice 3 s.h.
How the world is changing at an accelerating rate; leadership effectiveness and demand of a high-level ability to work with others and respond to change; foundational concepts of major theories and behaviors of leadership models; practical challenges of leadership analyzed through use of experiential projects, discussion, presentations, exercises; development of self-awareness through use of behavioral instruments, group exercises, individual reflection; major approaches to leadership, authentic leadership, team leadership, gender issues in leadership, emotional intelligence, virtual leadership.

Leadership Studies, Certificate

Requirements

The undergraduate Certificate in Leadership Studies requires 20 s.h. of credit. Students must maintain a grade-point average (GPA) of at least 2.00 in work for the certificate.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Students must declare their intent to earn the certificate to a leadership studies advisor in the Pomerantz Career Center; see Leadership Studies Certificate on the center's website for information on how to enter the certificate program.

The certificate program provides a structure for involvement and commitment to leadership. It introduces students to leadership concepts and offers them hands-on leadership experiences they will need in order to begin the lifelong development of these skills. Certificate students complete two interdisciplinary core courses (6 s.h.), area electives (12 s.h.), and an experiential learning course (2 s.h.). A course may not be used to satisfy more than one certificate requirement. Students also have the opportunity to complete the certificate online.

The Certificate in Leadership Studies requires the following coursework.

Interdisciplinary Core Courses

All certificate students are required to complete two interdisciplinary core courses. In order to enroll in either course, students must have sophomore or higher standing and be in good academic standing as defined by University College (cumulative GPA of at least 2.00).

Course #	Title	Hours
LS:3004	Perspectives on Leadership: Principles and Practices	3
LS:3012	Leadership Theory to Practice	3

Perspectives on Leadership: Principles and Practices (LS:3004) provides students with a broad foundation of leadership knowledge. It introduces diverse approaches to studying and practicing leadership and gives students a structure for organizing knowledge and skills from other leadership courses and experiences. The course features presentations by guest instructors from across the university, offering students an interdisciplinary perspective on leadership.

With the world changing at an accelerating rate, Leadership Theory to Practice (LS:3012) examines leadership effectiveness and the demand of a high-level ability to work with others and respond to change. Foundational concepts of major theories and behaviors of leadership models are covered, and practical challenges of leadership are analyzed.

Area Electives

Area electives are drawn from four developmental areas central to effective leadership: self and group leadership, communication, cultural competence, and ethics and integrity. Students must complete 3 s.h. from each of these areas (total of 12 s.h.).

Self and Group Leadership

Course #	Title	Hours
At least 3 s.h. from these:		
LS:1020	Introduction to Leadership	3
LS:1022	President's Leadership Class	3
LS:2002	Career Leadership Academy Part 1: Leadership in Practice	3
LS:2020	Women in Leadership	3
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3
AERO:3100	Leadership Studies: Leading People and Effective Communication I	3
AERO:3200	Leadership Studies: Leading People and Effective Communication II	3
COMM:1819	Organizational Leadership	3
COMM:2011	Group Communication	3
LLS:1150	Leadership in the Outdoors	3
MGMT:2100	Introduction to Management	3
MGMT:3200	Individuals, Teams, and Organizations	3
MGMT:3999	CIMBA Italy Experiential Leadership	1-3
MGMT:4300	Leadership and Personal Development	3
MILS:1010	Leadership and Personal Development MSL101	1
MILS:1020	Introduction to Tactical Leadership MSL102	1
MILS:2010	Innovative Team Leadership MSL201	2
MILS:2020	Foundations of Tactical Leadership MSL202	2
PSY:2501	Introduction to Social Psychology	3
SOC:1220	Principles of Social Psychology	3-4
SOC:3610	Organizations and Modern Society	3
SOC:4225	The Social Psychology of Leadership	3
SSW:3600/ MGMT:3600/ NURS:3600/ RELS:3701	Nonprofit Organizational Effectiveness II	3

Communication

Course #	Title	Hours
At least 3 s.h. from these:		
BUS:3000	Business Communication and Professionalism	3
BUS:3800	Business Writing	3
CNW:3640	Writing for Business	3
COMM:1112	Interpersonal Communication	3
COMM:1117	Advocacy and Argument	3

COMM:1130	The Art of Persuading Others	3
COMM:1170	Communication Theory in Everyday Life	3
COMM:1818	Communication Skills for Leadership	3
COMM:1819	Organizational Leadership	3
COMM:2091	Organizational Communication	3
MGMT:4100	Dynamics of Negotiations	3
WRIT:3005/ CW:3005/ INTD:3005	Professional and Creative Business Communication	3

Cultural Competence

Course #	Title	Hours
At least 3 s.h. from these:		
AFAM:3459/ ENGL:3459	African American Literature Before 1900	3
AMST:1074/ GWSS:1074/ SPST:1074	Inequality in American Sport	3
ASP:3135/ GHS:3050/ SSW:3135	Global Aging	3
CCCC:2220	Foundations of Critical Cultural Competence	3
CSED:4197	Citizenship in a Multicultural Society	3
GWSS:1002	Diversity and Power in the U.S.	3
GWSS:1310/ SOC:1310	Gender and Society	3
GWSS:3154	Sexuality in the United States	3
HHP:1045	Diversity and Inclusion in Healthy Living	3
HHP:2280	Cultural Competency and Health	3
HIST:1040	Diversity in History	3
JMC:1200	Introduction to Media and Culture	3
LS:2022	Leading From the Margins	3
MUS:1310	World Music	3
NURS:3111	Caring for Vulnerable Populations	3
SOC:2810	Social Inequality	3
One elective approved for the Certificate in Critical Cultural Competence; see an advisor for approved electives		3

Ethics and Integrity

Course #	Title	Hours
At least 3 s.h. from these:		
CSED:4195	Ethics in Human Relations and Counseling	3
HMP:6315	Healthcare Ethics	1-2
HRTS:2115/IS:2115	Introduction to Human Rights	3
JMC:2600	Freedom of Expression	3
JMC:2700	Media Ethics	3
MGMT:2000	Introduction to Law	3
MGMT:3400	Employment Law	3
PHIL:1034	Liberty and the Pursuit of Happiness	3
PHIL:1401	Matters of Life and Death	3
PHIL:1636	Principles of Reasoning: Argument and Debate	3
PHIL:1861	Introduction to Philosophy	3
PHIL:2402	Introduction to Ethics	3
PHIL:2432	Introduction to Political Philosophy	3
PHIL:2435	Philosophy of Law	3
PTRS:5100	Professional Issues and Ethics	1
SRM:3700	Ethics in Sport	3

Experiential Learning

Certificate students must earn at least 2 s.h. in coursework focused on experiential or hands-on learning. An experiential learning course may take different forms, such as a service learning experience, an internship or on-campus leadership practicum, or other approved course offerings.

Service Learning Courses

Service learning courses incorporate community engagement with academic coursework. They allow students to gain hands-on experience along with a deeper understanding of course content while responding to real community needs. Students may satisfy the certificate's experiential learning requirement by earning a minimum of 2 s.h. from the following courses.

Course #	Title	Hours
LS:1024	Hawkeye Service Breaks	arr.
LS:3002	Career Leadership Academy Part 2: Leadership in Action	3

Internship or On-Campus Leadership Practicum

Certificate students may register for LS:3011 Leadership Certificate Capstone to receive credit for an internship or on-campus leadership practicum. Those who want to enroll in this course must contact the advisor for the certificate to begin the approval process. Certificate students must complete LS:3004 Perspectives on Leadership: Principles and Practices and at least 6 s.h. of additional leadership coursework in the certificate before they may enroll in LS:3011. All course assignments must be completed to fulfill the experiential learning requirement. Students who want to count LS:3011 toward the Tippie RISE requirement must register for an internship or career experience; registering with an on-campus leadership practicum will not satisfy Tippie RISE.

Course #	Title	Hours
LS:3011	Leadership Certificate Capstone	2

Internships consist of preapproved, supervised on-the-job learning; they may be paid or unpaid.

To meet the certificate's experiential learning requirement, an internship must consist of professional experience that relates to a student's major field of study or career interest area and allows the student to build on the academic coursework already completed in the certificate program. At least 80% of a student's internship duties must be professional-level work, and a student must receive continuous supervision by a professional (not a student) in the internship field. The

internship must last a minimum of 15 weeks in fall or spring semester or six weeks in the summer and requires 150 hours of work.

Internships that fulfill the certificate's experiential learning requirement must be approved in advance by one of the certificate program's advisors, and the internship site supervisor must agree to the terms of the internship and must complete the required form before the internship may be approved. Students may work with staff at the Pomerantz Career Center to find an approved internship opportunity, or they may secure their own internship.

For more information about internships, see Jobs and Internships on the Pomerantz Career Center website.

Students who wish to fulfill the experiential learning requirement with an on-campus leadership practicum must engage in a formal, approved experience that is meaningful, educational, and cocurricular. It requires a student to take initiative and pursue active leadership roles and responsibilities. Examples include positions as student organization leaders, student government leaders, University Housing resident assistants, student orientation advisors, peer educators, and fraternity and sorority leaders. Practicums may be paid or unpaid.

To meet the certificate's experiential learning requirement, a practicum must last a minimum of 15 weeks in fall or spring semester or six weeks in the summer and requires 150 hours of work.

Practicums that fulfill the certificate's experiential learning requirement must be approved in advance by one of the certificate program's advisors. Students must submit a list of goals and assignments and/or duties they will complete during the practicum in order to demonstrate that the practicum provides substantive work assignments and opportunities to build on the academic coursework they have completed in the certificate program.

Each student also must identify a practicum mentor and demonstrate that the mentor is willing to guide and evaluate the student's work and development of leadership skills, and intends to participate in reviewing the student's goal-setting assignment and the final review of the student's performance.

Other Approved Experiential Learning Courses

Students may also satisfy the certificate's experiential learning requirement by earning a minimum of 2 s.h. from the following.

Course #	Title	Hours
COMM:1302	Introduction to Civic Bridge-Building: Skills for Effective Dialogue	1
COMM:2829	Leadership for Civic Dialogue	1-3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Leadership Studies, Certificate

Course	Title	Hours
Second Year		
Any Semester		
LS:3004	Perspectives on Leadership: Principles and Practices [a]	3
LS:2002	Career Leadership Academy Part 1: Leadership in Practice [b]	3
GWSS:1002	Diversity and Power in the U.S. [c]	3
	Hours	**9**
Third Year		
Any Semester		
LS:3012	Leadership Theory to Practice [a]	3
LS:3002	Career Leadership Academy Part 2: Leadership in Action [d]	3
CSED:4195	Ethics in Human Relations and Counseling [e]	3
	Hours	**9**
Fourth Year		
Any Semester		
COMM:1112	Interpersonal Communication [f]	3
	Hours	**3**
	Total Hours	**21**

a A required core course for the Leadership Studies Certificate. Students must declare the certificate in order to enroll in this course.
b Satisfies "Self and Group Leadership" category requirement.
c Satisfies "Cultural Competence" category requirement.
d Satisfies "Experiential Learning" category requirement.
e Satisfies "Ethics and Integrity" category requirement.
f Satisfies "Communication" category requirement.

Lifetime Leisure Skills

Director

- Steve J. Campbell

Website: https://recserv.uiowa.edu/lifetime-leisure-skills

Lifetime leisure skills courses (prefix LLS) are designed to engage students in fun and healthy recreational activities that can be continued beyond college and throughout their lives. Courses range from outdoor recreation activities such as rock climbing, canoeing, kayaking, backpacking, biking, and camping to indoor activities that include kickboxing, Brazilian jiu-jitsu, and yoga. The majority of lifetime leisure skills courses are appropriate for students at all skill levels. A small number of courses are offered at the intermediate to advanced level and are clearly identified as such.

Lifetime leisure skills courses are open to University of Iowa undergraduate and graduate students. Undergraduate students in the College of Liberal Arts and Sciences may count credit earned in lifetime leisure skills courses toward the total number of semester hours required for their degree. Students should consult their academic advisor.

While the majority of courses are on campus or in the Iowa City area, several off-campus courses travel to locations such as Grand Canyon National Park, Canyonlands National Park, Arches National Park, Zion National Park, Big Bend National Park, Grand Staircase-Escalante National Monument, Glen Canyon National Recreation Area, Effigy Mounds National Monument, Yellow River State Forest, Backbone State Park, Maquoketa Caves State Park, Devil's Lake State Park, Pictured Rocks County Park, and the Upper Iowa River.

Courses

Lifetime Leisure Skills Courses

LLS:1100 Introduction to Camping 1 s.h.
Introduction to the wonderful world of camping; focus on development of skills and knowledge pertaining to camping equipment, campsite selection and setup, outdoor cooking, useful knots, and minimum impact principles; overnight camping required.

LLS:1110 Exploring Iowa's Natural Wonders 1 s.h.
Natural history of the Loess Hills of western Iowa, Maquoketa Caves of eastern Iowa, or Effigy Mounds National Monument and Yellow River State Forest of northeastern Iowa; overnight camping required.

LLS:1115 Hiking 1 s.h.
Beginner-level hiking skills; safety and planning; proper care and use of equipment; physically strenuous; overnight camping required.

LLS:1120 Backpacking 1 s.h.
Beginner-level backpacking skills; basic map reading, proper packing and planning, equipment and clothing selection; physically strenuous; overnight camping required.

LLS:1121 Expedition Backpacking 1 s.h.
Remote, multiday, backcountry camping skills; proper packing and planning; backcountry nutrition; topographic map reading; equipment and clothing selection; very physically strenuous; overnight camping required.

LLS:1130 Basic Orienteering 1 s.h.
Basics of orienteering, including map and compass skills. Taught at Macbride Nature Recreation Area.

LLS:1131 Expedition Orienteering 1 s.h.
Extensive navigation and camping skills in a remote wilderness; focus on map and compass skills including declination, bearings, triangulation, topographical map reading, situational awareness; backcountry camping skills; very physically strenuous.

LLS:1140 Challenge Course: Team Building 1 s.h.
Exploration of various methods of team building and common characteristics of successful teams through the use of UI Challenge Course; strong emphasis on cooperative group work and discussions.

LLS:1150 Leadership in the Outdoors 3 s.h.
Leadership theories, group dynamics, expedition logistics, outdoor leadership skills, risk management; indoor and outdoor classroom sessions, overnight camping required; technical skill development may include backpacking, canoeing, kayaking, rock climbing, mountain biking, bike touring, general camping.

LLS:1200 Introduction to Rock Climbing 1 s.h.
Utilization of indoor and outdoor climbing classrooms; comprehensive introduction to physical techniques of rock climbing, mechanical skills of belaying, proper usage of personal protective equipment, and common climbing terminology.

LLS:1202 Expedition Rock Climbing 1 s.h.
Multiday climbing expedition; physically strenuous; overnight camping required.

LLS:1206 Movement Technique for Rock Climbing 1 s.h.
Multiweek program for improving rock climbing skills; warming up and stretching, movement technique, breathing, mental fitness, endurance, and goal setting. Prerequisites: LLS:1200. Requirements: must have a current belay card at UI climbing wall.

LLS:1210 Introduction to Lead Climbing: Sport 2 s.h.
Fundamentals of single-pitch sport climbing on lead; belaying a leader; use of 52.5 foot tall climbing wall at UI Campus Recreation and Wellness Center; eligible to obtain lead climbing approval after successful completion of course. Prerequisites: LLS:1200. Requirements: must have a current belay card at UI climbing wall.

LLS:1231 Introduction to Bouldering 1 s.h.
Basic skills, safety, and techniques for bouldering.

LLS:1240 Introduction to Ice Climbing 1 s.h.
Basics of ice climbing.

LLS:1300 Bicycle Touring 1 s.h.
Basics of bicycle touring for recreation; riding techniques, basic bicycle maintenance, rules of the road; students must already know how to ride a bike; moderately strenuous. Taught on Johnson County area roads and bike trail systems.

LLS:1310 Bikepacking 1 s.h.
Planning and packing for self-supported, overnight bicycle camping trips; proper care and use of equipment; physically strenuous; overnight camping required.

LLS:1320 Mountain Biking 1 s.h.
Basics of mountain bicycling; riding techniques, basic bicycle maintenance, trail etiquette. Taught on Sugar Bottom recreation trail system.

LLS:1400 Flat Water Canoeing 1 s.h.
Basics of flat water tandem canoeing; paddle strokes, canoe anatomy, water safety. Taught at Macbride Nature Recreation Area.

LLS:1401 River Canoeing 1 s.h.
Fundamentals of tandem canoeing on moving water; basic paddling strokes, canoe anatomy, hydrology, river safety; overnight camping required.

LLS:1403 Expedition Canoeing 1 s.h.
How to plan and pack for multiday canoeing expeditions; Leave No Trace primitive camping; paddling skills in loaded canoes; reading river/lake maps; portaging techniques; rescue techniques; overnight camping required.

LLS:1410 Sea Kayaking 1 s.h.
Basics of sea kayaking using solo and tandem boats. Taught at Macbride Nature Recreation Area.

LLS:1411 Expedition Sea Kayaking 1 s.h.
Multiday sea kayaking expedition; primitive camping; paddling skills in loaded kayaks, reading river/lake maps, rescue techniques.

LLS:1430 Stand Up Paddleboarding 1 s.h.
Introduction to paddleboarding skills on flat, calm water; paddling environment, board and paddle control, standing and balancing, personal preparation and safety.

LLS:1440 Scuba 1 s.h.
Basics of Scuba diving. Seven weeks.

LLS:1441 Advanced Open Water Scuba 1 s.h.
Participation in five scuba diving specialty activities. Prerequisites: LLS:1440. Requirements: certification as open water scuba diver.

LLS:1500 Winter Camping 1 s.h.
How to successfully and comfortably camp in cold, harsh conditions; snow shelters, hydration, meal preparation, clothing needs; snowshoe/ski travel with sleds (as conditions permit).

LLS:1510 Snowshoeing 1 s.h.
Basics of snowshoeing; physically strenuous.

LLS:1520 Cross-Country Skiing 1 s.h.
Basics of cross-country skiing; physically strenuous.

LLS:1530 Alpine Skiing 1 s.h.
Basics of downhill skiing; physically strenuous.

LLS:1610 Kickboxing 1 s.h.
Basics of kickboxing.

LLS:1611 Intermediate Kickboxing 1 s.h.
Aggressive workout utilizing heavy bags, coach's mitts, and other equipment; conducted at moderate to intense pace using competitive kickboxing techniques, training methods, and equipment; kickboxing as a conditioning tool with self-defense as a byproduct; not designed to prepare for competition. Prerequisites: LLS:1610.

LLS:1630 Brazilian Jiu-Jitsu 1 s.h.
Introduction to the sport of Brazilian Jiu Jitsu; basic self-defense, positional grappling, submissions, submission defense; no martial arts experience required.

LLS:1650 Ballroom Dancing 1 s.h.
Basics of ballroom dancing; overview of several figures; beginner level.

LLS:1651 Ballroom Dancing: Waltz 1 s.h.
Beginning through intermediate-level waltz figures; performing a beautiful waltz routine; skills and knowledge to dance with confidence at any formal dance occasion; for all skill levels.

LLS:1654 Ballroom Dancing: Nightclub Series 1 s.h.
Salsa, the Hustle, Nightclub Two-Step, Argentine tango; for all skill levels.

LLS:1660 Salsa Dancing 1 s.h.
Fundamentals of Latin/Salsa dancing; musical rhythms, cultural history, postures, technique, basic movements; techniques for developing strength, stamina, balance, poise, and partner dancing skills; traditional social behaviors in salsa's cultural context.

LLS:1675 Mindfulness and Yoga 1 s.h.
Emphasis on mindfulness, breath awareness, and attention to alignment.

LLS:1680 Golf 1 s.h.
Basic principles and fundamentals of golf swing (e.g., full swing, pitching, chipping, putting); opportunity to practice skills at various facilities; history, basic rules, proper golf etiquette, evolution of golf related to technology.

LLS:1690 Gardening: Vegetables and Herbs 1 s.h.
Fundamental skills for successfully growing vegetables and herbs outdoors and in containers.

LLS:1691 Gardening: Designing Edible Forests 1 s.h.
Fundamental skills for successfully designing and establishing fruit trees, berry bushes, and perennial herbs in ways that emulate a healthy woodland ecosystem and enrich our interaction with nature.

Military Science (Army ROTC)

Director

- William Todd Kuebler

Undergraduate minor: military science

Website: https://veterans.uiowa.edu/army-rotc

The Military Science Program maintains the University of Iowa's Army Reserve Officers' Training Corps (ROTC) program. Military science courses develop individual and organizational leadership attributes both in and out of the classroom. These skills apply to both civilian and military career fields. Military science courses are essential to students who wish to commission as an Army officer through the Army ROTC program.

Students may earn a minor in military science. Military science credit may be applied to additional certificates at the University of Iowa. Students should check with their academic advisors for limitations of military science course credit towards their specific field of study.

Military science courses are open to all students, without obligation of military service. The department maintains merit scholarships to current university students through the ROTC program. Students must have a minimum of four semesters prior to graduation to be eligible for ROTC scholarships.

Course credit that counts toward graduation varies by college. Students in the College of Liberal Arts and Sciences may count up to 20 s.h. earned in military science courses toward graduation.

Undergraduate and Graduate Programs

Basic Courses

The ROTC basic course sequence is designed primarily for first- and second-year students. It provides the fundamentals of leadership and management and introduces the roles of the military as influenced by national and foreign policy. Students incur no obligation to the military for participation in the basic courses.

The following four courses satisfy the basic course requirement.

Course #	Title	Hours
MILS:1010	Leadership and Personal Development MSL101	1
MILS:1020	Introduction to Tactical Leadership MSL102	1
MILS:2010	Innovative Team Leadership MSL201	2
MILS:2020	Foundations of Tactical Leadership MSL202	2

Students who wish to join ROTC and commission as an Army officer but are unable to take the basic course requirements in sequence should meet with military science faculty to discuss their individual circumstances and tailor an academic plan. Students with prior military service may receive credit towards basic course requirements.

Advanced Courses

ROTC advanced courses are restricted to students who wish to pursue a commission as an Army Lieutenant in Active Army, Army Reserves, or the Army National Guard upon graduation. They are open to both undergraduate and graduate students. Most cadets in advanced courses incur an obligation to the Army that can be satisfied in the Active Army, Army Reserve, or Army National Guard.

To join advanced courses, students must satisfy the basic courses requirement, earn at least 54 s.h., and have a cumulative grade-point average of at least 2.00. In order to become U.S. Army officers, cadets must complete the Advanced Camp, held at Fort Knox, Kentucky. Cadets normally attend Advanced Camp during the summer between their third and fourth years.

The following courses satisfy the advanced courses requirement.

Course #	Title	Hours
MILS:3010	Adaptive Tactical Leadership MSL301	3
MILS:3020	Leadership in Changing Environments MSL302	3
MILS:4010	Developing Adaptive Leaders MSL401	3
MILS:4020	Leadership in a Complex World MSL402	3

Additional Coursework

Cadets whose aim is a commission must satisfy a Professional Military Education (PME) requirement. They must complete at least one course in military history from the following list. Cadets may use other courses to meet the additional coursework requirement with the military science director's approval.

Course #	Title	Hours
HIST:1261	American History to 1877	3
HIST:1262	American History 1877-Present	3
HIST:3271	American Revolutionary Period	3

Scholarship Opportunities

The Military Science Program offers two-, three-, and four-year ROTC scholarships for students who enter the ROTC program. These scholarships pay full tuition at the University of Iowa, an allotment for books and supplies each semester, mandatory educational fees, and a tax-free monthly stipend during the academic year. The tax-free monthly stipend is provided to non-scholarship cadets who enter a contractual agreement with ROTC to serve in the Army. Additional financial assistance may be provided through scholarships.

Programs

Undergraduate Program of Study

Minor

- Minor in Military Science [p. 2208]

Courses

Military Science Courses

MILS:1010 Leadership and Personal Development MSL101 1 s.h.
Introduction to the personal challenges and competencies critical for effective leadership; how skills such as critical thinking, goal setting, time management, physical fitness, and stress management relate to leadership, officership, and the army as a profession; dimensions of army leadership; understanding of the ROTC program, its purpose in the army, its advantages for students. Offered fall semesters.

MILS:1020 Introduction to Tactical Leadership MSL102 1 s.h.
Leadership fundamentals such as setting direction, problem solving, listening, presenting briefs, providing feedback, using effective writing skills; leadership values, attributes, skills, and actions explored through hands-on, interactive exercises; cadre role models, development of strong relationships among students through common experience, practical interaction. Offered spring semesters.

MILS:1090 Leadership Laboratory 0 s.h.
Hands-on training in basic soldier skills, such as customs and courtesies, drill and ceremony, first aid, weapons employment, troop movement techniques; leadership training for U.S. army officership.

MILS:1095 Advanced Military Fitness Training 1 s.h.
Aerobics and running, muscular strength and endurance, flexibility, and nutrition through exercise and classroom instruction; how to evaluate and measure fitness improvement; developed around Army physical fitness training program.

MILS:1159 Crosstown Army ROTC 0 s.h.
A progression of experiences designed to develop leadership ability, military customs and courtesies, drill and ceremonies, and military professional development.

MILS:2010 Innovative Team Leadership MSL201 2 s.h.
Dimensions of creative, innovative tactical leadership strategies and styles explored through team dynamics and historical leadership theories (trait and behavior) central to the Army leadership framework; personal motivation and team building through planning, executing, and assessing team exercises and participating in leadership labs; continued development of leadership values and attributes through understanding army rank, structure, duties, basic aspects of land navigation and squad tactics; case studies on soldier's creed and warrior ethos in the contemporary operating environment. Offered fall semesters.

MILS:2020 Foundations of Tactical Leadership MSL202 2 s.h.
Challenges of leading tactical teams in the complex contemporary operating environment; dimensions of terrain analysis, patrolling, operation orders; theoretical basis of the army leadership framework, dynamics of adaptive leadership in the context of military operations; self-assessment of cadet leadership styles, practice in communication and team building skills; case studies on importance and practice of teamwork and tactics in real-world scenarios. Offered spring semesters.

MILS:3010 Adaptive Tactical Leadership MSL301 3 s.h.
Study, practice, and evaluation of adaptive leadership skills in challenging scenarios related to squad tactical operations; feedback on cadets' leadership attributes and actions, continued development of leadership and critical thinking abilities; development of tactical leadership abilities in preparation for Leadership Development and Assessment Course (LDAC). Offered fall semesters. Corequisites: MILS:1090 and MILS:1095. Requirements: MILS:1010 and MILS:1020 and MILS:2010 and MILS:2020; or completion of army basic training or Leader's Training Course.

MILS:3020 Leadership in Changing Environments MSL302 3 s.h.
Development of cadet awareness and tactical leadership to platoon level, through increasingly intense situational leadership challenges; experience reviewing combat, stability, and support operations, conducting military briefings, developing proficiency in garrison operation orders; focus on exploring, evaluating, and developing skills in decision-making, persuasion, and motivation of team members in a contemporary operating environment; preparation for summer Leader Development Assessment Course. Offered spring semesters. Prerequisites: MILS:3010. Corequisites: MILS:1090 and MILS:1095. Requirements: MILS:1010 and MILS:1020 and MILS:2010 and MILS:2020; or completion of army basic training or Leader's Training Course.

MILS:3121 Readings in Contemporary Military Issues 1-3 s.h.
Preparation of book reviews from a reading list provided by the instructor, with topics ranging from historical battles and campaigns to global impact of U.S. political policies; or writing of an operations order relating to an ROTC event or similar project of historical significance (work in conjunction with instructor). Requirements: MILS:1010 and MILS:1020 and MILS:2010 and MILS:2020; or completion of army basic training or Leader's Training Course.

MILS:4010 Developing Adaptive Leaders MSL401 3 s.h.
Development of proficiency in planning, executing, and assessing complex operations, functioning as member of a staff, providing performance feedback to subordinates; experience assessing risk, making ethical decisions, leading fellow cadets; military justice and personnel processes in preparation for officership; identification of key staff responsibilities, coordination of staff roles, use of situational opportunities to teach, train, and develop subordinates. Offered fall semesters. Prerequisites: MILS:3020 and MILS:3010. Corequisites: MILS:1090 and MILS:1095.

MILS:4020 Leadership in a Complex World MSL402 3 s.h.
Leadership dynamics in complex military operations of the contemporary operating environment; differences in customs and courtesies, military law, principles of war, rules of engagement in the face of international terrorism; interaction with nongovernmental organizations, civilians on the battlefield, host nation support; ethical and practical demands on army commissioned officers; preparation for first unit assignment through case studies, scenarios, exercises. Offered spring semesters. Prerequisites: MILS:3010 and MILS:4010 and MILS:3020. Corequisites: MILS:1090 and MILS:1095.

Military Science, Minor

Requirements

The undergraduate minor in military science requires a minimum of 20 s.h. of coursework taken at the University of Iowa. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass. In order to count coursework taken at other institutions toward the minor, students must have the military science director's approval.

The minor in military science requires the following coursework.

Course #	Title	Hours
All of these:		
MILS:1010	Leadership and Personal Development MSL101	1
MILS:1020	Introduction to Tactical Leadership MSL102	1
MILS:2010	Innovative Team Leadership MSL201	2
MILS:2020	Foundations of Tactical Leadership MSL202	2
MILS:3010	Adaptive Tactical Leadership MSL301	3
MILS:3020	Leadership in Changing Environments MSL302	3
MILS:4010	Developing Adaptive Leaders MSL401	3
MILS:4020	Leadership in a Complex World MSL402	3
One of these:		
MILS:3121	Readings in Contemporary Military Issues (taken with a qualified IMHIC instructor)	2-3
HIST:1261	American History to 1877	3
HIST:1262	American History 1877-Present	3
HIST:3271	American Revolutionary Period	3

Nonprofit Leadership and Philanthropy

Codirectors

- Lon D. Moeller (Management and Entrepreneurship), Jenifer A. Vick (Journalism and Mass Communication)

Undergraduate certificate: nonprofit leadership and philanthropy

Website: https://nlp.uiowa.edu/

Nonprofit organizations play a crucial role in strengthening communities and improving lives. From supporting youth and aging populations to preserving wildlife and the arts, nonprofits drive social impact and meaningful change.

Managing a nonprofit requires specialized training to navigate challenges in leadership, programming, funding, and finance. The Certificate in Nonprofit Leadership and Philanthropy equips students with the skills and knowledge to turn their passion into a career or make a lasting impact as a volunteer, board member, or committee participant.

The curriculum covers key areas such as leadership, strategic planning, client programming, fundraising, marketing, event planning, communication strategies, and nonprofit ethics. By combining academic principles with real-world experience, the program offers opportunities to apply skills through collaborations with community partners.

All undergraduate students admitted to the University of Iowa can pursue this certificate. Courses are offered on campus and online, allowing distance and online students to earn the certificate.

The Certificate in Nonprofit Leadership and Philanthropy is administered by the School of Journalism and Mass Communication [p. 621] (College of Liberal Arts and Sciences) and the Department of Management and Entrepreneurship [p. 1236] (Tippie College of Business). It is awarded by University College.

Programs

Undergraduate Program of Study

Certificate

- Certificate in Nonprofit Leadership and Philanthropy [p. 2210]

Nonprofit Leadership and Philanthropy, Certificate

Requirements

The undergraduate Certificate in Nonprofit Leadership and Philanthropy requires a minimum of 21 s.h. of credit. Students must maintain a grade-point average of at least 2.00 in work for the certificate.

The certificate may be earned by any student admitted to the University of Iowa who is not enrolled in a UI graduate or professional degree program. Undergraduate to Graduate (U2G) students may earn the certificate when the undergraduate classification is primary.

Courses are offered on campus and online, allowing distance and online students the opportunity to earn the certificate.

Bachelor of Applied Studies [p. 2174] and Bachelor of Liberal Studies [p. 2177] students may be able to incorporate certificate courses into their degree programs; students should consult with their advisors.

The Certificate in Nonprofit Leadership and Philanthropy requires the following coursework.

Foundation Courses

Course #	Title	Hours
All of these:		
JMC:3710/ MUSM:3710	Fundraising Fundamentals	3
MGMT:3500/ ENTR:3595/ MUSM:3500/ NURS:3595/ RELS:3700/ SSW:3500	Nonprofit Organizational Effectiveness I	3
MGMT:4600/ MUSM:4600	Nonprofit Ethics and Governance	3
At least one of these:		
JMC:2001	Exploring Nonprofits: Communities, Communication, and Changemakers	3
JMC:3720/ MUSM:3720	Nonprofit Communications	3
MGMT:3600/ NURS:3600/ RELS:3701/ SSW:3600	Nonprofit Organizational Effectiveness II	3

Nonprofit Internship

It is recommended that students complete at least 9 s.h. from the "Foundation Courses" list before taking the nonprofit internship course.

Course #	Title	Hours
JMC:3700	Nonprofit Internship	3

Focused Electives

The remainder of the 21 s.h. must be fulfilled by electives.

Course #	Title	Hours
COMM:1819	Organizational Leadership	3
CW:4745/ WRIT:4745	The Sentence: Strategies for Writing	3
EALL:4130/ MUSM:4150	Introduction to Grant Writing	3
ENTR:2000	Entrepreneurship and Innovation	3
ENTR:3100	Entrepreneurial Finance	3
ENTR:3350	Entrepreneurial Strategy	3
ENTR:3500	Social Entrepreneurship	3
EVNT:3154	Foundations of Event Management	3
EVNT:3260	Event Management Workshop	3
GHS:2000/ ANTH:2103	Introduction to Global Health Studies	3
JMC:2001	Exploring Nonprofits: Communities, Communication, and Changemakers (if not taken as a foundation course)	3
JMC:3142/IS:3142	Media and Social Change	3
JMC:3530	Social Media Marketing	3
JMC:3720/ MUSM:3720	Nonprofit Communications (if not taken as a foundation course)	3
MGMT:3600/ NURS:3600/ RELS:3701/ SSW:3600	Nonprofit Organizational Effectiveness II (if not taken as a foundation course)	3
MUSM:3001/ ANTH:3001/ EDTL:3001/ SIED:3001	Introduction to Museum Studies	3
THTR:3510/ INTD:3510	Introduction to Arts Management	3
WRIT:2100	Writing and Community Outreach	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Nonprofit Leadership and Philanthropy, Certificate

Course	Title	Hours
First Year		
Any Semester		
JMC:3710	Fundraising Fundamentals	3
MGMT:3500	Nonprofit Organizational Effectiveness I	3
	Hours	**6**
Spring		
MGMT:4600	Nonprofit Ethics and Governance	3
	Hours	**3**

Summer		
JMC:3700	Nonprofit Internship [a]	3
	Hours	**3**
Second Year		
Any Semester		
MGMT:3600 or JMC:3720 or JMC:2001	Nonprofit Organizational Effectiveness II [b] or Nonprofit Communications or Exploring Nonprofits: Communities, Communication, and Changemakers	3
MGMT:3600 or JMC:3720 or JMC:2001	Nonprofit Organizational Effectiveness II [b, c] or Nonprofit Communications or Exploring Nonprofits: Communities, Communication, and Changemakers	3
Certificate: Elective course [b, c]		3
	Hours	**9**
	Total Hours	**21**

a It is recommended that students complete at least 9 s.h. in foundation courses before taking the nonprofit internship course.

b Students must take at least one of JMC:2001, JMC:3720 or MGMT:3600, but may take all to count toward the certificate.

c Students select elective coursework to total at least 21 s.h. for the certificate. See General Catalog for list of approved courses.

Public Policy

Director, School of Planning and Public Affairs

- Haifeng Qian

Faculty Advisor, Public Policy

- Carrie Schuettpelz (Planning and Public Affairs)

Coordinator, Public Policy

- Abigail J. Castle (Planning and Public Affairs)

Undergraduate minor: public policy

Faculty: https://sppa.uiowa.edu/faculty-staff

Website: https://sppa.uiowa.edu/

The minor in public policy is offered for undergraduate students who seek to understand how and why public policies are adopted; how they impact the economy, society, and communities; and how innovative public policies are developed to improve economic prosperity, well-being, and environmental sustainability at the local, state, national, and global levels.

Students who earn the minor will be able to analyze the impact of past and current public policies, understand the institutions and process of policymaking, and develop new public policies to tackle pressing challenges faced by our society. They will be prepared to enter policymaking fields in their areas of interest and to make communities, states, and nations more resilient, inclusive, and prosperous.

The minor is awarded by University College.

Programs

Undergraduate Program of Study

Minor

- Minor in Public Policy [p. 2213]

Public Policy, Minor

The public policy minor is intended for University of Iowa undergraduate students who seek to understand how and why public policies are adopted; how they impact the economy, society, and communities; and how innovative public policies are developed to improve economic prosperity, wellbeing, and environmental sustainability at the local, state, national, and global levels.

The minor in public policy is well-suited for students majoring in economics, political science, education, sociology, criminology, pre-law, human rights, social work, geographical and sustainability science, environmental policy and planning, civil and environmental engineering, health and human physiology, public health, business, anthropology, history, journalism and mass communication, African American studies, and Native American and Indigenous studies among other areas.

Students completing the public policy minor will be able to analyze the impact of past and current public policies, understand the institutions and process of policymaking, and develop new public policies to tackle pressing challenges society faces. They will be prepared to enter policymaking fields in their areas of interest and to make communities, states, and nations more resilient, inclusive, and prosperous.

Requirements

The undergraduate minor in public policy requires 15 s.h. of coursework taken at the University of Iowa. Students must maintain a grade-point average of at least 3.00 in work for the minor. Coursework in the minor may not be taken pass/nonpass.

The minor in public policy requires the following coursework.

Core Courses

Course #	Title	Hours
Two of these:		
PBAF:3117/ POLI:3117	Bureaucratic Politics and Public Administration	3
PBAF:3560/ POLI:3560/ RHET:3560/ SJUS:3560	Public Policy and Persuasion	3
PBAF:4205	Economics for Policy Analysis (with consent of instructor)	3
PBAF:4233	Public Finance and Budgeting	3
PBAF:4340	Public Policy Analysis	3
POLI:3111	American Public Policy	3

Electives

Students must select at least three electives (9 s.h.) with at least two Group A electives from the following lists.

Group A

Course #	Title	Hours
At least two of these:		
PBAF:1001/ URP:1001	How to Change the World	3
PBAF:1030/ URP:1030	Climate Leadership and Justice	3
PBAF:2020/ URP:2020	Environment and Society: Sustainability, Policy, and Politics	3
PBAF:2056/ URP:2056	The Splendor of Cities	3
PBAF:3001	Public Policy Lab	3
PBAF:3117/ POLI:3117	Bureaucratic Politics and Public Administration (if not taken as a core course)	3
PBAF:3560/ POLI:3560/ RHET:3560/ SJUS:3560	Public Policy and Persuasion (if not taken as a core course)	3
PBAF:3570/ GHS:3570/ POLI:3570	Poverty Policy	3
PBAF:3580/ NAIS:3580	Native American Public Policy	3
PBAF:4205	Economics for Policy Analysis (if not taken as a core course)	3
PBAF:4225/ URP:4225	Applied GIS for Planning and Policy Making	3
PBAF:4233	Public Finance and Budgeting (if not taken as a core course)	3
PBAF:4256/ URP:4256	Environmental Policy	3
PBAF:4260/ URP:4260	Transportation Policy and Planning	3
PBAF:4280/ URP:4280	Planning for Disaster Mitigation and Recovery	2-3
PBAF:4340	Public Policy Analysis (if not taken as a core course)	3
URP:4271	Housing Policy	3
URP:4295	Economic Development Policy	3
POLI:3111	American Public Policy (if not taken as a core course)	3

Group B

Course #	Title	Hours
CRIM:2210	Iowa Criminal Justice Policy and Reform	3
CRIM:3600	Crime and Public Policy	3
CRIM:4120	Environmental Criminology	3
HHP:4030	Social Determinants of Health	3
POLI:1501	Introduction to American Foreign Policy	3
POLI:2417	Comparative Environmental Policy	3
POLI:3104/ LAS:3104/ LATS:3104	Immigration Politics	3
POLI:3114	Women and Politics in the United States	3
POLI:3127	Legislative Policy Seminar	3
POLI:3160	Applied Research in Political Science	1-3

SEES:3780/ GHS:3780/ HIST:3240/ POLI:3431	U.S. Energy Policy in Global Context	3
SEES:3800	Environmental Policy	3
SOC:2810	Social Inequality	3

Admission

Students may declare the minor in MyUI as soon as they are enrolled in any of the public policy minor courses.

Those interested in pursuing the minor must meet with the minor advisor, be briefed on the minor expectations for performance, and complete a plan of study that must be approved by the minor advisor.

For more information, contact the School of Planning and Public Affairs.

Study Abroad

Associate Provost and Dean, International Programs

- Russell Ganim

Directors

- Autumn Tallman, Elizabeth Wildenberg de Hernandez

Website: https://international.uiowa.edu/study-abroad

The University of Iowa sponsors a wide variety of study abroad programs in approximately 50 countries throughout the world. Students may choose from summer, fall, or spring semester, academic year, spring break, and winter session programs that complement and extend the university's academic programs across the curriculum.

Study Abroad offers programs to appeal to a broad range of majors and interests. Major Advising Pages (MAPs) are created to help students better understand how study abroad can fit into their programs of study. International internships are also offered in many locations. The program search engine, Search UI Study Abroad Programs, allows students to browse information about study abroad programs.

Students also can participate in study abroad programs sponsored by other accredited U.S. and international institutions. They should obtain advance approval of all transfer credit by completing a Study Abroad Credit Approval Form.

Additionally, Study Abroad offers some virtual global courses and internships that take place entirely online but are internationally focused and make connections in host countries around the world.

Information on University of Iowa study abroad programs is available from Study Abroad.

Facilities

Study Abroad is located in the International Programs suite in the University Capitol Centre (UCC). Students can meet with their assigned study abroad advisor in the Study Abroad office or virtually via Zoom.

Courses

- Study Abroad Courses [p. 2215]
- International Activities Courses [p. 2231]

Study Abroad Courses

ABRD:3010 Iowa Regents in Wales: Swansea University **arr.**
Swansea University in Wales, UK; students take regular university coursework in humanities, social sciences, physical sciences, business, and engineering. Semester or academic year. Requirements: 3.00 minimum GPA, good academic and disciplinary standing, and sophomore or higher standing.

ABRD:3011 Iowa at Oxford **arr.**
Unique opportunity to spend an academic year fully matriculated at the University of Oxford; students enroll in a wide range of courses at Mansfield College, one of 38 colleges that make up the University of Oxford; as an Oxford student, participants take part in Oxford's personalized tutorial system, attend lectures, share accommodations with local students, and become fully immersed in the social and academic culture of one of the mostly highly regarded academic institutions in the world. Requirements: 3.70 GPA, sophomore standing, and good academic and disciplinary standing.

ABRD:3012 Iowa Regents in Scotland: University of Edinburgh **arr.**
Advanced undergraduate study at the University of Edinburgh; humanities, social sciences, science, engineering. Fall and/or spring. Requirements: GPA of at least 3.00.

ABRD:3013 IES London: Study London **arr.**
Coursework in international economics, finance, management, creative and performing arts, literature, communications, cultural studies, and political science, as well as a huge variety of credit-bearing internship and service learning opportunities; option to enroll directly in a local British university; the IES Study London program provides a unique opportunity to engage in all aspects of contemporary British society; students combine coursework with study outside the classroom to explore the rich heritage of the United Kingdom, as well as its contemporary social, economic, and political culture. Requirements: 2.75 GPA and good academic and disciplinary standing.

ABRD:3014 IES London and Jamaica Health Practice and Policy **arr.**
Opportunity to study global health issues in the United Kingdom and Jamaica; students enroll in courses in public health, social welfare, and comparative health care in London, and spend their final ten days of the program completing a capstone experience in Mona, Jamaica hosted by the University of West Indies in Mona; ideal for students focusing on preprofessional medical studies, public health, anthropology, economics, political science, and sociology. Semester. Requirements: 3.00 GPA and good academic and disciplinary standing.

ABRD:3016 IES London, United Kingdom Today **arr.**
Unique opportunity to engage in all aspects of contemporary British society; courses in international business, management, literature, communications, cultural studies, film studies, political science, and sociology; students combine coursework with study outside the classroom, and explore the rich heritage of the United Kingdom as well as its contemporary social, economic, and political culture. Requirements: 2.75 GPA and good academic and disciplinary standing.

ABRD:3017 IES London: University College London **arr.**
Unique opportunity to directly enroll at the University College London, one of the top-ranking universities in the world; students live and study with their British peers in the heart of London while choosing from a huge variety of courses in biology, chemistry, engineering, economics, English, fine art, global health, history, management, and many other popular majors; students are fully immersed in British culture and truly learn what it's like to be a Londoner through engagement with locals and taking advantage of IES field trips around the country. Semester or academic year. Requirements: good academic and disciplinary standing, GPA of at least 3.30 (3.70 to enroll in economics courses, 3.50 to enroll in English or management courses); and junior or senior standing.

ABRD:3018 Creativity, Imagination, and Play in London **arr.**
Students learn about art, culture, and human development through an exploration of London and nearby sites; use of rich museums, galleries, architecture, food, and community organizations of Britain to investigate how art and culture are produced through tours, making, visual journaling, and site-specific play; for preservice teachers, artists, and designers who want to incorporate global perspectives into their practices. Requirements: 3.00 GPA, and good academic and disciplinary standing. Recommendations: enrollment in teacher education, education studies and human relations, or art/design program.

ABRD:3020 London Performance Study **arr.**
Selected theater productions, lectures, performances, discussions, written exercises, workshops, cultural activities. Credit may be applied toward a University of Iowa major in English or theatre arts. Summer.

ABRD:3025 International Business in London **arr.**
Study of the international business environment in one of the world's financial capitals; may count toward undergraduate business major or Certificate in International Business. Winter. Prerequisites vary depending on classes being offered. Requirements: junior standing.

ABRD:3026 IES Internships London **arr.**
Real-world experience combined with professional skill building and cultural immersion; interning full time in student's chosen field. Eight weeks in summer. Requirements: 2.50 GPA, junior or higher standing, and good academic and disciplinary standing.

ABRD:3028 Shakespeare's England **arr.**
Students go out into the streets, museums, theatres, and even forests of London to see the way the city inspired and continues to inspire some of the greatest writing in English; London is a center of modern film industry and a capital of international finance and technology, yet Shakespeare and Chaucer would still be able to recognize the shape of many of its winding streets; students get to know Shakespeare's England through readings, writings, and performances. Requirements: 2.75 GPA, and good academic and disciplinary standing.

ABRD:3030 Iowa Regents in Ireland: University College Cork **arr.**
Regular coursework in all disciplines at University College Cork in Ireland. Fall and spring semesters. Requirements: sophomore standing and GPA of at least 3.00.

ABRD:3031 IES Internships Dublin **arr.**
Real-world experience combined with professional skill building and cultural immersion; interning full time in chosen field. Eight weeks in summer.

ABRD:3034 STEM and Irish Studies in Dublin **arr.**
Science, technology, engineering, and mathematics (STEM) students from Big Ten schools study together in Dublin; courses include introductory physics II with lab, and a course on Irish history and culture. Requirements: major in a STEM field, 3.00 GPA, good academic and disciplinary standing, and completion of MATH:1550, MATH:1560, and 4 s.h. of PHYS:1611.

ABRD:3035 Irish Writing Program **arr.**
Dublin, Ireland; writing workshops directed by Irish writers, literature courses taught by faculty. Summer.

ABRD:3036 IES Dublin Irish Studies: History, Politics and Social Change **arr.**
Offering coursework in economics, entrepreneurship, management, creative writing and literature, communications, cultural studies, and political science, as well as a huge variety of credit-bearing internship and service learning opportunities, the IES Dublin Irish Studies program addresses all aspects of contemporary Irish society; students combine coursework with study outside the classroom for the opportunity to discover the rich heritage of Ireland and its contemporary, social, economic, and political culture. Requirements: 2.75 GPA and good academic and disciplinary standing.

ABRD:3037 IES Dublin: Trinity College Dublin **arr.**
Unique opportunity to enroll at Trinity College Dublin; students live and study with their Irish peers while choosing from a huge variety of courses in biology, business, chemistry, drama and film, English, engineering, economics, Irish language, psychology, and many other popular majors; students are fully immersed in Irish culture and truly learn what it's like to be a Dubliner through engagement with locals, taking advantage of IES field trips around the country, and enrolling in one of Ireland's oldest and finest institutions. Semester or academic year. Requirements: 3.30 GPA, good academic and disciplinary standing, second-semester sophomore or higher standing at time of participation, and at least one year of successful coursework at the UI or another bachelor's-degree granting institution.

ABRD:3038 IES Dublin: Gaiety School of Acting **arr.**
Unique opportunity to directly enroll at the National Theatre School of Ireland's Gaiety School of Acting; students become engaged in intensive, conservatory-like training in acting for theatre, film, and television at Ireland's premier acting school; situated in the heart of Dublin and offers a rare chance to be fully immersed in Irish social and academic culture at a world-class institution focusing specifically on performance art. Semester or academic year. Recommendations: 2.75 GPA, theatre arts major or minor, and good academic and disciplinary standing.

ABRD:3039 IES Dublin Writers Program **arr.**
Study of contemporary Irish authors, as well as those of the past, this writers program is designed to inspire and challenge writers to elevate their skills to the next level; Dublin is a city that caters to the lovers of all things literary with vibrant and varied literary and visual arts scene, an abundance of eclectic bookshops, and quirky cafés; managed by the Institute for the International Education of Students (IES) Abroad. Requirements: clear interest and commitment, demonstrated preparedness/maturity, minimum 2.75 GPA, good academic and disciplinary standing, and completion of at least one semester of college-level study.

ABRD:3040 IES Dublin: Dublin City University **arr.**
Dublin City University (DCU) offers a wide variety of challenging courses; the program appeals primarily to students who are ready for the challenge of adapting to an entirely new academic culture that requires significant independent work. Requirements: clear interest and commitment, demonstrated preparedness/maturity, minimum 3.00 GPA, good academic and disciplinary standing, completion of at least one semester of college-level study, and 18 years of age.

ABRD:3044 IES Internships Vienna arr.
Real-world experience combined with professional skill building and cultural immersion; full-time internship in student's chosen field in Vienna, Austria. Requirements: 2.50 GPA, junior or higher standing, and good academic and disciplinary standing.

ABRD:3045 Academic Year in Freiburg arr.
Combination of special program classes, German for foreigners, and regular degree coursework in most liberal arts subjects at Albert-Ludwigs University, Freiburg, Germany. Academic year. Requirements: at least four semesters college German with GPA of at least 3.00.

ABRD:3046 IES Internships Berlin arr.
Real-world experience combined with professional skill building and cultural immersion; eight weeks over the summer interning full time in the student's chosen field. Requirements: two semesters of college-level German, 2.50 GPA, junior or higher standing, good academic and disciplinary standing; non-U.S. passport holders should verify eligibility for German visa prior to application.

ABRD:3048 USAC Luneburg Program arr.
The Lüneburg program is ideal for students interested in learning German language and focus on European Studies—specifically Germany's role within the European Union; students greatly expand their language skills and knowledge of German society through formal coursework and personal interaction with host culture. Requirements: good academic and disciplinary standing at time of application and through departure, and minimum UI and cumulative GPA of 2.50.

ABRD:3049 Sustainable Chemistry arr.
Chemistry topics central to questions and research of sustainability (e.g., urbanization, biodiversity, conservation and climate change, adaptation and mitigation) and the Rhine region of Germany, Switzerland, and France recognized as being at the forefront of advancement in these areas; the Rhine River Valley at the heart of industrial and urban sustainability efforts in Europe provides an ideal opportunity to collaborate with industry and academic leaders in sustainable chemistry. Requirements: 2.75 GPA, and good academic and disciplinary standing. Recommendations: completion of CHEM:1120 with a minimum grade of C-.

ABRD:3050 IES Freiburg European Union arr.
Students live and learn about European politics, economics, business, and international relations; courses taught in English (e.g., global leadership, political science); exposure to the European Union and beyond. Requirements: 2.75 GPA and good academic and disciplinary standing.

ABRD:3052 IES Vienna arr.
Offering a wide range of academic coursework taught by IES faculty at their student center, the IES Vienna program is a good choice for students pursuing coursework related to business, economics, political science, international relations, music, and psychology; students enroll in a required German language class (no previous German language experience required) and additional courses taught in English or German. Semester. Requirements: good academic and disciplinary standing, sophomore or higher standing, minimum 2.75 GPA.

ABRD:3055 SIT Switzerland International Studies and Multilateral Diplomacy arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: good academic and disciplinary standing, 2.50 GPA, and emotional maturity due to subject matter.

ABRD:3062 CIEE Paris Critical Studies Program arr.
Analysis of literature, film, and other forms of visual expression through use of contemporary critical theory; interaction among fields of literature, aesthetics, and psychoanalysis; examination of problems involved in such analysis; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member; for students with advanced French language skills. Requirements: 3.00 cumulative GPA, five semesters of college-level French, and previous coursework in relevant fields.

ABRD:3063 CIEE Paris Open Campus arr.
Combines an interdisciplinary academic program on contemporary French society and culture (taught in French or English) with opportunity to develop strong language skills; contemporary social issues in politics, Francophone cultures, and Muslim communities in Europe; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member; for intermediate-level French students. Requirements: 2.75 cumulative GPA and good academic and disciplinary standing.

ABRD:3064 CIEE Rennes Liberal Arts Program 12 s.h.
Increase language ability and knowledge of France and French culture; opportunity to take regular university classes alongside French students; intensive language and humanities coursework; cultural activities; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member; for intermediate or advanced intermediate students. Requirements: 2.75 cumulative GPA, 3.00 GPA in French language, and four semesters of college-level French.

ABRD:3066 CIEE Paris Global Institute Summer Program arr.
Students take courses in several different disciplines; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member. One, two, or three four-week summer sessions. Requirements: 2.75 GPA and four semesters of college-level French.

ABRD:3069 USAC Lyon Program arr.
Intensive French language beginning with second-year French; additional courses in French culture, history, art, politics, and other disciplines are taught in both French and English. Requirements: GPA of at least 2.50, good academic and disciplinary standing, and completion of two semesters of college-level French or equivalent.

ABRD:3070 USAC Pau arr.
Beginning through advanced French language study at the University of Pau; additional courses in French culture, literature, politics, history, and other disciplines. Taught in English and French; no previous study of French required. Requirements: GPA of at least 2.50.

ABRD:3071 Study Abroad in Montpellier arr.
Special courses for international students or regular courses with French students at University of Montpellier; taught in French. Semester or academic year. Requirements: four semesters of French.

ABRD:3072 Montpellier Summer Language Program arr.
Advanced French language and course on contemporary France that explores current perspectives on immigration; visits to local organizations dedicated to naturalization services; public housing; immigrants' rights, nonviolence, antiracism, and antidiscrimination; excursions around Montpellier and other social activities; option to take accelerated language track in either four- or eight-week program; development of language skills in various contexts depending on level (beginning through advanced) and prescribed curriculum at each level. Six weeks. Requirements: 2.50 GPA and average grade of B in French coursework.

ABRD:3074 IES Internships Paris arr.
Real-world experience combined with professional skill building and cultural immersion; interning full time in student's chosen field. Eight weeks in summer. Requirements: four semesters of college-level French, 2.50 GPA, junior or higher standing, and good academic and disciplinary standing.

ABRD:3075 CEA Paris: Summer Internship arr.
Students spend a summer immersed in Parisian culture and gain valuable hands-on skills in an international internship in one of Central Europe's economic and cultural capitals; placement in an organization or company that aligns with professional and academic goals; building a network of contacts while gaining hands-on international experience that employers value; CEA internship program includes personalized internship placement and academic courses; internship work schedules may vary depending on industry standards in career field. Requirements: minimum 2.75 GPA, first-year or higher standing at time of application, and good academic and disciplinary standing. Recommendations: French language skills encouraged but not required.

ABRD:3076 Paris on Film arr.
Overview of milestones in French cinema through the lens of diverse cinematic representations of Paris and the evolving cultural and social relationship between the city and cinema. While in Paris, students expand their understanding of a French film with a visit to a related location. Requirements: sophomore standing or above, UI and cumulative GPA of 2.75 or above, good academic and disciplinary standing.

ABRD:3083 USAC Torino Program arr.
Academic coursework, practical learning, tours, site visits, and integrated cultural experience; content in diverse academic areas of business, architecture, and Italian studies; Italian language courses; administered by the University Studies Abroad Consortium (USAC) of which the University of Iowa is a member. Semester, summer, or academic year. Requirements: 2.50 GPA and appointment with Italy study abroad advisor prior to application.

ABRD:3084 USAC Viterbo Program arr.
Academic coursework at Viterbo's historical Tuscia University of Viterbo; practical learning, tours, site visits, and integrated cultural experience; high-quality educational experience in art history and Italian studies; Italian language course; administered by the University Studies Abroad Consortium (USAC) of which the University of Iowa is a member. Semester, academic year, or five-week summer session. Requirements: 2.50 GPA, good academic standing, and appointment with Italy study abroad advisor prior to application.

ABRD:3086 USAC Verona Program arr.
Language study and additional coursework in English or Italian; administered by the University Studies Abroad Consortium (USAC) of which the University of Iowa is a member. Summer, semester, or academic year. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3087 USAC Reggio Emilia Program arr.
Language study and additional coursework in English or Italian; administered by the University Studies Abroad Consortium (USAC) of which the University of Iowa is a member. Summer, semester, or academic year. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3088 CIMBA Italy Program arr.
Coursework in business and related disciplines in the Veneto region of Italy, taught in English. Four weeks in summer or 13-week semesters.

ABRD:3089 IES Internships Rome arr.
Real-world experience combined with professional skill building and cultural immersion; interning full time in the student's chosen field. Eight weeks in summer. Recommendations: 2.50 GPA, junior or higher standing, and good academic and disciplinary standing.

ABRD:3090 IES Internships Milan arr.
Real-world experience combined with professional skill building and cultural immersion; interning full time in student's chosen field. Eight weeks in summer. Requirements: 2.50 GPA, junior or higher standing, and good academic and disciplinary standing.

ABRD:3091 IES Milan arr.
Offering coursework in liberal arts, social sciences, business, and music, the IES Abroad Milan program addresses all aspects of contemporary Italian society; students have the opportunity to take classes at one of six local partner universities or enroll in a part-time internship for credit. Requirements: 2.75 GPA and good academic and disciplinary standing.

ABRD:3092 IES Rome arr.
Offering courses in art history, history, religious studies, and Italian, the IES Abroad Rome program focuses on full language immersion; students have the opportunity to take advantage of a part-time internship for credit. Requirements: 2.75 GPA and good academic and disciplinary standing.

ABRD:3094 Wells in Florence: Lorenzo de' Medici arr.
Rich and varied curriculum of courses located in Florence, Italy. More than 250 courses available; courses taught in English. Requirements: 2.80 GPA and good academic and disciplinary standing.

ABRD:3095 CEA Florence: Santa Reparata International School arr.
Students are challenged to transform their Italian experience into art through printmaking, fashion design, painting, drawing, and more; close instruction by practicing artists encourage contemporary work in response to Florentine traditions; designed for art and non-art majors. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3096 International Business in Italy arr.
Italy is used as the local environment to learn about the history of the European Union, development of the eurozone, and financial and political challenges being addressed therein; students explore how current economic and political decisions in Europe will drive the future of the worldwide economy. Requirements: 2.75 minimum UI and cumulative GPA, minimum of 30 s.h. completed prior to the program; sophomore or higher standing, and completion of FIN:3000.

ABRD:3097 European Ceramics Studio arr.
Students gain experience working in international studio settings in Europe; travel to designated sites, completion of original artwork, attendance at lectures, visits to relevant historic and contemporary sites, and working collaboratively with a studio team of peers and mentors to learn fabrication methods relevant to production of original works of ceramic art. Requirements: art major with experience in ceramics, minimum UI and cumulative GPA of 3.00, and good academic and disciplinary standing. Recommendations: CERM:2010.

ABRD:3120 Regents Hispanic Institute arr.
Study of Spanish language and culture in Valladolid, Spain. Six weeks in summer. Requirements: four semesters of college-level Spanish.

ABRD:3121 Cultures of Spain 3 s.h.
Study abroad in Madrid, the geographic and sociocultural center of Spain; overview of heterogeneous cultural landscape of Spain through interdisciplinary approach to its history; special attention given to conflict between two antagonistic national projects—one that understands Spain as a homogeneous entity and historically based on authoritarian forms of government, Catholic faith, and centralistic culture, and one that advocates for a plural conception of the country and emphasizes a liberal government, tolerance, and cultural diversity. Four weeks. Requirements: 2.50 cumulative GPA and good academic and disciplinary standing.

ABRD:3135 CIEE Portugal Program arr.
Intensive Portuguese language study (beginning to advanced levels) and area studies courses taught in English at Lisbon's Universidade Nuova; regular university courses are available to semester students with sufficient language proficiency. Summer, semester, or academic year. Requirements: GPA of at least 2.75.

ABRD:3136 European Innovation Academy arr.
The European Innovation Academy's Entrepreneurship Innovation Summer School is the world's largest entrepreneurship summer course focused on information technology innovations; accelerated mode of learning turns an idea into a start-up in only 15 days; entrepreneurial and ambitious students are inspired to innovate and prompt rapid growth, with the aim to achieve at least a 100M EUR valuation for their business; necessary mindset, skills, and knowledge are nurtured; tools and network provided in order to achieve set goals; University of Iowa students participate alongside students from other U.S. universities and countries. Requirements: good academic and disciplinary standing.

ABRD:3137 CIEE Lisbon Business and Culture arr.
Incorporation of intensive Portuguese language study (beginning to advanced levels) with business and elective courses taught in English at a Council on International Educational Exchange (CIEE) or a host university; regular university courses are available to students with sufficient Portuguese language proficiency. Requirements: minimum 2.50 GPA and good academic and disciplinary standing.

ABRD:3140 American College of Thessaloniki Semester arr.
Undergraduate studies in varied academic disciplines (business, history, international relations, psychology, fine arts, literature, philosophy, modern Greek language) at the American College of Thessaloniki. Taught in English.

ABRD:3142 Greece: Origins of Humanistic Counseling arr.
Origins of humanistic psychotherapy through an experiential exploration of the history and topography of Greece; students gain a deeper understanding of the culture in which humanism originated, unique environmental factors that promote a humanistic worldview, and critically analyze the evolution of humanistic theory from its philosophical beginnings to its status as a leading theory in counseling and psychotherapy; physical exploration, reading, reflecting, and on-site lectures; designed for masters and doctoral students who have had an introduction to theories of counseling and psychotherapy. Requirements: sophomore or higher standing, 3.00 minimum GPA, and good academic and disciplinary standing. Recommendations: enrollment in a masters or doctoral program focusing on mental health (counseling, counseling psychology, couples and family therapy, social work) and prior exposure to counseling theory.

ABRD:3143 Writing Greece arr.
Creative writing program in Athens, Greece; exposure to ancient Greek literature and writings about Greece by various international travelers; these literary models are used to inspire original student writing about Greece including ancient and contemporary history, culture, people, and politics. Requirements: 2.75 GPA, sophomore or higher standing, positive evaluation of writing skills from a 4-6 page writing sample, and good academic and disciplinary standing.

ABRD:3144 City of Athens arr.
Ancient Athens from the Neolithic period to end of the Roman period; students study abroad and directly engage material remains and cultural aspects of the city to better understand ancient Athenian views on life and human experience through the objects they left behind. Requirements: 2.75 GPA, sophomore or higher standing, and good academic and disciplinary standing.

ABRD:3145 Ancient Perspectives, Modern Eyes arr.
Faculty-led exploration of Greece; students visit ancient sites including locations such as Athens, Delphi, Olympia, Mycenae, Delos, Santorini, and Crete; placement of ancient world views within a modern context in order to gain an appreciation for landscape, history, and significance of ancient Greece. Requirements: minimum 2.75 GPA, good academic and disciplinary standing, and sophomore or higher standing. Recommendations: honors standing, and related major or minor.

ABRD:3165 Archaeological Field Work Abroad arr.
Major archeology projects hosted at international excavation sites. Summer.

ABRD:3166 SIT Netherlands International Perspectives on Sexuality and Gender arr.
Examination of the intersections of gender and sexuality with race, class, and religion; highlights experiences of a growing number of postcolonial and post-migration subjects living in these intersections; how identity is affected by gender, sexuality, race, religion, and class, both as they are experienced and as they are perceived, apart from looking at theories and applications of gender, LGBT, and sexuality studies in activism. Requirements: 2.50 GPA, good academic and disciplinary standing, and previous college-level coursework or other preparation in sexuality and/or gender studies.

ABRD:3170 SIT Iceland Renewable Energy, Technology, and Resource Economics arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific global issue. Requirements: good academic and disciplinary standing, 2.50 GPA, and previous coursework in engineering, economics, environmental science or studies, or related fields.

ABRD:3180 CIEE Copenhagen Open Campus arr.
Students customize their experience by studying one of six academic tracks; courses taught in English by faculty drawn from higher education institutions across Denmark; traditional lectures are combined with cocurricular excursions and activities; the Council on International Educational Exchange (CIEE) administers the program on behalf of a consortium of which the University of Iowa is a member. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3181 CIEE Summer in Copenhagen arr.
Students take one course during each four-week session; courses taught in English by faculty drawn from higher education institutions across Denmark and vary by session; the Council on International Educational Exchange (CIEE) administers the program on behalf of a consortium of which the University of Iowa is a member. Requirements: 2.50 minimum GPA and good academic and disciplinary standing.

ABRD:3201 CIEE Alcala Language and Culture Program 6,12 s.h.
Established in 1999, the CIEE Study Center at the Universidad de Alcala (Alcala de Henares, Spain) provides an academic program for students with a high- intermediate to advanced-level of Spanish; the summer program (established in 2008) consists of language and culture courses offered through the Institute; all courses offered in Spanish; many approved for Spanish majors, minors, and general education requirements, and may be approved for other degree requirements; 6 s.h. taken in each four-and-one-half-week session. Requirements: 2.75 cumulative GPA, 3.00 GPA in most recent Spanish course, four semesters of college-level Spanish, and valid passport at time of application.

ABRD:3202 CIEE Madrid Open Campus arr.
Students live and learn in Madrid, the dynamic capital city of Spain, and customize their experience by selecting courses from six academic tracks; block-schedule courses are taught in English and combine traditional lectures with cocurricular excursions and activities; the Council on International Educational Exchange (CIEE) administers the program on behalf of a consortium, of which the University of Iowa is a member. Requirements: 2.50 cumulative GPA and good academic and disciplinary standing.

ABRD:3205 CIEE Alicante Language and Culture Program arr.
Rapid progress in language skills while taking area studies courses related to Europe and Spain; linguistic development and cultural immersion promoted through housing in Spanish-speaking homes and supplementary visits and excursions; administered by the Council on International Education Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Semester or academic year. Requirements: 2.75 minimum GPA, three to four semesters of college-level Spanish, and valid passport at time of application.

ABRD:3206 CIEE Alicante Language and Culture Summer Program arr.
Development of Spanish language skills and knowledge of Spanish art, cinema, and culture in Alicante, Spain; linguistic development and cultural immersion through housing in Spanish-speaking homes, supplementary visits and excursions, content courses in Spanish, and direct enrollment at the University of Alicante; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member; for students with varying levels of Spanish. Summer. Requirements: 2.75 cumulative GPA, four semesters of college-level Spanish, and valid passport at time of application.

ABRD:3208 CIEE Alicante Liberal Arts Program arr.
Development of spoken and written Spanish language skills; linguistic development and cultural immersion promoted through housing in Spanish-speaking homes, supplementary visits and excursions, content courses in Spanish, and direct enrollment at the University of Alicante; administered by the Council on International Education Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Semester or academic year. Requirements: 2.75 minimum GPA, at least five semesters of college-level Spanish, and valid passport at time of application.

ABRD:3215 CIEE Barcelona Advanced Liberal Arts Program arr.
Development of fluency through direct enrollment in a wide range of regular university classes; classes taken alongside Spanish classmates who become friends and guides to the culture; dramatic improvement of Spanish language skills while living the language every day in the city and the university; for students with advanced Spanish language skills. Semester or academic year. Requirements: 3.00 minimum GPA, at least six semesters of college-level Spanish, and valid passport at time of application.

ABRD:3216 CIEE Barcelona Architecture and Design Program 12 s.h.
Exploration of the intersection of two fields in a city famous for its vibrant architecture and innovative design; courses offered by ELISAVA and CIEE allow a unique opportunity to collaborate in a joint core class alongside courses in student's track and Spanish language; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Requirements: 3.00 cumulative GPA and valid passport at time of application; for design track students —design or related major or minor and four semesters of college-level Spanish.

ABRD:3217 CIEE Barcelona Business and Culture Program arr.
Development of competency in Spanish language while studying issues related to business in Spain and the European Union, Spanish language and culture; company visits, excursions, and homestays or student residence option in the vibrant city of Barcelona contribute to students' cultural immersion and development of language skills; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium; designed for students with varied levels of Spanish. Semester or academic year. Requirements: 3.00 cumulative GPA; three semesters of microeconomics, macroeconomics, accounting, finance, management, or statistics; and valid passport at time of application.

ABRD:3218 CIEE Barcelona Economics and Culture Program 12 s.h.
Classes at a Spanish university for students with varying levels of Spanish and a strong background in economics; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Semester or academic year. Requirements: 3.25 cumulative GPA, three semesters of microeconomics or macroeconomics, one semester of calculus, and valid passport at time of application.

ABRD:3219 CIEE Barcelona Language and Culture Program 12 s.h.
Development of skills and competency in Spanish language while studying Spanish history, arts, politics, and culture; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Requirements: 3.00 cumulative GPA, junior standing, one to three semesters of college-level Spanish, and valid passport at time of application.

ABRD:3220 CIEE Barcelona Language and Culture Summer Program arr.
Rapid progress in language skills while taking language, culture, or business courses in Barcelona; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member; for students with varying levels of Spanish. Summer. Requirements: 2.75 cumulative GPA and four semesters of college-level Spanish.

ABRD:3221 CIEE Barcelona Liberal Arts Program arr.
Development of skills and competency in Spanish language while studying Spanish history, politics, and culture at Universitat Pompeu Fabra; cultural immersion and development of language skills through excursions and homestays or student residence option in the vibrant city of Barcelona; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Requirements: 3.00 cumulative GPA, junior standing, four semesters of college-level Spanish, and valid passport at time of application.

ABRD:3222 CIEE Barcelona Business and Culture Summer Program arr.
Business courses in English (with optional communicative Spanish) in Barcelona; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Requirements: minimum 2.50 cumulative GPA; two semesters of college-level microeconomics or macroeconomics, accounting, finance, management, marketing, or statistics; and good academic and disciplinary standing.

ABRD:3231 CIEE Madrid Liberal Arts Program arr.
Opportunity to matriculate in a combination of content courses in Hispanic studies, regular university courses, and short seminars while continuing to improve language skills and take advantage of the vibrant and rich cultural milieu of Madrid; linguistic development and cultural immersion promoted through housing in Spanish-speaking homes, and supplementary visits and excursions; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member; for independent, advanced-level students. Semester or academic year. Requirements: 3.00 minimum GPA, five or six semesters of college-level Spanish, and valid passport at time of application.

ABRD:3241 CIEE Palma de Mallorca Business and Tourism Program 12 s.h.
Study business, tourism, and hospitality alongside Spanish students in a direct enrollment environment with a global perspective in Palma de Mallorca; development of management skills for future leadership in the tourism and hospitality industry; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member. Requirements: 2.75 cumulative GPA and valid passport at time of application. Recommendations: two semesters of college-level Spanish.

ABRD:3242 CIEE Palma de Mallorca Language and Culture Summer Program arr.
Established in 2006, the CIEE Study Center at Universitat de les Illes Balears provides an academic summer program for students interested in tourism; development or improvement of Spanish language skills while learning about Spain and Europe; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Requirements: 2.75 cumulative GPA, four semesters of college-level Spanish, and valid passport at time of application.

ABRD:3250 CIEE Seville Advanced Liberal Arts Program arr.
Achievement of fluency in spoken and written Spanish; wide variety of academic fields to gain deeper understanding from a Spanish perspective; direct matriculation in university courses, homestays, local and overnight excursions, conversational exchange program, volunteer opportunities, and independent study options in Seville, Spain. Requirements: 3.00 cumulative GPA, 3.00 minimum GPA in Spanish courses, six semesters of college-level Spanish, and valid passport at time of application.

ABRD:3251 CIEE Seville Business and Society Program arr.
Opportunity to study business in an international context through a combination of coursework in Spanish business, society, and language; related field visits to Spanish companies; designed for highly motivated students of business with advanced-level Spanish skills at the University of Seville's Business School; unpaid internships may be available to students with advanced language ability; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member. Semester or academic year. Requirements: at least 2.75 GPA; five semesters of college-level Spanish; 6 s.h. of microeconomics, macroeconomics, accounting, finance, management, or statistics; and valid passport at time of application. Recommendations: good background in math/statistics to grasp the more theoretical focus of European business instruction.

ABRD:3252 CIEE Seville Business Internship Program 6 s.h.
Exposure to a professional workplace atmosphere in Seville, Spain for business students; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Eight weeks. Requirements: 2.75 cumulative GPA, five semesters of college-level Spanish, and valid passport at time of application.

ABRD:3253 CIEE Seville Communications, New Media, and Journalism Program arr.
Valuable hands-on experience in a multifaceted academic and professional environment; courses through CIEE and with Spanish students at the Universidad de Sevilla; may include CIEE classes offered through the Liberal Arts program; social and cultural immersion of participants in the host society through specialized projects and extracurricular activities; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member; for students considering a career in any communication environment. Requirements: 2.75 cumulative GPA, five semesters of college-level Spanish, and valid passport at time of application.

ABRD:3254 CIEE Seville International Business and Culture Program arr.
Spanish language improvement in Seville, Spain; courses in English, primarily in the field of international business; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member; for beginning to intermediate students. Semester or academic year. Requirements: 2.75 GPA, four semesters or less of college-level Spanish, and valid passport at time of application.

ABRD:3255 CIEE Seville Language and Culture Summer Program 3,6,9 s.h.
Development of Spanish language skills and exposure to Spanish culture through an intense immersion experience; courses in Spanish language and culture, conversational exchange program, homestay program, and local visits and excursions; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Three, six, or nine weeks. Requirements: 2.75 cumulative GPA, four semesters of college-level Spanish, and valid passport at time of application.

ABRD:3258 CIEE Seville Liberal Arts Program arr.
Achieve fluency in written and spoken Spanish; language acquisition and cultural immersion through housing in Spanish-speaking homes, involvement in volunteer opportunities, and conversation exchanges; courses at the CIEE Study Center, the University of Seville, and Pablo de Olavide University (UPO); administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member. Semester or academic year. Requirements: 2.75 cumulative GPA, five semesters of college-level Spanish, and valid passport at time of application.

ABRD:3261 CIEE Madrid Engineering and Society arr.
Spanish language and cultural studies combined with engineering coursework at the CIEE prestigious partner school, Universidad Carlos III de Madrid (UC3M); students gain insight into Spanish business culture and real-world work experience through internships; courses in arts and humanities, business and law, and engineering taught in English or Spanish; courses in aerospace, energy, or biomedical engineering taught in English; courses complemented with CIEE cocurricular activities and excursions outside the city to enhance classroom learning and provide intercultural understanding. Requirements: 3.00 GPA.

ABRD:3270 USAC Alicante Program arr.
Intensive language study in Alicante, Spain; up to two years of university language requirements may be met in one semester; additional courses taught in English or Spanish; administered by the University Studies Abroad Consortium (USAC) of which the University of Iowa is a member. Summer, semester or academic year. Requirements: 2.50 GPA and good academic standing.

ABRD:3271 USAC Valencia Program arr.
Study abroad program in Spain offers an opportunity to learn or improve on Spanish language and cultural knowledge; appropriate for all levels of Spanish, this program also offers a wide selection of STEM courses taught in English. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3272 USAC Bilbao Program arr.
Intensive language study; up to two years of university language requirements may be met in one semester; additional courses taught in English or Spanish and include offerings in business and environmental sustainability; administered by the University Studies Abroad Consortium (USAC) of which the University of Iowa is a member. Summer, semester or academic year. Requirements: 2.50 GPA and good academic standing.

ABRD:3274 USAC Madrid Program arr.
Intensive language study; up to two years of university language requirements may be met in one semester; additional courses taught in English or Spanish; administered by the University Studies Abroad Consortium (USAC) of which the University of Iowa is a member. Summer, semester, or academic year. Requirements: 2.50 GPA and good academic standing.

ABRD:3276 USAC San Sebastian Program arr.
Intensive language study; up to two years of university language requirements may be met in one semester; additional courses taught in English or Spanish; administered by the University Studies Abroad Consortium (USAC) of which the University of Iowa is a member. Summer, semester, or academic year. Requirements: 2.50 GPA and good academic standing.

ABRD:3277 IES Internships Barcelona arr.
Real-world experience combined with professional skill building and cultural immersion; interning full time in student's chosen field. Eight weeks in summer. Requirements: 2.50 GPA, junior or higher standing, and good academic and disciplinary standing.

ABRD:3278 IES Barcelona arr.
Opportunity to enroll in a variety of Spanish or English language courses in several disciplines. Requirements: 2.75 GPA and good disciplinary and academic standing.

ABRD:3279 IES Granada Liberal Arts and Language arr.
Study abroad program for intermediate to advanced Spanish language students and Spanish majors. Requirements: 2.75 GPA, good disciplinary and academic standing, and two semesters of college-level Spanish for intermediate track or four semesters of college-level Spanish for advanced track.

ABRD:3280 Exploring Major Determinants of Health in Spain arr.
Explore the major determinants of health through a socioecological lens and compare them between Spain and the United States. Students gain an understanding of these health determinants and are challenged to consider ways in which they might be leveraged to promote public health. Requirements: minimum 3.00 GPA, sophomore standing or higher at the time of participation.

ABRD:3312 CIEE Buenos Aires Liberal Arts Program 12 s.h.
Critical appreciation of Argentina and its importance in Latin America from perspective of social sciences and humanities; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member; for advanced Spanish students with strong language preparation. Requirements: 2.75 cumulative GPA and six semesters of college-level Spanish. Recommendations: completion of Spanish language course in session prior to study abroad and college-level coursework in Latin American studies.

ABRD:3318 CIEE Santiago (Chile) Liberal Arts Program arr.
Special CIEE courses and direct enrollment with Chilean students in regular courses at the Pontificia Universidad Catolica de Chile and the Universidad de Chile; first-hand knowledge of contemporary issues and cultural patterns in Chile; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member. Semester or academic year. Requirements: 2.75 cumulative GPA and six semesters of college-level Spanish.

ABRD:3321 USAC Studies in Chile arr.
Intensive beginning-level Spanish language; advanced language, literature, civilization at third-year level; area studies. Some courses taught in English. Requirements: GPA of at least 2.50.

ABRD:3324 CIEE Monteverde Tropical Ecology and Conservation 10,12 s.h.
Rich understanding of tropical ecology through hands-on exposure, direct experimentation, study of theory, taxonomy of major groups, and observation of empirical patterns; science courses taught in English; Spanish-language course for various levels; travel to diverse ecosystems; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member. Requirements: 2.75 cumulative GPA and two semesters of college-level biology. Recommendations: college-level ecology or environmental science course, and college-level Spanish.

ABRD:3325 CIEE Monteverde Sustainability and the Environment arr.
Insight into complexity of pressures that confront global biodiversity (e.g., population growth, consumption, urbanization, globalization); homestay with local families provides exposure to Spanish language and Costa Rican culture; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member; for students with an interest in environmental studies. Requirements: 2.50 GPA and three semesters of college-level environmental studies. Recommendations: college-level Spanish.

ABRD:3326 CIEE Santiago (DR) Liberal Arts Program 12 s.h.
Enrollment in one of three distinct academic tracks based on language proficiency level; tracks offer a variety of courses on society, culture, economics, and politics of Hispaniola and the Greater Hispanic Caribbean; regional literature, history, and widely variant sociocultural issues facing the region; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Requirements: 2.75 cumulative GPA, 3.00 GPA in Spanish language, and four semesters of college-level Spanish.

ABRD:3335 USAC Heredia Program arr.
Culture and physical beauty of Costa Rica experienced through specially designed courses combined with family home stay and some program travel; administered by the University Studies Abroad Consortium (USAC) of which the University of Iowa is a member. Requirements: cumulative GPA of 2.50.

ABRD:3337 USAC San Ramon Program arr.
Life and health sciences, Spanish language and culture studies program; tropical ecology, tropical marine biology, conversation biology, and environmental policy courses taught in English; science curriculum combined with Spanish language or literature classes designed by tracks according to level; administered by the University Studies Abroad Consortium (USAC) of which the University of Iowa is a member; for science majors interested in learning more about ecology and conservation biology in Costa Rica. Requirements: 2.50 GPA and one year of college-level general biology with lab.

ABRD:3338 USAC Havana Program 3,6 s.h.
Appreciation of Cuban society through area studies coursework in history, culture, and politics of the region; courses taught in English and Spanish; administered by the University Studies Abroad Consortium of which the University of Iowa is a member. Requirements: 2.50 GPA and good academic standing.

ABRD:3339 CIEE Buenos Aires Community Public Health Program arr.
Classroom-based theory and language instruction to support extensive, offsite fieldwork; examination of Argentine health care system through lens of social sciences; exposure to challenges facing global health arena and diversity of solutions being implemented locally to resolve them. Summer. Requirements: 2.75 cumulative GPA and five semesters of college-level Spanish. Recommendations: college-level coursework in public health, and coursework in history or politics of Latin America or Argentina.

ABRD:3341 IES Internships Santiago arr.
Real-world experience combined with professional skill building and cultural immersion; interning full time in student's chosen field. Eight weeks in summer. Requirements: 2.50 GPA, junior or higher standing, and good academic and disciplinary standing. Recommendations: four semesters of college-level Spanish.

ABRD:3342 Brazilian Carnival: Music and Dance 3 s.h.

ABRD:3345 CIEE Santiago Community Public Health Program arr.
Program in Santiago, Dominican Republic; concepts of public health with a focus on health management, policies and coverage, and language instruction; extensive off-site field work in semi-rural and urban areas; multi-dimensional nature of health, preventive medicine, and health care administration through involvement in community services; students live in private Dominican homes with families. Requirements: good academic and disciplinary standing, four semesters of college-level Spanish or equivalent, and an overall GPA of 2.75.

ABRD:3346 SIT Argentina Social Movements and Human Rights arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: good academic and disciplinary standing, 2.50 GPA, three recent semesters of college-level Spanish or equivalent, and previous coursework and/or other significant preparation in social work, political economy, development studies, or Latin American studies as assessed by SIT.

ABRD:3348 SIT Ecuador Development, Politics, and Languages arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: good academic and disciplinary standing, 2.50 GPA, three recent semesters of college-level Spanish or equivalent, and ability to follow coursework in Spanish.

ABRD:3349 IES Buenos Aires and Santiago Emerging Economies arr.
Multiple location and interdisciplinary program that offers a unique comparative perspective of two of the most notable emerging economies in South America; students spend half of the semester in Buenos Aires, Argentina and the other half in Santiago, Chile; designed for students interested in business, economics, sociology, and political science. Requirements: 2.75 GPA and good academic and disciplinary standing.

ABRD:3352 International Perspectives: Xicotepec arr.
Introduction to providing service to communities in underdeveloped countries through discipline-specific projects to improve community life in Xicotepec, Mexico; cultural and professional preparation for teamwork in an international environment; service-learning course in collaboration with Rotary International. Spring break in Xicotepec, Mexico.

ABRD:3353 International Entrepreneurship and Culture arr.
International business strategies, foreign exchange, tariffs and trade, micro-finance, economic conditions and culture of destination countries; hands-on experience working with in-country micro-entrepreneurs, a firsthand look at international businesses in operation, and lectures from in-country experts; business strategies and operations for successful sustainable growth in foreign countries. Requirements: 2.75 GPA and good academic and disciplinary standing.

ABRD:3354 Engineering Service Program arr.
Engineering students work in teams to build or repair bridges in communities outside the United States as part of a service-learning project; students live locally in the community where bridge work is being done; complemented by University of Iowa coursework before and after experience abroad. Requirements: good academic and disciplinary standing.

ABRD:3355 IES Santiago Health Studies arr.
Students expand their knowledge of Spanish language through required courses, a homestay, and interaction with host culture through an observership; students participate in a health studies seminar and are required to complete 80 hours of an observership in either a clinical setting or a community setting; designed for Spanish students in health-related majors. Requirements: four semesters of college-level Spanish including at least one course completed within the year prior to program start date, sophomore standing, 2.75 GPA, and good academic and disciplinary standing.

ABRD:3356 USAC Montevideo Program arr.
Development of Spanish language skills through coursework, homestay, and field trips; students learn about the area known as the Rio de la Plata in Argentina and Uruguay, and are required to spend the beginning of the semester taking an intensive Spanish language course which allows for rapid acquisition of language and culture; courses also are available in viticulture and agribusiness. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3357 CIEE Santiago Open Campus arr.
Students are offered a series of courses that allow them to explore the dynamics of this Latin American nation and its culture; students choose one of six academic tracks; most classes taught in English, but Spanish language classes are available; the Council on International Educational Exchange (CIEE) administers the program on behalf of a consortium of which the University of Iowa is a member. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3358 CIEE Buenos Aires Open Campus arr.
Students are offered a series of courses that allow them to explore the forces at play in this Latin American nation and its culture; students choose one of six academic tracks; most classes taught in English, but Spanish language classes are available; the Council on International Educational Exchange (CIEE) administers the program on behalf of a consortium of which the University of Iowa is a member. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3361 Women's Empowerment in the Dominican Republic arr.
Exploration of a variety of organizations and initiatives that support entrepreneurship and empowerment among marginalized populations in the Dominican Republic; focus on education, international social entrepreneurship, social justice, cultural competency, and community development; students learn about other fields of interest such as business, social work, public health, youth development/recreation, and agriculture. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3364 Pharmacy Rotations Abroad arr.
Practicum experience; focus on best practices for pharmaceutical management, ways to enhance access to medicine; promotion in underserved and resource-limited environments abroad. Recommendations: successful completion of all requirements listed as prerequisites for rotations in the advanced practice experience syllabus.

ABRD:3365 International Medicine: Experiential Learning in the Dominican Republic arr.
Cross-cultural opportunity for students interested in health care sciences to observe health care professionals in hospital and clinical settings and increase awareness of international health care systems and practices in the Dominican Republic. Requirements: good academic and disciplinary standing, minimum 2.50 GPA, and completion of at least one semester of college-level study. Recommendations: undergraduate health or pre-health major.

ABRD:3367 Dominican Republic: Education, Culture, and Society arr.
Opportunity to view and interact firsthand with a variety of community, civil society, and government services in the field of education in the Dominican Republic, including local organizations carrying out activities such as basic education, social change, empowerment, and community resilience; students will actively interact with Dominican youth leaders and discuss the ever-shifting landscape of increased youth leadership and societal change; themes of diversity and vulnerable excluded populations will be highlighted. Requirements: good academic and disciplinary standing, minimum 2.50 cumulative GPA, completion of at least one semester of college-level study.

ABRD:3371 CIEE Monteverde Open Campus arr.
A variety of coursework including some environmental and sustainability studies courses on the Monteverde, Costa Rica campus located adjacent to the Monteverde Cloud Forest; two or three 6-week blocks of classes over the course of a semester; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Taught in English. Requirements: 2.50 minimum cumulative GPA and good academic and disciplinary standing.

ABRD:3374 SIT Argentina Public Health in Urban Environments arr.
Examination of urban epidemiology; challenges and inequities in public health policy in Buenos Aires. Requirements: 2.50 GPA, good academic and disciplinary standing, three semesters of college-level Spanish, and some previous college coursework in health sciences, political science, anthropology, sociology, or development studies.

ABRD:3376 Maternal Health in Migrant Communities arr.
Provides students with a comparative public health perspective to explore similarities and differences in the delivery of maternal health care in migrant, rural, and indigenous communities abroad and in Iowa. Students travel abroad with some coursework completed prior to and after the on-site experience. Requirements: minimum UI and cumulative GPA of 2.75, good academic and disciplinary standing.

ABRD:3411 Iowa in Tianjin arr.
Chinese language, area studies, and folk art; based at Tianjin University of Technology. Summer or semester. Requirements: one to three years of college-level Chinese.

ABRD:3412 IES Internships Shanghai Engineering arr.
Real-world experience combined with professional skill building and cultural immersion; full-time engineering internship in Shanghai, China. Requirements: 2.50 GPA, junior or higher standing, and good academic and disciplinary standing.

ABRD:3423 CIEE Tokyo Global Internship arr.
English-speaking international internship in Tokyo, Japan; CIEE Summer Global Internship programs combine full-time internship with integrated academic seminar to provide professional exploration and specific skills development; individualized placements based on student's career goals and a great way to explore future career options while having an amazing adventure abroad; credit-bearing internship with six-semester UI resident credits, 30 integrated academic seminar hours, and 200-240 internship placement hours; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member. Eight weeks in summer. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3424 CIEE Kyoto Open Campus arr.
Students live and learn in Kyoto and customize their experience by selecting courses from seven academic tracks; block-schedule courses are taught in English and combine traditional lectures with cocurricular excursions and activities; the Council on International Educational Exchange (CIEE) administers the program on behalf of a consortium, of which the University of Iowa is a member. Requirements: minimum 2.5 GPA, good academic and disciplinary standing.

ABRD:3425 CIEE Shanghai Accelerated Chinese Language 10,12 s.h.
Accelerated language program in Shanghai, China; one year of Chinese language training accomplished during summer; for intermediate and advanced Chinese language students. Requirements: cumulative GPA of 3.00.

ABRD:3427 CIEE Shanghai Business, Language, and Culture 9,12 s.h.
CIEE study abroad program in Shanghai, China; Chinese language training at standard and intensive levels; courses (taught in English) in business, marketing, economics, international relations, and area studies; contemporary business issues affecting China; effects of China as a rising power in the business world today; for students majoring in business with no Chinese language background and those who have studied Chinese for several semesters. Requirements: 2.75 GPA, seven semesters or less of college-level Chinese, and three or more semesters of microeconomics, macroeconomics, accounting, finance, management, or marketing.

ABRD:3428 CIEE Shanghai China in a Global Context 12 s.h.
CIEE study abroad program in Shanghai, China; focus on China in a global context; Chinese language training at standard and intensive levels; courses (taught in English) in global studies, economics, international relations, and area studies; for students with no Chinese language background and those who have studied Chinese for several semesters. Requirements: 2.75 GPA and seven semesters or less of college-level Chinese. Recommendations: completion of one Chinese area studies course.

ABRD:3430 CIEE Singapore Summer Global Internship arr.
English-speaking international internship in Singapore, Asia; CIEE Summer Global Internship programs combine full-time internship with integrated academic seminar to provide professional exploration and specific skills development; individualized placements based on student's career goals and a great way to explore future career options while having an amazing adventure abroad; credit-bearing internship with six-semester UI resident credits, 30 integrated academic seminar hours, and 200-240 internship placement hours; administered by the Council on International Educational Exchange (CIEE) on behalf of a consortium of which the University of Iowa is a member. Eight weeks in summer. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3431 Introduction to Global Business, Singapore arr.
Provides students with a thorough understanding and firsthand look at the Association of South East Asian Nations (ASEAN) through the lenses of business and leadership; learn about the region's highly diverse makeup of languages, cultures, and norms; be introduced to the business and leadership challenges that organizations face when working in this part of the world; learn how Singapore and the neighboring regions present the world with exciting opportunities for the business, educational, and cultural sectors, and are well-positioned to meaningfully impact the global economy and geopolitics in the foreseeable future. Requirements: good academic and disciplinary standing, minimum 2.75 GPA, minimum 30 s.h. completed prior to the program, completion of ECON:1100 or approval of program director.

ABRD:3432 IES Nagoya Summer Language and Culture arr.
Students take Japanese language and culture classes at Nagoya University in Nagoya, Japan. Academics supplemented with cultural activities in and near Nagoya so students can further their cultural knowledge of Japan; the Institute for the Education of Students (IES) administers this summer study abroad program on behalf of an academic consortium of which the University of Iowa is a member; UI students join a group of students from other U.S. colleges and universities in this program. Requirements: minimum 3.00 GPA, good academic and disciplinary standing, sophomore standing or higher at the time of participation, completion of at least one semester of college-level Japanese language, enrollment in at least one college-level Japanese language course in the year prior to participation.

ABRD:3433 CIEE Kyoto Summer Ancient and Modern Japan arr.
Students live and learn in Kyoto and customize their experience by selecting two courses per six-week block. Most courses are taught in English, while beginning and intermediate Japanese courses are also offered. The Council on International Educational Exchange (CIEE) administers the program on behalf of a consortium, of which the University of Iowa is a member. Requirements: minimum 2.50 GPA, good academic and disciplinary standing.

ABRD:3435 TEAN South Korea: Korea University arr.
Study abroad experience in Seoul, South Korea through The Education Abroad Network (TEAN) program at Korea University; courses in business, communication and media, education, engineering, humanities, social sciences, international studies, science, and visual arts; resident directors available to provide onsite support in Seoul, organize group activities, and help students navigate academic and cultural differences. Summer, semester, or academic year. Requirements: good academic and disciplinary standing, minimum 2.50 cumulative GPA, and completion of one year of on-campus study at the University of Iowa.

ABRD:3442 CIEE Taipei Communications, Business, and Political Economy arr.
Intensive Mandarin Chinese language courses; courses in business, communications, political sciences, and other academic areas taught in English; internships in various fields; administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member. Requirements: cumulative GPA of 2.75. Recommendations: one Chinese area studies course.

ABRD:3443 CIEE Taipei Intensive Chinese Language and Culture 12 s.h.
CIEE intensive Chinese language and culture program in Taipei, Taiwan; for beginning through advanced language students who have an interest in improving their Chinese; opportunity to take non-language courses taught in English to aid understanding of Taiwanese culture and society; flexible and supportive environment to experience life at one of Taiwan's most prestigious national universities. Requirements: 2.75 GPA and two to eight semesters of college-level Chinese. Recommendations: completion of one Chinese area studies course.

ABRD:3445 India Winterim arr.
Exploration of student interests in social entrepreneurship, global health, microfinance, cultural production, environmental sustainability, or other development issues in India; varied disciplinary perspectives (i.e., public health, business, social work, geography, art); student work with Indian NGOs employing a diverse variety of techniques to address social problems such as child labor, health care for the poor, illiteracy, and disability services; led by UI faculty. Winter session.

ABRD:3446 SIT India Traditional Medicine and Healthcare Practices arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 cumulative GPA and good academic and disciplinary standing.

ABRD:3447 SIT India Public Health, Policy Advocacy, and Community **arr.**
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 cumulative GPA and good academic and disciplinary standing.

ABRD:3500 Study Abroad **arr.**
Students participating in study abroad programs at other U.S. or foreign universities maintain their status at the University of Iowa by registering for this course.

ABRD:3501 Study Abroad **arr.**

ABRD:3510 International Student Exchange Program Direct **arr.**
Study at some ISEP member institutions in Brazil, Chile, Costa Rica, Estonia, Ghana, Italy, Malta, The Netherlands, New Zealand, South Africa, Thailand, the United Kingdom; fields and terms vary.

ABRD:3530 Elementary Student Teaching Abroad **arr.**
Supervised student teaching in an overseas school.

ABRD:3531 Secondary Student Teaching Abroad **arr.**
Supervised student teaching in an overseas school.

ABRD:3602 Iowa Regents in Australia: University of Tasmania **arr.**
Study at the University of Tasmania; full academic and social integration with Australian peers. Semester. Requirements: 2.50 minimum GPA and sophomore standing at time of application.

ABRD:3603 IES Internships Sydney **arr.**
Real-world experience combined with professional skill building and cultural immersion; interning full time in student's chosen field. Eight weeks in summer. Requirements: 2.50 GPA, junior or higher standing, good academic and disciplinary standing, and eligible to receive Australian work/holiday visa.

ABRD:3604 SIT Australia Sustainability and Environmental Action **arr.**
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3605 TEAN Australia: Bond University **arr.**
Study at Bond University on the Gold Coast of Australia alongside other local and international students; focus on a wide range of academic course areas including business, social science, arts and humanities, and the sciences. Requirements: minimum 2.50 GPA and good academic and disciplinary standing.

ABRD:3606 International Business in Sydney **arr.**
Program in Sydney, Australia, for students wishing to gain a deeper understanding of international business and expand their knowledge of the fast growing dynamic region of Asia Pacific; introduction to basic concepts of international business and the rise of globalization; students examine the importance of understanding key political-legal, socioeconomic, and technological factors and issues impacting international trade in this region. Requirements: good academic and disciplinary standing, UI and cumulative GPA of at least 2.75, completion of at least one full academic year at the UI prior to application, sufficient coursework in business, and MGMT:2100 or consent of program director.

ABRD:3607 TEAN Australia: University of New South Wales **arr.**
Study at the University of New South Wales (UNSW) in Sydney, Australia alongside other local and international students; focus on a wide range of academic course areas including business, engineering, communications and media, education, environment, health, humanities and social sciences, international studies, science, visual and performing arts and design. Requirements: minimum 2.80 GPA and good academic and disciplinary standing.

ABRD:3608 CIEE Sydney Open Campus **arr.**
Open block campus program in Sydney, Australia; coursework divided into six academic tracks, each course is a full semester in content and covered in a six-week block with an accelerated pace and demanding workload; students enroll in two courses each block; students attending for all three blocks in a semester may select one block in which to enroll in only one course. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3609 CIEE Summer in Sydney **arr.**
Structured so that students can enroll in multiple sessions, the program's coursework is augmented with visits to the city's rich variety of cultural institutions and organizations relevant to the course offering. Outings in the city are meant to foster an urban community of learners that is respectful of its surroundings and proactively engages with individuals, community groups, and institutions. Administered by the Council on International Educational Exchange (CIEE) on behalf of an academic consortium of which the University of Iowa is a member; UI participants join a group of students from other U.S. colleges and universities. Requirements: minimum 2.50 GPA.

ABRD:3610 TEAN New Zealand: University of Otago **arr.**
Study at the University of Otago, New Zealand's first university established in 1869; with focus on traditional arts and sciences, the university offers a broad spectrum of courses that students can take alongside other local or international students. Requirements: 3.00 GPA and good academic and disciplinary standing.

ABRD:3611 TEAN New Zealand: Victoria University of Wellington **arr.**
Students participating in the Victoria University of Wellington program enjoy courses that are ranked in the top 100 internationally recognized programs for arts and humanities, social sciences, and management; students take a wide variety of courses from many disciplines alongside other local or international students. Requirements: 2.70 GPA and good academic and disciplinary standing.

ABRD:3612 Iowa in New Zealand: University of Auckland **arr.**
Study at the University of Auckland in New Zealand alongside other local and international students; focus on a wide range of academic course areas including business, engineering, science, math, history, world languages, education, health, humanities, social sciences, fine arts, law, indigenous studies, visual arts, media, music, and performing arts. Requirements: minimum 3.0 GPA and good academic and disciplinary standing.

ABRD:3655 Community and Public Health Nursing Practicum Abroad **arr.**
Two-week intensive nursing practicum abroad; fulfills community and public health nursing practicum requirement for nursing majors. Requirements: nursing majors in last semester of program and good academic and disciplinary standing.

ABRD:3656 Ghana Education and Culture arr.
Academic international experience in Ghana; students explore teaching issues through classroom visits, guest lecturers, field trips, and observation in a variety of schooling and curricular models in a variety of settings; students advance their understanding of Ghanaian history, society, culture, and educational institutions; focus on understanding how slavery evolved and affected Ghana and countries of the diaspora; identification of cultural competencies and appreciation for Ghanaian culture through interaction and immersion; course taught by the UI College of Education. Requirements: 2.50 GPA, and good academic and disciplinary standing.

ABRD:3710 SIT South Africa: Social and Political Transformation arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3712 Child Life Experiential Learning Program 3 s.h.
Preparation to work with children and their families in a variety of health care settings through a practical experience in Cape Town, South Africa; impact of illness, injury, trauma, and health care environments on patients and families; hands-on opportunity to explore how the Red Cross and hospitals operate on a daily basis. Requirements: good academic standing.

ABRD:3713 IES Internships Cape Town arr.
Real-world experience combined with professional skill building and cultural immersion; interning full time in student's chosen field. Eight weeks in summer. Requirements: 2.50 GPA, junior or higher standing, and good academic and disciplinary standing.

ABRD:3715 SIT South Africa Multiculturalism and Human Rights arr.
The School of International Training (SIT) offers opportunities to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3716 SIT South Africa Education and Social Change arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3717 IES Cape Town: University of Cape Town arr.
The University of Cape Town offers coursework in African studies, biology, botany, business, environmental sciences, history, mathematics, engineering, sociology, and anthropology; opportunities for students to participate in internships and service learning for credit. Requirements: 3.00 GPA and good academic and disciplinary standing.

ABRD:3718 IES Cape Town Health Studies arr.
Opportunity to research and examine health care delivery in South Africa; field visits and placements in townships surrounding Cape Town and a week-long rural excursion to the northern part of South Africa provide first-hand experience with the many health issues that challenge South Africa and the national effort to improve public health. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3719 SIT Madagascar Traditional Medicine and Healthcare Systems arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3720 SIT Rwanda Post-Genocide Restoration and Peacebuilding arr.
The School for International Training (SIT) offers opportunities to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA, emotional maturity for subject matter, and good academic and disciplinary standing.

ABRD:3721 SIT Uganda and Rwanda Peace and Conflict Studies arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA, good academic and disciplinary standing, and emotional maturity due to subject matter.

ABRD:3722 SIT Uganda: Development Studies arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA and good academic and disciplinary standing. Recommendations: background in development studies or related field strong recommended.

ABRD:3724 SIT Madagascar: Biodiversity and Natural Resource Management arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3725 SIT Tanzania Wildlife Conservation and Political Ecology arr.
The School of International Training (SIT) offers opportunities to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA, good academic and disciplinary standing, and previous coursework in environmental studies, ecology, biology, sociology, anthropology, international relations, or related fields.

ABRD:3726 SIT Tanzania: Coastal Ecology and Natural Resource Management arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA, good academic and disciplinary standing, and college-level coursework in environmental studies, ecology, biology, or related field. Recommendations: swimming and snorkeling proficiency strongly recommended.

ABRD:3727 SIT Kenya Global Health and Human Rights arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue; focus on issues surrounding global health (health systems, public health, etc.) and human rights. Requirements: 2.50 minimum cumulative GPA and good academic and disciplinary standing.

ABRD:3728 SIT Kenya Internship: Public Health in the Tropics arr.
Students gain language proficiency and conduct undergraduate field research abroad; exploration of a specific critical global issue; work experience with research organizations, hospitals, and nonprofit organizations; dynamics of public health in western Kenya; public health promotion and management in the tropics complemented by immersive experiential learning with guided weekly discussions, assignments, and reflection. Requirements: minimum 2.50 GPA, emotional maturity for subject matter, and good academic and disciplinary standing.

ABRD:3729 Senegal: Education and Culture arr.
Immersion into Francophone Africa through cultural and community-based learning. Exposure to a variety of educational settings with visits to several schools in Dakar, Senegal; examination of the historical impact of the slave trade and colonial rule on Senegal. Requirements: minimum UI and cumulative GPA of 2.50 and good academic and disciplinary standing.

ABRD:3751 Archaeology in Israel arr.
Opportunity to participate in an active archaeological dig alongside local professionals and faculty in Israel; part of an international consortium participating the Lautenschlager Tel Azekah archaeological excavation; morning excavation time complemented by daily afternoon lectures from leading local archaeologists and University of Iowa faculty. Requirements: good academic and disciplinary standing.

ABRD:3753 SIT Jordan Geopolitics, International Relations, and the Future of the Middle East arr.
The School of International Training (SIT) offers opportunities to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3754 SIT Jordan Refugees, Health, and Humanitarian Action arr.
The School of International Training (SIT) offers opportunities to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3755 SIT Morocco Human Rights, Social Justice, and Cultural Transformation arr.
The School of International Training (SIT) offers more than 60 accredited semester and summer study abroad programs in Africa, Asia, the Pacific, Europe, Latin America, and the Middle East; these rigorous academic programs connect with students through a field-based, experiential approach. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3756 SIT Jordan Counseling and Humanitarian Action Internship arr.
Study abroad internship located in Amman, Jordan. Students are placed in internships to understand the priorities of a refugee relief program, including consideration for water supply, sanitation, and hygiene; food security, nutrition, and food aid; shelter, settlement, and health services. Learn about conflict-related traumas and psychosocial challenges of assimilation. During the internship, students will be introduced to the guidelines for counseling, mental health, and psychological support in emergencies. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3758 SIT Jordan Intensive Arabic Language Studies arr.
Opportunity to gain language proficiency and learn how to conduct undergraduate field research abroad; concentration on exploration of a specific critical global issue. Requirements: 2.50 GPA and good academic and disciplinary standing.

ABRD:3810 American Councils Contemporary Russian Program arr.
Russian language study; Russian economics, politics, and culture classes taught in English; content-based courses taught by faculty of the State University Higher School of Economics in Moscow; full-time resident director oversees academic and cultural programs and assists participants with academic, administrative and personal matters; for students and working professionals at all levels of Russian-language proficiency, including no prior study of the language. Requirements: good academic and disciplinary standing.

ABRD:3811 American Councils Language and Area Studies Program 8,12 s.h.
Russian Language and Area Studies Program of the American Councils (AC); designed for improvement of oral, listening, reading and writing proficiency in Russian language; Russian history, politics, culture, and society; offered at one of three locations (St. Petersburg, Moscow, or Vladimir) with final placement determined by AC; full-time U.S. resident director provides ongoing logistical support and emergency assistance to participants. Requirements: four semesters of college-level Russian language.

ABRD:3812 American Councils Business Russian Language and Internship Program 12 s.h.
Curriculum focusing on language of Russian business combined with an internship at a multinational company, business, or NGO agency in Russia; highly individualized curriculum; offered at one of two locations (St. Petersburg or Moscow) with final placement determined by American Councils (AC); full-time U.S. resident director provides ongoing logistical support and emergency assistance to participants; for intermediate- to near-native speakers of Russian. Requirements: prior Russian language study and a strong command of Russian grammar.

ABRD:3830 USAC Studies in the Czech Republic arr.
Introductory Czech language and culture courses taught in English at Charles University. Summer, semester, or academic year.

ABRD:3831 CEA Prague: Semester With CEA CAPA and AAU arr.
Choice of courses from Anglo-American University's (AAU) full curriculum—more than 100 courses, all taught in English, across a range of disciplines; students attend class with local Czech and other international students, creating a truly integrated experience. Requirements: native English speaker or satisfactory TOEFL scores, 2.70 minimum GPA, sophomore standing prior to program start, and good academic and disciplinary standing.

ABRD:3832 CEA Prague: Business, Liberal Arts, and Social Sciences arr.
Students spend a summer immersed in Czech culture and attend class with local Czech and other international students at Anglo-American University (AAU); all courses taught in English; diverse selection of topics and disciplines allows students to find courses aligned with their academic interests. Requirements: native English speaker or satisfactory TOEFL scores, 2.70 minimum GPA, and good academic and disciplinary standing.

ABRD:3833 CEA Prague: Internship arr.
Students gain valuable hands-on skills in an international internship in one of Central Europe's economic and cultural capitals; placement in a business or organization aligned with the student's professional and academic goals; students build a professional network as they gain hands-on international experience that employers value. Requirements: native English speaker or satisfactory TOEFL scores, 2.75 minimum GPA, sophomore standing at time of application, and good academic and disciplinary standing.

ABRD:4001 Lancaster University Exchange arr.
Reciprocal exchange programs between the University of Iowa and Lancaster University in Lancaster, England; full integration with British students in student housing and regular classes. Semester or academic year. Requirements: 3.00 cumulative GPA, junior or senior standing, declared major, and good understanding of requirements for major.

ABRD:4002 University of Strathclyde Exchange arr.
Reciprocal exchange program between the University of Iowa and the University of Strathclyde in Glasgow, Scotland; full integration with British students in student housing and regular classes. Semester or academic year. Requirements: 3.00 cumulative GPA, junior or senior standing, declared major, and good understanding of requirements for major.

ABRD:4005 University of Kent Exchange arr.
Reciprocal exchange program between the University of Iowa and the University of Kent in Canterbury, England; full integration with British students in student housing and regular classes. Requirements: 3.00 GPA and good academic and disciplinary standing.

ABRD:4055 Vienna Exchange Program arr.
Regular degree coursework in business administration and economics at Wirtschatsuniversitäet in Vienna, Austria; taught in English and German. Semester or academic year. Arranged through Tippie College of Business. Requirements: one year of college German, GPA of at least 2.75, and relevant academic background.

ABRD:4059 Dortmund University Exchange arr.
Direct exchange program between the Technical University of Dortmund and the University of Iowa; students remain registered at their own institution and receive student status at the guest university; unique blend of courses that combine language and culture courses with academic work in student's major and minor subjects; university studies and life outside the classroom are synthesized in a holistic learning process. Requirements: German language proficiency and cumulative GPA of 2.80.

ABRD:4063 University of Iceland Exchange arr.
Reciprocal exchange program between the University of Iowa and the University of Iceland; a year of study in Reykjavik alongside local students in regular classes; option of selecting classes from those taught in English in different departments, or an academic year of intensive Icelandic language study; science majors interested in geophysics are encouraged to explore English-taught classes in geography, geology, and geophysics. Requirements: 2.80 cumulative GPA, completion of at least one semester in residence at the University of Iowa, and junior or senior standing during session abroad.

ABRD:4069 Oslo Metropolitan University Exchange arr.
Study at Oslo and Akershus University College of Applied Sciences in Oslo, Norway; UI students direct enroll in courses from the Faculty of Education and International Studies; courses are taught in English and are taken alongside local students; students live in student housing while studying in Oslo. Summer, semester, or academic year. Requirements: good academic and disciplinary standing, sophomore standing, and 2.80 GPA.

ABRD:4422 Kanda University of International Studies Exchange arr.
Reciprocal exchange program between the University of Iowa and Kanda University of International Studies; year of study at the Japanese Language and Culture Program at Kanda; small, ultramodern university; facilities designed to promote cross-cultural experience; Multilingual Communication Center has resources and equipment pertaining to Japanese, Korean, Spanish, Portuguese, Indonesian, Vietnamese, and Thai. Requirements: 3.00 minimum GPA and completion of at least one semester in residence at the University of Iowa. Recommendations: strong record in Japanese.

ABRD:4425 Nagoya University of Foreign Studies Exchange arr.
Language instruction at all levels and Japanese studies taught in English at Nagoya University of Foreign Studies. Semester or year.

ABRD:4432 Ewha Womans University Exchange arr.
The Ewha Womans University Exchange program offers a coeducational international program and welcomes all students, male and female, to study for one or two semesters as a nondegree seeking exchange or visiting student; variety of high-quality courses in various fields, including studies on Asia and Korea. Requirements: cumulative GPA of 2.50.

ABRD:4439 Chinese University of Hong Kong Exchange 12 s.h.
The Chinese University of Hong Kong (CUHK) Accounting Exchange Program provides University of Iowa accounting students the ability to integrate a unique international experience with their academic program. Semester. Requirements: 3.00 UI and cumulative GPA, completion of one semester toward UI accounting major, and good academic standing.

ABRD:4444 Hong Kong University of Science and Technology Business Exchange arr.
The Hong Kong University of Science and Technology (HKUST) Business Exchange program HKUST is consistently ranked as one of the top schools in both Asia and in the world, and offers UI students the opportunity to study while paying UI tuition rates; designed specifically for business and management students. Semester or academic year. Summer. Requirements: undergraduate standing, GPA of 2.70 or higher, and good academic and disciplinary standing. Recommendations: enrollment in Tippie College of Business.

ABRD:4447 Korea University Exchange arr.
Korea University Exchange program offers many courses in English in various disciplines, including studies on Asia and Korea; undergraduates study for one of two semesters in Seoul and take classes alongside Korean students. Requirements: 3.00 GPA, good academic and disciplinary standing, and completion of at least two full-time semesters at the University of Iowa before application to program.

ABRD:4510 International Student Exchange Program arr.
Study on reciprocal exchange at foreign universities worldwide; some instruction in English. Year-long, one semester, and summer options. Requirements: 40 s.h. of credit, GPA of at least 3.00, and in some cases, command of a world language.

International Activities Courses

INTL:3001 Public Health Activities Abroad 0 s.h.
Volunteering, noncredit service learning, noncredit internships, academic competitions, or other noncredit academic-related work completed abroad. Requirements: good academic and disciplinary standing, and approval and nomination from the College of Public Health.

INTL:3005 Entrepreneurship Activities Abroad 0 s.h.
Volunteering, noncredit service learning, and noncredit internships, academic competitions, or other noncredit academic-related work completed abroad. Requirements: good academic and disciplinary standing, and approval and nomination from the John Pappajohn Entrepreneurial Center.

INTL:3015 College of Liberal Arts and Sciences Activities Abroad 0 s.h.
Volunteering, noncredit service learning, noncredit internships, academic competitions, or other noncredit academic-related work completed abroad. Requirements: good academic and disciplinary standing, and approval and nomination from the College of Liberal Arts and Sciences.

INTL:3020 Education Activities Abroad 0 s.h.
Volunteering, noncredit service learning, noncredit internships, academic competitions, or other noncredit academic-related work completed abroad. Requirements: good academic and disciplinary standing, and approval and nomination from the College of Education.

INTL:3525 Virtual Global Experiences arr.
Online courses; dynamic global learning environments. Requirements: 2.50 GPA or higher, and good academic and disciplinary standing.

INTL:3537 Virtual International Business in Italy arr.
Unique look at current regional business and culture in Northern Italy; exploration of financial implications of pandemics, as well as culture and education in Northern Italy; interactive experience involving live lectures, networking with partners in Italy, and hands-on elements. Requirements: good academic and disciplinary standing, minimum 2.75 UI and cumulative GPA, sophomore or higher standing, minimum of 30 s.h. completed prior to program, and completion of FIN:3000 or approval of program director.

INTL:3542 Virtual Introduction to Global Business arr.
Virtual study abroad experience; exploration of the business atmosphere and particular considerations of a region, including briefings from leading businesses in the region and cultural activities; specific region varies. Requirements: 2.75 UI and cumulative GPA, and good academic and disciplinary standing. Recommendations: completion of ECON:1100.

INTL:4515 USAC Global Virtual Internship arr.
Exploration of future career interests by working online with businesses and organizations based at locations around the world; includes an online course component to learn how culture is reflected in workplace and develop skills necessary for success in the global workforce; virtual internships arranged with local companies, nongovernmental organizations (NGOs), and governmental organizations based abroad; administered by the University Studies Abroad Consortium (USAC) of which the University of Iowa is a member. Requirements: minimum 2.50 GPA and good academic and disciplinary standing.

INTL:4525 SIT Virtual Global Internship arr.
Distance learning that centers around a theme and includes an online internship with a community organization, research or medical organization, business, government agency, or nongovernmental organization (NGO) based outside of the United States; students gain valuable experience and enhance their skills in a professional environment related to core program themes; students are responsible for making optimal use of resources available at the organization and being proactive in engaging with experts to achieve internship objectives. Requirements: minimum 2.50 GPA and good academic and disciplinary standing.

INTL:4530 CEA Virtual Internships Abroad Program arr.
Placement with an organization or company based abroad while working remotely from student's home base in the United States; individualized placements based on student's interests and proposed career field; students complete an online seminar independently and through check-ins at their virtual internship placement. Requirements: minimum 2.50 GPA and good academic standing.

INTL:4535 TEAN Global Remote Internship arr.
Real-world, international work experience in a variety of fields without travelling; four- or eight-week individual or group internship; students work on a project from start to finish for a company located in Australia or Asia and participate in an online seminar course; students learn about unique challenges and flexibility that being part of a remote team provides, as well as cultural information about the location where organization is based. Requirements: minimum 2.50 GPA and good academic and disciplinary standing.

INTL:4540 IES Virtual Global Internships arr.
Exploration of future career interests working online with businesses and organizations based in locations around the world; virtual internships arranged by the University of Iowa's partner provider, International Education for Students (IES), with local companies, nonprofit governmental organizations (NGOs), and governmental organizations based abroad; virtual internships include an online course component to learn how culture is reflected in the workplace and develop skills necessary for success in the global workforce. Requirements: 2.50 GPA, sophomore or higher standing at time of application, and good academic and disciplinary standing.

Summer Research Experiences for Undergraduates

Director

- Tawny L. B. Tibbits

Website: https://our.research.uiowa.edu/

The University of Iowa hosts a variety of summer research experiences for undergraduates, both from the UI and from other institutions, to enhance students' understanding of research in a variety of disciplines. Acceptance into these programs is based on a competitive application system.

Participants develop research skills under the mentorship of University of Iowa faculty members. They also become part of a research community with access to programming, workshops, and professional development. These programs highlight career opportunities and provide guidance on applying to graduate and professional schools.

Programs typically last 8–10 weeks and include a competitive stipend. Housing, food, and travel expenses are commonly covered by the programs. Interested students should refer to the individual programs for additional information on applications, timelines, research areas, and compensation. Many of these programs offer a 0 s.h. course enrollment for transcript recognition of participation.

Summer Programs at the University of Iowa

Summer programs that students may enroll in include the following:

- Biochemistry Summer Undergraduate Research Fellowship (BSURF)
- Biomedical Scholars Summer Undergraduate Research Program (BSURP)
- Cancer Research Opportunities at Iowa (CROI)
- Iowa Neuroscience Institute (INI) Summer Scholars Program
- Iowa Summer Institute in Biostatistics
- NSF REU in Interdisciplinary Evolutionary Sciences
- NSF Summer Research Experience for Undergraduates (REU) in Microbiology
- Summer Health Professions Education Program (SHPEP) at the University of Iowa
- Summer Research Opportunities Program (SROP)
- Summer Undergraduate MSTP Research (SUMR) Program

Undergraduate Research Experiences

Director

- Tawny L .B. Tibbits

Website: https://our.research.uiowa.edu/

Undergraduate research experiences (URES) courses enhance research and creative scholarship experiences for undergraduate students. These courses are administered through the Office of Undergraduate Research (OUR), which seeks to provide a broad range of research and professional development opportunities for undergraduates and their mentors.

URES Independent Study Courses

Undergraduate research experiences independent study courses provide opportunities for students to earn academic credit or transcript recognition for their research/creative scholarship involvement. These courses are intended to promote recognition of ongoing research participation. They are available to all undergraduates in any academic session other than the winter session.

Collegiate and department-based research courses also may be available. Students are encouraged to consult their mentors or academic advisors regarding which option is most suited to their circumstances.

First-Year Seminars

First-Year Seminars (FYS) designated as research-focused are offered through undergraduate research experiences. Research-focused FYS introduce students to research in an instructor's field. These courses often involve visits to research sites, hands-on projects, and exposure to disciplinary-based research. These are typically 10-week courses that meet for 75 minutes per week. An optional poster session is held during the last week of the course for students to display what they have learned during the semester.

Summer Research Programs

Many University of Iowa summer research programs enroll students for 0 s.h. in courses that provide transcript recognition of participation in the program. These are available to both current University of Iowa students and students who visit from other institutions to develop their research skills; see Summer Research Experiences for Undergraduates [p. 2232] in the catalog for more information.

Courses

Undergraduate Research Experiences Courses

URES:1000 First-Year Seminar **1 s.h.**
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities); research focus allows students to actively discover new information with guidance from instructor, pursue research in small groups, learn the "how to" of a field, and share their findings; no prior research knowledge or experience required. Requirements: first- or second-semester standing.

URES:2200 Discover Research **1 s.h.**
Introduction to research at the University of Iowa; exploration of life as a researcher through a mixture of lecture, faculty and student guest speakers, and virtual lab tours; process of finding and contacting potential research mentors, interviewing for research positions, and making the most out of a research experience; for first-year undergraduates.

URES:3001 Introduction to Translational Research **0-3 s.h.**
Array of scientific studies translated into clinical solutions, creative ideas balanced with practical strategies for implementation at bedside, and expansive number of career opportunities becoming available in translational sciences; opportunity to learn how translational research is conceived and developed; interpreting student research in a translational paradigm; survey of translational biomedicine research program covering the scope of interdisciplinary teams and breadth of T1 to T4 research applications. Requirements: enrollment in clinical and translational science certificate program, and engagement in mentored research activity. Recommendations: successful completion of EPID:4400 highly recommended.

URES:3002 Practicum in Clinical and Translational Science **0-3 s.h.**
How research experience translates into clinical practice; translational impact of independent research; summary of research accomplishments; outline of a translational paper that is mutually acceptable to student, preceptor, and faculty; submission of paper and completion of poster presentation describing research project and translational application of research. Prerequisites: URES:3001. Requirements: enrollment in clinical and translational science certificate program.

URES:3100 Undergraduate Research Ambassador **0-1 s.h.**
Promotion of undergraduate research from all disciplines within campus community; hosting various on-campus events, leading workshops, and presenting at student organization meetings and in class; leadership and public speaking; regular meetings with the Office of Undergraduate Research staff.

URES:3991 Undergraduate Research and Creative Projects **0 s.h.**
Independent research or pursuit of a creative project under mentorship of a faculty supervisor.

URES:3992 Undergraduate Research and Creative Projects **0 s.h.**
Independent research or pursuit of a creative project under mentorship of a faculty supervisor.

URES:3993 Undergraduate Research and Creative Projects 1-4 s.h.
Independent research or pursuit of a creative project under mentorship of a faculty supervisor.

URES:3994 Undergraduate Research and Creative Projects 1-4 s.h.
Independent research or pursuit of a creative project under mentorship of a faculty supervisor.

URES:3995 Independent Creative Research by Undergraduates Summer Internship 0 s.h.
Recognition of undergraduates involved in scholarly efforts of UI faculty and research staff; work on specific research and/or creative projects under selected mentors; funded annually by the Office of Undergraduate Research (OUR) through a competitive application process. Requirements: selection as ICRU fellow.

URES:3996 Research Fellow 0 s.h.
Involvement in scholarly efforts of UI faculty and research staff; students work on specific research and/or creative projects under selected mentors; funded by various strategic initiatives through competitive application processes. Requirements: selection by department or faculty mentor.

URES:4000 Independent Creative Research by Undergraduates Fellowship 0-1 s.h.
Recognition of undergraduates involved in scholarly efforts of UI faculty and research staff; work on specific research and/or creative projects under selected mentors; funded annually by the Office of Undergraduate Research (OUR) through a competitive application process. Requirements: selection as OUR fellow.

URES:4100 Undergraduate Research Ambassador Leadership 1 s.h.
Work with professional staff in the undergraduate research office to develop and provide outreach and events for undergraduate researchers on campus; hold recruitment events to engage K-12 students in discovery through research and creative efforts. Prerequisites: URES:3100. Requirements: be selected by the Office of the Undergraduate Research staff to serve in this role.

URES:4110 Computational Bioengineering Summer Research Experience for Undergraduates 0 s.h.
Immersive research experience focused on fundamental concepts of computational bioengineering and application of concepts to solve challenging biomedical problems; work on mentored research projects and showcase research at a university-wide presentation opportunity.

URES:4120 Research Experience for Undergraduates: Computing for Health and Well-Being 0 s.h.
Research experience in using computer science methods to study and solve current problems in health, well-being, and health care systems; work on mentored research projects and showcase research at a UI presentation opportunity.

URES:4130 Research Experience for Undergraduates in Microbiology 0 s.h.

URES:4140 Research Experiences for Undergraduates in Evolutionary Biology 0 s.h.
Intensive hands-on experience in a research lab; students create digital exhibits in collaboration with the UI Museum of Natural History and present their research at a university-wide poster presentation.

URES:4150 Undergraduate Medical Scientist Training Program Research 0 s.h.

URES:4170 Research Experience for Undergraduates in Nanoscience and Nanotechnology 0 s.h.

URES:4180 Edge of Space Academy 0 s.h.
Summer research experience centered around space-based instrumentation for observing Earth and space; students build small instrument payloads that are integrated onto drone and high-altitude aerial platforms to take measurements of the Earth below and the atmosphere and space environment above; hands-on experience for students who have an interest in Earth, atmospheric, solar, and space science. Requirements: application and acceptance to program.

URES:4220 University of Iowa Premed Student Summer Research Internship 0 s.h.
Immersive medical research experience with focus on gathering, analyzing, and interpreting health data; writing a manuscript for publication.

URES:4240 Fostering Undergraduate Talent: Uniting Research and Education (FUTURE) in Biomedicine 0 s.h.
Mentored research experience to create new discoveries in biomedicine; preparation to pursue careers in science and clinical practice; translation of current knowledge into new educational materials; discussions, conferences, workshops, training sessions, lectures; university-wide presentation opportunity and a FUTURE in biomedicine symposium.

URES:4260 Cancer Summer Undergraduate Research 0 s.h.
Holden Comprehensive Cancer Center faculty-mentored cancer biology research; cancer research education; lectures and seminars; oral poster presentation experience; career counseling; extended mentoring.

URES:4270 Undergrad Research Experiences Radiation Biology 0 s.h.
Faculty-mentored research focused on radiation therapy, redox biology, cancer biology, traditional and medical physics, engineering, medical imaging, and immunology.

URES:4280 Data-Driven Weather Intelligence and Agricultural Community Resilience Summer Program 0 s.h.
Advance knowledge in weather prediction, local weather intelligence, and resilience in agricultural communities; understand climate science and rural resilience; explore emerging technologies. Topics include weather intelligence, community resilience, sensor deployment, unmanned aerial vehicles (UAVs), and AI applications.

URES:4290 Undergraduate Research Experience in Heavy Element Chemistry arr.
Faculty-mentored intensive hands-on experience in a research lab focused on inorganic chemistry, radiochemistry, and quantum information science.

URES:4500 Summer Policy Research Institute 1 s.h.
Exposure and enhancement of fluency with policy research through mentored, team-based experience; students choose between two tracks depending on their experience level.

University Libraries

Director

- John P. Culshaw

Website: https://www.lib.uiowa.edu/instruction/

University Libraries offers these courses intended for undergraduates: ULIB:1001 Library Research in Context, ULIB:2001 Being Responsible Online: From Facebook to Academic Research, ULIB:2022 Special Topics in Library Research, and ULIB:3011 Global Research: Strategies and Skills.

Library Research in Context (ULIB:1001) is an activity-based course that helps students integrate information skills and concepts into their academic tool kit, enabling them to develop habits of critical inquiry and to accomplish course goals. The course uses active learning to introduce students to the basic research process and helps them formulate research questions and evaluate information. It also touches on the social and ethical contexts of information. Subject-specialist librarians teach the course using in-class activities, assignments, and class discussions. Most sections of the course are offered online.

Being Responsible Online: From Facebook to Academic Research (ULIB:2001) introduces students to ethical issues that surround online information, especially in the context of social media. Discussion topics include issues of privacy, security, free versus fee-based information, censorship, one's digital footprint, and academic integrity.

Special Topics in Library Research (ULIB:2022) meets the varying needs of students. The course may address a current or timely topic, focus on a particular content area not currently addressed by course offerings from the University Libraries, or serve as a pilot/trial offering for a course prior to becoming part of the permanent course offerings.

Global Research: Strategies and Skills (ULIB:3011) teaches skills for gathering and using information that are required for international jobs, upper-level international studies coursework, and individual international research. Students develop a familiarity with a variety of research and popular materials (such as government information or human rights resources); become experts in at least one academic research database (such as journal, newspaper, or statistical databases); and enhance their critical thinking skills. The class features small group activities, short student presentations, and an individual research consultation with the instructor.

Courses

University Libraries Courses

ULIB:1001 Library Research in Context 1 s.h.
Academic research, effective use of the library and its resources, basic research methods, process of scholarly communication; content may be keyed to a discipline-specific course; students apply concepts and processes to their research projects; transferable skills.

ULIB:2001 Being Responsible Online: From Facebook to Academic Research 1 s.h.
Introduction to ethical issues surrounding online information; using information as researchers or creating information on a social networking site; issues of privacy, reliability, and intellectual property; skills to navigate online information responsibly and knowledgeably.

ULIB:2022 Special Topics in Library Research 1 s.h.
Activity-based course that explores specialized content, selected research areas, or current/emerging issues in the context of information literacy and library resources; designed for sophomores and juniors; introduces students to the basic research process, helps them to develop critical thinking skills and evaluate information; topics may vary by semester.

ULIB:3011 Global Research: Strategies and Skills 1 s.h.
Skill development in international research; academic projects; work with research librarian; activity-based introduction to article, statistical, and governmental databases; research and popular materials; information discovery process (tools and search strategies); enhancement of critical thinking skills. Same as GHS:3011, IS:3011.

ULIB:3022 Advanced Special Topics in Library Research 1 s.h.
Activity-based exploration of specialized content, selected research areas, or current/emerging issues in context of information literacy and library resources; introduction to basic research process, development of critical thinking skills, and evaluation of information; topics vary.

ULIB:6313 Studio Summer Fellowship 1 s.h.
Investigation of and reflection on digital scholarly collaboration, production, and promotion. Same as GRAD:6313.

University of Iowa Honors Program

Director

- Shaun P. Vecera

Website: https://honors.uiowa.edu/

The University of Iowa Honors Program's general objective is to enrich the undergraduate experience by cultivating intellectual curiosity, promoting engaged, active learning, and developing students' self-efficacy. Central to this enrichment is the honors community fostered by the program, which facilitates connections to faculty mentoring and with peers through engaging coursework, co-curricular involvement, and experiential learning.

Honors at Iowa gives students the space and opportunities to make connections and develop self-authorship through self-discovery. For example, honors students have the opportunity to form closer connections with their academically like-minded and motivated peers as well as their professors on campus. Such networks and working relationships can change careers and lives through mutual discovery. Honors courses create spaces for students to get more from their courses, their faculty, their peers, and their time, and in turn more from themselves. This establishes a network that feeds into and optimizes the students' four-year experience.

Connections and Networks

Many students choose to participate in Honors Primetime, a unique program that kicks of the fall semester for new honors students. This multi-day in-depth experience fosters lasting connections and sets an example for learning by doing in-depth inquiry.

In the first year, honors students take HONR:1000 Introduction to Honors, which further connects them to other honors students, the honors building facilities, and honors faculty and staff. In this course, students learn about the opportunities and privileges afforded to them by their continued participation in honors.

First-year students also enroll in a 3–4 s.h. honors course in their first semester. Honors students may additionally opt to take a first-year seminar. Students should try to continually enroll in at least one honors course each semester until 12 s.h. of honors coursework is complete. Students may take as many additional honors courses as they wish.

The UI Honors Program places a strong emphasis on experiential learning (learning by doing), which comprises half the program’s curricular requirements. Experiential learning takes the form of undergraduate research, study abroad, internships, teaching practica, being an honors ambassador or an Honors Writing Fellow (or both), and other opportunities. Learning by doing, besides being the most effective way of acquiring knowledge, also helps with self-discovery.

In general, students who are serious about their education and about making a meaningful contribution to the world with their particular capabilities and gifts can be assured that the University of Iowa Honors Program will help them in their journey.

Unique Honors Academic Activities

Honors Outreach Ambassadors

Ambassadors earn academic credit for acquiring and then sharing knowledge of honors opportunities by organizing events around campus and meeting with prospective students and their families.

Honors Writing Fellows

Fellows are trained and paid to assist in undergraduate courses by mentoring a dozen students each semester on major writing assignments.

The Iowa Policy Research Organization

This organization selects honors students each year to earn academic credit by learning how to conduct policy analysis and then writing policy papers for Iowa communities and the Iowa Legislature.

Study Abroad and Internships

These opportunities with a reflective component or embedded project enable students to earn honors academic credit for their experience.

Learn more about honors activities and Experiential Learning on the honors program website.

Cocurricular Programs

Honors at Iowa offers students a rich variety of activities outside the classroom. Many honors students find cocurricular programming a good way to meet people, get involved, and learn more about themselves and the world around them. Some of the programs are volunteer-based, some offer pay, and some award honors credit. These opportunities provide peak educational experiences, especially extensive and intensive interactions with faculty mentors and other honors students.

- Honors newsletters, which are written by honors student editors, inform readers on and beyond the campus about honors at the University of Iowa.
- Honors student staff earn pay by staffing the UI Honors Program reception area and other duties as assigned.
- Honors Peer Mentors earn pay by mentoring honors students.
- The Presidential Scholars Program (PSP) engages recipients of the Presidential Fellowship in shared classes, opportunities for prestigious fellowships, and unique programming. Presidential Fellows participate in events with faculty and key administrators, scholarship and fellowship mentoring programs, and volunteer projects.

To learn more, visit Opportunities on the honors program website.

Programs

Undergraduate Program of Study

University Honors

Honors at Iowa helps students tailor opportunities to different educational needs and goals. Honors students may take honors courses each semester that they are enrolled at the university. Honors courses are generally small and interactive.

They connect students with distinguished professors and offer new topics each semester. Honors courses also are part of the GE CLAS Core [p. 22] curriculum and do not add requirements for graduation.

Honors Coursework

First Semester

Students begin honors work in their first semester.

Course #	Title	Hours
HONR:1000	Introduction to Honors	1
HONR:1100	Honors Primetime (taken immediately before the fall semester begins)	0
An honors course that fulfills a student's major or general education requirement		3-4

Students who enter the honors program directly from high school may also take an honors first-year seminar with selected professors on current topics.

Subsequent Semesters

After the first semester of in the program, students are expected to continue to enroll in an honors section of a course each semester until they reach at least 12 s.h. of honors coursework.

Students in their third year of study and beyond may take honors courses in their majors or pursue individual instruction with faculty members through honors courses such as HONR:3994 Honors Research Practicum. Students may also earn honors credit for a non-honors course by developing an honors contract with the course instructor; the student and instructor negotiate a unique project for the course and develop the honors contract around the project.

Additional academic opportunities include honors advanced seminars, honors independent studies, and honors practica in teaching and service.

To learn more, visit Honors Requirements on the program's website.

Experiential Learning

In addition to coursework, students must complete and report on 12 s.h. of experiential learning. These cocurricular activities come in many forms and vary in scale and depth. Students often complete three to four signature experiences including but not limited to study abroad, internships, research, leadership positions, service and volunteering, relevant work, teaching assistantships, fellowships, and practica. Experiences from a student's first day of classes at UI can be considered for credit.

Find more information on experiential learning opportunities by visiting Experiential Learning on the Honors at Iowa website.

Joining the Honors Program

Students may apply to the University of Iowa Honors Program as entering first-year, entering transfer, or current University of Iowa students. Current students are encouraged to apply prior to earning 30 s.h. in coursework. This enhances the benefit the student may get through their honors participation.

To remain in the Honors Program and to graduate with University Honors, students must complete the program's curricular requirements. At the time of graduation, students must have a UI cumulative grade-point average of 3.33 for "University Honors" to be recorded on their transcript. For more information about joining the University of Iowa Honors Program, see Join on the program's website.

Graduation With University Honors

Students who graduate with University Honors through the UI Honors Program are recognized at commencement. University Honors is noted on a student's diploma and transcript. UI Honors Program students completing any undergraduate degree program may graduate with University Honors.

Facilities

Blank Honors Center

Honors at Iowa has its home in the Blank Honors Center (BHC), a facility that helps foster community among honors students. The Blank Honors Center is located near the center of the University of Iowa main campus, next to residence halls and classroom buildings. It offers social areas, quiet study areas, wireless internet access, computer stations, and classrooms for students. The center also houses the honors staff and has rooms for meetings, events, presentations, and conversation.

Honors housing is available for first-year honors students on campus. Students must apply to live in the Honors Residential Community. See Housing on the Iowa Division of Student Life website for information about how to apply.

Financial Support

Honors at Iowa has scholarship opportunities for current honors students selected from academic programs throughout the university. Scholarship possibilities are announced annually.

In addition, visit Scholarships and Awards on the UI Honors Program website.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

University Honors

Joining Honors as First-Year Students During Fall Semester

Course	Title	Hours
Academic Career		
Any Semester		
Students may apply to the honors program as entering first-year, entering transfer, or current University of Iowa students. [a]		
Honors: To graduate with University Honors, students must have a University of Iowa cumulative GPA of at least 3.33.		
	Hours	**0**

First Year

Fall

HONR:1100	Honors Primetime	0
HONR:1000	Introduction to Honors	1
Honors section of a GE course such as RHET:1030 Rhetoric: Writing and Communication, ENGL:1200 The Interpretation of Literature, CHEM:1110 Principles of Chemistry I, or SEES:1100 Age of Dinosaurs [b]		3 - 4
Meet with an Honors Peer Mentor during drop-in hours		
Select Honors courses for spring semester		
Study Abroad: attend Study Abroad Fair (explore experiential learning options) [c]		
Research: attend Fall Undergraduate Research Festival (FURF) (explore experiential learning options)		
Consider applying to become an Honors Outreach Ambassador (explore experiential learning options) [d]		
Consider Honors Program scholarship opportunities [e]		
Read the weekly Honorable Messenger email bulletin for honors community events and announcements		
Complete the pre-experience questionnaire as part of the Honors Reflection Process for possible honors experiential learning credit for experiences such as internships, study abroad, service learning, LA or TA positions, and volunteer/paid/uncredited research		
	Hours	**4-5**

Spring

Honors section of a GE course such as RHET:1030 Rhetoric: Writing and Communication, ENGL:1200 The Interpretation of Literature, CHEM:1110 Principles of Chemistry I, or SEES:1100 Age of Dinosaurs		3 - 4
Meet with an Honors Peer Mentor by the end of the academic year		
Explore 1, 2, or 3 s.h. Honors staff-taught courses such as HONR:2900 Honors Publications: From Pitch to Print or HONR:2991 Honors Students and Wellness or HONR:2993 The Art of Creativity		0 - 3
Select Honors courses for fall semester		
Consider applying for an Honors Writing Fellow position (explore experiential learning options)		
Research: attend Spring Undergraduate Research Festival (SURF) (explore experiential learning options)		
Research: explore research opportunities for summer or second year (explore experiential learning opportunities) [f]		
Consider applying for an Honors Student Staff position for the coming academic year [g]		
Complete the pre-experience questionnaire as part of the Honors Reflection Process for possible honors experiential learning credit for experiences such as internships, study abroad, service learning, LA or TA positions, and volunteer/paid/uncredited research		
	Hours	**3-7**

Summer

Summer jobs and volunteering often qualify for experiential learning credit. Check with an honors advisor or complete the pre-experience questionnaire as part of the Honors Reflection Process for possible honors experiential learning credit.	
Summer is a great time to pursue mentored research. Complete the pre-experience questionnaire as part of the Honors Reflection Process for possible honors experiential learning credit for your volunteer/paid/uncredited research.	
Hours	**0**

Second Year

Any Semester

Continue to enroll in honors sections of courses until you reach at least 12 s.h. of honors coursework credit.	
Hours	**0**

Fall

HONR:2990	Honors Second-Year Seminar: Meaning, Motivation, and Experiential Learning	2
Honors section of a GE course such as RHET:1030 Rhetoric: Writing and Communication, ENGL:1200 The Interpretation of Literature, CHEM:1110 Principles of Chemistry I, or SEES:1100 Age of Dinosaurs		3 - 4
Explore 1, 2, or 3 s.h. Honors staff-taught classes such as HONR:2900 Honors Publications: From Pitch to Print or HONR:2994 Poetics (Taylor's Version) or HONR:2992 Classic Cult Cinema		1 - 3
Meet with an Honors Peer Mentor by the end of the academic year [h]		
Study Abroad: attend Study Abroad Fair (explore experiential learning options) [c]		
Research: attend Fall Undergraduate Research Festival (FURF) (explore experiential learning options)		
Consider applying to become an Honors Outreach Ambassador (explore experiential learning options) [d]		
Select Honors courses for spring semester		
Consider Honors Program scholarship opportunities [e]		
Complete the pre-experience questionnaire as part of the Honors Reflection Process for possible honors experiential learning credit for experiences such as internships, study abroad, service learning, LA or TA positions, and volunteer/paid/uncredited research		
	Hours	**6-9**

Spring

Honors section of a GE course or a contract course in your major/department [i]		3 - 5
Check University Honors degree audit [j]		
Explore 1, 2, or 3 s.h. Honors staff-taught classes such as HONR:2900 Honors Publications: From Pitch to Print or HONR:2991 Honors Students and Wellness or HONR:2993 The Art of Creativity		0 - 3
Meet with the Honors Advisor for your major: is Honors in the Major right for you?		
Research: attend SURF; consider what research questions you might pursue		
Research: explore research opportunities for summer or third year [f]		

Consider applying for an Honors Student Staff position for the coming academic year [g]	
Complete the Honors Reflection Process for possible honors experiential learning credit for experiences such as internships, study abroad, service learning, LA or TA positions, and volunteer/paid/uncredited research	
Hours	**3-8**

Summer

Summer jobs and volunteering often qualify for experiential learning credit. Check with an honors advisor or complete the Honors Reflection Process for possible honors experiential learning credit.	
Summer is a great time to pursue mentored research. Complete the Honors Reflection Process for possible honors experiential learning credit for your volunteer/paid/uncredited research.	
Hours	**0**

Third Year

Fall

Check University Honors degree audit [j]	
Explore honors experiential coursework such as RHET:3560 Public Policy and Persuasion, LS:1024 Hawkeye Service Breaks, etc.	
Explore 1, 2, or 3 s.h. Honors staff-taught classes such as HONR:2900 Honors Publications: From Pitch to Print or HONR:2994 Poetics (Taylor's Version) or HONR:2992 Classic Cult Cinema	
Consider Honors Program scholarship opportunities [e]	
Complete the pre-experience questionnaire as part of the Honors Reflection Process for possible honors experiential learning credit for experiences such as internships, study abroad, service learning, LA or TA positions, and volunteer/paid/uncredited research	
Consult with an Honors Peer Mentor or a member of the Honors Professional Advising Staff to ensure that you are on track with University Honors curricular requirements	
Hours	**0**

Spring

Check University Honors degree audit [j]	
Explore 1, 2, or 3 s.h. Honors staff-taught classes such as HONR:2900 Honors Publications: From Pitch to Print or HONR:2991 Honors Students and Wellness or HONR:2993 The Art of Creativity	
Complete the pre-experience questionnaire as part of the Honors Reflection Process for possible honors experiential learning credit for experiences such as internships, study abroad, service learning, LA or TA positions, and volunteer/paid/uncredited research	
Consult with an Honors Peer Mentor or a member of the Honors Professional Advising Staff to ensure that you are on track with University Honors curricular requirements	
Hours	**0**

Summer

Summer jobs and volunteering often qualify for experiential learning credit. Check with an honors advisor or complete the Honors Reflection Process for possible honors experiential learning credit.	
Summer is a great time to pursue mentored research. Complete the Honors Reflection Process for possible honors experiential learning credit for your volunteer/paid/uncredited research.	
Hours	**0**

Fourth Year

Fall

Check University Honors degree audit [j]	
Explore 1, 2, or 3 s.h. Honors staff-taught classes such as HONR:2900 Honors Publications: From Pitch to Print or HONR:2992 Classic Cult Cinema or HONR:2994 Poetics (Taylor's Version)	
Complete any remaining assignments (pre- and post-experience questionnaires and narrative) as part of the Honors Reflection Process for possible honors experiential learning credit for experiences such as internships, study abroad, service learning, LA or TA positions, and volunteer/paid/uncredited research	
Consult with Honors Records, Enrollment and Analytics Specialist or Honors Advising Director for pre-approval to graduate with University Honors	
Hours	**0**

Spring

Complete any remaining assignments (pre- and post-experience questionnaires and narrative) as part of the Honors Reflection Process for possible honors experiential learning credit for experiences such as internships, study abroad, service learning, LA or TA positions, and volunteer/paid/uncredited research	
Check University Honors degree audit [k]	
Consult with Honors Records, Enrollment and Analytics Specialist or Honors Advising Director for pre-approval to graduate with University Honors	
Graduate with University Honors	
Hours	**0**
Total Hours	**16-29**

a Please see the Honors at Iowa website at https://honors.uiowa.edu/join-program for further details and application instructions.
b An Honors course must be completed in the first semester of Honors membership.
c To earn honors credit for study abroad students complete questionnaires and a narrative piece. See details on the Experiential Learning pages on the Honors at Iowa website.
d Typically advertised in Honorable Messenger or email honors-advisor@uiowa.edu for more information.
e Submit by deadline which is typically early in the spring semester. Successful recipients in the past have consulted web resources at https://honors.uiowa.edu/honors-scholarships.
f Consult OUR Ambassadors or visit our.research.uiowa.edu.
g Check the weekly Honorable Messenger or email honors-program@uiowa.edu.
h Optional for students who have completed the 12 s.h. University Honors coursework requirement.
i Students are expected to continue to enroll in an honors section of a course each semester until they reach at least 12 s.h. of honors coursework credit.
j Report missing honors credit to the Honors Assessment Manager.

k Students must complete the experiential learning requirement by graduation.

Courses

University of Iowa Honors Program Courses

HONR:1000 Introduction to Honors 1 s.h.
Learn about what it means to be a student in the honors program and build community with peers, faculty, and staff. Corequisites: HONR:1100.

HONR:1100 Honors Primetime 0 s.h.
Preparation for honors opportunities, especially activities and courses; teamwork on projects that develop skills of invention and communication; presentation of products and performances; connect honors students, honors teachers, and staff members. Corequisites: HONR:1000.

HONR:1350 Honors Seminar for Presidential Scholars 1 s.h.
Through self-discovery, students learn to know themselves and one another better while participating in selected events and structured experiences (e.g., readings, in-class discussion, small-group work, guest presentations, event attendance); students take time to reflect on interests, experiences, and knowledge, and have an opportunity to explore and integrate skills and resources in a way that helps develop the personal and academic self while also considering knowledge and experience of other individuals and groups; students are provided with tools to seek out academics and activities related to their interests and pursuits to better connect with development resources. Requirements: Presidential Scholarship award received when admitted to the University of Iowa.

HONR:1360 Honors Seminar for Presidential Scholars II 1 s.h.
Through self-discovery, students learn to know themselves and one another better while participating in selected events and structured experiences (e.g., readings, in-class discussion, small-group work, guest presentations, event attendance); students take time to reflect on interests, experiences, and knowledge, and have an opportunity to explore and integrate skills and resources in a way that helps develop the personal and academic self while also considering knowledge and experience of other individuals and groups; students are provided with tools to seek out academics and activities related to their interests and pursuits to better connect with development resources. Prerequisites: HONR:1350.

HONR:1670 Values and Culture 3 s.h.
Asking fundamental questions about human experience and its meaning while becoming more aware of what, exactly, defines culture and values; students have a chance to consider their own values and beliefs, and the importance to their lifelong goals. GE: Values and Society.

HONR:2050 Honors Contract Project 1 s.h.
Individual or group project arranged with faculty; students and faculty develop and complete an honors contract study plan or project for a non-honors UI course.

HONR:2100 Honors Colloquium 1 s.h.
Attendance at talks, performances, and other events across campus.

HONR:2600 Honors Special Topics 1-3 s.h.
Small-class learning with a faculty member on special topics.

HONR:2900 Honors Publications: From Pitch to Print 1-2 s.h.
Students develop and hone writing skills as they create content for UI Honors Program publications from start to finish—envisioning themes, interviewing, writing, securing photos and captions, workshopping, and editing pieces; topics related to student body, professional staff, alumni, and current events relevant to honors program; completion of up to three major projects published in *Honors Newsletter*, *Alumni Connection*, honors program blog, or other social media; discussion posts and workshops.

HONR:2990 Honors Second-Year Seminar: Meaning, Motivation, and Experiential Learning 2 s.h.
Experiential learning requirements for the UI Honors Program.

HONR:2991 Honors Students and Wellness 3 s.h.
Learn about how one's high academic ability and overall wellness interact during college years and beyond. Focuses on student challenges such as impostor syndrome, perfectionism, burnout, study habits, physical activity, nutrition, sleep, and work/life balance.

HONR:2992 Classic Cult Cinema 3 s.h.
Have you ever wondered why certain films reach cult status and others do not? What makes us want to go to repeated midnight showings of the same film and even dress up like the characters? What is a cult classic and who are the great masters of these films? And most importantly, how do these films add social and political commentary about the culture around them? Students explore these questions while watching, discussing, and reading about what puts the "cult" into cult cinema. GE: Literary, Visual, and Performing Arts.

HONR:2993 The Art of Creativity: How to Think Like a Writer 3 s.h.
Develop literary community while generating new work, invigorating works-in-progress, and learning to navigate writer's block. Using carefully structured writing prompts, intuition exercises, and guided meditations, students develop a significant portfolio of creative work in any genre. Additionally, students learn actionable strategies for developing a productive writing practice based on traditional and non-traditional techniques. GE: Literary, Visual, and Performing Arts.

HONR:2994 Poetics (Taylor's Version) 3 s.h.
Explore Taylor Swift's songs through an examination of poetic techniques and common motifs; discuss innocence, heartbreak, revenge, nostalgia, betrayal, and anti-heroism in light of Swift's authorial vision. Texts by and about Swift as well as academic and popular articles about her cultural impact will be discussed. Students will analyze and experience Swift's fandom through embodied practices such as the creation of friendship bracelets.

HONR:3050 Honors Studies arr.
Independent studies arranged with faculty members who certify satisfactory completion of study plans and performance for topics not covered by other UI courses.

HONR:3100 Honors Teaching Practicum 0-4 s.h.
Teaching internship in first- and second-year courses; may include providing tutorial assistance, conducting review sessions, aiding course organization.

HONR:3150 Honors Service Learning arr.
Service learning projects arranged with faculty members who certify satisfactory completion of study plans and service.

HONR:3170 Honors Outreach Ambassadors 1-2 s.h.
Experience sharing knowledge and experiences of the honors program with other students in meetings during office hours, online chats, other venues; outreach ambassadors; answer questions, provide information, help students find honors opportunities in and out of class.

HONR:3210 Honors Policy Research Practicum 1 s.h.
Theory and practice of public policy research; development of policy-research skills; production of policy-research papers. Requirements: sophomore or junior standing.

HONR:3994 Honors Research Practicum 1-4 s.h.
Individual research performed in conjunction with a faculty member's research.

HONR:4990 Honors Thesis or Project 1-3 s.h.
Culminating project of research or artistic creation; preparation and completion of the final product associated with graduation with honors in the student's major. Requirements: member of the University of Iowa Honors Program and junior or senior standing.

University of Iowa Upward Bound

Director, TRIO Programs

- Jennifer Lynch

Website: https://uc.uiowa.edu/students/trio-upward-bound

Precollege Program of Study

The University of Iowa TRIO Upward Bound is a federally funded college preparatory program for income-qualified and/or first-generation college students who are motivated to pursue a college degree. The program serves eligible high school students from three southeastern Iowa community high schools: Columbus Community High School, Muscatine High School, and West Liberty High School.

Students participate during the academic year in weekly after-school programming at their local high school. They participate in science, technology, engineering, and math (STEM) related educational opportunities, American College Testing (ACT) preparation, community service, cultural programs, field trips, and college visits.

During the summer, students attend a six-week residential program on the University of Iowa campus from mid-June through July. Participants take mathematics, science, language arts, and world language courses to prepare them for classes they will take at their local high school in the fall. In addition, students take STEM workshops to expose them to a broader range of career opportunities and an ACT preparation course to ready them for college admissions exams.

Upward Bound Bridge students (those who will enter college in the fall) enroll in a University of Iowa course during the six-week summer session. Bridge students participate in an on-campus job shadow and take a college transition seminar.

Upward Bound provides services to students during high school through enrollment in postsecondary education. All services received are at no cost to students.

Other postsecondary institutions in Iowa and across the nation sponsor Upward Bound programs. High school students who do not attend schools served by the University of Iowa program should ask their counselors whether an Upward Bound program serves their area.

For more information, contact TRIO Upward Bound.

Admission

For admission:

- participants must reside in the target area and attend a target school;
- students must be in grades 9 through 11; and
- students must be potential first-generation college students or their family income must meet U.S. Department of Education low-income guidelines.

Courses

University of Iowa Upward Bound Course

UIUB:1010 Upward Bound Project - Bridge Seminar **1-2 s.h.**

Provides new high school graduates in the Upward Bound program the opportunity to take courses at the University of Iowa. Prepares students for college-level learning, introduces students to topics specific to higher education, and aids students in their transition to college.

Urban Studies

Director, School of Planning and Public Affairs

- Haifeng Qian

Faculty Advisor

- Carrie Schuettpelz (Planning and Public Affairs)

Coordinator, Urban Studies

- Abigail J. Castle (Planning and Public Affairs)

Undergraduate minor: urban studies

Faculty: https://sppa.uiowa.edu/faculty-staff

Website: https://sppa.uiowa.edu/

The minor in urban studies is offered for undergraduate students who seek to understand and address urban issues, want to work in urban communities, and are interested in community well-being, sustainable development, environmental shifts, mobility and access, public health, and economic prosperity. It is well suited for students in a wide range of majors.

The minor in urban studies is awarded by University College.

Programs

Undergraduate Program of Study

Minor

- Minor in Urban Studies [p. 2244]

Urban Studies, Minor

The minor in urban studies is highly relevant to students interested in addressing emerging and persistent issues in cities of the 21st century, including climate change, environmental conservation, sustainable development, mobility and access, housing affordability, public health, and economic prosperity—each of which has local, urban, and regional dimensions.

Requirements

The undergraduate minor in urban studies requires 15 s.h. of coursework taken at the University of Iowa. Students must maintain a grade-point average of at least 3.00 in work for the minor. Coursework in the minor may not be taken pass/nonpass.

The minor in urban studies requires the following coursework.

Core Course

The core course provides an introduction to urban studies, policies, and practices.

Course #	Title	Hours
This course:		
URP:3001/ SEES:3920	Planning Livable Cities	3

Electives

Course #	Title	Hours
At least 12 s.h. from these:		
URP:2020/ PBAF:2020	Environment and Society: Sustainability, Policy, and Politics	3
URP:2056/ PBAF:2056	The Splendor of Cities	3
URP:3134/ ECON:3640	Regional and Urban Economics	3
URP:3350/ ECON:3750/ SEES:3940	Transportation Economics	3
URP:4001	Foundations of Community Engagement	1
URP:4225/ PBAF:4225	Applied GIS for Planning and Policy Making	3
URP:4243	The Land Development Process	3
URP:4245	Growth Management	3
URP:4253/ PBAF:4253	Designing Sustainable and Healthy Cities (3 s.h. recommended)	1-3
URP:4256/ PBAF:4256	Environmental Policy	3
URP:4260/ PBAF:4260	Transportation Policy and Planning	3
URP:4262/CEE:4176	Transportation Research Methods and Analysis	3
URP:4266/ PBAF:4266	Transportation, Urban Form, and Sustainability	3
URP:4271	Housing Policy	3
URP:4273/ PBAF:4273	Community Development Through Creative Placemaking	3
URP:4280/ PBAF:4280	Planning for Disaster Mitigation and Recovery (3 s.h. recommended)	2-3
URP:4295	Economic Development Policy	3
URP:4297/ PBAF:4297	Financing Economic Development for Poverty Alleviation	3
PBAF:3560/ POLI:3560/ RHET:3560/ SJUS:3560	Public Policy and Persuasion	3
PBAF:3570/ GHS:3570/ POLI:3570	Poverty Policy	3
CRIM:4120	Environmental Criminology	3
HIST:3114	Divided Cities: Global Histories of Segregation	3

Admission

Students may declare the minor in MyUI as soon as they are enrolled in URP:3001 Planning Livable Cities.

Those interested in pursuing the minor must meet with the minor advisor, be briefed on the minor expectations for performance, and complete a plan of study that must be approved by the minor advisor.

For more information, contact the School of Planning and Public Affairs.

University Calendar

Some university calendar dates may change; see Calendars and Deadlines on the Office of the Registrar website for the most up-to-date academic calendar.

2025 Fall Semester

Aug. 25	Opening of classes
Sept. 1	University holiday, no classes, offices closed
Nov. 23-Nov. 30	Fall break (consult Dentistry and Medicine collegiate offices for break dates)
Nov. 27-28	University holidays, offices closed
Dec. 1	Classes resume
Dec. 12	Close of classes
Dec. 15-19	Final examination week
Dec. 18-21	Commencement ceremonies*
Dec. 25	Federal holiday, offices closed
Dec. 25-26	University holidays, offices closed

*Fall commencement ceremonies: dates vary by college; see Commencement on the Office of the Registrar website.

2025–26 Winter Session

Dec. 22	Opening of classes
Dec. 25	Federal holiday, no classes, offices closed
Dec. 25-26	University holidays, no classes, offices closed
Jan. 1	Federal holiday, no classes, offices closed
Jan. 16	Close of classes

2026 Spring Semester

Jan. 19	Martin Luther King, Jr. Day, no classes, offices closed
Jan. 20	Opening of classes
March 15-22	Spring break
March 23	Classes resume
May 8	Close of classes
May 11-15	Final examination week
May 14-17	Commencement ceremonies**

**Spring commencement ceremonies: dates vary by college; see Commencement on the Office of the Registrar website.

2026 Summer Sessions

The University of Iowa offers several summer sub-sessions: one 12-week sub-session, one 8-week sub-session, two 6-week sub-sessions, and one 4-week sub-session. Each sub-session is listed in order by its starting date.

May 18-June 11	Four-week sub-session (final examination day: June 12)
May 18-June 25	Six-week sub-session I (final examination day: June 26)
May 18-Aug. 6	Twelve-week sub-session (final examination day: Aug. 7)
May 25	University holiday, no classes, offices closed
June 15-Aug. 6	Eight-week sub-session (final examination day: Aug. 7)
June 29-Aug. 6	Six-week sub-session II (final examination day: Aug. 7)
July 3	University holiday, no classes, offices closed
July 4	Federal holiday, no classes, offices closed

Office of the Registrar Calendars

The Office of the Registrar provides additional calendars that list detailed academic deadlines, final exam schedules, and university holidays. Please see these calendars for the most current dates and deadlines. It also publishes a five-year academic calendar.

Individual College Calendars

Some University of Iowa colleges have academic year schedules that vary from the one listed. Contact the individual colleges or visit their websites; use the A–Z List or the Directory Search on the University of Iowa home page.

Campus Visits

Each year the University of Iowa is the destination for visitors with wide-ranging interests. Prospective and new students and their parents, new faculty and staff members, fans of intercollegiate athletics, University of Iowa health care patients, audiences for the visual and performing arts, museum visitors, and conference and continuing education participants are among those drawn to the campus.

Prospective and New Students

Prospective and new students should contact the Admission Visitors Center if they are interested in a campus visit. The Admission Visitors Center hosts a variety of programs for future students and their families, including large group events and individual visits tailored to specific interests. It is best to visit the campus on weekdays when classes are in session and when other university offices are open. See First Year Visit Options on the Admissions website to arrange for a campus visit.

Attractions, Campus Maps, Parking

The University of Iowa website has links to campus maps, walking tours, how to arrange visits to varied attractions, and where to park on campus.

Iowa Administrative Code

Code of Iowa

The Code of Iowa contains information about admission and residency rules common to Iowa's three state universities —the University of Iowa, Iowa State University, and the University of Northern Iowa. It also provides supplemental information about application to the University of Iowa. Visit Iowa Code on the Iowa Legislature website to search and read the Iowa Administrative Code.

Administrative Officers

Iowa Board of Regents

The Iowa Board of Regents governs the University of Iowa, Iowa State University of Science and Technology, the University of Northern Iowa, the Iowa Braille and Sight-Saving School, and the Iowa School for the Deaf.

President: Sherry Bates, Scranton
President pro tem: Greta Rouse, Emmetsburg
David Barker, Iowa City
Robert Cramer, West Des Moines
Nancy Dunkel, Dyersville
Lucy Gipple, New Sharon
Christine Hensley, Des Moines
JC Risewick, Johnston
Kurt Tjaden, Bettendorf
Executive director: Mark Braun

The University of Iowa

Central Administration

President: Barbara J. Wilson

Executive vice president and provost: Kevin C. Kregel

Vice president for medical affairs and dean of the Carver College of Medicine: Denise J. Jamieson

Chief human resources officer and associate vice president: Cheryl Reardon

Chief financial officer and treasurer: Terry Johnson

Senior vice president for finance and operations: Rod Lehnertz

Senior advisor to the president and vice president for external relations: Peter Matthes

Senior advisor to the president and associate vice president for administrative affairs: Laura McLeran

Vice president for legal affairs and general counsel: James D. Jorgensen

Associate vice president and chief information officer: Steve Fleagle

Vice president for student life: Sarah Hansen

Vice president for research: David Schwebel

University ombudsperson: Chanelle Reese

Office of the Provost

Executive vice president and provost: Kevin C. Kregel

Interim Associate provost for graduate and professional education: Saba R. Ali

Associate provost for undergraduate education: Tanya M. Uden-Holman

Associate provost for faculty: Lois Geist

Associate provost and dean of international programs: Russell Ganim

Associate vice president for enrollment management: Brent Gage

Associate vice president and director of administration and planning: Don J. Szeszycki

Assistant provost and executive director of admissions: Kirk R. Kluver

Assistant provost and executive director of the career center: Angi McKie

Assistant provost and director of student financial aid: Brenda C. L. Buzynski

Assistant provost and university registrar: Shawna Saad

Assistant provost and director of academic advising: Maureen M. Schafer

Henry B. Tippie College of Business
Dean: Amy L. Kristof-Brown

College of Dentistry
Dean: Clark Stanford

College of Education
Dean: Daniel L. Clay

College of Engineering
Dean: Ann F. McKenna

Graduate College
Interim Dean: Saba R. Ali

College of Law
Dean: Todd E. Pettys

College of Liberal Arts and Sciences
Dean: Sara Sanders

Roy J. and Lucille A. Carver College of Medicine
Vice president for medical affairs and dean: Denise J. Jamieson

College of Nursing
Dean: Julie Zerwic

College of Pharmacy
Dean: Jill M. Kolesar

College of Public Health
Dean: Edith A. Parker

University College
Dean: Tanya M. Uden-Holman

Libraries
University librarian: John P. Culshaw

Stanley Museum of Art
Director: Lauren Lessing

Finance and Operations

Senior vice president and university architect: Rod Lehnertz

Associate vice president and director, purchasing and business services: Deborah J. Zumbach

Associate vice president and director, facilities management: Lynne Finn

Assistant vice president, campus safety: Mark Bullock

Assistant vice president and university controller: Rachel McGuire

Assistant vice president, director of treasury operations & financial management, and university secretary: Audra Haddy

University chief financial officer and treasurer: Terry L. Johnson

Senior director, university business and real estate: David Kieft

Faculty

The following persons hold University of Iowa faculty appointments with the rank of professor, associate professor, assistant professor, instructor, or lecturer and are updated regularly on the following list. The year of first appointment appears first and the year of current rank is given in parentheses. Degrees obtained and institutions where the degrees were awarded also are listed.

A

Abbasi, Abdullah Altaf, Clinical Assistant Professor, Internal Medicine, (2025); MBBS 2014 Rawalpindi Medical University

Abboud, Francois, Emeritus Professor, Internal Medicine, 1961 (1968); BS 1948 Christian Brothers' Schl-Egypt; PNS 1949 Cairo; MBBCH 1955 Ain Chams-Egypt; MBCHB 1955 Ain Chams-Egypt

Abdallah, Ala Walid, Clinical Assistant Professor, Internal Medicine, (2025); MD 2021 University of Jordan

Abdel Wahed, Lama, Clinical Assistant Professor, Neurology, (2022); MD 2014 University of Damascus

Abdel-Malek, Karim, Professor, Mechanical Engineering, 1994 (2005); BS 1988 Jordan; MS 1990 Pennsylvania; PHD 1993 Pennsylvania

Abdelgadir, Ahmed, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2020 University of Iowa

Abdelkarim, Ola, Clinical Assistant Professor, Internal Medicine, (2024); MBBCH 2015 Alexandria University; MBBS 2015 Alexandria University

Abdulbaki, Abdulrahman, Adjunct Assistant Professor, Internal Medicine, 2018 (2018); MD 2004 Damascus University

Abel, Edwin G., Professor, Biochemistry and Molecular Biology/Molecular Physiology Biophysics/Neuroscience and Pharmacology/Psychiatry/Psychological and Brain Sciences, 2016 (2016); BA 1985 Swarthmore College; MPHIL 1987 University of Cambridge; PHD 1993 Harvard University

Abel, Evan Dale, Adjunct Professor, Internal Medicine, 2013 (2013); MBBS 1985 West Indies

Abosaida, Alladdin M., Adjunct Assistant Professor, Pediatrics, 2017 (2017); MBCHB 1995 University of Tripoli

Abou Alaiwa, Mahmoud Hasan, Associate Professor, Biomedical Engineering/Internal Medicine, 2013 (2024); MD 2001 American UI of Beirut

Abouassaly, Michael K., Adjunct Assistant Professor, Family Medicine, 2021 (2021); BS 1991 Univ of Iowa, Iowa City, IA; MD 1995 Univ of IA, College of Medicin

Aboul Hosn, Maen S., Clinical Associate Professor, Surgery, (2024); MD 2009 American University of Beirut

Abram, Nancy J., Emeritus Associate Professor, Marketing, 2007 (2018); BA 1980 St. Ambrose

Abram, Steven Webb, Adjunct Instructor, Management and Entrepreneurship, 2013 (2023); BS 1998 East Carolina; MS 1999 East Carolina

Abramoff, Michael David, Professor, Electrical-Computer Engineering/Ophthalmology Visual Science, 2004 (2012); MS 1989 Amsterdam; MD 1994 Amsterdam; PHD 2001 Utecht

Abramowitz, Paul W., Emeritus Professor, Pharmacy, 1998 (1998); BA 1972 Indiana University-Bloomington; BSPH 1977 Toledo; PHARMD 1979 University of Michigan-Ann Arbor

Abrams, Kathryn, Adjunct Instructor, University College Courses, 2024 (2024); MED 2017 Arizona State University

Abrams, Thad Eugene, Clinical Professor, Internal Medicine/ Psychiatry, 2008 (2024); BA 1996 Luther College; MD 2000 University of Iowa

Abramson, Dean Alan, Clinical Associate Professor, Internal Medicine, (2022); MD 1984 New York University

Abrons, Jeanine Porter, Adjunct Associate Professor, Emergency Medicine/Pharmacy Practice and Science, 2011 (2019); PHAR 2004 Drake

Abu Hejleh, Taher, Adjunct Professor, Internal Medicine, 2012 (2022); MD 2004 Jordan

Abu Rmilah, Anan A., Clinical Assistant Professor, Internal Medicine, (2025); MBBCH 2018 Cairo University; MBBS 2018 Cairo University

Abuhammoud, Salahaldeen Mohammad Assad, Clinical Associate Professor, Prosthodontics, (2025); DDS 2011 University of Jordan; CER 2018 University of Iowa; MS 2018 University of Iowa

Abul-Haija, Sohair, Assistant Professor, Languages, Literatures, Linguistics, and Cultures, 2005 (2005); BA 1991 Yarmouk; MA 1996 Univ Lumiere Lyon 2; DSC 2004 Univ Lumiere Lyon 2

Abuqayas, Bashar, Clinical Assistant Professor, Internal Medicine, 2018 (2025); MD 2012 University of Jordan

Aburizik, Arwa, Clinical Associate Professor, Internal Medicine/Psych Quant Foundations, 2013 (2019); MD 2003 Jordan University; MBBCH 2004 Jordan University; MS 2011 University of Iowa

Achenbach, Andrea, Clinical Assistant Professor, Nursing, 2014 (2016); BS 2003 U.S. Air Force; MSN 2011 University of Iowa

Acherkan, Dmitriy M., Instructor, Family Medicine, (2024); MD 1986 Moscow Sch of Med Russia

Achrazoglou, George John, Emeritus Associate Professor, Teaching and Learning, 1987 (2007); BA 1981 University of Iowa; MA 1993 University of Iowa; PHD 2003 University of Iowa

Ackerman, Terry Allan, Adjunct Professor, Psych Quant Foundations, 2017 (2017); PHD 1984 University of Wisconsin-Milwau

Acosta, Stephanie Anna, Clinical Assistant Professor, Pediatrics, 2023 (2023); MD 2015 University of Texas Health Sci

Acton, Patricia Jo Nassif, Emeritus Professor, Law-Faculty, 1981 (1985); BA 1971 University of Iowa; JD 1974 University of Iowa

Adair, Erik A., Adjunct Assistant Professor, Pediatrics, 2021 (2021); DO 2014 Nova Southeastern University

Adamek, Mary, Emeritus Professor, Music, 1996 (2007); BM 1977 Virginia Commonwealth; MM 1981 Miami; PHD 1993 The University of Minnesota-Twin Cities

Adams, Charlotte, Emeritus Professor, Dance, 1998 (2017); BA 1976 Appalachian State; MA 1984 University of Arizona; MFA 1995 University of Arizona

Adams, Christopher Maxin, Adjunct Professor, Internal Medicine, 2006 (2015); BS 1992 Kansas, Lawrence; MD 1999 University of Iowa; PHD 1999 University of Iowa

Adams, Derek Landon, Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2015); PHARMD 2002 University of Iowa

Adams, Harold P., Emeritus Professor, Neurology, 1976 (1985); BA 1966 Drake; BS 1968 South Dakota-Vermillion; MD 1970 Northwestern Univeristy

Adams, Helen Christine, Adjunct Instructor, Law-Faculty, 2024 (2024); BA 1985 The University of Iowa; JD 1988 The University of Iowa

Adams, Jennifer Beth, Adjunct Instructor, Social Work, 2020 (2020); BA 1999 Buena Vista University; MSW 2003 University of Iowa

Adams, Kathryn, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 The University of Texas at Aus

Adams, Lafayette Bluford, Associate Professor, American Studies/English, 1994 (2001); BA 1985 Duke; MA 1987 Virginia; PHD 1993 Virginia

Adams, Lori, Professor, Biology/Office of the Provost, 2010 (2024); BS 1998 University of Illinois at Urbana Champaign; PHD 2003 Texas AM

Adams, Marie, Adjunct Instructor, Psych Quant Foundations, 2024 (2024); MSED 2015 UNIVERSITY OF WISCONSIN - PLAT; PHD 2021 University of Iowa

Adams, Molly M., Adjunct Assistant Professor, Pharmacy Practice and Science, 2004 (2004); PHARMD 1999 Drake

Adams, Quentin E., Adjunct Assistant Professor, Radiation Oncology, 2022 (2022); BS 2012 UNC-CH; MD 2017 University of Iowa

Adams, Russell, Adjunct Associate Professor, Internal Medicine, 2000 (2004); MD 1979 University of Iowa

Adcock, Craig, Emeritus Professor, School of Art, Art History, and Design, 1994 (1994); BFA 1971 Colorado; MA 1974 University of Colorado; PHD 1981 Cornell University

Adeagbo, Oluwafemi, Assistant Professor, Community Behavioral Health, (2022); BA 2007 Adekunle Ajasin University; PHD 2007 Univ of Johannesburg; MA 2011 Univ Witwatersand; PHD 2015 Univ Johannesburg

Adelsheim, Rebecca, Assistant Professor, Theatre Arts, 2025 (2025); BA 2012 University of Pennsylvania; MFA 2022 Yale University; DFA 2025 Yale University

Adelson, Jill, Adjunct Instructor, Psych Quant Foundations, 2022 (2022); PHD 2009 University of Connecticut

Aden, Leon John, Adjunct Professor, School of Earth, Environment, and Sustainability, 2019 (2019); BS 1980 University of Iowa; MS 1982 University of Iowa

Adeosun, Adams Abayomi, Adjunct Assistant Professor, Creative Writing, 2023 (2023); MFA 2023 University of Iowa

Adhikari, Bijaya, Assistant Professor, Computer Science, 2020 (2020); PHD 2020 Virginia Tech

Adhikary, Amitava, Adjunct Assistant Professor, Radiation Oncology, 2025 (2025); BS 1987 The University of Burdwan; MS 1989 The University of Burdwan; PHD 1999 University of Delhi

Adolphs, Lindsay Ellen, Adjunct Instructor, University College Courses, 2016 (2016); BA 2007 University of Iowa; MS 2010 Western Illinois University

Adolphs, Ralph, Adjunct Professor, Neurology, 1997 (2005); BSC 1986 Stanford; MSC 1986 Stanford; PHD 1992 California Technology of Tech

Adrain, Jonathan M., Professor, School of Earth, Environment, and Sustainability, 1999 (2011); BS 1989 Alberta; PHD 1993 Alberta

Adrain, Tiffany Sara, Adjunct Instructor, Interdisciplinary Programs, 2004 (2004); BA 1988 Exeter; BS 1995 London; MS 2003 University of Iowa

Adrian, Jeremiah R., Adjunct Instructor, Teaching and Learning, 2019 (2023); BA 2008 University of Iowa; MA 2013 University of Iowa

Adviento, Brigid, Clinical Assistant Professor, Psychiatry, (2024); MD 2018 Tulane University

Afifi, Rema, Professor, Community Behavioral Health, 2017 (2017); MPH 1989 Univ N Carolina at Chapel Hill; PHD 1997 Saint Louis University

Aggarwal, Anjana, Clinical Assistant Professor, Internal Medicine, 2019 (2019); MBBS 1994 Topiwala National Med Coll

Agrawal, Gail B., Emeritus Professor, Law-Faculty, 2010 (2010); BA 1978 New Orleans; JD 1983 Tulane; MPH 1983 Tulane

Agrawal, Naurang, Emeritus Professor, Internal Medicine, 2010 (2010); MBBS 1968 Grant Medical, India

Agrell, Jeffrey, Emeritus Associate Professor, Music, 2000 (2008); BA 1970 St Olaf; MM 1974 University of Wisconsin-Madison

Aguilar Jr., Agustin, Clinical Assistant Professor, Emergency Medicine, 1988 (1995); BS 1978 Emory; MD 1982 Univ Autonomoa de Guadalajara

Ahad, Sajida, Adjunct Associate Professor, Surgery, 2014 (2014); MBBS 1998 Aga Khan

Ahari, Abdi, Adjunct Assistant Professor, Surgery, 2009 (2009); BA 1987 Rudbeckianska Skolan; MD 1995 Uppsala Univ of Med

Ahern, Christopher A., Professor, Molecular Physiology Biophysics, 2012 (2018); BSC 1992 University of Wisconsin-Madison; PHD 2002 University of Wisconsin-Madison

Ahlijah, Gloria, Assistant Professor, Dance, 2024 (2024); BFA 2020 University of Ghana; MFA 2024 University of Michigan

Ahmad, Farah Zabeen, Adjunct Instructor, School of Planning and Public Affairs, 2024 (2024); BS 2007 Cornell University; MA 2012 Princeton University

Ahmad, Ferhaan, Associate Professor, Internal Medicine/ Molecular Physiology Biophysics/Radiology, 2013 (2013); MD 1991 McGill, Quebec

Ahmad, Justen Dale, Instructor, Family Medicine, (2025); MD 2022 Howard University College of Medicine

Ahmad Jan, Sayed Tauseef, Clinical Assistant Professor, Internal Medicine, 2021 (2024); MBBS 2010 Khyber Medical College

Ahmed, April Michelle, Adjunct Assistant Professor, Creative Writing, 2024 (2024); MFA 2024 University of Iowa

Ahmed, Azeemuddin, Emeritus Professor, Emergency Medicine, 2005 (2014); BA 1996 Augustana; MD 2000 University of Iowa; MBA 2010 University of Iowa

Ahmed, Kawther Khalid, Adjunct Assistant Professor, Pharmaceutical Sciences and Experimental Therapeutics, 2018 (2018); BS 2004 Baghdad University; MS 2013 University of Iowa; PHD 2016 University of Iowa

Ahmed, Mehwish, Adjunct Assistant Professor, Internal Medicine, 2025 (2025); MD 2019 University of Louisville

Ahn, Seongjoon, Assistant Professor, Political Science, 2025 (2025); MA 2018 University of Chicago; PHD 2025 University of Illinois at Urbana

Ahrens, Kyrsten Morgan, Assistant Professor, Nursing, 2025 (2025); BSN 2020 St. Ambrose University; MSN 2024 Grand Canyon University

Ahrens, Richard C., Emeritus Professor, Pediatrics, 1980 (2002); BS 1969 University of Wisconsin-Madison; MD 1973 Medical College of Wisconsin; MS 1980 University of Iowa

Aikin, Judith P., Emeritus Professor, German, 1975 (1988); BA 1968 Oregon; MA 1969 Oregon; PHD 1974 University of California-Berkeley

Ainsworth, Nicole, Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); DDS 2017 UMKC School of Dentistry

Aji, Aron R., Professor, Languages, Literatures, Linguistics, and Cultures, 2009 (2009); BA 1982 Bogazici Univerisity; MA 1984 Southern Illinois; PHD 1989 Southern Illinois

Ajibade, Ademola, Clinical Assistant Professor, Internal Medicine, (2025); BS 2012 Obafemi Awolowo University; MD 2022 All Saints University

Ajuz Holzmann, Hernane, Clinical Assistant Professor, Radiology, (2025); MD 2015 Federal University of Parana

Akay, Sinan, Clinical Assistant Professor, Radiology, (2024); MD 2004 AcademyGulhane Military Medical

Akbar, Kaveh, Professor, English, (2025); PHD 2018 Florida State University

Akey, Jeffrey Michael, Adjunct Instructor, Preventive Community Dentistry, 2022 (2022); DDS 1987 University of Iowa

Akgun, Ugur, Adjunct Associate Professor, Physics Astronomy, 2006 (2020); PHD 2003 Iowa

Akhter, Aunum, Clinical Assistant Professor, Pediatrics, 2023 (2023); MD 2017 Creighton University School of Medicine

Al Ayoubi, Adnan Mohamad, Assistant Professor, Cardiothoracic Surgery, (2024); MD 2012 Medical University of SC; PHD 2012 Medical University of SC

Al Jumaili, Ali Azeez Ali, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHAR 2017 University of Iowa

Al Khafaji, Ammar Sahib Abdulameer, Adjunct Assistant Professor, Pharmaceutical Sciences and Experimental Therapeutics, (2024); BSPH 2011 University of Kufa; PHAR 2021 University of Iowa

Al Modanat, Zaid Jehad Adeeb, Clinical Assistant Professor, Anesthesia, (2025); MD 2010 Mutah University

Al-Hayek, Shady, Clinical Associate Professor, Surgery, (2023); MD 1995 American University of Beirut

Al-Qurayshi, Zaid, Clinical Assistant Professor, Otolaryngology-Head Neck Surgery, (2024); MBBS 2008 Baghdad Univ College; MBCHB 2008 Baghdad Univ College Medicine; MPH 2013 Tulane University

Al-Zubeidi, Dina Naser Saleh, Clinical Associate Professor, Pediatrics, 2012 (2022); MBBS 2003 Jordan

Alabsi, Samir Y., Adjunct Associate Professor, Pediatrics, 2007 (2010); MD 1985 Cario, Egypt

Alambert, Renata Pereira, Assistant Professor, Internal Medicine, 2013 (2013); PHD 2008 Universidade do Estado do Rio

Alavi, Seyyedeh Soogand, Assistant Professor, Marketing, 2023 (2023); BSC 2019 Sharif Uni. of Technology; PHD 2024 The University of Texas - Dall

Alba Aponte, Patria Mercedes, Adjunct Assistant Professor, Pediatrics, 2020 (2020); MD 2005 School of Med. Dominican Republic

Alban Aveiga, Karissa Leigh, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2019 University of Wisconsin

Albarki, Mohammed Abdulhussein Handooz, Adjunct Assistant Professor, Pharmaceutical Sciences and Experimental Therapeutics, (2024); BSPH 2005 University of Baghdad; PHD 2019 The University of Iowa

Albashayreh, Alaa Edden, Assistant Professor, Nursing, (2023); PHD 2022 University of Iowa

Albert, James Laurence, Assistant Professor, Dance/Theatre Arts, 1996 (1996); MFA 1986 University of Iowa

Albonetti, Celesta A., Emeritus Professor, Sociology and Criminology, 1998 (2000); BA 1973 Missouri-St. Louis; MA 1975 Missouri-St. Louis; PHD 1984 University of Wisconsin-Madison

Albrecht, Joshua, Assistant Professor, Music, (2023); PHD 2012 Ohio State University

Albright, John P., Emeritus Professor, Orthopaedics and Rehabilitation, 1972 (1981); BA 1963 University of Illinois at Urbana Champaign; MD 1967 Loyola

Albright, Mark Aaron, Adjunct Instructor, Law-Faculty, 2021 (2025); MAE 1994 The Unviersity of Washington; JD 1996 The University of Washington; LLM 1996 The University of Washington

Aldridge, Georgina Michelle, Assistant Professor, Neurology, (2019); MD 2013 University of Illinois

Aleem, Numra Abdul, Clinical Assistant Professor, Pediatrics, (2025); MBBS 2016 Aga Khan University

Alessi, Stephen M., Emeritus Associate Professor, Psych Quant Foundations, 1982 (1988); BA 1973 Rochester; MA 1976 University of Illinois at Urbana Champaign; PHD 1979 University of Illinois at Urbana Champaign

Alexander, Bruce, Emeritus Professor, Pharmacy/Psychiatry, 1976 (2000); BS 1974 Drake; PHARMD 1976 The University of Minnesota-Twin Cities

Alexander, Meredith, Emeritus Lecturer, Theatre Arts, 1992 (1997); MFA 1981 University of California-San Diego

Alexandrou, Eirene G., Clinical Assistant Professor, Pediatrics, (2020); MD 2014 Indiana Univ School of Medicine

Alfieri, James, Assistant Professor, Biology, 2025 (2025); BS 2013 University of Dayton; MS 2016 Georgia Southern University; PHD 2023 Texas AM University

Ali, Saba Rasheed, Professor, Psych Quant Foundations, 2003 (2016); BA 1992 West Virginia; MA 1996 Loloya; PHD 2001 Oregon

Alkhaza'Leh, Ahmad Mohammad, Clinical Assistant Professor, Operative Dentistry, (2025); BDS 2016 Jordan University of Science; CER 2022 University of Iowa Operative; MS 2022 University of Iowa

Allan, Mary Ann, Adjunct Assistant Professor, Accounting/ Health Management Policy, 2022 (2022); BBA 2006 University of Iowa; MS 2008 U of Missouri-Kansas City

Allard, Abigail H., Adjunct Assistant Professor, Pediatrics, 2022 (2022); MD 2001 Washington University

Allardice, Kevin Lynch, Assistant Professor, Accounting, (2024); BA 2006 UCLA; MFA 2010 University of Virginia

Allareddy, Trishul Veera, Emeritus Professor, Oral Path,RadiologyMedicine, 2008 (2016); BDS 2002 Ragas Dental College

Allen, Alessandra Leigh, Adjunct Assistant Professor, Creative Writing, 2023 (2023); MFA 2023 University of Iowa

Allen, Allison, Clinical Assistant Professor, Obstetrics Gynecology, 2021 (2021); MD 2013 Oregon Health Science Univer

Allen, Bryan, Professor, Radiation Oncology, 2013 (2024); MD 2008 University of Iowa; PHD 2008 University of Iowa

Allen, Jason Edward, Clinical Assistant Professor, Internal Medicine, (2023); HS 2005 Twin Cedars H S; MD 2013 Carver College of Medicine

Allen, John S., Emeritus Professor, Law-Faculty, 1991 (2000); BA 1977 St. Olaf; JD 1980 University of Illinois at Urbana Champaign

Allen, Jonathan Sayre, Assistant Professor, Music, 2011 (2024); BM 2005 Northern Colorado; MM 2007 Utah; DMA 2011 University of Iowa

Allen, Lee-Ann, Emeritus Professor, Internal Medicine/ Microbiology and Immunology, 1996 (2010); BS 1982 University of California-Riverside; MS 1983 University of California-Riverside; PHD 1990 University of Wisconsin-Madison

Allendorf, Lynn Michelle, Adjunct Instructor, Management and Entrepreneurship, 2001 (2024); BS 1986 University of Iowa; MBA 1997 University of Iowa

Almanza, Alvaro Fernando, Adjunct Instructor, Law-Faculty, 2024 (2024); BS 2003 University of Idaho; JD 2007 Santa Clara University

Almasi, Nancy, Clinical Assistant Professor, Communication Sciences and Disorders, (2023); BS 1989 Iowa State University; MA 1991 University of Kansas; DSC 2021 Rocky Mountain University

Almen-Whittaker, Susan, Associate Professor, Languages, Literatures, Linguistics, and Cultures, 2000 (2020); BA 1993 Gustavus Adolphus; MA 1998 University of Wisconsin-Madison

Almiron, Rosario, Adjunct Instructor, Preventive Community Dentistry, 2012 (2012); DDS 2009 Colorado

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Alqasrawi, Musab, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MBBS 2010 Jordan University

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Altemeier, Michael, Associate Professor, Business Analytics, 2016 (2021); BA 1998 University of Northern Iowa; MBA 2002 University of Iowa

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Alvarado, Scott R., Adjunct Instructor, Health Management Policy, 2021 (2021); BA 2005 University of Iowa

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Alward, Wallace L., Emeritus Professor, Ophthalmology Visual Science, 1987 (1996); BA 1973 Kenyon; MD 1976 The Ohio State University

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Ambler, Alicia Rose, Associate Professor, Accounting, 2010 (2019); BA 2006 University of Iowa; MA 2007 University of Iowa

Ambrisco, Jesicah Elisabeth, Adjunct Assistant Professor, Family Medicine, 2022 (2022); DO 2018 Des Moines UnivColl Osteopath

Ambrose, Mary Katherine, Assistant Professor, Music, (2021); BA 2002 University of Michigan; MM 2005 University of Cincinnati; DMA 2020 Temple University

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Amendt, Brad Allen, Professor, Dental Research/ Orthodontics, 1999 (2012); BS 1979 University of Iowa; MS 1989 University of Iowa; PHD 1994 University of Iowa

Amin, Hina, Clinical Assistant Professor, Internal Medicine, (2025); MBBS 2014 King Edward Medical University

Aminzare, Zahra, Associate Professor, Mathematics, 2018 (2024); BSC 2007 Sharif Univ of Technology,Iran; PHD 2015 Rutgers University

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Amoedo, Mauricio, Clinical Assistant Professor, Radiology, (2024); MD 2007 Federal University of Bahia

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Amos, James John, Emeritus Professor, Psychiatry, 1996 (2011); BS 1985 Iowa State; MD 1992 University of Iowa

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Andersen, Allan Michael, Clinical Associate Professor, Psychiatry, 2015 (2025); MD 2008 Georgetown University

Andersen, Arnold E., Emeritus Professor, Psychiatry, 1991 (1991); BA 1964 Cornell-New York; MD 1968 Cornell-New York

Andersen, David R., Emeritus Professor, Electrical-Computer Engineering, 1986 (1999); BSEE 1981 Iowa State; MSEE 1982 Purdue University Main Campus; PHD 1986 Purdue University Main Campus

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Andersen, Philip Nels, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DDS 1982 University of Iowa

Andersland, Mark S., Emeritus Associate Professor, Electrical-Computer Engineering, 1989 (1995); BSE 1983 University of Michigan-Ann Arbor; MSE 1984 University of Michigan-Ann Arbor; PHD 1989 University of Michigan-Ann Arbor

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Anderson, Andrea, Adjunct Instructor, University College Courses, 2024 (2024); BA 2012 California State University; MLIS 2015 San Jose State University

Anderson, Bailey Louise, Adjunct Instructor, University College Courses, 2021 (2021); MFA 2016 University of Colorado

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Anderson, Bjorn Peter, Associate Professor, Classics/School of Art, Art History, and Design, 2007 (2018); MA 1999 British Columbia; MA 2004 University of Michigan-Ann Arbor; PHD 2005 University of Michigan-Ann Arbor

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Anderson, Carryn M., Clinical Professor, Radiation Oncology, 2008 (2023); MD 2003 Texas Medical Branch

Anderson, Dawn Renee Barker, Professor, Law-Faculty, 2001 (2017); BA 1992 N - Iowa; JD 1995 University of Iowa; EDS 2018 University of Iowa

Anderson, Donald Dean, Professor, Biomedical Engineering/ Industrial Engineering/Orthopaedics and Rehabilitation, 2004 (2016); BSE 1985 University of Iowa; MS 1986 University of Iowa; PHD 1989 University of Iowa

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Anderson, Kenneth Paul, Clinical Professor, Health Management Policy, 2019 (2024); DO 1978 Des Moines University

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Anderson, Michael Gary, Professor, Molecular Physiology Biophysics/Ophthalmology Visual Science, 2004 (2017); PHD 1997 University of Iowa

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Anderson, Wayne Gary, Associate Professor, Rhetoric, 2014 (2021); BA 1993 Luther College; MA 2008 University of Iowa; PHD 2014 University of Iowa

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Arendt, Adam J., Instructor, Orthopaedics and Rehabilitation, (2025); BS 2006 University of Wisconsin

Arens, Kristine, Associate Professor, Business Analytics, 2018 (2024); BS 1994 University of Wisconsin; MS 2019 University of Iowa

Arham, Ahmad Zafir, Instructor, Internal Medicine, (2024); MBBS 2006 The Aga Khan University

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Arlis, Sydney Ellen, Adjunct Assistant Professor, Biology, 2025 (2025); BA 2019 Miami University, Oxford, OH; PHD 2025 University of Iowa

Armbruster, Jamie Olivia, Adjunct Instructor, Family Medicine, 2017 (2017); MD 2008 Ross Univ, Dominica,W. Indies

Armour, Carly Deanna, Adjunct Instructor, University College Courses, 2016 (2016); HS 1997 Elbert County Comprehensive Hi; BSW 2001 University of Georgia; MSW 2007 University of Georgia; PHD 2023 University of Iowa

Armstrong, Hannah Jo, Assistant Professor, Nursing, (2024); BSN 2017 Mt. Mercy; DNP 2022 University of Iowa; MSN 2022 University of Iowa

Armstrong, Marc P., Emeritus Professor, Geographical and Sustainability Sciences, 1984 (1998); BA 1974 New York-Plattsburgh; MA 1977 University of North Carolina at Charlotte; PHD 1988 University of Illinois at Urbana Champaign

Armstrong, Matthew Kristin, Adjunct Asst In Instruction, Health Sport and Human Physiology, 2024 (2024); PHD 2020 University of Tasmania

Armstrong, Steven Ray, Emeritus Professor, Operative Dentistry, 1999 (2012); BS 1983 University of Iowa; DDS 1987 University of Iowa; PHD 1998 University of Iowa

Armstrong, Virginia, Adjunct Assistant Professor, Music, 2008 (2008); DMA 2007 University of Iowa

Arndt, Matthew, Associate Professor, Music, 2009 (2017); MM 2001 Colorado-Boulder; PHD 2008 University of Wisconsin-Madison

Arndt, Stephan, Emeritus Professor, Biostatistics/Nursing/ Psychiatry, 1991 (1998); BS 1974 Loyola; MA 1976 Claremont; PHD 1980 Claremont

Arneson, Scott Kabrick, Adjunct Instructor, Marketing/Office of Management Business Development, 2000 (2006); BBA 1984 University of Iowa; MBA 1999 University of Iowa

Arnold, Mark A., Professor, Biocatalysis/Pharmaceutical Sciences and Experimental Therapeutics, 1982 (1994); BS 1978 Indiana-Purdue; PHD 1982 Delaware

Arnold, Matthew Ember, Adjunct Assistant Professor, Family Medicine, 2012 (2013); PHARMD 2012 University of Iowa

Arnold, Nicholas Richard, Clinical Assistant Professor, Internal Medicine, (2025); BS 2013 University of Missouri; MD 2017 University of Missouri

Arnold, Nicholas Stonebrook, Adjunct Instructor, Journalism Mass Communication, 2017 (2017); BA 2000 University of Northern Iowa

Arnone, Anthony, Associate Professor, Music, 2001 (2008); BM 1989 New England Conservatory; MM 1994 Wichita State

Arnone, Arthur, Emeritus Professor, Biochemistry and Molecular Biology, 1973 (1983); BS 1964 New York; MS 1966 New York; PHD 1970 Massachusetts Inst of Tech

Arora, Jasbir S., Emeritus Professor, Civil-Environmental Engineering, 1972 (1981); BS 1964 Punjab-India; MS 1967 Kansas State; PHD 1971 University of Iowa

Arora, Kanika, Associate Professor, Health Management Policy, 2015 (2022); PHD 2015 Syracuse Univ

Arora, Lovkesh, Clinical Professor, Anesthesia, 2014 (2025); MD 2006 B.J. Medical College

Arroyo, Mary Katherine, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2016 University of Iowa

Arshava, Evgeny V., Clinical Professor, Cardiothoracic Surgery, 2008 (2024); MD 2000 Peoples Friendship Univ

Artemyev, Nikolai O., Professor, Molecular Physiology Biophysics/Ophthalmology Visual Science, 1995 (2004); BS 1984 St. Petersburg Inst of Technol; PHD 1988 St. Petersburg Inst of Technol

Arthur, Loyce L., Emeritus Associate Professor, Theatre Arts, 1998 (1998); BA 1981 Pennsylvania; MFA 1985 New York University

Arthur, Tina Marie, Adjunct Instructor, University College Courses, 2011 (2014); BA 1999 Northern Iowa; MA 2007 University of Iowa

Asay, Scott, Professor, Accounting, 2013 (2025); PHD 2011 Cornell University

Aschenbrenner, Eric Wade, Clinical Assistant Professor, Orthopaedics and Rehabilitation, 2012 (2012); BA 1999 Saint Mary's; MD 2004 Medical College of Wisconsin

Ascoli, Mario, Emeritus Professor, Neuroscience and Pharmacology, 1990 (1990); BS 1971 San Carlos; PHD 1975 Vanderbilt

Asgarli, Aygun, Clinical Assistant Professor, Neurology, (2025); MD 2018 Acibadem Mehmet Ali Aydinlar University

Ashat, Divya, Clinical Assistant Professor, Internal Medicine, (2022); MBBS 2012 Manipal University

Ashat, Munish, Clinical Assistant Professor, Internal Medicine, (2021); MBBS 2012 Government Medical College

Ashida, Sato, Professor, Community Behavioral Health, 2012 (2024); MM 1997 The Ohio State University; MM 1999 Florida State; PHD 2005 The Ohio State University

Ashlock, Jessica Ann, Assistant Professor, Nursing, 2014 (2024); BSN 2007 Coe College; MSN 2011 Walden University

Ashman, Robert F., Emeritus Professor, Internal Medicine, 1980 (1980); BA 1960 Wabash; BA 1962 Oxford-England; MA 1966 Oxford-England; MD 1966 Columbia

Ashwath, Ravi Chandra, Adjunct Professor, Pediatrics, 2017 (2020); MD 1993 Mysore Medical College

Askelson, Natoshia M., Professor, Community Behavioral Health, 2009 (2025); MPH 1998 Emory; PHD 2008 University of Iowa

Aslani, Layhla, Adjunct Assistant Professor, Physician Assistant, 2022 (2022); BS 2008 University of Nebraska - Omaha; MPAS 2013 Des Moines University

Asprey, David Perry, Professor, Pediatrics/Physical Therapy Rehab Science/Physician Assistant, 1994 (2008); PHD 1999 University of Iowa

Assad, Abraham Akram, Adjunct Professor, Psychiatry, 2023 (2023); MD 2010 University of Iowa

Assouline, Susan Lynn Goodsell, Emeritus Professor, Psych Quant Foundations, 1990 (2009); BS 1975 University of Iowa; EDS 1984 University of Iowa; PHD 1988 University of Iowa

Asta, Kenneth J., Adjunct Instructor, Health Sport and Human Physiology, 2024 (2024); BA 2003 Northern Illinois University; MA 2010 Western Illinios

Aswani, Yashant, Clinical Assistant Professor, Radiology, 2021 (2021); MD 2014 Seth GS Medical College

Atasoy, Deniz, Associate Professor, Neuroscience and Pharmacology, (2024); BS 2001 Bilkent University; PHD 2007 University of Texas Southwestern Med Ctr.

Atchison, Christopher George, Emeritus Professor, Health Management Policy, 1998 (2004); AB 1971 Loyola; MPA 1990 University of Illinois at Springfield

Atienza, Salvador Dimapasok, Adjunct Assistant Professor, Family Dentistry, 1999 (2000); BS 1990 University of Iowa; DDS 1994 University of Iowa

Atkins, Dianne Lee, Emeritus Professor, Pediatrics, 1983 (2002); BA 1974 Johns Hopkins; MD 1977 Johns Hopkins

Atkinson, Alice M., Emeritus Associate Professor, Teaching and Learning, 1973 (1995); BS 1961 Iowa State; MS 1963 University of Wisconsin-Madison; PHD 1982 University of Iowa

Atkinson, Kendall E., Emeritus Professor, Computer Science/ Mathematics, 1972 (1975); BS 1961 Iowa State; MS 1963 University of Wisconsin-Madison; PHD 1966 University of Wisconsin-Madison

Aubrey, Elizabeth, Emeritus Professor, Music, 1982 (1998); BA 1973 Grinnell; MM 1975 University of Maryland-College Park; PHD 1982 University of Maryland-College Park

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Aul, Edward, Clinical Assistant Professor, Neurology, 1998 (2000); BS 1988 Pittburgh; MD 1992 Pittburgh

Aungst, Gerald W., Adjunct Instructor, Teaching and Learning, 2017 (2023); BA 1989 Penn State University; MED 1991 Widener University

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Avila Ortiz, Gustavo, Emeritus Professor, Periodontics, 2011 (2018); DDS 2003 Granada,Spain; DPHIL 2006 Granada,Spain; MS 2009 University of Michigan-Ann Arbor

Awelewa, Temitope Modupe, Clinical Associate Professor, Pediatrics, 2015 (2021); MBCHB 2005 Obafemi Awolowo University; MPH 2010 The University of Minnesota-Twin Cities

Ayati, Bruce, Professor, Mathematics, 2007 (2017); BA 1993 University of California-San Diego; MS 1994 University of Illinois at Chicago; PHD 1998 University of Illinois at Chicago

Ayers, Michael Patrick, Adjunct Instructor, Teaching and Learning, 2023 (2023); BA 1999 U of Iowa; MAT 2001 U of Iowa; PHD 2011 University of Iowa

Ayieko, Sylvia A., Adjunct Instructor, Social Work, 2025 (2025); BS 2013 Liberty University, Virginia; PHD 2024 Univ Texas Health Sci Ctr

Aykin-Burns, Nukhet, Adjunct Associate Professor, Radiation Oncology, 2008 (2017); BS 1995 Middle East Technical Univ; PHD 2002 Missouri-Rolla,

Ayres, Lioness, Emeritus Associate Professor, Nursing, 2005 (2011); MSN 1992 University of Illinois at Chicago; PHD 1998 University of Illinois at Chicago

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Badovinac, Vladimir, Professor, Pathology, 2007 (2020); BS 1994 Belgrade; MS 1997 Belgrade; PHD 1999 Belgrade

Baeth, Austin Tyler, Adjunct Assistant Professor, Internal Medicine, 2017 (2017); HS 2003 Hoover High School; MD 2012 Carver College of Medicine

Bahr, Patricia Ann, Adjunct Instructor, Psych Quant Foundations, 2015 (2015); BS 1986 University of Iowa; MS 1989 University of Iowa

Bai, Er-Wei, Professor, Electrical-Computer Engineering, 1987 (2000); BS 1977 Fudan-China; ME 1982 Shanghai Jiaotong; PHD 1987 University of California-Berkeley

Baier, Trevor Richard, Adjunct Instructor, Physical Therapy Rehab Science, 2023 (2023); BS 2003 University of Illinois-Urb-Cha; DPT 2006 The University of Iowa

Baig, Bilal, Adjunct Assistant Professor, Internal Medicine, 2025 (2025); DO 2021 Des Moines University

Bailey, Carlos Nicholas, Adjunct Instructor, Law-Faculty, 2024 (2024); BA 2007 University of California-San D; JD 2011 The University of Iowa

Bailey, Charlotte Marie Kollasch, Instructor, Physical Therapy Rehab Science, (2023); BS 1995 Iowa State University; MPT 2001 University of Iowa; DPT 2007 Temple University

Bailey, John Francis, Adjunct Instructor, Finance, 2025 (2025); BBA 1987 The University of Iowa; MBA 1990 The University of Iowa

Bailey, Kaitlyn, Adjunct Instructor, University College Courses, 2024 (2024); BA 2013 University of Iowa; MA 2019 University of Iowa

Bailey, Olivia Erin, Clinical Professor, Emergency Medicine, 2007 (2021); BA 2000 University of Iowa; BS 2000 University of Iowa; MD 2004 University of Illinois at Chicago

Bailey, Regenia Dee, Adjunct Instructor, Management and Entrepreneurship, 2021 (2024); BM 1982 University of Iowa; MA 1988 University of Iowa; MBA 1995 University of Iowa

Bailey, Shannon Lyn, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2021 Western New England University

Bailin, Steven, Clinical Professor, Internal Medicine, 2014 (2023); MD 1984 Chicago Pritzker SOM

Bainbridge, Craig Wayne, Adjunct Associate Professor, Internal Medicine, 1977 (2002); MD 1974 University of Iowa

Bainter, Richard K., Adjunct Instructor, Political Science, 2025 (2025); JD 1988 University of Denver

Bair, Heather Lucy, Clinical Associate Professor, Nursing, 2000 (2022); BSN 1997 University of Iowa; MSN 2005 University of Iowa

Baird, Adam, Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2015); PHARMD 2013 Drake

Baird, Stephen Robert, Adjunct Instructor, Law-Faculty, 2025 (2025); BSPH 1986 The University of Iowa; JD 1990 The University of Iowa

Bairstow, Nigel Roger, Adjunct Instructor, Marketing, 2018 (2023); PHD 2011 University of Technology, Sydney

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Baker, Barbara Lynn Knutson, Adjunct Instructor, Accounting, 2013 (2024); BS 1983 University of Iowa; MBA 2011 Phoenix

Baker, Charity Dara, Adjunct Assistant Professor, Family Medicine, 2017 (2017); BS 2001 Univ of Wisconsin,LaCrosseWI; DO 2005 Des Moines Univ; Iowa

Baker, Joshua Paul, Adjunct Assistant Professor, Family Medicine, 2017 (2017); BA 2001 Wartburg College, Waverly,IA; DO 2005 Des Moines Univ; Iowa

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Baker, Richard Lance, Emeritus Associate Professor, Mathematics, 1989 (1995); BA 1972 Drake; MS 1979 University of Iowa; PHD 1987 University of California-Berkeley

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Baker-El Abiad, Kimberly Michelle, Clinical Associate Professor, Internal Medicine, 2008 (2022); BA 1996 University of Iowa; MD 2000 University of Iowa

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Bakken, Brianne, Clinical Associate Professor, Nursing, 2015 (2023); PHARMD 2015 University of Iowa

Bakker, Gerrit Thomas, Adjunct Assistant Professor, Political Science, 2024 (2024); BS 1981 University of Iowa

Bakopoulos, Constantine Christopher, Associate Professor, Cinematic Arts, (2020); BA 1997 University of Michigan Ann Arbor; MFA 2004 University of Wisconsinn - Madison

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Ballas, Zuhair K., Professor, Internal Medicine, 1980 (1993); BS 1970 Amer Univ of Beirut-Lebanon; MD 1974 Amer Univ of Beirut-Lebanon

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Bancroft, Alyssa M., Adjunct Assistant Professor, Earth and Environmental Sciences, 2022 (2022); BS 2006 Lake Superior State University; MS 2008 The Ohio State University; PHD 2014 The Ohio State University

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Banfi, Botond B., Associate Professor, Anatomy Cell Biology/ Internal Medicine, 2004 (2010); MD 2000 Semmelweis; PHD 2002 Semmelweis

Banh, Luong Minh, Instructor, Internal Medicine, 2018 (2023); MD 2006 Carver College of Medicine

Banu, Hussain, Clinical Associate Professor, Family Medicine, 2010 (2025); MBBS 1996 Tirunelveli Med College, India

Bar, Robert S., Emeritus Professor, Internal Medicine, 1977 (1986); BS 1964 Tufts; MD 1970 The Ohio State University; MS 1970 The Ohio State University

Baran, Bengi, Assistant Professor, Psychiatry/Psychological and Brain Sciences, 2020 (2020); BA 2004 Bogazici University; MA 2008 Bogazici University; PHD 2014 University of Massachsetts

Barbas, Samantha Sumi, Professor, Law-Faculty, (2024); BA 1994 Williams College; PHD 2000 University of California-Berke; JD 2010 Stanford University

Barber, Desmond Deshawn, Clinical Assistant Professor, Internal Medicine, (2025); MD 2018 University of Kansas

Barbosa, Maria Jose, Emeritus Professor, Spanish Portuguese, 1997 (2013); BA 1983 Federal de Minas Gerais-Brazil; MA 1984 University of North Carolina at Chapel Hill; PHD 1990 University of North Carolina at Chapel Hill

Barbuzza, Isabel, Professor, International Programs/ School of Art, Art History, and Design, 1997 (2020); BA 1988 University of California-Santa Barbara; MFA 1990 University of California-Santa Barbara

Barcelo, Nancy Rusty V., Adjunct Assistant Professor, Educ Policy Leadership Studies, 2021 (2021); MA 1972 University of Iowa; PHD 1980 University of Iowa

Barche, David S., Adjunct Assistant Professor, Psychiatry, 2023 (2023); PHD 2007 North Central University

Barcus, Gregg Alan, Adjunct Instructor, Management and Entrepreneurship, 2016 (2023); BS 1973 Iowa State University

Bardhoshi, Gerta, Professor, Anesthesia/Counselor Education, 2015 (2023); PHD 2012 George Washington University

Barfknecht, Charles F., Emeritus Professor, Pharmacy, 1967 (1974); BS 1960 University of Wisconsin-Madison; PHD 1964 Kansas

Barker, Anna, Adjunct Assistant Professor, Languages, Literatures, Linguistics, and Cultures/Marketing/University College Courses, 2003 (2005); BA 1991 University of Iowa; MA 1994 University of Iowa; PHD 2002 University of Iowa

Barker, Brett H., Adjunct Assistant Professor, Pharmacy Practice and Science, 2009 (2009); PHARMD 2008 University of Iowa

Barker, Jason H., Associate Professor, Internal Medicine, 2005 (2015); MD 1999 Baylor

Barker, Maria Teresita, Adjunct Assistant Professor, Educ Policy Leadership Studies, 2014 (2014); JD 2009 University of Iowa; PHD 2011 University of Iowa

Barloon, Thomas J., Associate Professor, Radiology, 1981 (1992); BS 1971 Loras; MD 1975 University of Wisconsin-Madison

Barlow, Patrick, Clinical Associate Professor, Center for Soc Sci Innovation/Internal Medicine, 2014 (2023); PHD 2014 University of Tennessee

Barnes, Erin Frances, Clinical Associate Professor, Counselor Education, 2007 (2022); BA 2001 University of Iowa; MA 2005 University of Iowa; PHD 2011 University of Iowa

Barnes, Joseph Nathan, Adjunct Instructor, Health Management Policy, 2024 (2024); BS 2016 Southwestern College - Kansas

Barnes, Tracy P., Adjunct Instructor, Teaching and Learning, (2025); BA 1996 McNeese State University

Barnett, Christopher Carter, Clinical Assistant Professor, Pediatrics, 2025 (2025); MD 2019 University of Mississippi

Barnhardt, Cassie L., Professor, Educ Policy Leadership Studies, 2012 (2024); BA 1997 University of Michigan-Ann Arbor; MA 2000 Michigan State University; PHD 2012 University of Michigan-Ann Arbor

Barnhill, William Keith, Adjunct Assistant Professor, Nursing, 2015 (2015); PHD 2014 Capella University

Baron, Jeffrey, Emeritus Professor, Neuroscience and Pharmacology, 1972 (1980); BS 1965 Connecticut; PHD 1969 University of Michigan-Ann Arbor

Baron, Robert Jacob, Emeritus Professor, Computer Science, 1970 (1993); AB 1963 San Diego State; MS 1965 Cornell; PHD 1968 Cornell

Barr, Caelainn, Adjunct Assistant Professor, English, 2025 (2025); MSJ 2014 Columbia University; MFA 2025 University of Iowa

Barragan, Eloy, Associate Professor, Dance, 2005 (2012); MFA 2018 Hollins University

Barrash, Joseph, Emeritus Professor, Neurology/ Psychological and Brain Sciences, 1998 (2017); PHD 1988 University of Iowa

Barrett, Timothy D., Emeritus Professor, Interdisciplinary Programs, 1993 (2005); BA 1973 Antioch

Bartachek, Amy Lynn, Adjunct Instructor, University College Courses, 2005 (2016); MA 2001 University of Iowa

Bartholomay, Lyric C., Adjunct Associate Professor, Epidemiology, 2014 (2014); BA 1998 Colorado State; PHD 2004 University of Wisconsin-Madison

Bartholow, Bruce D., Professor, Psychological and Brain Sciences, 2023 (2023); BA 1992 Minnesota State University; MS 1995 Drake University; PHD 2000 University of Missouri, Columb

Bartlett, Kathryn Brooke, Adjunct Assistant Professor, Emergency Medicine, 2022 (2022); DO 2017 Des Moines University

Bartlett, Kelly Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2000 University of Iowa

Bartlett, Luke Joseph, Adjunct Assistant Professor, Pharmacy Practice and Science, 2008 (2008); PHARMD 2000 University of Iowa

Barton, Vivian, Adjunct Assistant Professor, English/ University College Courses, 2023 (2023); BA 2005 Marymount Manhattan College; MED 2011 University of Massachusetts

Barton-Craig, Beth Laann, Adjunct Instructor, Teaching and Learning, 2025 (2025); BED 1992 Iowa State University; MED 1998 University of Iowa

Barwacz, Christopher Andrew, Professor, Family Dentistry, 2008 (2025); DDS 2007 University of Iowa

Basciftci, Beste, Assistant Professor, Business Analytics, (2021); MS 2015 Bogazici University; MS 2018 Georgia Institute of Technology; PHD 2019 Georgia Institute of Technology

Bashir, Amani, Clinical Associate Professor, Pathology, 2011 (2019); MBBS 1998 Jordan

Bashir, Mohammad, Clinical Professor, Cardiothoracic Surgery, 2013 (2024); MBBS 2003 Jordan

Basile, Monica Reese, Adjunct Assistant Professor, Gender, Women's and Sexuality Studies, 2013 (2013); PHD 2012 University of Iowa

Bass, Sheryl Anne, Adjunct Instructor, Counselor Education, 2024 (2024); MA 2012 University of Iowa

Bassuk, Alexander G., Professor, Neurology/Pediatrics, 2007 (2016); MD 1999 University of Illinois at Chicago

Basu, Hriden Narayan, Adjunct Assistant Professor, Internal Medicine, 2000 (2000); MD 1964 Calcutta Medical

Batcheler, Carolyn Jean, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2016 The University of Iowa

Bateman, Micah, Assistant Professor, Library Information Science, 2011 (2022); MFA 2011 Iowa

Bates, James N., Emeritus Associate Professor, Anesthesia, 1984 (1990); BA 1972 University of California-Santa Barbara; MA 1975 University of California-Santa Barbara; PHD 1977 University of California-Santa Barbara; MD 1981 Miami

Bates, Melissa, Adjunct Associate Professor, Internal Medicine, 2014 (2021); BS 2001 University of California-Riverside; PHD 2008 Pennsylvania State University

Bathke, Josey, Adjunct Assistant Professor, Management and Entrepreneurship, 2005 (2005); BA 1997 William Penn; JD 2003 University of Iowa; MBA 2003 University of Iowa

Batterson, Stephanie, Adjunct Instructor, Accounting, 2018 (2023); BA 2010 University of California, SD; MA 2012 CUNY Graduate Center, NY; PHD 2018 University of Iowa

Bauder, Stephanie Rene, Adjunct Instructor, Marketing, 2012 (2021); MBA 2003 University of Iowa

Baue, Ryan, Adjunct Instructor, Finance, 2023 (2023); BBA 2014 Finance; MBA 2019 University of Iowa

Bauer, Patrick B., Emeritus Professor, Law-Faculty, 1979 (1985); BA 1972 Wesleyan; JD 1975 University of Illinois at Chicago

Bauer-Wilson, Susan Leann, Adjunct Assistant Professor, Nursing, 2024 (2024); ADN 1991 Des Moines Area Community Coll; BSN 2003 Grand View University; MSN 2011 Allen College

Baughman, Cory J., Adjunct Assistant Professor, Internal Medicine, 2022 (2022); MD 2018 Carver College of Medicine

Baumbach, Gary Lynn, Emeritus Professor, Pathology, 1980 (1996); BA 1971 Wartburg; MD 1976 University of Iowa

Baumgartner, David, Adjunct Instructor, University College Courses, 2004 (2013); BA 1984 Northern Iowa; MA 1987 Northern Iowa; PHD 1990 Iowa State

Bausman, Cassandra Elizabeth, Associate Professor, Rhetoric, (2023); PHD 2015 University of Iowa

Baxter, Leslie, Emeritus Professor, Communication Studies, 1994 (1994); BS 1971 Lewis and Clark; MS 1972 Oregon; PHD 1975 Oregon

Bayer-Bowstead, Diana Kay, Clinical Associate Professor, Internal Medicine/Pediatrics, 2014 (2021); MD 2009 Des Moines

Bayless, John D., Emeritus Professor, Psychiatry, 1999 (2008); BS 1974 University of Wisconsin-Oskosh; MS 1977 University of Wisconsin-Oskosh; PHD 1986 University of Iowa

Bayliss, Kelsey Renee, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2014 University of Iowa

Bayman, Emine Ozgur, Professor, Anesthesia/Biostatistics, 2008 (2025); BA 1999 Hacettepe, Turkey; MS 2002 Bursa, Turkey; MS 2004 University of Iowa; PHD 2008 University of Iowa

Baynton, Douglas Cameron, Emeritus Professor, History, 1993 (2016); BS 1986 Western Oregon State; MA 1988 University of Iowa; PHD 1993 University of Iowa

Bayon, Rodrigo, Clinical Associate Professor, Otolaryngology-Head Neck Surgery, 2010 (2018); MD 2004 South Florida Med

Be, Michael, Adjunct Assistant Professor, Family Medicine, 2022 (2022); DO 2014 Des Moines Univ, Iowa

Beadle, Abigail Leann, Adjunct Instructor, University College Courses, (2019); BA 2015 The University of Iowa; MED 2017 Clemson University

Beane, Abby Elisabeth, Adjunct Assistant Professor, Pharmacy Practice and Science, 2009 (2009); PHARMD 2007 University of Iowa

Bear, Phillip A., Adjunct Assistant Professor, Internal Medicine, 1990 (2007); DO 1981 Osteopathic Med Hlth

Beard, Julie Michele, Adjunct Assistant Professor, Emergency Medicine, 2012 (2012); DO 2005 DMU-COM

Beasley, Byron T., Adjunct Assistant Professor, Internal Medicine, 1977 (1984); MD 1974 University of Iowa

Beasley, Gary Scott, Clinical Associate Professor, Pediatrics, (2024); BS 2007 Virginia Commonwealth Uni.; MD 2011 Virginia Commonwealth Uni.

Beasley, Oscar C., Emeritus Associate Professor, Internal Medicine, 1974 (1974); BS 1948 Kentucky; MD 1952 Vanderbilt

Beattie, Sarah, Assistant Professor, Pediatrics, (2022); BA 2012 Wesleyan University; PHD 2017 Dartmouth College

Beauchamp, Katherine, Adjunct Professor, Electrical-Computer Engineering, 2025 (2025); PHD 1994 University of Minnesota

Beaudine, Gregory Benjamin, Clinical Assistant Professor, Teaching and Learning, (2021); PHD 2020 Michigan State University

Bechtel, Theresa Jane, Associate Professor, Nursing, 2016 (2023); BSN 2008 Mercy College of Health Scienc; MSN 2012 University of Iowa; DNP 2020 Allen College; CER 2021 The National League for Nursin

Beck, Anna Christine, Research Assistant Professor, Surgery, 2022 (2022); MD 2015 Loyola University Chicago

Beck, Margaret, Professor, Anthropology, 2007 (2022); BA 1992 Kansas; MA 1995 Kansas; PHD 2003 University of Arizona

Beck, Robert A., Clinical Associate Professor, Family Medicine, 2011 (2023); BA 1983 Johns Hopkins; MD 1988 UMDNJ

Becker, Marcie Lynn, Clinical Assistant Professor, Physical Therapy Rehab Science, 2010 (2017); DPT 2001 Creighton

Becker, Nicole M., Adjunct Associate Professor, Chemistry, 2014 (2021); PHD 2012 Purdue University Main Campus

Becker, Nicole Elizabeth, Clinical Assistant Professor, Pathology, (2025); BA 2013 Wartburg College; MD 2018 University of Iowa

Becker, Robert M., Adjunct Assistant Professor, Radiology, 2022 (2022); BA 2012 University of Iowa; MD 2016 University of Iowa

Becker, Shea Lee, Instructor, Communication Sciences and Disorders/Otolaryngology-Head Neck Surgery, 2012 (2012); BA 1998 University of Iowa; MA 2000 University of Iowa; DAUD 2005 Florida

Becker, Thomas Edward, Adjunct Assistant Professor, Pediatrics, 1999 (1999); MD 1987 University of Iowa

Beckett, Andrew, Adjunct Assistant Professor, Educ Policy Leadership Studies, 2011 (2011); BS 1994 Truman State; MA 1996 University of Arizona; PHD 2006 Missouri-Columbia

Beckett, Emily Ann, Adjunct Assistant Professor, Pharmacy Practice and Science, 2013 (2013); PHARMD 2007 University of Iowa

Beckman, Jill N., Associate Professor, Languages, Literatures, Linguistics, and Cultures/Linguistics, 1996 (2004); BA 1989 Michigan State University; MA 1991 The Ohio State University; PHD 1998 Massachusetts

Becraft, Mallory Colleen, Adjunct Instructor, University College Courses, 2015 (2015); BA 2011 University of Iowa; MED 2014 Colorado State University

Bedeian, Kelly Lynne, Adjunct Instructor, Languages, Literatures, Linguistics, and Cultures, 2020 (2020); AA 1993 Scott Comm College, Bettendorf; BA 1996 University of Iowa; MBA 2023 University of Iowa

Bedell, David A., Clinical Professor, Family Medicine, 1995 (2024); BA 1975 Colorado College; MD 1982 Washington

Bednar, Emily Jane, Adjunct Associate Professor, Nursing, 2024 (2024); BSN 2012 Trinity College; DNP 2020 University of Iowa

Beebe, Megan, Adjunct Instructor, Pediatrics, 2017 (2017); MD 2003 University of Iowa

Beebout, Susan, Adjunct Assistant Professor, Internal Medicine, 2005 (2008); BS 1997 Iowa State; MD 2001 University of Iowa

Beeghly, James H., Emeritus Associate Professor, Psychiatry, 1985 (2000); BS 1972 West Virginia; MD 1978 West Virginia

Beenk, Denise Annette, Adjunct Instructor, Social Work, 2018 (2018); BA 1997 University of Northern Iowa; MSW 2014 University of Iowa; MBA 2018 Upper Iowa University

Beer, Ashley Rose, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2013 University of Iowa

Beese, Rebecca Jean, Adjunct Instructor, Nursing, 2023 (2023);

Behrendt, Douglas M., Emeritus Professor, Cardiothoracic Surgery, 1986 (1986); AB 1959 Amherst; MD 1963 Harvard

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Beichel, Reinhard R., Professor, Electrical-Computer Engineering, 2007 (2020); MS 1999 Graz Univ. of Technology; PHD 2005 Graz Univ.of Technology

Bejjani, Michael Jim, Instructor, Internal Medicine, (2025); BS 2016 American University of Beirut; MD 2020 American University of Beirut

Bell, Christopher Thomas, Adjunct Assistant Professor, Surgery, 2021 (2021); MD 2015 University of Missouri

Bell, Colin E., Emeritus Professor, Business Analytics, 1980 (1980); BA 1964 University of California-Berkeley; MA 1966 University of California-Berkeley; PHD 1969 Yale

Bell, Edward F., Professor, Pediatrics, 1979 (1988); BA 1969 Washington and Jefferson; MD 1973 Columbia

Bell, Rebecca Jo, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2000 University of Iowa

Bell, Tyler R., Associate Professor, Electrical-Computer Engineering, 2018 (2025); BS 2012 Iowa State University; MS 2014 Iowa State University; PHD 2018 Purdue University

Belli, Meriam N., Associate Professor, History, 2008 (2015); BA 1994 Inalco, Paris, France; MA 1995 Inalco, Paris, France; PHD 2005 Georgetown

Bellizzi, Andrew M., Clinical Professor, Pathology, 2011 (2020); MD 2004 Northwestern Univeristy

Bellman, Suzanne Beth, Associate Professor, Management and Entrepreneurship, 2010 (2021); BA 1984 Hampshire College; MA 2004 University of Iowa; DPHIL 2012 University of Iowa

Beltran Del Rio, Ruben, Emeritus Professor, Industrial Engineering, 2015 (2024); PHD 1996 Kansas State University

Belz, Mark, Adjunct Professor, Internal Medicine, 2003 (2016); BS 1991 Pittburgh; BSEE 1991 Pittburgh; MD 1995 Wash St. Louis

Ben Romdhane, Asma, Associate Professor, Languages, Literatures, Linguistics, and Cultures, 2010 (2025); BA 2009 Lang tunisia; MA 2013 University of Iowa

Bencomo, Luis M., Adjunct Professor, Psychiatry, 2023 (2023); MD 1983 Universidad Cetec

Benda, Jo Ann, Emeritus Professor, Pathology, 1979 (1996); BS 1971 Iowa State; MD 1975 University of Iowa

Bender, David Paul, Clinical Professor, Obstetrics Gynecology, 2004 (2018); BA 1991 Maine; MD 1995 University of Illinois at Urbana Champaign

Benesh, Joseph, Adjunct Instructor, Management and Entrepreneurship, (2023); MBA 2016 University of Iowa

Bengaluru Jayanna, Manju, Adjunct Assistant Professor, Internal Medicine, 2015 (2015); MBBS 2009 Bangalore Medical College

Bengfort, Jacquelyn Ruth, Adjunct Assistant Professor, Creative Writing, 2023 (2023); BS 2006 United States Naval Academy; MFA 2023 University of Iowa

Bennett, Andrea Patricia, Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2015); PHARMD 2013 University of Iowa

Bennett, Cathleen, Adjunct Instructor, Law-Faculty, 2020 (2023); JD 1985 Boston university School of Law

Bennett, Darus Lee, Clinical Professor, Radiology, 2001 (2013); BS 1984 Arkansas; MA 1986 Washington; MD 1990 Arkansas

Bennett, David, Professor, Geographical and Sustainability Sciences/School of Earth, Environment, and Sustainability, 2000 (2010); BA 1980 Northern Iowa; MA 1982 University of Michigan-Ann Arbor; PHD 1994 University of Iowa

Bennett, John P., Adjunct Assistant Professor, Internal Medicine, 1991 (1991); MD 1985 George Washington

Bennett, Lisa, Adjunct Instructor, Preventive Community Dentistry, 2011 (2011); BA 2003 St Olaf; DDS 2007 University of Illinois at Urbana Champaign

Bennion, Douglas Martin, Assistant Professor, Otolaryngology-Head Neck Surgery, (2025); MD 2018 University of Florida College of Medicine

Benoit, Gena Lou Rose, Adjunct Assistant Professor, Family Medicine, 2009 (2009); BS 1995 St. Ambrose; MD 1999 University of Iowa

Benskin, Theresa, Adjunct Assistant Professor, Internal Medicine, 2025 (2025); MD 2021 University of Iowa

Benson, Christopher J., Professor, Internal Medicine/ Neuroscience and Pharmacology, 1999 (2017); BS 1986 St. John's; MD 1991 The University of Minnesota-Twin Cities

Benson, Nicholas Gorden, Adjunct Instructor, Management and Entrepreneurship, 2021 (2024); BA 2006 University of Iowa; JD 2010 University of Iowa; MS 2012 University of Iowa

Benson, Rebecca Joy Timmer, Clinical Professor, Pediatrics, 2011 (2023); BA 1999 Hope College, MI; BS 1999 Hope College, MI; MD 2007 University of Iowa; PHD 2007 University of Iowa

Bentler, Ruth Ann Winnike, Emeritus Professor, Communication Sciences and Disorders, 1977 (2002); BS 1971 University of Iowa; MA 1973 University of Iowa; PHD 1987 University of Iowa

Benzoni, Thomas, Adjunct Assistant Professor, Family Medicine, 2019 (2019); BS 1974 Creighton University; DO 1983 Des Moines Univ of Ostepathy

Berardi, Mark, Adjunct Assistant Professor, Communication Sciences and Disorders, 2024 (2024); BS 2015 Brigham Young University; PHD 2020 Michigan State University

Berbaum, Kevin S., Emeritus Professor, Radiology, 1977 (1993); BA 1971 Millikin; PHD 1978 State University of New York

Berg, Daniel J., Emeritus Associate Professor, Internal Medicine, 1995 (2003); BS 1981 University of Illinois at Urbana Champaign; MD 1986 University of Illinois at Urbana Champaign

Berg, Joyce E., Emeritus Professor, Accounting, 1992 (2010); BS 1979 The University of Minnesota-Twin Cities; MBA 1985 The University of Minnesota-Twin Cities; PHD 1988 The University of Minnesota-Twin Cities

Berg, Mark Thomas, Professor, Center for Soc Sci Innovation/Sociology and Criminology, 2013 (2021); BS 2003 Iowa State; MS 2005 Iowa State; PHD 2009 Missouri-St Louis

Berge, Caitlin Jean, Adjunct Instructor, Preventive Community Dentistry, 2025 (2025); BA 2013 University of Iowa; AASC 2019 Kirkwood Community College

Bergen-Jackson, Kimberly Michele, Clinical Associate Professor, Nursing/Social Work, 2014 (2024); BSN 2006 University of Iowa; MSN 2008 University of Iowa; PHD 2013 University of Iowa

Berger, Bethany, Professor, Law-Faculty, 2005 (2024); BA 1990 Wesleyan; JD 1996 Yale

Berger, Herbert Anton, Clinical Professor, Internal Medicine, 1992 (2005); BS 1981 Loyola; MD 1985 Loyola Stritch Schl of Medicin

Berger, Joel, Research Assistant Professor, Neurosurgery, (2024); PHD 2014 The University of Nottingham

Bergin-Batten, Tembi, Adjunct Instructor, University College Courses, 2016 (2016); MA 2011 University of Iowa

Bergland, Tara Christina, Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2018); PHARMD 2015 University of Nebraska-Lincoln

Bergmann, Troy J., Adjunct Instructor, Counselor Education, 2021 (2024); MED 2006 Northern Arizona University

Bergthold, Sarah, Adjunct Instructor, Psych Quant Foundations, 2023 (2023); PHD 2010 Illinois State University

Bergus, George Ravdin, Emeritus Professor, Family Medicine, 1990 (2005); BA 1976 Pennsylvania; MD 1982 Pennsylvania; MA 2002 University of Iowa

Berkowitz, Caryn Michelle, Clinical Professor, Internal Medicine, 2015 (2024); MD 1985 State University of New York

Berkowitz, Dan, Emeritus Professor, Journalism Mass Communication, 1988 (2006); BS 1975 Humboldt State; MS 1985 Oregon; PHD 1988 Indiana University-Bloomington

Berman, Constance A., Emeritus Professor, History, 1988 (1994); BA 1970 Carleton; MA 1972 University of Wisconsin-Madison; PHD 1978 University of Wisconsin-Madison

Bermel, Holley Ann, Adjunct Assistant Professor, Family Medicine, 2013 (2013); BA 2001 Drake; DO 2006 Des Moine University

Bermick, Jennifer R., Associate Professor, Pediatrics, (2020); MD 2007 The Ohio State University

Bermingham, Charles J., Clinical Professor, Psych Quant Foundations, (2025); BA 2000 Loras College; PHD 2016 University of Iowa

Bern-Klug, Mercedes Eva, Professor, International Programs/Social Work, 2004 (2017); BA 1982 University of Iowa; MSW 1984 University of Iowa; MA 1991 Georgetown; DR 2003 Kansas

Bernabe, Megan Paige, Adjunct Assistant Professor, Pharmacy Practice and Science, 2013 (2013); PHARMD 2012 University of Iowa

Bernard, Allison Margaret, Adjunct Assistant Professor, Family Medicine/Pharmacy Practice and Science, 2017 (2022); PHARMD 2017 University of Iowa

Bernard, Kyle Steven, Adjunct Instructor, Physical Therapy Rehab Science, 2017 (2023); BA 2013 University of Northern Iowa; DPT 2015 University of Iowa

Bernat, John Andrew, Clinical Professor, Pediatrics, 2015 (2025); BA 1999 Washington University; MD 2009 University of Michigan-Ann Arbor; PHD 2009 University of Michigan-Ann Arbor

Bernfeld, Tamar, Adjunct Instructor, Linguistics/Rhetoric/ University College Courses, 2014 (2023); MA 2004 University of Pittburgh; PHD 2023 The University of Iowa

Bernhardt, Melissa, Adjunct Instructor, Preventive Community Dentistry, 1999 (1999); MS 1998 University of Iowa

Bernstein, Neil P., Adjunct Professor, School of Earth, Environment, and Sustainability, 2010 (2010); BS 1975

Colorado State; MS 1977 John Carroll; PHD 1982 The University of Minnesota-Twin Cities

Berry, Sean R., Adjunct Instructor, Law-Faculty, 2001 (2023); BBA 1982 Notre Dame; JD 1987 Northwestern Univeristy

Berry, Stephen Joseph, Emeritus Professor, Journalism Mass Communication, 2003 (2015); BS 1970 Montevallo; MA 1984 University of North Carolina at Greensboro

Berry, Venise Torriana, Professor, African-American Studies/Journalism Mass Communication/University College Courses, 1991 (2021); BA 1977 University of Iowa; MA 1979 University of Iowa; PHD 1989 The University of Texas at Austin

Berry-Stoelzle, Maresi Ann, Adjunct Instructor, Finance, 2015 (2024); MD 2006 Univ Rostock Germany; PHD 2007 University of Heidelberg

Berry-Stoelzle, Thomas Richard, Associate Professor, Finance, 2015 (2015); MA 2002 Ulm University; PHD 2007 University of Cologne

Berta, Katherine Mcvey, Adjunct Assistant Professor, English, 2023 (2023); PHD 2017 Ohio University

Bertolatus, John Andrew, Emeritus Professor, Internal Medicine, 1982 (2017); BA 1972 Johns Hopkins; MD 1976 Johns Hopkins

Bertolini Fernandes Dos Santos, Mateus, Clinical Associate Professor, Prosthodontics, (2025); DDS 2007 S? #o Paulo State University, B; MSD 2009 Campinas State University, Bra; PHD 2011 Campinas State University, Bra

Besecker, Beth, Adjunct Assistant Professor, , 2024 (2024); MD 2001 Medical College of Ohio

Best, Leyla, Adjunct Assistant Professor, Internal Medicine, 2012 (2011); MD 2001 U. Peruana Cayetan Heredia

Bettendorf, Brittany Ann, Clinical Associate Professor, Internal Medicine, (2023); MD 2011 University of Wisconsin

Bettis, Elmer Arthur Iii, Emeritus Professor, Earth and Environmental Sciences, 1995 (2015); BS 1975 Iowa State; MS 1979 Iowa State; PHD 1995 University of Iowa

Beydler, Katherine Dupree, Adjunct Assistant Professor, Classics, 2023 (2023); MA 2019 University of Michigan

Beyer, Nancy Ellen, Clinical Associate Professor, Pediatrics/ Psychiatry, 2008 (2015); BA 1982 University of Iowa; MA 1985 University of Iowa; MD 2003 University of Iowa

Bezuglyi, Sergii, Assistant Professor, Mathematics, 2013 (2024); PHD 1982 Kharkov National; DSC 2007 National Academy

Bhalla, Ramesh C., Emeritus Professor, Anatomy Cell Biology, 1973 (1982); BVSC 1957 Panjab-India; FRVCS 1962 Stockholm; PHD 1970 University of Wisconsin-Madison

Bhandari, Ashok, Instructor, Radiation Oncology, (2025); MS 2023 Creighton University

Bhandary, Asha Leena, Professor, Gender, Women's and Sexuality Studies/Philosophy, 2012 (2025); PHD 2011 Connecticut

Bhardwaj, Gourav, Research Assistant Professor, Internal Medicine, (2022); BS 2003 Rahilkhand University; PHD 2016 Universitat Greifswald

Bhargava, Anuj, Adjunct Professor, Internal Medicine, 2005 (2016); MBBS 1996 Manlana Azad Medical

Bhatia, Sudershan K., Adjunct Associate Professor, Radiation Oncology, 2005 (2013); MD 1977 Allahabad; MPH 1986 John Hopkins; PHD 1992 John Hopkins

Bhatnagar, Ranbir K., Emeritus Professor, Neuroscience and Pharmacology, 1971 (1981); BS 1954 Lucknow-India; DVM 1958 Agra-India; MS 1963 Michigan State University; PHD 1971 Michigan State University; MFA 1999 University of Iowa

Bhatt, Ishan Sunilkumar, Associate Professor, Communication Sciences and Disorders/Otolaryngology-Head Neck Surgery, 2020 (2020); BA 2008 Maharstra Univ Health Science; MA 2010 Maharastra Univ Health Science; PHD 2013 Univ of N. Carolina Greensboro

Bhattacherjee, Aditi, Assistant Professor, Chemistry, 2020 (2020); BS 2008 Jadavpur Univ, Kolkata; PHD 2015 Tata Institute, Mumbai

Bhatti, M. Asghar, Professor, Civil-Environmental Engineering, 1980 (2006); BE 1972 Karachi-Pakistan; MS 1975 University of California-Berkeley; PHD 1980 University of California-Berkeley

Bianchi, Alison J., Associate Professor, Sociology and Criminology, 2007 (2010); MA 1998 Stanford; MA 2000 San Jose State; PHD 2001 Stanford

Bibbins, Tammera L., Adjunct Instructor, Social Work, 2016 (2016); BA 1993 University of Houston; MSW 1998 University of Houston

Bickenbach, Jackie R., Emeritus Professor, Anatomy Cell Biology/Dermatology, 1999 (2009); BS 1973 University of Iowa; MS 1979 University of Iowa; PHD 1982 University of Iowa; MA 1988 University of Iowa

Biderman, Rachelle L., Adjunct Instructor, Journalism Mass Communication, (2020); BA 2005 University of Northern Iowa; MA 2010 University of Northern Iowa

Bieri, Linda Olson, Adjunct Instructor, Preventive Community Dentistry, 2002 (2002); DDS 1978 University of Iowa

Biger, Jacqueline, Associate Professor, Library Information Science/University College Courses, 2013 (2022); BA 2003 University of Iowa; AMLS 2006 Simmons; MAT 2013 University of Iowa

Biglow, Lauren, Adjunct Assistant Professor, Spanish Portuguese, 2025 (2025);

Bigsby, Kristina, Associate Professor, Business Analytics, 2018 (2024); BA 2010 University of Iowa; MA 2013 University of Iowa; PHD 2018 University of Iowa

Bigsby, Patrick, Adjunct Instructor, Law-Faculty, 2023 (2023); BA 2010 University of Iowa; MA 2012 USC; JD 2016 The University of Iowa

Bijlani, Rahul M., Clinical Assistant Professor, Orthopaedics and Rehabilitation, 2021 (2021); BS 2010 University of Illinois Urb- Ch; MD 2015 Loyola University Chicago

Bilki, Burak, Adjunct Assistant Professor, Physics Astronomy, 2015 (2015); BS 2001 Bogazici University, Turkey; MS 2006 Bogazici University, Turkey; PHD 2011 University of Iowa

Billiet, Gabriel Mcquade, Adjunct Assistant Professor, Pharmacy Practice and Science, 2005 (2005); PHARMD 2003 University of Iowa

Bingaman, Amy, Adjunct Assistant Professor, Obstetrics Gynecology, 2014 (2014); BA 1997 Drake University; MD 2002 University of Iowa

Bingham, Heather Lynne, Clinical Associate Professor, Orthopaedics and Rehabilitation, 2008 (2016); BS 1997 Brigham Young University; MD 2004 Texas Southwestern, Dall

Binkley, Elaine M., Associate Professor, Ophthalmology Visual Science, (2024); BS 2007 Denison University; MD 2015 The Ohio State University

Bird, Michael Robert, Adjunct Instructor, Family Medicine, 2020 (2020); BS 1983 Creighton University, Omaha NE; MD 1987 Universityof Iowa

Birdsell, Michele M., Adjunct Instructor, Pharmacy Practice and Science, 1997 (1997); BS 1993 University of Iowa

Birlson, Jennifer J., Assistant Professor, Nursing, 2019 (2024); ADN 2005 Southeastern Community College; BSN 2017 Western Governors University; MSN 2018 Western Governors University

Birrell, Susan J., Emeritus Professor, American Studies, 1980 (1992); BA 1968 St Lawrence; MS 1976 Massachusetts; PHD 1978 Massachusetts

Bish, Whitni, Adjunct Assistant Professor, Pharmacy Practice and Science, (2021); PHARMD 2019 University of Iowa; MHA 2021 University of Iowa

Bishop, Gail A., Professor, Internal Medicine/Microbiology and Immunology, 1989 (1998); BA 1977 St. Olaf; MS 1979 University of Wisconsin-Madison; PHD 1983 University of Michigan-Ann Arbor

Bishop, Warren P., Emeritus Professor, Pediatrics, 1989 (2007); BA 1975 St. Olaf; MD 1979 University of Wisconsin-Madison

Biskupic, Mary Margaret, Adjunct Assistant Professor, Creative Writing/English, 2025 (2025); MFA 2025 The University of Iowa

Bisnett, Derrick, Adjunct Assistant Professor, Oral Path,RadiologyMedicine, 2025 (2025); BS 2016 University of Wisconsin - Whit; DDS 2020 University of Colorado School

Bixby, Adam E., Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2005 University of Iowa

Black, Donald W., Emeritus Professor, Psychiatry, 1986 (1996); BA 1978 Stanford; MD 1982 Utah

Black, Harold J., Emeritus Assistant Professor, Pharmacy, 1955 (1965); BS 1953 University of Iowa; MS 1955 University of Iowa

Blackburn, Danielle Nicole, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2019 University of the Incarnate Wo

Blackhurst, Jennifer Jane Vincent, Adjunct Professor, Business Analytics, 2014 (2014); BS 1995 Ohio; MS 1997 Ohio; PHD 2002 University of Iowa

Blackwell, Kim Lois, Professor, Biomedical Engineering/ Neuroscience and Pharmacology, (2023); PHD 1988 University of Pennsylvania

Blaedel, Anna K., Adjunct Assistant Professor, Gender, Women's and Sexuality Studies, 2025 (2025); BA 2004 The University of Iowa; PHD 2024 Drew University

Blair, Nathan, Clinical Associate Professor, Anesthesia/ Pediatrics, 2016 (2025); MD 2011 University of Illinois at Urbana Champaign

Blair, Rebecca S., Emeritus Associate Professor, Rhetoric, 2012 (2017); PHD 1988 Indiana University-Bloomington

Blaise, Clark Lee, Emeritus Associate Professor, English, 1981 (1998); BA 1961 Denison; MFA 1964 University of Iowa

Blake, Douglas, Adjunct Assistant Professor, Communication Sciences and Disorders, 2020 (2020); PHD 2019 University of Iowa

Blalock, Stephanie Michelle, Assistant Professor, Library Information Science, (2024); BA 2003 Duke University; MA 2008 University of Iowa; PHD 2011 University of Iowa; AMLS 2015 University of Iowa

Blau, John L., Clinical Associate Professor, Pathology, 2014 (2023); BS 2004 Utah State; MD 2008 Colorado

Blau, Linsey Ann, Adjunct Assistant Professor, Pharmacy Practice and Science, 2005 (2005); PHARMD 2003 University of Iowa

Bleher, Frauke M., Professor, Mathematics, 2000 (2009); BS 1989 Stuttgart-Germany; MS 1993 Stuttgart-Germany; PHD 1995 Stuttgart-Germany

Blessing, Melissa, Clinical Assistant Professor, Pathology, (2024); BA 2008 Northern Arizona University; BS 2008 Norther Arizona University; DO 2012 A.T. Still University

Block, Robert I., Emeritus Associate Professor, Anesthesia, 1988 (1994); BA 1969 Shimer; MS 1972 Harvard; MS 1977 Rutgers University-New Brunswick; PHD 1981 Rutgers University-New Brunswick

Bloesch, Richard J., Emeritus Associate Professor, Music, 1967 (1974); BA 1952 Elmhurst; MDIV 1955 Union Theological Seminary; SMM 1959 Union Theological Seminary; DMA 1971 University of Illinois at Urbana Champaign

Blomberg, Emily C., Adjunct Assistant Professor, Health Management Policy, 2023 (2023); BS 2004 University of Minnesota; MHA 2006 University of Minnesota

Blommer, Amy, Adjunct Instructor, Journalism Mass Communication, 2025 (2025); BA 2001 Augustana College; MA 2007 Northern Illinois University

Bloom, Stephen G., Emeritus Professor, Journalism Mass Communication, 1993 (2004); BA 1973 University of California-Berkeley

Bloomberg, Justin David, Adjunct Associate, Ophthalmology Visual Science, 2019 (2019); DO 2014 Des Moines University

Bloomquist, Wade M., Assistant Professor, Mathematics, (2024); PHD 2019 U of California Santa Barbara

Blount, Robert Jesse, Assistant Professor, Internal Medicine/ Occupational Environmental Health/Pediatrics, 2017 (2017); MD 1999 Johns Hopkins SOM

Blum, Cinzia, Emeritus Professor, French Italian, 1989 (2009); MA 1985 University of Iowa; PHD 1989 Cornell

Blum, James Marlow, Associate Professor, Anesthesia, (2020); BS 1998 Alma College; MD 2003 John Hopkins University

Blumberg, Life, Adjunct Instructor, Classics, 2016 (2014); BA 2002 Berea; MA 2004 Kentucky; MA 2012 University of Iowa

Blumberg, Mark S., Professor, Psychological and Brain Sciences, 1992 (2001); BA 1983 Brandeis; MA 1987 University of Illinois at Chicago; PHD 1988 University of Illinois at Chicago

Blythe, Gregory John, Adjunct Assistant Professor, Emergency Medicine, 2018 (2018); BS 2008 Mount Mercy College; DO 2012 Des Moines University

Boardman, Allison Marie, Clinical Assistant Professor, Obstetrics Gynecology, (2023); MD 2013 University of Iowa

Bobbitt, Thomas, Assistant Professor, Journalism Mass Communication, (2025); BA 2021 Queens University of Charlotte; MA 2022 West Virginia University; PHD 2025 West Virginia University

Bobrycki, Shane, Assistant Professor, History, (2024); PHD 2016 Harvard University

Bobst, Ryan Daniel, Adjunct Instructor, Social Work, 2011 (2011); BSW 2009 University of Iowa; MSW 2011 University of Iowa

Bock, Kayla Jean, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2015 University of Iowa

Bockenstedt, Tricia L., Adjunct Assistant Professor, Pharmacy Practice and Science, 2013 (2013); PHARMD 2010 University of Iowa

Bode, Jill L., Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2016); PHARMD 2008 Drake University

Bodilly, Lauren, Instructor, Pediatrics, 2022 (2023); BS 2010 University of Wisconsin; MD 2015 Medical College of Wisconsin; MS 2021 University of Cincinnatti

Bodnar, Richard Lee, Adjunct Assistant Professor, Mechanical Engineering, 2015 (2010); MS 1977 Pennsylvania

Boehmke, Frederick J., Professor, Political Science, 2000 (2013); BA 1995 Washington; MA 1998 Calif Inst of Technology; PHD 2000 Calif Inst of Technology

Boen, Randall, Clinical Assistant Professor, Counselor Education, (2022); PHD 2018 Southern Ill Univ. Carbondale

Boes, Aaron Daniel, Professor, Biomedical Engineering/ Neurology/Pediatrics/Psychiatry, 2016 (2024); BS 2003 University of Iowa; MD 2009 University of Iowa

Boese, Erin Alward, Assistant Professor, Ophthalmology Visual Science, 2018 (2018); MD 2013 University of Iowa

Boettger, David Allan, Adjunct Instructor, University College Courses, 2015 (2015); BA 1989 Luther College; MED 1994 Western Washington

Boevers, Jessica Lee, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1994 Univ of Northern IA,CedarFalls; MD 1998 Univ of IA CCOM, Iowa City

Boevers, Kurt, Adjunct Instructor, Physical Therapy Rehab Science, 2017 (2023); BA 1992 University of Northern Iowa

Boggess Jr., Thomas F., Emeritus Professor, Physics Astronomy, 1989 (1996); BS 1978 Lamar; MS 1980 North Texas State; PHD 1982 North Texas State

Bognar, Matthew Allyn, Associate Professor, Statistics Actuarial Science, 2002 (2018); BS 1992 University of Wisconsin-Lacrosse; MS 1994 University of Wisconsin-Madison; PHD 2002 University of Iowa

Bogue, Richard J., Emeritus Professor, Nursing, 2012 (2021); BA 1980 South Florida; MA 1982 South Florida; PHD 1988 The University of Texas at Austin

Bohannan, Christina, Professor, Law-Faculty, 2000 (2010); BS 1994 Florida; JD 1997 Florida

Bohm, Julia, Adjunct Assistant Professor, English, 2025 (2025); MFA 2025 The University of Iowa

Bohn, Courtney Elizabeth, Adjunct Instructor, Preventive Community Dentistry, 2021 (2021); BS 2010 Creighton University; DDS 2016 University of Iowa

Bohner, Scott, Adjunct Instructor, Family Medicine, 2019 (2019); BA 2001 Central College; DO 2005 Des Moines University

Bohr, Lindsey June, Adjunct Assistant Professor, Pharmacy Practice and Science, 2009 (2011); PHARMD 2009 University of Iowa

Boland, Jesse Trent, Adjunct Instructor, Military Science, 2024 (2024); BA 2012 University of Iowa

Bolden, Charity Marie, Adjunct Instructor, University College Courses, 2025 (2025); BA 1996 Gustavus Adolphus College; MA 2009 Talbot School of Theology

Boldt, H. Culver, Professor, Ophthalmology Visual Science, 1992 (2006); BS 1982 Northwestern Univeristy; MD 1984 Northwestern Univeristy

Boldt, Lea J., Adjunct Assistant Professor, Psychiatry, (2021); BA 1999 Creighton University; BS 2012 University of Iowa; MA 2015 University of Iowa; PHD 2020 University of Iowa

Bolenbaugh, Mallory, Adjunct Instructor, Psych Quant Foundations, 2022 (2024); BS 2014 The University of Evansville; PHD 2021 University of Iowa

Boles, Terry L., Emeritus Associate Professor, Management and Entrepreneurship, 1993 (2001); BA 1986 University of California-Santa Barbara; PHD 1991 University of California-Santa Barbara

Bolger, Holly-Marie, Clinical Associate Professor, Obstetrics Gynecology, 2011 (2020); BA 2003 Drake; DO 2007 Des Moines

Bolkan, Scott, Assistant Professor, Psychological and Brain Sciences, 2025 (2025); PHD 2017 Columbia University

Bollier, Matthew John, Clinical Professor, Orthopaedics and Rehabilitation, 2010 (2023); BA 2000 Wheaton; MD 2004 Loyola Stritch

Boly, Timothy Jerome, Instructor, Pediatrics, (2023); DO 2017 Midwestern University

Bommu, Ravi Tej, Clinical Assistant Professor, Pathology, (2025); MBBS 2010 China Medical University, Shenyang China

Bonar, Kristin, Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2016); PHARMD 2014 Drake University

Bond, Sarah Emily, Associate Professor, Classics/History, 2014 (2018); MA 2007 University of North Carolina at Chapel Hill; PHD 2011 University of North Carolina at Chapel Hill

Bone, Robert Carver, Adjunct Assistant Professor, Political Science, 2024 (2024); BA 1994 The University of Iowa

Bonfield, Arthur E., Emeritus Professor, Law-Faculty, 1962 (1966); BA 1956 Brooklyn; JD 1960 Yale; LLM 1961 Yale

Bonfield, Lloyd Joel, Adjunct Instructor, Law-Faculty, 2018 (2024); MA 1974 The University of Iowa; JD 1975 The University of Iowa

Bonfig, Christine Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2010 (2010); PHARMD 2008 University of Iowa

Bongers, Kale Stephen, Assistant Professor, Internal Medicine, (2024); BA 2007 Dartmouth College; MD 2016 University of Iowa; PHD 2016 University of Iowa

Bonner, Beth Marie Gallogly, Adjunct Instructor, Teaching and Learning, (2023); BED 1987 University of Iowa; MA 1995 The University of Iowa; MA 2023 The University of Iowa

Bonney, William W., Emeritus Associate Professor, Urology, 1969 (1973); AB 1953 Whittier; MD 1961 University of California-Los Angeles

Bonthius, Daniel Joseph, Emeritus Professor, Pediatrics, 1991 (2008); BS 1982 University of Iowa; MD 1990 University of Iowa; PHD 1990 University of Iowa

Bonthius, Nancy E., Clinical Associate Professor, Pediatrics, 1994 (2016); BS 1986 University of Iowa; PHARMD 1990 University of Iowa

Boonstra, Nathan, Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 2003 University of Iowa

Boos, Florence, Emeritus Professor, English, 1973 (1982); BA 1964 University of Michigan-Ann Arbor; MA 1965 Harvard; PHD 1972 University of Wisconsin-Madison

Bopp, Heather R., Adjunct Instructor, University College Courses, 2009 (2014); AA 1995 Ellsworth Community College

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Boress, Kaley S., Clinical Assistant Professor, Psychiatry, (2021); MA 2017 Central Michigan University; PHD 2019 Central Michigan University

Borgwardt, Derek S., Adjunct Assistant Professor, Periodontics, 2011 (2011); DDS 2008 University of Iowa

Bork, Byron Emanuel, Adjunct Instructor, Physical Therapy Rehab Science, 1976 (2025); MA 1967 University of Iowa

Bork, Robert, Professor, School of Art, Art History, and Design, 1998 (2012); BA 1989 Harvard; MS 1990 University of California-Santa Cruz; MA 1993 Princeton; PHD 1996 Princeton

Borreca, Arthur R., Associate Professor, Theatre Arts, 1989 (1997); BA 1981 Oberlin; MFA 1986 Yale; DFA 1993 Yale

Borst, Stephanie Kay, Assistant Professor, Health Sport and Human Physiology, 2015 (2024); BS 2010 Iowa State University

Bosch, Dustin, Assistant Professor, Pathology, (2021); PHD 2013 University of North Carolina; MD 2015 University of North Carolina

Boudreau, Ryan L., Associate Professor, Internal Medicine, 2013 (2020); BS 2002 The University of Minnesota-Twin Cities; PHD 2008 University of Iowa

Bourgeacq, Jacques A., Emeritus Professor, French Italian, 1969 (1982); MA 1965 St. Louis; PHD 1972 University of Iowa

Bourjaily, Pamela Gibbs, Associate Professor, Accounting, 2009 (2019); MA 1984 University of Illinois at Urbana Champaign

Bouschlicher, Murray Ray, Emeritus Professor, Operative Dentistry, 1980 (2001); BA 1969 University of Iowa; DDS 1976 University of Iowa; MS 1996 University of Iowa

Boutros, Rami, Clinical Professor, Pediatrics, 2011 (2011); MD 1989 Damascus; MBA 2009 UMASS

Bouzek, Drake, Instructor, Pediatrics, 2025 (2025); BS 2012 Truman State University; MD 2019 Univ of Iowa Carver Col Med

Bowden, Alicia Ann, Adjunct Instructor, Physical Therapy Rehab Science, 2025 (2025); BS 2017 St. Ambrose University; DPT 2019 University of Iowa

Bowden, Ned B., Professor, Chemistry, 2002 (2020); BS 1994 California-Technology; MS 1997 Harvard; PHD 1999 Harvard

Bowdler, Noelle Clare, Clinical Professor, Obstetrics Gynecology, 1988 (2009); BA 1978 Michigan State University; MD 1982 University of Michigan-Ann Arbor

Bowen, Elizabeth Rebecca, Clinical Assistant Professor, Internal Medicine, (2021); MD 2016 University of Iowa Carver Coll

Bowers, Elisabeth Marie, Adjunct Assistant Professor, Emergency Medicine/Pharmacy Practice and Science, (2021); PHARMD 2018 University of Colorado

Bowers, Robert, Assistant Professor, Family Dentistry, 2016 (2016); DDS 2016 University of Iowa

Bowers, Stefanie A., Adjunct Instructor, Law-Faculty, 2021 (2024); BA 2000 The University of Iowa; JD 2003 The University of Iowa

Bowers, Wayne A., Emeritus Professor, Psychiatry, 1988 (2001); BA 1974 University of Wisconsin-Oskosh; MS 1976 University of Wisconsin-Oskosh; PHD 1987 University of Iowa

Bowlus, Dawn Marie, Adjunct Instructor, Management and Entrepreneurship, 2010 (2024); BA 1993 Luther College

Bowman, Larisa Gretchen, Adjunct Instructor, Law-Faculty, (2023); BA 2003 Brown University; JD 2009 Stanford University

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Bowman, Stephanie Nicole, Clinical Instructor, Counselor Education, 2025 (2025); BA 2002 Western Illinois University; JD 2010 Chicago-Kent College of Law; MA 2020 Northwestern University

Bowmaster, Sydney Marie, Clinical Assistant Professor, Internal Medicine, (2025); MD 2018 University of Nebraska

Bowren, Mark Daniel, Assistant Professor, Psychiatry, (2025); PHD 2022 University of Iowa

Boyce, Timothy Michael, Assistant Professor, Ophthalmology Visual Science, (2021); MD 2016 University of Oklahoma

Boyden, Alexander Wiser, Assistant Professor, Pathology, (2020); BA 2006 Augustana College; PHD 2012 University of Iowa

Boyer, Daniel Bruce, Emeritus Professor, Operative Dentistry, 1974 (1988); BA 1966 University of Iowa; DDS 1970 University of Iowa; PHD 1974 Polytechnic Institute

Boyle, Don Edward, Emeritus Assistant Professor, Surgery, 1978 (1978); MD 1963 University of Iowa

Boyle, Jessica Lea, Adjunct Instructor, University College Courses, 2014 (2014); AA 2005 Kirkwood

Boylston Herndon, Jill, Adjunct Associate Professor, Preventive Community Dentistry, 2021 (2021); BA 1989 University of Florida; PHD 1994 University of Florida

Boynton, George R., Emeritus Professor, Political Science, 1964 (1971); BA 1957 Oklahoma Baptist; PHD 1964 University of North Carolina at Chapel Hill

Boysen, Jamie Lou, Adjunct Instructor, Social Work, 2024 (2024); BSW 2014 Briar Cliff University; MSW 2017 The University of Iowa

Boysen, Joseph Daniel, Instructor, Pediatrics, 2014 (2024); MD 1993 University of Iowa

Bozeman, Theodore D., Emeritus Professor, History, 1974 (1987); BA 1964 Florida Presbyterian; BD 1968 Theological Seminary; PHD 1974 Duke

Bracco, Michael Francis, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 Drake University

Bradley, Catherine S., Professor, Epidemiology/Obstetrics Gynecology/Urology, 2003 (2015); AB 1990 College of the University of C; MD 1994 Washington Univ. School of Med; MS 2002 Clin. Epidemiology, Univ. Penn

Bradley, Suzanne Celine, Assistant Professor, School of Art, Art History, and Design, 2014 (2013); MFA 2012 University of Iowa

Bradley Jr., A. Allen, Professor, Civil-Environmental Engineering, 1994 (2009); BS 1983 Virginia Tech; MS 1984 Stanford; PHD 1992 University of Wisconsin-Madison

Bradshaw, Chad Aaron, Adjunct Assistant Professor, Physician Assistant, 2021 (2021); BA 1995 Gracland; BS 1995 Graceland; MPAS 2001 University of Iowa

Braidwood, Alexander, Adjunct Assistant Professor, University College Courses, 2016 (2016); MFA 2011 Art Center College of Design

Brainerd, Delaney Rae, Adjunct Instructor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2021 University of Wisconsin

Brakke, Tyler Justin, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHAR 2021 University of Iowa

Branch, Anthony P., Adjunct Instructor, University College Courses, 2015 (2015); BS 2003 University of Iowa

Branch, Lori Ann, Associate Professor, English, 2000 (2006); BA 1992 Harding; MA 1994 Memphis; PHD 2000 Indiana University-Bloomington

Branum, Mark Nelson, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHAR 2003 Creighton University

Brase, Joshua Thomas, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2018 Iowa Wesleyan University

Brashers-Krug, Thomas M., Adjunct Associate Professor, Psychiatry, 2008 (2008); PHD 1995 Massachusetts; MD 1996 Rush Medical

Brass, Callie Lynn, Adjunct Instructor, Counselor Education, 2018 (2023); MA 2014 University of Iowa

Braun, James Michael, Adjunct Assistant Professor, Creative Writing, 2024 (2024); HS 2016 Marysville High School; BA 2020 Oakland University; UNKNOWN 2022 University of Illinois Urbana-; MFA 2024 University of Iowa

Braun, Terry A., Professor, Biomedical Engineering, 2002 (2018); BS 1993 University of Iowa; MS 1995 University of Iowa; PHD 2001 University of Iowa

Bravo, Eduardo, Research Assistant Professor, Neurology, (2023); LIC 2007 Universidad de Santiago de Chi

Bream-Rouwenhorst, Heather Renee, Adjunct Assistant Professor, Pharmacy Practice and Science, 2005 (2011); PHARMD 2005 University of Iowa

Bredice, Susin, Adjunct Instructor, Social Work, 2014 (2014); BA 2001 Iowa State University; MSW 2013 University of Iowa

Breffle, Kelly, Adjunct Asst In Instruction, Internal Medicine, 2021 (2021); BS 1993 Iowa State University; MA 1996 University of Iowa; MHA 1996 University of Iowa

Brehany, Sydney, Instructor, Internal Medicine, 2025 (2025); MD 2017 Creighton School of Medicine

Breheny, Patrick John, Professor, Biostatistics, 2013 (2024); BA 2002 Iowa State; MS 2004 Iowa State; PHD 2009 University of Iowa

Brehmer, Ailey M., Adjunct Assistant Professor, Internal Medicine, 2010 (2010); DO 2006 Des Moines

Brennan, Robert L., Emeritus Professor, Psych Quant Foundations, 1979 (1994); BA 1967 Salem State-Massachusetts; MAT 1968 Harvard; EDD 1970 Harvard

Brennan, Theresa, Clinical Professor, Internal Medicine, 2001 (2015); BS 1988 University of Iowa; MD 1992 Northwestern Univeristy

Brennan, Timothy J., Emeritus Professor, Anesthesia, 1993 (2006); BS 1973 St. Johns; PHD 1984 The University of Texas at Austin; MD 1989 Oklahoma

Brenneman, Anthony E., Clinical Professor, Physician Assistant, 2004 (2014); BA 1984 Linfield, OR; MSW 1987 Portland State; MPAS 1996 University of Iowa

Brenner, Robert L., Emeritus Associate Professor, Earth and Environmental Sciences, 1977 (1982); BS 1963 City College of New York; MS 1964 Montana; PHD 1973 Missouri

Brettell, Leslie Marie, Adjunct Assistant Professor, Internal Medicine, 2003 (2003); BS 1978 Stanford; MS 1980 Colorado State; MD 1986 Texas, Southwestern

Brian, Amber Elise, Associate Professor, International Programs/Spanish Portuguese, 2001 (2016); MA 1996 University of Wisconsin-Madison; PHD 2007 University of Wisconsin-Madison

Bricker, Christine Nicole, Adjunct Assistant Professor, Political Science, 2022 (2022); BA 2000 Mount Holyoke College; MA 2006 Univ of Pennsylvania; PHD 2018 University of Iowa

Bricker, Dennis L., Emeritus Associate Professor, Industrial Engineering, 1974 (1980); BS 1965 University of Illinois at Urbana Champaign; MS 1966 University of Illinois at Urbana Champaign; MS 1972 Northwestern Univeristy; PHD 1975 Northwestern Univeristy

Bricker, Joel K., Clinical Assistant Professor, Emergency Medicine/Psychiatry, (2021); MD 2016 University of Iowa

Bridge, Natalie Catherine, Adjunct Assistant Professor, Emergency Medicine, 2023 (2023); MD 2020 University of Iowa

Briese, Kyle, Adjunct Assistant Professor, Health Management Policy, 2021 (2021); MS 2016 Texas A M University

Briggie, Erin, Clinical Assistant Professor, Internal Medicine, 2023 (2023); MD 2018 University of Iowa

Briggie, Katherine Marie, Clinical Assistant Professor, Emergency Medicine, (2024); DO 2020 Des Moines University College of Osteopathic Medic

Bright, David, Adjunct Instructor, Law-Faculty, 2013 (2025); BS 1992 The University of Iowa; JD 2001 University of Iowa

Brimeyer, Ryan M., Adjunct Assistant Professor, Internal Medicine, 2014 (2014); DO 2007 Des Moines Osteopathic Univ

Brindeiro, Bryan Stephen, Clinical Assistant Professor, Anesthesia, (2021); MD 2009 Creighton University

Bringman, Colleen Louise, Associate Professor, Biomedical Engineering, 2016 (2022); BE 2008 University of Iowa; PHD 2015 University of Iowa

Brinkley, Jamel, Associate Professor, Creative Writing, 2015 (2025); MFA 2015 THE UNIVERSITY OF IOWA

Brinkmeyer, Ashley Kae Lindley, Adjunct Instructor, University College Courses, 2024 (2024); BA 2014 University of Iowa; MSW 2023 University of Iowa

Britt, Katherine Carroll, Assistant Professor, Center for Soc Sci Innovation/Nursing, (2024); BSN 2001 Belmont University; MSN 2021 University of Texas at Tyler; PHD 2022 University of Texas at Austin

Bro, Kim Marie, Adjunct Assistant Professor, Nursing, 2025 (2025); BSN 1990 Mount Mercy College; MSN 2006 Clarke University; PHD 2016 Nova Southeastern University

Brochu, Christopher Andrew, Professor, School of Earth, Environment, and Sustainability/University College Courses, 2001 (2015); BS 1989 University of Iowa; MA 1992 The University of Texas at Austin; PHD 1997 The University of Texas at Austin

Brock, Elyse N., Clinical Assistant Professor, Obstetrics Gynecology, (2022); MD 2012 University of Minnesota

Brodd, Anders Jon, Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 1998 University of Iowa

Brodell, Jennifer Divita, Clinical Associate Professor, Communication Sciences and Disorders, (2025); BA 2012 University of Iowa; MA 2014 University of Iowa

Broderick, Ann, Emeritus Professor, Internal Medicine, 2001 (2013); AB 1978 Princeton; MD 1986 University of Iowa; MS 1991 University of Iowa

Broffitt, James D., Emeritus Professor, Statistics Actuarial Science, 1970 (1988); BA 1963 DePauw; MS 1965 Colorado State; PHD 1969 Colorado State

Brogden, Kim Alan, Emeritus Professor, Periodontics, 2004 (2004); BS 1975 Iowa State; MS 1977 Iowa State; PHD 1981 Iowa State

Brogden, Nicole K., Professor, Dermatology/Pharmaceutical Sciences and Experimental Therapeutics, 2012 (2025); BS 2003 University of Iowa; PHARMD 2007 University of Iowa

Brooks, Adam C., Instructor, Emergency Medicine, 2022 (2025); MD 2004 Chicago Medical School

Brooks, Bailey Nicole, Adjunct Assistant Professor, Psychiatry, 2025 (2025); MD 2020 Creighton University

Brooks, Michael S., Adjunct Assistant Professor, Internal Medicine, 1986 (1986); MD 1980 Loyola

Brooks, Philip Dean, Adjunct Instructor, Finance, 2005 (2022); BBA 1972 University of Iowa; MBA 1974 University of Iowa; JD 1977 Creighton

Brosius, Gregory Alan, Adjunct Assistant Professor, Pharmacy Practice and Science, 2002 (2002); PHARMD 2000 University of Iowa

Broton, Katharine, Associate Professor, Center for Soc Sci Innovation/Educ Policy Leadership Studies, 2017 (2023); MS 2012 University of Wisconsin; PHD 2017 University of Wisconsin

Brown, Allison, Adjunct Assistant Professor, Pediatrics, 2005 (2005); BA 1997 William Jewell; MD 2001 University of Iowa

Brown, Bruce Philson, Emeritus Associate Professor, Radiology, 1977 (1995); BS 1966 University of Michigan-Ann Arbor; MD 1971 Medical College of VA

Brown, Carolyn Jane, Emeritus Professor, Communication Sciences and Disorders/Otolaryngology-Head Neck Surgery, 1992 (2006); BS 1980 University of Iowa; MSPA 1982 Washington; PHD 1989 University of Iowa

Brown, Carolyn J., Adjunct Associate Professor, Communication Sciences and Disorders, 1983 (1992); PHD 1981 University of Iowa

Brown, Daniel, Adjunct Instructor, Accounting, 2024 (2024); BBA 2013 University of Iowa; MBA 2023 University of Iowa

Brown, Donald Dirl, Emeritus Professor, Internal Medicine, 1973 (1994); BA 1962 University of Iowa; MS 1965 University of Iowa; MD 1966 University of Iowa

Brown, Elizabeth Ann, Adjunct Instructor, Psych Quant Foundations, 2018 (2024); PHD 2016 University of Iowa

Brown, Erika Nicole Levis, Adjunct Instructor, Family Medicine, 2017 (2017); DIP 1999 Audubone HS; BA 2003 Grinnell College

Brown, Grant Donald, Associate Professor, Biostatistics, 2015 (2022); BS 2010 University of Iowa; MS 2012 University of Iowa; PHD 2015 University of Iowa

Brown, James Andrew, Professor, Biomedical Engineering/ Urology, 2009 (2011); BA 1986 Colorado State; BS 1986 Colorado State; MD 1991 Baylor

Brown, Jeffrey, Adjunct Assistant Professor, Emergency Medicine, 2023 (2023); MD 2016 University of Arizona

Brown, Kenneth G., Professor, Center for Soc Sci Innovation/Educ Policy Leadership Studies/Management and Entrepreneurship, 1998 (2012); BS 1993 THE UNIVERSITY OF MARYLAND-COLLEGE PARK; MA 1996 Michigan State University; PHD 1999 Michigan State University

Brown, Kevin Leo, Adjunct Instructor, University College Courses, 2024 (2024); BA 1999 Arcadia University; PHD 2008 University of Delaware

Brown, Kyle E., Professor, Internal Medicine/Radiation Oncology, 2001 (2018); BA 1981 Case Western Reserve; MSC 1982 London-Economics; MD 1986 Case Western Reserve

Brown, Logan, Assistant Professor, Communication Studies, (2024); BA 2013 Ramapo College of New Jersey; MA 2018 The New School; PHD 2024 Indiana University

Brown, Matthew P., Associate Professor, English/ Interdisciplinary Programs, 2001 (2007); BA 1986 Oberlin; PHD 1996 Virginia

Brown, Samantha, Associate Professor, Accounting, 2013 (2024); MA 2013 Northern Iowa

Brown, Shea, Adjunct Associate Professor, Physics Astronomy, 2016 (2021); BS 2003 Maine; MS 2005 Brandeis; PHD 2009 The University of Minnesota-Twin Cities

Brown, Thomas D., Emeritus Professor, Orthopaedics and Rehabilitation, 1983 (1987); BS 1972 University of Maryland-College Park; PHD 1976 Carnegie-Mellon

Brown, Timothy Leo, Adjunct Professor, Industrial Engineering/Pharmaceutical Sciences and Experimental Therapeutics, 2003 (2022); BE 1994 University of Iowa; MS 1996 University of Iowa; PHD 2000 University of Iowa

Brown-Matthes, Alicia Anne, Emeritus Associate Professor, Dance, 1976 (1982); BA 1972 George Washington; MA 1976 University of Iowa

Brownfield, Chad R., Adjunct Professor, Psychiatry, 2025 (2025); PHD 2016 Fielding Graduate University

Browning, Ann Marie, Adjunct Instructor, Teaching and Learning, 2017 (2023); BS 1987 University of Iowa; MA 1991 California State University; EDS 2008 Drake University

Brownlee, Michael Joseph, Clinical Associate Professor, Pharmacy, 2012 (2012); PHAR 2001 University of Iowa

Bruch, Leslie Anne, Emeritus Professor, Pathology, 2006 (2011); BS 1986 University of Iowa; MD 1992 University of Iowa

Bruckner, Mark Thomas, Assistant Professor, Theatre Arts, 2019 (2024); AB 1982 University of Nebraska-Lincoln; BM 1983 University of Nebraska-Lincoln; MFA 1999 The University of Iowa

Bruell, Steven C., Emeritus Professor, Computer Science, 1985 (1996); BA 1973 The University of Texas at Austin; MS 1975 Purdue University Main Campus; PHD 1978 Purdue University Main Campus

Bruening, Eric, Adjunct Instructor, Chemistry, 2023 (2023); BA 2020 University of Iowa; MS 2023 University of Iowa

Brugge, John F., Adjunct Associate Professor, Neurosurgery, 1997 (2013); BA 1959 LUTHER; MS 1961 University of Illinois at Urbana Champaign; PHD 1963 University of Illinois at Urbana Champaign

Brugioni, Emily, Instructor, Internal Medicine, 2024 (2024); DO 2016 Des Moines University

Bruhn, Allison Leigh, Professor, Teaching and Learning, 2011 (2022); PHD 2011 Vanderbilt

Brumbaugh, Jane Ellen, Adjunct Assistant Professor, Pediatrics, 2012 (2015); BA 2002 The University of Minnesota-Twin Cities; BS 2002 The University of Minnesota-Twin Cities; MD 2006 The University of Minnesota-Twin Cities

Brummel, Gretchen L., Clinical Associate Professor, Pharmacy Practice and Science, (2025); PHARMD 1997 University of Iowa

Brummett, Adam Eugene, Associate Professor, Chemistry/ University College Courses, 2016 (2024); BS 2009 Univ of Missouri, Kansas City; DPHIL 2016 University of Iowa; PHD 2017 University of Iowa

Brummond, Jason John, Adjunct Assistant Professor, Journalism Mass Communication, 2022 (2022); BA 2008 The University of Iowa; BBA 2008 The University of Iowa; MBA 2014 The University of Iowa

Brunner Luse, Christine Carol, Adjunct Instructor, Anthropology, 2014 (2014); BSN 1985 Northern Illinois University; MPA 1989 Northern Illinois University

Bruno, Anna Lynne, Adjunct Assistant Professor, Accounting, 2015 (2021); MFA 2015 University of Iowa

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Brust, Karen Blanton, Clinical Associate Professor, Internal Medicine, (2022); MD 2004 University of Texas Health Ctr

Bryant, Andrew Douglas, Clinical Associate Professor, Internal Medicine, (2023); MD 2016 University of Kentucky

Bryant, Karen Nancy, Emeritus Associate Professor, Communication Sciences and Disorders, 2003 (2010); BA 1984 Augustana; SCM 1989 University of Wisconsin-Madison

Bryant, Tisa, Assistant Professor, English, 2022 (2022); MFA 2004 Brown University

Buatti, John Michael, Professor, Neurosurgery/ Otolaryngology-Head Neck Surgery/Radiation Oncology, 1999 (2001); BS 1982 Georgetown; MD 1986 Georgetown

Bubenikova, Kristyna, Adjunct Instructor, Biology, (2024); MSC 2018 Charles University, Prague

Buch, Elana D., Associate Professor, Anthropology, 2011 (2018); MSW 2004 University of Michigan-Ann Arbor; MA 2005 University of Michigan-Ann Arbor; PHD 2010 University of Michigan-Ann Arbor

Buchanan, Gordon F., Professor, Neurology, 2014 (2024); MD 2004 University of Illinois at Urbana Champaign

Buchheit, Mary, Assistant Professor, Nursing, (2024); BSN 2018 Luther College; MSN 2023 University of Iowa; DNP 2024 University of Iowa

Buchholz, James Harry John, Associate Professor, Mechanical Engineering, 2008 (2015); BS 1995 Alberta; BSC 1995 University of Alberta (Canada); MS 1997 Alberta; PHD 2006 Princeton

Buck, Harleah G., Professor, Nursing, (2020); BS 1979 Columbia University; MS 2000 University of South Florida; PHD 2008 University of South Florida

Buckingham, Edward T., Adjunct Assistant Professor, Psychiatry, 2012 (2012); BA 1999 Washington Univ; MD 2006 Colo School of Medicine; MPH 2007 Emory Univ

Buckley, Jennifer Ann, Professor, African-American Studies, 2011 (2025); BA 1998 University of Michigan-Ann Arbor; MA 2005 Columbia; MPHIL 2007 Columbia; DPHIL 2011 Columbia

Buckwalter, Joseph Addison, Professor, Orthopaedics and Rehabilitation, 1979 (1985); BA 1969 University of Iowa; MS 1972 University of Iowa; MD 1974 University of Iowa

Buckwalter, Joseph Addison, Clinical Assistant Professor, Orthopaedics and Rehabilitation, 2016 (2017); BS 2000 Duke University; PHD 2005 University of Iowa; MD 2011 Univ of Californi San Diego

Buckwalter, Kathleen Coen, Emeritus Professor, Health Management Policy, 1974 (1989); BSN 1971 University of Iowa; MA 1976 University of Iowa; PHD 1980 University of Illinois at Urbana Champaign

Budd, Ann F., Emeritus Professor, Earth and Environmental Sciences, 1978 (1995); BA 1973 Lawrence; MS 1975 Johns Hopkins; PHD 1978 Johns Hopkins

Buettner, Garry R., Emeritus Professor, Radiation Oncology, 1993 (1999); BA 1967 Northern Iowa; MS 1969 University of Iowa; PHD 1976 University of Iowa

Buffington, Benjamin, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2019 University of Iowa

Buhman, Michelle Sue, Adjunct Instructor, Social Work, 2019 (2019); AA 2001 Kirkwood Community College; BBA 2006 University of Iowa; MS 2017 Iowa State University; MSC 2017 Iowa State

Buikema, Brenda Sue, Clinical Assistant Professor, Internal Medicine, 2008 (2008); MD 2004 University of Iowa

Bulak, Eric Alexander, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2021 University of Illinois

Bulechek, Gloria Marie, Emeritus Professor, Nursing, 1963 (1996); BSN 1963 University of Iowa; MA 1967 University of Iowa; PHD 1981 University of Iowa

Bulger, Jacob, Adjunct Instructor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2024 University of Iowa

Bullock, Grant Carl, Clinical Associate Professor, Pathology, 2023 (2023); BS 1992 University of California; MD 2001 University of Iowa; PHD 2001 University of Iowa

Bullock, Kristine M., Adjunct Instructor, University College Courses, 2025 (2025); BSE 2009 University of Iowa; MED 2010 Christian Brothers University

Bullock, Mark Richard, Adjunct Instructor, University College Courses, 2024 (2024); MBA 2020 The University of Iowa; BLS 2021 The University of Iowa

Bullock, Tammy Sue Clapham, Adjunct Assistant Professor, Pharmacy Practice and Science, 2003 (2003); PHARMD 1998 University of Iowa

Bulusu, Ravi Sankar Vijay Karthik, Clinical Assistant Professor, Internal Medicine, (2025); MBBS 2019 N.T.R University of Health Sci

Bunch, Jacinda Lea, Clinical Assistant Professor, Nursing, 2009 (2019); BSN 2006 Missouri - Columbia; MSN 2008 Missouri - Columbia; PHD 2014 University of Iowa

Bundrant, Nikkida Tori, Clinical Assistant Professor, Internal Medicine, 2025 (2025); BS 2006 Virginia Polytechnic Uni.; MD 2016 Howard University

Bunsawat, Kanokwan, Assistant Professor, Health Sport and Human Physiology, 2025 (2025); PHD 2017 University of Illinois - Chica

Bunting, Dean A., Adjunct Assistant Professor, Family Medicine, 1990 (2002); BS 1980 Dubuque; MD 1984 University of Iowa

Burda, Susan Michelle, Adjunct Assistant Professor, Nursing, 2023 (2024); BSN 2017 Mt Mercy University; MSN 2023 University of Iowa

Burden, Paige C., Adjunct Assistant Professor, Communication Sciences and Disorders, 2005 (2024); BS 1990 Arizona; MA 2002 Iowa

Burden, Sara Lynn, Adjunct Instructor, University College Courses, 2016 (2019); AA 1999 Indian Hills CC; BA 2001 University of Iowa; MA 2003 University of Iowa

Burdt, Mark, Adjunct Assistant Professor, Internal Medicine, 2005 (2005); BA 1989 Northern Iowa; DO 1993 U of Osteopathic Med

Burek Pierce, Jennifer, Professor, Interdisciplinary Programs/Library Information Science, 2005 (2022); MA 1990 Gonzaga; AMLS 1999 Indiana University-Bloomington; PHD 1999 Indiana University-Bloomington

Burer, Samuel, Professor, Business Analytics, 2001 (2012); BS 1997 Georgia; PHD 2001 Georgia Inst of Technology

Burge, David R., Adjunct Instructor, University College Courses, 2024 (2024); BS 2010 University of Central Arkansas; MS 2014 Arkansas State University; PHD 2021 University of Minnesota

Burgess, Kelley Ann, Adjunct Instructor, Management and Entrepreneurship, 2020 (2023); BS 2015 Upper Iowa University; MBA 2019 University of Iowa

Burkard, Mark Edward, Professor, Internal Medicine, (2024); PHD 2001 University of Rochester; MD 2002 University of Rochester

Burke, Maureen Elizabeth, Adjunct Instructor, Languages, Literatures, Linguistics, and Cultures, 1981 (1997); BA 1968 Emmanuel College; MA 1984 University of Iowa

Burke, N. Peggy, Emeritus Associate Professor, Health Sport and Human Physiology, 1964 (1978); BA 1956 Moorhead State; MA 1957 Moorhead State; PHD 1965 University of Iowa

Burkhalter, Brooke Nicole, Adjunct Assistant Professor, Pharmacy Practice and Science, 2006 (2006); PHARMD 2005 Iowa

Burnett, Andrean, Associate Professor, Oral Path,RadiologyMedicine/Pathology/Pharmaceutical Sciences and Experimental Therapeutics/Radiation Oncology, 2010 (2017); BS 2000 Iowa State; PHD 2005 Iowa State

Burnett, Brian Paul, Adjunct Instructor, Family Medicine, (2019); BS 1991 Iow a State; MD 1995 University of Iowa Carver COM

Burnham, Frederick C., Adjunct Associate Professor, Family Dentistry, 1986 (2000); DMD 1977 Southern Illinois

Burnham, Sara E., Adjunct Assistant Professor, Emergency Medicine, 2016 (2016); BA 2000 Luther College; DMS 2002 University of Iowa

Burns, Trudy L., Emeritus Professor, Epidemiology, 1982 (1993); BA 1973 Oakland; MPH 1976 University of Michigan-Ann Arbor; PHD 1982 University of Michigan-Ann Arbor

Burras, Charles Lee, Adjunct Professor, University College Courses, 2011 (2011); PHD 1992 The Ohio State University

Burt, Ashleigh M., Adjunct Assistant Professor, Pediatrics, 2022 (2022); MD 2018 Ross University School of Medicine

Burton, Richard G., Clinical Professor, Oral Maxillofacial Surgery/Otolaryngology-Head Neck Surgery, 1997 (2002); BA 1973 Hanover College; DDS 1977 The Ohio State University; MS 1985 University of Iowa

Burton, Steven J., Emeritus Professor, Law-Faculty, 1977 (1981); BA 1970 University of California-Los Angeles; JD 1973 Southern California

Busard, Joshua F., Adjunct Professor, School of Planning and Public Affairs, 2015 (2023); BS 1999 University of Iowa; MS 2006 University of Illinois at Urbana Champaign

Bush, Audrey, Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 2013 University of Missouri

Bush, Eric Wayne, Professor, Music, (2024); BM 2006 Central Michigan University; BME 2006 Central Michigan University; MM 2008 University of Montana; DMA 2015 The University of Iowa

Bushkofsky, Nickolas, Adjunct Instructor, University College Courses, 2025 (2025); BA 2012 University of Northern Iowa; MA 2016 University of Northern Iowa

Bushnell, David, Professor, Radiology, 1992 (2004); BS 1975 University of Illinois at Urbana Champaign; MD 1979 University of Illinois at Urbana Champaign

Busho, Kellsie Ann, Clinical Assistant Professor, Communication Sciences and Disorders, (2024); DAUD 2017 Univ. of Minn, Minneapolis

Busta, Danielle E., Assistant Professor, Nursing, (2024); BSN 2016 University of Iowa; MSN 2021 Capella University

Butali, Azeez, Professor, Oral Path,RadiologyMedicine/ Pediatrics, 2013 (2021); BDS 2001 Lagos; PHD 2010 Dundee

Butcher, Howard K., Emeritus Associate Professor, Nursing, 1998 (2005); BS 1977 Lebanon Vally; BSN 1979 Thomas Jefferson; MSN 1986 Toronto; PHD 1994 South Carolina

Butchvarov, Panayot, Emeritus Professor, Philosophy, 1967 (1967); BA 1952 Robert-Turkey; MA 1954 Virginia; PHD 1955 Virginia

Butler, Amy C., Emeritus Associate Professor, Social Work, 1992 (1996); BA 1977 Boston; MSW 1980 University of Michigan-Ann Arbor; MA 1984 University of Michigan-Ann Arbor; PHD 1987 University of Michigan-Ann Arbor

Butler, Audrey Ahchin, Emeritus Lecturer, Chemical Biochemical Engineering, 1989 (1998); PHD 1989 University of Iowa

Butler, John E., Emeritus Professor, Microbiology and Immunology, 1971 (1980); BS 1961 Univ of Wisconsin-River Falls; PHD 1965 Kansas

Butler, Nicholas Ryan, Clinical Professor, Family Medicine, 2013 (2025); BS 2003 Benedictine, IL; MBA 2004 Benedictine, IL; MD 2009 University of Illinois at Urbana Champaign

Butler, Noah S., Professor, Microbiology and Immunology/ Molecular Physiology Biophysics, 2016 (2023); BA 1994 University of Iowa; PHD 2007 University of Iowa

Butler, Patrick Barry, Emeritus Professor, Mechanical Engineering, 1984 (1995); BS 1979 University of Illinois at Urbana Champaign; MS 1981 University of Illinois at Urbana Champaign; PHD 1984 University of Illinois at Urbana Champaign

Butler, Rachel Rose, Clinical Assistant Professor, Internal Medicine, 2012 (2016); MD 2009 Illinois

Butt, Ahmar M., Adjunct Assistant Professor, Psychiatry, 2016 (2016); MBBS 1999 Allama Iqbal Medical College

Butterfield, Jo Ella, Adjunct Assistant Professor, History/Law-Faculty, 2013 (2013); BA 2004 University of Iowa; MA 2005 University of Iowa; PHD 2012 University of Iowa

Buzick, Justin Steven, Instructor, Internal Medicine, 2025 (2025); MD 2018 University of North Dakota

Bybee, Jerald W., Adjunct Assistant Professor, Family Medicine, 2001 (2001); MD 1978 University of Iowa

Bylsma-Mulder, Leanna, Adjunct Assistant Professor, Dental Clinic Administration/Family Dentistry, 2025 (2025); DDS 1992 University of Iowa

Bynum, Tara, Associate Professor, African-American Studies/ English, (2024); PHD 2009 Johns Hopkins University

Byreddy, Seenaiah, Adjunct Assistant Professor, Neurology, 2019 (2019); MBBCH 2004 Gandhi Medical College, India; MBBS 2004 Gandhi Medical College, India

Byrne, James, Assistant Professor, Biomedical Engineering/ Radiation Oncology, 2021 (2021); PHD 2014 University of North Carolina; MD 2016 University of N Carolina School of Medicine

Byrne, Margaret Mcginn, Clinical Assistant Professor, Internal Medicine, (2021); MD 2011 Rush Medical College

C

Cabeza, Rafael De Jesus, Instructor, Molecular Physiology Biophysics, 2014 (2023); AB 1982 Harvard; PHD 1991 McGill

Cac, Nguyen P., Emeritus Professor, Mathematics, 1968 (1972); LIC 1958 Saigon-Vietnam; MS 1961 London-England; PHD 1965 Cambridge-England

Cadaret, Linda Marie, Clinical Professor, Internal Medicine, 1999 (2020); MD 1994 Wayne State

Cagiran, Inanc, Instructor, Neurosurgery, 2025 (2025); MD 2001 Hacettepe University

Cagiran, Zeynep, Clinical Associate Professor, Anesthesia, (2024); MD 2003 Ege University Faculty of Medi

Cahill, James Matthew, Adjunct Instructor, Business Analytics/Marketing, 2023 (2023); BSE 1991 University of Iowa; MBA 2002 University of Iowa; MSME 2002 Iowa State University

Cain, George D., Emeritus Professor, Biology, 1970 (1984); BS 1962 Sterline; MS 1964 Purdue University Main Campus; PHD 1968 Purdue University Main Campus

Cain, Patricia A., Emeritus Professor, Law-Faculty, 1991 (1991); BA 1968 Vassar; JD 1973 Georgia

Cain, Rachel, Adjunct Assistant Professor, Health Management Policy, 2023 (2023); BBA 2008 University of Iowa; MBA 2010 University of Iowa; MHA 2010 University of Iowa

Calarge, Chadi Albert, Adjunct Associate Professor, Psychiatry, 2014 (2011); MD 1998 Dekwaneh,Lebannon

Caldwell, Della, Adjunct Instructor, Civil-Environmental Engineering, 2024 (2024); MS 2015 The University of Iowa

Caldwell, Elizabeth, Adjunct Assistant Professor, University College Courses, 2016 (2017); MA 2009 University of Oregon; PHD 2012 University of Oregon

Caley, Pamela Ann, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2007 University of Iowa

Calhoun, Amy Rebecca Ulring Larso, Clinical Professor, Pediatrics, 2016 (2024); BA 2001 Luther College; MD 2005 Mayo Medical School

Callaghan, John J., Emeritus Professor, Biomedical Engineering/Orthopaedics and Rehabilitation, 1990 (1993); BS 1975 Notre Dame; MD 1978 Loyola

Callahan, Alice Hyeari, Adjunct Assistant Professor, Pharmacy Practice and Science, 2022 (2022); PHARMD 2020 University of Minnesota a?? Tw

Callahan, Katie Lynn, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2009 University of Colorado

Callan, Michael Anthony, Clinical Assistant Professor, Orthodontics, 2009 (2009); BS 1984 Creighton; DDS 1988 University of Iowa; MS 1991 University of Michigan-Ann Arbor

Camacho, Molly Ann, Adjunct Instructor, Physical Therapy Rehab Science, 2015 (2024); BS 2000 Wartburg; MPT 2002 University of Iowa

Cameron, John, Emeritus Professor, Theatre Arts, 1997 (2012); BS 1977 Brigham Young; MA 1982 Kent State; PHD 1986 Kent State

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Campbell, Colleen Ann, Clinical Associate Professor, Internal Medicine, 2014 (2021); BS 1999 St. Mary's College (IN); MS 2003 Sarah Lawrence; PHD 2010 University of Iowa

Campbell, Elbert Joseph, Adjunct Assistant Professor, Chemistry, 2023 (2023); MS 1998 Northwestern University; PHD 2001 Northwestern University

Campbell, Kevin P., Professor, Molecular Physiology Biophysics/Neurology, 1981 (1988); BS 1973 Manhattan; MS 1976 Rochester; PHD 1979 Rochester

Campbell, Steve J., Adjunct Instructor, University College Courses, 2015 (2015); BA 2005 University of Iowa; MS 2009 Texas State University

Campbell, Tracey Jean, Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2015); PHARMD 2008 University of Iowa

Campion, Emily, Associate Professor, Management and Entrepreneurship, (2025); PHD 2018 University at Buffalo

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Campos, Javier H., Clinical Professor, Anesthesia, 1987 (2001); BS 1971 Federal Prep School; MD 1975 Autonomous

Canady, John Wesley, Emeritus Professor, Otolaryngology-Head Neck Surgery, 1990 (2002); BA 1980 Grinnell; MD 1983 Iowa; MS 1988 Iowa

Canahuate, Guadalupe Mercedes, Professor, Electrical-Computer Engineering, 2009 (2025); BS 2000 Pontificia; MS 2003 The Ohio State University; PHD 2009 The Ohio State University

Candido, Denis Ricardo, Assistant Professor, Physics Astronomy, (2022); PHD 2018 Universidade de Sao Paulo

Canin, Ethan A., Professor, Creative Writing/English, 1991 (1998); BA 1982 Stanford; MFA 1984 University of Iowa; MD 1991 Harvard

Cantor Cutiva, Lady Catherine, Adjunct Assistant Professor, Communication Sciences and Disorders, 2023 (2023); MS 2009 Universidad Nacional de Colomb; MS 2011 Erasmus Universiteit; PHD 2015 Erasmus Universiteit

Cantrell, Matthew A., Clinical Associate Professor, Pharmacy Practice and Science, 2005 (2013); BS 2000 Mount Mercy; PHARMD 2005 University of Iowa

Cao, Huojun, Associate Professor, Anatomy Cell Biology/ Dental Research/Endodontics, 2016 (2022); BS 2003 China Agricultural University; MS 2006 China Agricultural University; PHD 2011 Texas AM Healath Sci Center

Capella, Jeannette Marie, Adjunct Assistant Professor, Surgery, 2019 (2019); BA 1989 University of South Florida; MD 1993 Universityof South Florida

Caplan, Daniel Jonathan, Professor, Preventive Community Dentistry, 2007 (2007); DDS 1988 University of Iowa; PHD 1995 University of North Carolina at Chapel Hill

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Caraher, Kristen Joy, Clinical Associate Professor, Psychiatry, 2016 (2022); PSYD 2014 Argosy University

Carcia, Karen Joan, Associate Professor, Interdisciplinary Programs, 2014 (2014); BA 1993 Syracuse University; MFA 1997 Indiana University; PHD 2004 Western Michigan University; MFA 2014 University of Iowa

Cardani-Trollinger, Chad, Adjunct Instructor, Teaching and Learning, 2023 (2023); MS 2000 Iowa State University; PHD 2020 Drake University

Carder, Jacqueline Christine, Clinical Assistant Professor, Communication Sciences and Disorders, 2018 (2018); BS 2007 University of Iowa; MA 2011 University of Iowa; DAUD 2012 University of Iowa

Cargill, Robert Raymond, Associate Professor, Classics, 2011 (2019); MDIV 2000 Pepperdine; MA 2006 University of California-Los Angeles; PHD 2008 University of California-Los Angeles

Carillo, James, Emeritus Assistant Professor, Anesthesia, 2015 (2016); DMS 1981 University of Iowa

Carlberg, Harmony, Adjunct Assistant Professor, School of Art, Art History, and Design, 2025 (2025); BFA 2013 University of Wisconsin

Carlin, Eduardo J., Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 2000 Univ Peruana Cayetano Heredia

Carlisle, Erica May, Associate Professor, Pediatrics/Surgery, 2016 (2024); MD 2007 University of Illinois at Chicago

Carlisle, Thomas L., Emeritus Associate Professor, Internal Medicine, 1992 (2002); BS 1972 University of Maryland-College Park; PHD 1978 University of Wisconsin-Madison; MD 1986 Missouri-Columbia

Carlisle, Zachary, Adjunct Assistant Professor, Sociology and Criminology, 2025 (2025); PHD 2020 Oklahoma State University

Carlson, Chelsea Denise, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2015 University of Iowa

Carlson, Jonathan C., Professor, International Programs/Law-Faculty, 1983 (1987); BA 1976 McGill; JD 1979 University of Illinois at Chicago

Carlson, Ulrike Labenz, Adjunct Instructor, Languages, Literatures, Linguistics, and Cultures, 2018 (2018); BA 2002 University of Lepizig, Germany; MA 2006 The University of Iowa

Carlson, Wayne R., Emeritus Professor, Biology, 1968 (1993); BA 1962 Rockford; MA 1966 Indiana University-Bloomington; PHD 1968 Indiana University-Bloomington

Carlstein, Andres Augustine, Assistant Professor, Health Sport and Human Physiology, 2012 (2012); MFA 2012 University of Iowa

Carlstone, Spencer Lawrence, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1999 Baylor University, Waco,TX; MD 2003 Univ of IA CCOM, Iowa City,IA

Carlyle, David Adam, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1977 Notre Dame, Indiana; MD 1981 Univ of IA, CCOM, Iowa City

Carman, Ellen Christine, Adjunct Instructor, University College Courses, 2023 (2023); BS 2018 University of Iowa; MED 2020 Johns Hopkins University

Carmichael, Gregory R., Professor, Chemical Biochemical Engineering/Civil-Environmental Engineering/Nursing, 1978 (1985); BS 1974 Iowa State; MS 1975 Kentucky; PHD 1979 Kentucky

Carmichael, Robert S., Emeritus Professor, Earth and Environmental Sciences, 1977 (1983); BA 1963 Toronto; MS 1964 Pittsburgh; PHD 1967 Pittsburgh

Carmody, Brenda Renee, Adjunct Assistant Professor, Pharmacy Practice and Science, 1998 (2007); BSPH 1991 University of Iowa

Carnahan, Ryan Michael, Professor, Epidemiology/Nursing, 2003 (2020); PHAR 2001 University of Iowa; MS 2004 University of Iowa

Carneiro Arnaud B. Gadelha, Mirella, Clinical Assistant Professor, Radiology, (2024); MD 2001 Universidadae Federal Da Parab

Carney, Martha J., Adjunct Instructor, Management and Entrepreneurship, 2023 (2023); BBA 1983 University of Wisc Whitewater; MBA 1992 Keller Graduat School of Mgmt

Carpenter, Leslie R., Adjunct Instructor, Physical Therapy Rehab Science, 2011 (2024); BS 1985 Russell Sage

Carpenter, Martin, Adjunct Assistant Professor, Physician Assistant, 2007 (2007); BS 1998 University of Kansas; MD 2002 Missouri

Carr, Lucas, Associate Professor, Family Medicine/Health Sport and Human Physiology, 2012 (2018); BS 2002 Wyoming; MS 2004 Wyoming; PHD 2008 Wyoming

Carrel, Margaret, Professor, Epidemiology/Internal Medicine/School of Earth, Environment, and Sustainability, 2011 (2025); BA 2002 American University; MA 2007 University of North Carolina at Chapel Hill; PHD 2011 University of North Carolina at Chapel Hill

Carrica, Pablo, Emeritus Professor, Mechanical Engineering, 2002 (2014); PHD 1993 Nacional De Cuyo

Carroll, Thomas J., Emeritus Professor, Accounting, 1989 (2018); BBA 1979 Notre Dame; PHD 1988 University of Michigan-Ann Arbor

Carstens, Coby, Clinical Assistant Professor, Pharmacy Practice and Science, 2008 (2008); BA 2002 Iowa; PHARMD 2006 Iowa

Carstensen, John August, Adjunct Assistant Professor, Internal Medicine, 2005 (2005); BS 1995 Iowa State; MD 2000 Iowa

Carter, Anthony David, Adjunct Assistant Professor, Emergency Medicine, 2004 (2004); BA 1989 Cornell-Iowa; DO 1995 Univ of Osteopathic Medicine

Carter, Barry L., Emeritus Professor, Pharmacy Practice and Science, 2000 (2000); BS 1978 University of Iowa; PHARMD 1980 Virginia

Carter, Calvin Stanley, Assistant Professor, Biomedical Engineering/Neuroscience and Pharmacology/Pediatrics, (2022); BS 2009 Hofstra University; PHD 2014 University of Iowa

Carter, David Alan, Adjunct Associate Professor, Finance, 2009 (2009); BS 1985 Brigham Young; MBA 1990 Utah; PHD 1996 Georgia

Carter, Jennifer J., Adjunct Instructor, University College Courses, 2023 (2023); BA 2002 University of Minnesota; MBA 2021 University of Iowa

Carter, Kara Ann, Adjunct Assistant Professor, Social Work, 2023 (2023); BSW 2002 University of Iowa; MSW 2005 University of Georgia

Carter, Keith D., Professor, Ophthalmology Visual Science/Otolaryngology-Head Neck Surgery, 1988 (2001); BS 1979 Purdue University Main Campus; MD 1983 Indiana University-Bloomington

Carter, Knute D., Clinical Associate Professor, Biostatistics, 2014 (2022); PHD 2013 University of Iowa

Carter, Korey P., Assistant Professor, Chemistry, 2020 (2020); BS 2011 Michigan State Univ; PHD 2017 George Washington Univ

Carter, Thomas Heriot, Emeritus Associate Professor, Internal Medicine, 2001 (2001); AB 1977 Dartmouth; PHD 1982 Case Western Reserve; MD 1983 Case Western Reserve

Carter Skinner, Katrina Marie, Adjunct Instructor, Social Work, 2023 (2023); BA 1999 Iowa State University; MA 2010 Drake University

Carvalho, Edgar, Adjunct Professor, Internal Medicine, 2007 (2007); MD 1973 Fed Univ of Bahia; PHD 1986 Fed. Univ of Bahia

Carvour, Martha Lydia, Assistant Professor, Epidemiology/Internal Medicine, (2018); BS 2004 Iowa State U; MD 2012 Carver College of Medicine; PHD 2012 University of Iowa

Cary, Ana Alicia, Clinical Associate Professor, Pediatrics, 2016 (2023); BA 1999 UC San Diego; MD 2009 University of Iowa

Cary, Richard T., Emeritus Associate Professor, Teaching and Learning, 1981 (1984); BS 1971 North Carolina State; MS 1973 North Carolina State; PHD 1976 Purdue University Main Campus

Casavant, Thomas L., Professor, Electrical-Computer Engineering, 1986 (1999); BS 1982 University of Iowa; MS 1983 University of Iowa; PHD 1986 University of Iowa

Case, Abigail, Adjunct Instructor, University College Courses, 2024 (2024); BGS 2017 University of Kansas; MED 2023 Clemson University

Case, Amanda, Associate Professor, Psych Quant Foundations, 2024 (2024); MA 2003 Columbia University; PHD 2009 Univ of Wisconsin - Madison

Case, Colin, Assistant Professor, Center for Soc Sci Innovation/Political Science, 2024 (2024); BA 2019 University of Michigan; MA 2021 University of NC, Chapel Hill; PHD 2024 University of NC, Chapel Hill

Case, James Lawrence, Adjunct Assistant Professor, Neurology, 2022 (2022); MD 1984 University of Illinois

Casella, Alison Leigh, Adjunct Instructor, University College Courses, 2023 (2023); BA 2012 Mount Mercy University; MA 2022 University of Iowa

Casella, Paul, Adjunct Assistant Professor, Internal Medicine, 2009 (2009); MFA 1990 University of Iowa

Casey, Amy, Adjunct Instructor, Preventive Community Dentistry, (2019); AASC 2014 Kirkwood Community College

Casey, Darren Patrick, Associate Professor, Physical Therapy Rehab Science, 2012 (2019); BS 1999 Syracuse; MS 2001 Syracuse; PHD 2007 Florida

Casey, Melissa Kay, Adjunct Assistant Professor, Physician Assistant, 2025 (2025); BS 2004 Loras College; MPAS 2008 University of Iowa

Casey, Tyler Lee, Adjunct Assistant Professor, Internal Medicine, 2017 (2017); MD 2002 Carver College of Medicine

Cashmore, Alexandria Cochrane, Adjunct Assistant Professor, Preventive Community Dentistry, 2022 (2022); BA 2012 Simpson College; BS 2016 Drake University; DDS 2021 University of Iowa

Caskey, Meredith Ann Ratzel, Instructor, Teaching and Learning/University College Courses, 2015 (2015); BA 1996 University of Iowa

Casko, John S., Emeritus Professor, Orthodontics, 1976 (1976); BS 1960 Holy Cross; DDS 1964 Georgetown; MS 1968 Georgetown; PHD 1970 Pittburgh

Cassell, Martin D., Emeritus Professor, Anatomy Cell Biology, 1982 (2004); BS 1976 Bristol-England; PHD 1980 Bristol-England

Castano-Heredia, Gabriel, Clinical Assistant Professor, Pediatrics, 2024 (2024); MD 2015 Escuela de Medicina Ignacio A

Casteel, Carri, Professor, Epidemiology/Occupational Environmental Health, 2013 (2021); BS 1992 University of California-Irvine; MPH 1996 University of California-Los Angeles; PHD 2001 University of California-Los Angeles

Castelaz, Michael, Assistant Professor, Cinematic Arts, (2024); MFA 2017 Columbia University

Castellanos, Horacio, Associate Professor, Spanish Portuguese, 2011 (2017);

Castillo, Ian M., Adjunct Instructor, Management and Entrepreneurship, 2023 (2023); AA 2011 Southeastern Community College

Casto, Andrew Michael, Professor, School of Art, Art History, and Design, 2016 (2025); BA 2000 Earlham College; MA 2009 University of Iowa; MFA 2010 University of Iowa

Castro Ruiz, Leyre, Adjunct Assistant Professor, Psychological and Brain Sciences, 2006 (2006); PHD 2003 Deusto, Bilbao, Spain

Catellier, Michelle J., Adjunct Assistant Professor, Pathology, 2007 (2007); MD 1987 Indiana University-Bloomington

Cater, E. David, Emeritus Professor, Chemistry, 1961 (1979); BS 1954 Trinity; PHD 1960 Kansas

Cates, Diana F., Professor, Religion, 1990 (2010); BA 1983 St. Olaf; PHD 1990 Brown

Cathey, Alex A., Adjunct Assistant Professor, Internal Medicine, 2019 (2019); MD 2013 University of North Dakota

Catney, Christine M., Emeritus Assistant Professor, Pharmacy Practice and Science, 1996 (1996); BS 1975 St. Louis Coll of Pharmacy; MA 1986 University of Iowa; PHARMD 1996 University of Iowa

Cavanagh, Sharon Janae, Adjunct Instructor, Dental Clinic Administration, 2024 (2024); AS 2010 Kirkwood Community College

Cavanaugh, Joseph E., Professor, Biostatistics/Statistics Actuarial Science, 2003 (2008); BS 1986 Montana Tech; MS 1988 Montana State; PHD 1993 University of California-Los Angeles

Cave, Shireen Marie, Adjunct Instructor, University College Courses, 2014 (2014); BA 2007 Wartburg College

Cawiezell, Jill Renee, Emeritus Professor, Nursing, 2008 (2008); MSN 1994 Missouri-Columbia; PHD 1998 Missouri-Columbia

Cearlock, Kenneth, Adjunct Assistant Professor, Family Medicine, 2000 (2002); MD 1979 Missouri

Cerhan, James, Adjunct Professor, Epidemiology, 2000 (2005); BA 1986 University of Iowa; PHD 1991 University of Iowa; MD 1993 University of Iowa

Cerone, Shane Michael, Adjunct Assistant Professor, Health Management Policy, 1998 (2004); MA 1995 University of Iowa

Chae, Sena, Assistant Professor, Nursing, 2020 (2022); MSN 2013 Yonsei University, South Korea; MS 2018 University of Iowa; PHD 2020 University of Iowa

Chaffee, James, Associate Professor, Business Analytics, 2007 (2025); BS 1990 California PA; MA 2001 University of Illinois at Urbana Champaign

Chaffin, Jeffrey Gee, Adjunct Assistant Professor, Preventive Community Dentistry, 2014 (2014); BS 1988 University of Tampa; DDS 1992 University of Nebraska-Lincoln

Chalkley, Yvonne M., Emeritus Associate Professor, Dentistry Administration, 1977 (1984); BS 1973 University of Iowa; DDS 1977 University of Iowa; MS 1979 University of Iowa

Chamberlain, Kurt Joseph, Adjunct Assistant Professor, Emergency Medicine, 2018 (2018); BA 2010 University of Northern Iowa; MD 2015 University of Iowa

Chamberlain, Tawny Marie, Adjunct Instructor, Counselor Education, 2018 (2024); PHD 2018 University of Iowa

Chamorro Sanchez, Angel Maria, Adjunct Professor, Neurology, 2017 (2017); MD 1981 University of Valladolid Medic; PHD 1996 University of Barcelona Medica

Champion, Christopher Scott, Adjunct Assistant Professor, Family Medicine, 2005 (2005); BA 1993 Missouri @ Kansas City; DO 2000 Kansas City

Champion, Patricia Ann, Adjunct Assistant Professor, Belin-Blank Center, 2015 (2015); BA 1975 Univ of Northern Colorado; MA 1979 Univ of Northern Colorado; EDD 2007 University of Phoenix

Chan, Aubrey C., Assistant Professor, Internal Medicine/ Psychiatry, (2020); BS 2004 University of Utah; MD 2013 University of Utah; PHD 2013 Universityof Utah

Chan, Carlos Hou Fai, Associate Professor, Radiation Oncology/Surgery, 2015 (2022); MD 2007 McGill University, Montreal

Chan, Kung-Sik, Professor, Radiology/Statistics Actuarial Science, 1991 (1999); BSC 1980 Chniese-Hong Kong; MA 1982 Princeton; PHD 1986 Princeton

Chandler, Kimberley L., Adjunct Instructor, Teaching and Learning, 2018 (2023); BA 1984 The College of William Mary; MED 1992 The College of William Mary; PHD 2004 The College of William Mary

Chandra, Bharatendu, Assistant Professor, Pediatrics, (2022); MBBS 2008 Jawaharlal Institute

Chandran, Krishnan B., Emeritus Professor, Biomedical Engineering, 1978 (1984); BS 1963 American-India; BTECH 1966 Indian Institute of Technology; MS 1969 Washington-Missouri; DSC 1972 Washington-Missouri

Chandran, Prem K., Adjunct Professor, Internal Medicine, 1987 (2017); MBBS 1973 Kerala-India

Chang, Kristi Erin, Clinical Associate Professor, Otolaryngology-Head Neck Surgery, 2003 (2009); BS 1991 Palo Alto, CA; MD 1997 Southern California

Chang, Lan Samantha, Professor, Creative Writing/English, 1998 (2006); BA 1987 Yale; MPA 1991 Harvard; MFA 1993 University of Iowa

Chang, Nicolle Marie, Instructor, Health Sport and Human Physiology, 2024 (2024); BS 2023 University of Iowa; MS 2024 The University of Iowa

Chapleau, Mark W., Professor, Internal Medicine/Molecular Physiology Biophysics, 1989 (2004); BS 1977 University of Wisconsin-Whitewater; PHD 1985 Louisiana State

Chaplin, Erin E., Adjunct Assistant Professor, Pharmacy Practice and Science, (2019); PHARMD 2017 University of Iowa

Chapman, Cole Garrett, Assistant Professor, Pharmacy Practice and Science, 2015 (2019); PHD 2014 University of Iowa

Chapman, Kerri Sue, Associate Professor, Nursing, (2025); BSN 2009 University of Dubuque; MSN 2018 Walden University

Charis-Donelson, Christina Marie, Clinical Associate Professor, Internal Medicine, 2018 (2023); MD 2001 Carver College of Medicine

Charles, Jean-Francois, Associate Professor, Music/ University College Courses, 2016 (2022); MS 1997 Natl. Inst.Applied Sciences; PHD 2011 Harvard Graduate School

Charles, Matthew, Adjunct Instructor, Journalism Mass Communication, 2024 (2024); BA 1999 University of Virginia; MPA 2001 Virginia Commonwealth Univ; DBA 2015 Valdosta State University

Charlton, Mary, Professor, Epidemiology, 2009 (2023); BN 1998 University of Iowa; MS 2002 University of Iowa; PHD 2008 University of Iowa

Chase, Andrea L., Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2018); PHARMD 2017 University of Texas at Austin

Chase, Linda Kay, Adjunct Associate Professor, Nursing, 2000 (2020); BSN 1986 Coe College; MA 1993 University of Iowa; PHD 2010 University of Iowa

Chase, William Wayne, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1996 Univ of IA Coll of Liberal Art; MD 2000 Univ of IA Coll or Medicine

Chatham, Daniel Aaron, Adjunct Instructor, Law-Faculty, 2025 (2025); BA 2003 University of South Dakota; JD 2007 The University of Iowa

Chatmethakul, Trassanee, Clinical Assistant Professor, Pediatrics, 2022 (2022); MD 2011 Mahidol University, Thailand

Chatterjee, Snehajyoti, Assistant Professor, Neuroscience and Pharmacology, (2022); PHD 2015 University de Strabourg, Franc

Chauhan, Anil Kumar, Professor, Internal Medicine, 2008 (2018); PHD 2002 Intl Centre for Genetic Eng

Chaurasia, Bhagirath, Assistant Professor, Internal Medicine, (2020); PHD 2009 University of Cologne

Chavali, Siddharth, Clinical Assistant Professor, Anesthesia, 2024 (2024); MBBS 2011 LUZHOU MEDICAL COLLEGE; MD 2016 MKCG MEDICAL COLLEGE, BERHAMPU

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Cheatum, Christopher, Professor, Chemistry/Clas Administration, 2003 (2019); BS 1995 New Mexico; PHD 2001 University of Wisconsin-Madison

Chegondi, Madhuradhar, Adjunct Associate Professor, Pediatrics, 2018 (2021); MBBS 2002 Osmania Medical College

Chen, Chih-Chia, Assistant Professor, Health Sport and Human Physiology, 2013 (2024); BED 1999 National Taiwan Normal; MED 2006 Nat. Taiwan Normal; PHD 2013 Arizona State

Chen, Haipeng, Professor, Marketing, (2023); BE 1993 Shandong Institute of Eng; MA 1996 Zhejiang University; PHD 2002 University of Minnesota

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Chen, Lea-Der, Emeritus Professor, Mechanical Engineering, 1982 (1991); BS 1974 National Taiwan; MS 1979 Pennsylvania State University; PHD 1981 Pennsylvania State University

Chen, Pei-Fu, Assistant Professor, Anesthesia, 2025 (2025); MD 2014 National Yang Ming Chiao Tung

Chen, Philip, Clinical Assistant Professor, Orthopaedics and Rehabilitation, 2015 (2017); BA 2005 Washington Univ., St. Louis; MD 2011 University of Iowa

Chen, Shuang, Associate Professor, History, 2010 (2017); MA 2002 Peking; MA 2005 University of Michigan-Ann Arbor; PHD 2009 University of Michigan-Ann Arbor

Chen, Songhai, Associate Professor, Neuroscience and Pharmacology, 2008 (2014); MD 1988 Fujian, China; PHD 2002 New South Wales,Australia

Chen, Stephanie Jo Theisen, Clinical Associate Professor, Pathology, (2025); BS 2006 Loras College; MD 2011 University of Iowa

Chen, Xi, Adjunct Associate Professor, Preventive Community Dentistry, 2014 (2014); BDS 1993 West China Univ of Medical Sci; PHD 2008 University of Minnesota

Chen, Yong, Professor, Industrial Engineering, 2003 (2016); MS 2000 University of Michigan-Ann Arbor; MA 2003 University of Michigan-Ann Arbor; PHD 2003 University of Michigan

Cheng, Chi-Lien, Professor, Biology, 1990 (2018); BS 1969 National Taiwan; PHD 1982 Connecticut

Cheng, Chih-Jen, Associate Professor, Internal Medicine, 2020 (2021); MD 2000 National Defense Medical Center

Cherascu, Gabriela N. A., Adjunct Instructor, Psychiatry, 2014 (2014); MD 1994 Carol Davila University

Cherwin, Catherine Hoard, Assistant Professor, Nursing, 2015 (2017); BSN 2002 University of Wisconsin-Milwaukee; MSN 2007 University of Wisconsin-Madison; PHD 2015 University of Wisconsin-Madison

Chesini, Gino, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); DO 2017 Des Moines University

Cheung, Kevin, Clinical Assistant Professor, Dermatology, (2025); BS 2012 UC San Diego; MD 2021 University of Iowa

Cheyne, Ken, Adjunct Professor, Pediatrics, 1999 (2006); MD 1982 University of Iowa

Chi, Nai-Ching, Associate Professor, Nursing, 2017 (2023); MSN 2016 University of Washington; PHD 2017 University of Washington

Chiavetta, Keith, Adjunct Instructor, Management and Entrepreneurship, 2013 (2024); BA 1999 University of Iowa

Chibnik, Michael S., Emeritus Professor, Anthropology, 1978 (1994); BA 1968 Cornell; MA 1973 Columbia; PHD 1975 Columbia

Chickering, Stephanie Anne, Adjunct Instructor, Preventive Community Dentistry, 2013 (2013); AASC 2005 DMACC

Chifan, Ionut, Professor, Mathematics, 2011 (2023); BS 2001 Bucharest; MS 2003 Bucharest; PHD 2009 University of California-Los Angeles

Chimenti, Ruth Louise Porter, Associate Professor, Physical Therapy Rehab Science, 2016 (2025); BA 2006 Emory University; DPT 2009 Washington University; PHD 2014 University of Rochester

Chin, Shamar C., Assistant Professor, School of Earth, Environment, and Sustainability, (2021); PHD 2020 UNebraska-Lincoln

Chinchilla, Arin Alvaro, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 University of Iowa

Chiou, Li-Kuei, Adjunct Assistant Professor, Communication Sciences and Disorders, 2018 (2018); DAUD 2007 University of Iowa; PHD 2016 University of Iowa

Chipara, Octav, Professor, Computer Science, 2011 (2023); BS 2003 Indiana University-Bloomington; PHD 2010 Washington

Chisler, Deborah Lucile, Clinical Assistant Professor, Psychiatry, 2024 (2025); DO 2020 West Virginia University

Chitneni, Shobha, Clinical Assistant Professor, Internal Medicine, 2017 (2017); MBBS 1982 Osmania Medical College

Cho, Christina, Assistant Professor, Internal Medicine, (2025); BS 2009 University of California; PHD 2017 ALBANY MEDICAL COLLEGE

Cho, Hyunkeun, Adjunct Associate Professor, Biostatistics, 2017 (2021); PHD 2013 Univ of Illinois Urbana Champa

Cho, Josalyn, Associate Professor, Internal Medicine, 2018 (2022); MD 2003 Carver College of Medicine

Cho, Peter, Adjunct Assistant Professor, Oral Maxillofacial Surgery, 2011 (2011); DDS 2005 University of Iowa; MS 2009 University of Iowa

Cho, Seok Hwan, Associate Professor, Prosthodontics, (2022); DDS 2000 Seoul national University; CER 2010 Baylor College of Dentistry; MS 2010 Baylor College of Dentistry

Cho, Tracey A., Clinical Professor, Medicine Administration/ Neurology, 2018 (2020); MA 1998 Harvard University; MD 2003 Yale University

Cho, Young-Eun, Assistant Professor, Nursing, 2019 (2019); BSN 2001 Yonsei University; PHD 2010 Yonsei University

Choeun, Paul, Adjunct Instructor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2023 University of Iowa

Choi, Diana Kee-Sun, Adjunct Assistant Professor, Endodontics, 2024 (2024); DDS 2010 University of Iowa; CER 2015 Rohde Dental Clinic

Choi, Hyaeweol, Professor, Gender, Women's and Sexuality Studies/International Programs/Religion, 2018 (2018); BA 1985 Yonsei University, Seoul Korea; MA 1987 Yonsei University, Seoul Korea; PHD 1993 State University of New York

Choi, Inyong, Associate Professor, Communication Sciences and Disorders, 2015 (2021); BS 2001 Seoul Nat'l University; MS 2003 Seoul Nat'l University; PHD 2008 Seoul Nat'l University

Choi, James Yuknam, Clinical Associate Professor, Anesthesia/Medicine Administration/Pediatrics, 1996 (2004); BA 1986 Northwestern Univeristy; MD 1991 University of Iowa

Choi, Jiwoong, Adjunct Assistant Professor, Mechanical Engineering, 2020 (2020); BS 2000 Seoul National University; MS 2005 Seoul National University; PHD 2011 University of Iowa

Choi, Kent Choung, Emeritus Professor, Surgery, 2001 (2013); BS 1989 Florida; MD 1993 Georgia Medical

Choi, Kyung Kook, Emeritus Professor, Mechanical Engineering, 1983 (1990); BS 1970 Yon Sei-Korea; MS 1977 University of Iowa; PHD 1980 University of Iowa

Choo, Chunghi, Emeritus Professor, School of Art, Art History, and Design, 1968 (1981); BFA 1961 Ewha Women's-Korea; MFA 1965 Cranbrook Academy of Art

Chopra, Rishil, Clinical Assistant Professor, Internal Medicine, (2025); MD 2020 Saint James School of Medicine

Chorazy, Margaret Lynn, Clinical Associate Professor, Epidemiology/Public Health Administration, 2010 (2019); BS 2002 Illinois Wesleyan; MPH 2004 Yale; PHD 2010 University of Iowa

Chou, Cynthia Gek-Hua, Professor, Anthropology/ International Programs, 2016 (2016); PHD 1996 U of Cambridge, United Kingdom

Chouhan, Kanwaljit, Adjunct Assistant Professor, Internal Medicine, 2017 (2017); MBBS 2001 NHL Municipal Med College

Chounramany, James Phonethip, Adjunct Assistant Professor, Internal Medicine, 2025 (2025); BS 2012 Simpson College; MD 2018 University of Iowa

Chow, Timothy Michael, Clinical Assistant Professor, Internal Medicine, (2025); MD 2019 University of Missour

Chowdhary, Zara, Assistant Professor, English, 2025 (2025); MFA 2020 Iowa State University

Chowdhury, Sandipan, Assistant Professor, Molecular Physiology Biophysics, 2020 (2020); PHD 2014 Univ of Wisconsin @ Madison

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Christensen, Gary E., Professor, Electrical-Computer Engineering/Radiation Research Laboratory, 1997 (2010); BS 1988 Washington-St. Louis; MS 1989 Washington-St.Louis; PHD 1994 Washington-St. Louis

Christensen, James, Emeritus Professor, Internal Medicine, 1963 (1972); BA 1953 University of Nebraska-Lincoln; MD 1957 University of Nebraska-Lincoln; MS 1957 University of Nebraska-Lincoln

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Christensen, Lori, Clinical Associate Professor, Pediatrics, 2001 (2008); BA 1993 University of Iowa; MD 1998 University of Iowa

Christensen-Szalanski, Carlyn M., Emeritus Professor, Emergency Medicine, 2003 (2022); MD 1983 Washington

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Christiansen, Scot Rolfe, Adjunct Assistant Professor, Family Medicine, 2017 (2017); MD 1989 Univ of IA CCOM, Iowa City

Christianson, David, Adjunct Assistant Professor, Neurosurgery, 2025 (2025); MD 2018 University of South Dakota

Christianson, Lindsey Ann, Adjunct Assistant Professor, Family Medicine, 2017 (2017); BA 2007 Central College, Pella,IA; DO 2011 Des Moines Univ, IA

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Christopher, Kelli Sue, Adjunct Assistant Professor, Pharmacy Practice and Science, 2013 (2013); PHARMD 2011 University of Iowa

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Chun, Hyunsik, Adjunct Assistant Professor, Sociology and Criminology, 2024 (2024); BA 2012 Kuyung Hee University; MA 2014 Kuyung Hee University; PHD 2024 The University of Iowa

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Chung, Sophia M., Emeritus Professor, Ophthalmology Visual Science, 2018 (2018); MD 1985 Duke University

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Cichella, Venanzio, Associate Professor, Mechanical Engineering, 2018 (2024); BS 2007 University of Bologna, Italy; MS 2011 University of Bologna, Italy; PHD 2018 University of Illinois-Urb Cha

Cifra, Christina Luz Lopez, Adjunct Associate Professor, Pediatrics, 2014 (2019); MD 2002 Phillipines

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Cilek, Toni Lee Daters, Emeritus Associate Professor, Communication Sciences and Disorders, 1992 (1992); BA 1975 University of Iowa; MA 1976 University of Iowa

Ciliberto, Michael Anthony, Clinical Professor, Neurology/ Pediatrics, 2013 (2025); MD 2005 Washington Univ

Ciochon, Russell L., Emeritus Professor, Anthropology, 1987 (1996); BA 1971 University of California-Berkeley; MA 1974 University of California-Berkeley; PHD 1986 University of California-Berkeley

Cisneros, Todd A., Adjunct Instructor, Pharmacy Practice and Science, (2020); BSPH 1992 Drake University

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Clamon, Gerald H., Emeritus Professor, Internal Medicine, 1976 (1991); BS 1967 Dartmouth; MD 1971 Washington-Missouri

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Clancy, Gregory Melvin, Adjunct Professor, Nursing, 2009 (2023); MSN 1999 Iowa

Clancy, James M., Emeritus Associate Professor, Oral Path,RadiologyMedicine/Prosthodontics, 1986 (1991); BS 1975 University of Iowa; DDS 1978 University of Iowa; MS 1980 University of Iowa

Clark, Charles R., Emeritus Professor, Orthopaedics and Rehabilitation, 1980 (1988); BS 1972 Notre Dame; MD 1976 University of Michigan-Ann Arbor

Clark, Christopher, Clinical Assistant Professor, Obstetrics Gynecology, (2023); MD 2016 Medical University of SC

Clark, Connor Gregory, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2023 University of Iowa

Clark, Craig Leo, Adjunct Instructor, Pharmacy Practice and Science, 1997 (1997); BSPH 1978 University of Iowa

Clark, Derrick Rogers, Adjunct Instructor, Counselor Education, 2021 (2023); MA 2010 Maryville University

Clark, Jennifer Mary, Adjunct Instructor, Counselor Education, 2024 (2024); MA 2014 University of Iowa

Clark, Lee Anna, Emeritus Professor, Psychological and Brain Sciences, 1993 (1993); BA 1972 Cornell; MA 1977 Cornell; PHD 1982 The University of Minnesota-Twin Cities

Clark, Mary Kathleen, Emeritus Professor, Nursing, 1982 (2007); BSN 1973 University of Michigan-Ann Arbor; MN 1979 Washington; PHD 1990 University of Iowa

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Clark, Shaunda Louise, Adjunct Instructor, Preventive Community Dentistry, 1998 (1998); BS 1997 University of Iowa

Clark, Steven Heyen, Emeritus Associate Professor, Periodontics, 1991 (2009); BS 1977 University of Illinois at Urbana Champaign; DDS 1983 University of Illinois at Urbana Champaign

Clark, Steven Donald, Adjunct Instructor, Physical Therapy Rehab Science, 2016 (2025); DPT 1998 University of Iowa

Clark, William David, Clinical Associate Professor, Internal Medicine, 1999 (2011); BS 1973 Iowa State University; MD 1977 University of Iowa

Clarke, Mary Frances, Adjunct Assistant Professor, Nursing, 1996 (2007); BSN 1982 Mount Mercy College; MA 1993 University of Iowa; PHD 2006 University of Iowa

Clary, Jacqueline, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DMD 2011 Arizona School of Dent OH; MSD 2015 UT Health Sciences Ctr Houston

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Claudy, Frank R., Adjunct Assistant Professor, Family Medicine, 2015 (2015); BS 1975 George Washington Univ - D.C.; MD 1979 George Washington Univ - D.C.

Claussen, Alexander Dale, Assistant Professor, Communication Sciences and Disorders/Otolaryngology-Head Neck Surgery, (2022); BS 2008 University of Illinois; MD 2013 Southern Illinois University

Clay, Caroline Stefanie, Assistant Professor, Theatre Arts, (2021); BFA 1990 University of The Arts; MFA 2013 University of Maryland

Clay, Daniel L., Professor, Education Administration/Psych Quant Foundations, 2016 (2016); BA 1989 St. Scholastica; MA 1991 Missouri-Columbia; PHD 1994 Missouri-Columbia

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Claypool, Vicki Lynn, Emeritus Professor, Political Science, 1989 (2002); BA 1974 The University of Minnesota-Twin Cities; PHD 1985 The University of Minnesota-Twin Cities

Clement, Colleen Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2010 (2010); PHARMD 2000 University of Iowa

Clemmons, Theresa Anne, Adjunct Assistant Professor, Psychiatry, 2015 (2015); DO 2011 Des Moines University

Clemsen, Lance, Adjunct Instructor, Social Work, 1997 (1997); MS 1986 Columbia

Cleppe, Jason, Adjunct Assistant Professor, Pharmacy Practice and Science, 2014 (2016); BA 2003 University of Iowa; PHARMD 2014 University of Iowa

Cleveland, Mark G., Clinical Assistant Professor, Dermatology, 1999 (1999); BS 1984 Baylor; MD 1990 Texas Medical Galveston; PHD 1990 Texas Medical-Houston

Clinton, Patricia Kay, Emeritus Professor, Nursing, 1984 (2002); BSN 1976 University of Iowa; MA 1984 University of Iowa; PHD 1995 University of Iowa

Cloos, Carla Rose, Adjunct Instructor, Family Medicine, 2017 (2017); BS 2004 University of Iowa; MD 2008 Univ of IA CCOM, Iowa City

Clough, Sharice A., Adjunct Assistant Professor, Communication Sciences and Disorders, 2024 (2024); DPHIL 2022 Vanderbilt University

Clouse, Alexis Ellen, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2022 University of Iowa

Clow, Toni Jo, Emeritus Associate Professor, Nursing, 1976 (1981); BSN 1966 University of Iowa; MA 1975 University of Iowa

Cloyd, Brett S., Adjunct Instructor, Languages, Literatures, Linguistics, and Cultures, 2011 (2025); BA 1993 St. Mary's of Maryland; AMLS 1998 University of Iowa

Clubb, Merrel D., Emeritus Associate Professor, Theatre Arts, 1999 (1999); BA 1976 Amherst College; MFA 1982 Yale; DFA 1991 Yale

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Coblin, Weldon S., Emeritus Professor, Asian Slavic Languages Literature, 1973 (1985); BA 1967 Washington; PHD 1972 Washington

Cochran, Sam V. Iii, Emeritus Professor, Psych Quant Foundations, 1994 (2001); BA 1972 University of Illinois at Chicago; MED 1975 Missouri; PHD 1983 Missouri

Cockburn, Jeffrey, Assistant Professor, Psychological and Brain Sciences, (2024); PHD 2015 Brown University

Coelho, Benjamin Antonio, Professor, Music, 1998 (2010); BA 1984 State Univ of NY - Purchase; MA 1986 Manhattan School of Music; PHD 2015 University of Kansas

Coffey, Christopher S., Professor, Biostatistics, 2009 (2009); BS 1992 Tennessee; MS 1996 University of North Carolina at Chapel Hill; PHD 1999 University of North Carolina at Chapel Hill

Coffman, Barbara Kay, Adjunct Assistant Professor, Nursing, 2023 (2023); BSN 2006 University of Iowa; MSN 2011 University of Iowa

Coffman, Don D., Emeritus Professor, Music/Teaching and Learning, 1987 (2002); BME 1978 Kansas; MMED 1984 Wichita State; PHD 1987 Kansas

Coffman, Robert E., Emeritus Professor, Chemistry, 1967 (1979); BS 1953 University of Illinois at Urbana Champaign; MS 1955 University of California-Berkeley; PHD 1964 The University of Minnesota-Twin Cities

Coggins Mosher, Sarah Lucinda, Professor, Rhetoric, 2001 (2025); PHD 2001 University of Iowa

Cohen, Mary L., Professor, Music/Teaching and Learning, 2007 (2024); BME 1992 Kansas; MME 2000 Kansas; PHD 2007 Kansas

Cohen, Michael B., Emeritus Professor, Pathology, 1990 (1996); BA 1977 Haveford; MD 1982 Albany Medical

Colagiovanni Girotto, Gustavo, Clinical Professor, Internal Medicine, (2025); MD 2002 UNIFESO

Colaizy, Tarah Trinity, Professor, Pediatrics, 2004 (2019); MD 1988 University of Wisconsin-Madison; BS 1998 University of Wisconsin-Madison

Colangelo, Nicholas, Emeritus Professor, Counselor Education, 1977 (1986); BA 1970 State Univ-NY-Cortland; MED 1973 Vermont; PHD 1977 University of Wisconsin-Madison

Colbert, Amy Elizabeth, Professor, Center for Soc Sci Innovation/Management and Entrepreneurship, 2007 (2016); BS 1995 Culver-Stockton; MA 1999 St Louis; PHD 2004 University of Iowa

Colbert, Michael William, Professor, Business Analytics, 2007 (2025); BS 1994 Culver-Stockton

Colburn, Michael Duane, Clinical Associate Professor, Pediatrics, (2023); MD 2010 UW School of Medicine

Cole, Catherine A., Emeritus Professor, Marketing, 1984 (2004); BA 1971 Beloit; MBA 1976 University of Wisconsin-Madison; PHD 1983 University of Wisconsin-Madison

Cole, Renee Susan, Professor, Chemistry, 2011 (2018); BA 1992 Hendrix, AR; MS 1995 Oklahoma; PHD 1998 Oklahoma

Coleman, James Joshua, Adjunct Assistant Professor, Teaching and Learning, (2022); BA 2012 Mercer University; MAT 2014 University of North Carolina; MAT 2017 University of Pennsylvania; PHD 2020 University of Pennsylvania

Coleman, Lastascia Nicole Granger, Clinical Associate Professor, Obstetrics Gynecology, 2016 (2023); BS 2006 University of Iowa; MNHP 2008 University of Iowa

Coleman, Mitchell Carl, Research Assistant Professor, Orthopaedics and Rehabilitation, (2016); BA 2004 University of Iowa; BSE 2004 University of Iowa; PHD 2012 University of Iowa

Colgan, John David, Associate Professor, Anatomy Cell Biology/Internal Medicine, 2004 (2012); MA 1989 Columbia; MPHIL 1991 Columbia; PHD 1994 Columbia

Coll, Joseph Alexander, Adjunct Assistant Professor, Political Science, 2023 (2023); BA 2017 Buena Vista University; MA 2019 University of Iowa; PHD 2022 University of Iowa

Collappakkam, Padmalatha K., Instructor, Family Medicine, (2024); MBBS 1996 Govrnmnt Med College India; MD 2001 Gen Med, NSCB MedCollege,India

Colletta-Huckfeldt, Keegan, Adjunct Instructor, Journalism Mass Communication, 2024 (2024); BA 2013 Millikin University; MBA 2022 Upper Iowa University

Collins, Angela Sue, Adjunct Assistant Professor, Internal Medicine, 2001 (2001); MD 1990 South Dakota

Collins, Daniel W., Emeritus Professor, Accounting, 1977 (1981); BBA 1968 University of Iowa; PHD 1973 University of Iowa

Collins, Jennifer Louise, Adjunct Associate Professor, Teaching and Learning, (2023); MAT 1999 Queens University of Charlotte; PHD 2009 University of North Carolina; MED 2015 University of North Carolina

Collins, Steve M., Emeritus Professor, Electrical-Computer Engineering, 1976 (1987); BS 1971 University of Illinois at Chicago; MS 1974 University of Illinois at Chicago; PHD 1977 University of Illinois at Chicago

Collins, Thomas, Adjunct Instructor, University College Courses, 2017 (2017); MA 2012 University of Iowa; PHD 2017 University of Iowa

Colombari, Arianna, Adjunct Instructor, Marketing, 2019 (2022); MBA 2008 Kansas University

Colvin, Carolyn, Associate Professor, Teaching and Learning, 1991 (1997); BA 1971 Doane; MED 1981 University of Nebraska-Lincoln; PHD 1987 University of Nebraska-Lincoln

Combiths, Philip, Assistant Professor, Communication Sciences and Disorders, (2021); BS 2009 University of California; MA 2012 Unversidad Complutense Madrid; PHD 2021 Univ of California San Diego

Comellas Freymond, Alejandro Pierre, Clinical Professor, Internal Medicine, 2008 (2020); MD 1996 Venezuela

Comeron, Josep M., Professor, Biology, 2002 (2019); BS 1987 Barcelona; PHD 1997 Barcelona

Comisso, Luca, Adjunct Assistant Professor, Physics Astronomy, 2024 (2024); MSC 2009 Politecnico di Milano; PHD 2014 Politecnico di Torino

Conklin, Scott Andrew, Professor, Music, 2005 (2023); BM 1997 Cleveland Institute; MM 1999 University of Michigan-Ann Arbor; DMA 2002 University of Michigan-Ann Arbor

Conley, Deborah M., Adjunct Assistant Professor, Nursing, 2022 (2022); BSN 1976 Central Missouri State Univeri; MSN 1994 University of Nebraska Medical

Conley, Sarah Anne, Adjunct Assistant Professor, Physics Astronomy, 2023 (2023); BS 2018 University of Idaho; PHD 2023 The University of Iowa

Conley, Virginia Mary, Adjunct Professor, Nursing, 2016 (2017); BS 1993 Excelsior; MN 1996 Wyoming; PHD 2001 South Florida

Conn, David Richard, Adjunct Assistant Professor, Political Science, 2022 (2022); BA 1975 University of Iowa; JD 1978 University of Iowa; MA 1978 University of Iowa

Connelly, Nicole Gabrielle, Assistant Professor, Nursing, (2024); MSN 2021 Saint Louis University

Connerly, Charles, Emeritus Professor, School of Planning and Public Affairs, 2008 (2008); BA 1968 Grinnell College; MS 1974 Connecticut; MUP 1976 University of Michigan-Ann Arbor; PHD 1980 University of Michigan-Ann Arbor

Connett, Meghan A., Clinical Associate Professor, Family Medicine, 2013 (2024); AB 2005 University of Illinois at Chicago; MD 2010 University of Illinois at Chicago

Connolly, Connie Jo, Adjunct Instructor, Pharmacy Practice and Science, 2000 (2000); BS 1992 University of Iowa

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Conrad, Amy Lynn, Associate Professor, Pediatrics, 2013 (2022); BA 1999 Central, Pella; PHD 2004 University of Iowa

Conrad, Cindy S., Instructor, Teaching and Learning, (2025); BA 1978 University of Northern Iowa

Conrad, Jordan Bradley, Assistant Professor, Communication Studies, (2024); MSW 2021 University of Iowa

Conrad, Julia Arden, Assistant Professor, English, (2025); MFA 2021 University of Iowa

Conrad, Terry, Associate Professor, School of Art, Art History, and Design, 2015 (2024); BFA 2003 Alfred University; MFA 2010 Cranbrook Academy of Art

Constantine, Elizabeth A., Adjunct Assistant Professor, Counselor Education, 2016 (2003); BA 1980 University of Wisconsin-Madison; MA 1989 Monterey Inst Internat'l Studi; PHD 2001 Indiana University-Bloomington

Constantinescu, George, Professor, Civil-Environmental Engineering, 2004 (2015); MS 1992 Bucharets; PHD 1997 University of Iowa

Conti, Sergio, Clinical Assistant Professor, Internal Medicine, (2025); MD 2008 University of Catania; PHD 2021 University of Rome

Contrada, Deborah, Emeritus Associate Professor, French Italian, 1986 (1996); AB 1972 Mount Holyoke; AM 1973 Middlebury; PHD 1985 Harvard

Conway, Laura, Assistant Professor, Cinematic Arts, 2025 (2025); BA 2015 University of Colorado-Boulder; MFA 2020 University of Colorado-Boulder

Conway, Thomas W., Emeritus Professor, Biochemistry and Molecular Biology, 1964 (1973); BS 1953 St Thomas; MA 1955 The University of Texas at Austin; PHD 1962 The University of Texas at Austin

Conybeare, John A., Emeritus Professor, Political Science, 1987 (1988); BA 1971 Australian National; MA 1974 Harvard; PHD 1976 Harvard

Cook, Brian L., Emeritus Professor, Psychiatry, 1986 (2001); BA 1976 Grinnell; DO 1979 Col of Osteopathic Med Surge; MS 1984 University of Iowa

Cook, Daniel Paul, Assistant Professor, Internal Medicine, (2024); BA 2011 U of Missouri - Columbia; BS 2011 U of Missouri - Columbia; MD 2018 University of Iowa

Cook, Emily Jean, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2017 Drake University

Cook, Lawrence A., Associate Professor, Finance, 2017 (2023); BA 1983 The Colorado College; MBA 1986 Northwestern University

Cook, Robert T., Emeritus Professor, Pathology, 1977 (1996); AB 1958 Kansas; MD 1962 Kansas; PHD 1967 Kansas

Cook, Robert C., Emeritus Associate Professor, Music, 2003 (2014); BM 1987 Northwestern Univeristy; MA 1995 University of Illinois at Chicago; PHD 2001 University of Illinois at Chicago

Cook, Susan Wagner, Associate Professor, Psychological and Brain Sciences, 2008 (2017); BS 2000 University of Chicago; PHD 2006 University of Chicago

Cookman, Kristal A., Adjunct Instructor, Preventive Community Dentistry, 2022 (2022); AA 2014 Kirkwood Community College

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Cooney, Ashley Lea, Research Assistant Professor, Pediatrics, (2024); BS 2010 University of Iowa; PHD 2018 The University of Iowa

Cooper, Benjamin James, Associate Professor, Mathematics, 2014 (2019); BA 2003 Cornell University; MA 2005 University of California-San Diego; PHD 2009 University of California-San Diego

Cooper, Brian C., Adjunct Instructor, Obstetrics Gynecology, 2017 (2017); BS 1994 University of Michigan; MD 1999 Wayne State University

Cooper, Christopher Scott, Professor, Medicine Administration/Pediatrics/Urology, 1999 (2008); BA 1987 University of Iowa; MD 1991 University of Iowa

Cooper, David George, Adjunct Assistant Professor, Biology, 2021 (2023); BS 2014 St Ambrose University; PHD 2021 University of Iowa

Cooper, David Jacob, Professor, Economics, (2021); PHD 1992 Princeton

Cooper, John Henry, Adjunct Instructor, Teaching and Learning, 2024 (2024); BA 2012 Illinois State University; MA 2020 Drake University; MED 2022 University of Iowa

Cooper, Reginald R., Emeritus Professor, Orthopaedics and Rehabilitation, 1962 (1971); BA 1952 West Virginia; BS 1953 West Virginia; MD 1955 Med College of Virginia; MS 1960 University of Iowa

Cooper-Brown, Linda Jo, Clinical Professor, Pediatrics, 2000 (2018); BA 1984 Miami; EDS 1988 University of Iowa; PHD 1991 University of Iowa

Coppolella, John, Adjunct Instructor, Health Sport and Human Physiology, 2025 (2025); BA 2000 University of Notre Dame; MBA 2022 University of Florida

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Cordle, Angela R., Adjunct Instructor, Biology, 2012 (2022); BS 2004 University of Iowa; PHD 2012 University of Iowa

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Corkery, Ashley Lynn, Adjunct Instructor, Law-Faculty, 2024 (2024); BA 2006 The University of Iowa; JD 2012 Drake University

Corkery, Brian James, Adjunct Instructor, University College Courses, 2002 (2014); BA 1983 University of Iowa; MS 1988 Iowa State; MPA 1996 Utah; PHD 1996 Utah

Cornelius, Randy, Adjunct Assistant Professor, Nursing, 2006 (2024); BSN 2002 Allen College, Waterloo; MSN 2009 The University of Iowa; DNP 2015 University of Iowa

Cornell, Robert A., Emeritus Professor, Anatomy Cell Biology, 2001 (2015); BS 1987 Stanford; PHD 1995 Washington

Correa, Tatiana, Clinical Assistant Professor, Otolaryngology-Head Neck Surgery, (2026); HS 2009 Wahlert High School; BS 2013 University of Iowa; DMS 2018 University of Iowa; MD 2018 University of Iowa

Correa Osorio, Renata, Clinical Assistant Professor, Radiology, (2023); MD 2004 Universidade De Passo Fundo

Correia, Marcelo Lima De Gusmao, Clinical Assistant Professor, Internal Medicine, (2019); MD 1990 State Univ. Rio de Janeiro, Brazil; PHD 2007 Iowa

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Corum, Curtis A., Adjunct Assistant Professor, Radiology, (2020); PHD 2005 University of Arizona

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Cory, Anita, Adjunct Assistant Professor, University College Courses, 2015 (2015); BS 1990 Kearney State College; MS 1993 University of Nebraska-Lincoln; PHD 2011 Washington State University

Coryell, William H., Emeritus Professor, Psychiatry, 1977 (1986); BS 1970 Georgia; MD 1973 Medical College of Georgia

Cosner, Justin, Associate Professor, English, (2024); PHD 2017 University of Iowa

Cossman, George Wilford, Emeritus Associate Professor, Teaching and Learning, 1966 (1970); AB 1952 Shimer; BS 1954 University of Illinois at Urbana Champaign; MED 1955 University of Illinois at Urbana Champaign; PHD 1967 University of Iowa

Cote, Abbigail K., Assistant Professor, Music, 2024 (2024); BM 2004 University of Montana; MM 2012 Florida State University; DMA 2017 University of Oregon

Cottman, Monique Letrice, Adjunct Instructor, Teaching and Learning, 2022 (2022); BS 2006 Penn State University; MED 2015 Drake University

Coughlin, Ohmar P., Adjunct Assistant Professor, Surgery, (2019); BA 2008 St. Olaf College; MD 2012 University of Minnesota

Courtney, John Patrick, Clinical Assistant Professor, Management and Entrepreneurship, 2017 (2024);

Courtney, Patrick Alan, Adjunct Assistant Professor, Family Medicine, 2021 (2021); BS 2009 Missouri Univ Sci Tech; MD 2013 Med Univ of South Carolina

Couse, Brian Edward, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1994 Wayne State College, NE; MD 1998 Univ of NE COM; Omaha, NE

Couso-Queiruga, Emilio, Adjunct Assistant Professor, Family Dentistry, 2025 (2025); BDS 2016 University of Granada

Covington, Cary, Emeritus Associate Professor, Political Science, 1982 (1988); BA 1973 Whittier; MA 1975 University of Illinois at Urbana Champaign; PHD 1981 University of Illinois at Urbana Champaign

Cowan, Michael J., Professor, Cinematic Arts, (2020); PHD 2004 05/15/2004

Cowden, John David, Adjunct Assistant Professor, Internal Medicine, 2012 (2012); MD 1992 University of Michigan-Ann Arbor

Cowdery Jr., John S., Emeritus Professor, Internal Medicine, 1983 (1994); BA 1971 Duke; MS 1974 Emory; MD 1978 Emory

Cowen, Howard, Clinical Professor, Preventive Community Dentistry, 1982 (2010); BA 1972 Colorado; DDS 1976 University of Iowa; MS 1995 University of Iowa

Cowles, Mary Kathryn, Emeritus Professor, Biostatistics/ Statistics Actuarial Science, 1997 (2014); BA 1971 Carleton college; MM 1972 Northwestern Univeristy; MS 1990 The University of Minnesota-Twin Cities; PHD 1994 The University of Minnesota-Twin Cities

Cox, Allison, Adjunct Assistant Professor, Pediatrics, 2020 (2020); BS 2001 CORNELL UNIVERSITY; MS 2006 UNIV OF MAINE-ORONO; PHD 2016 Genetics

Cox, Bryan F., Adjunct Professor, Neuroscience and Pharmacology, 2015 (2015); PHD 1987 University of Iowa

Cox, Charles D., Emeritus Professor, Microbiology and Immunology, 1974 (1988); BS 1967 William and Mary; PHD 1971 Georgia

Cox, Justin A., Associate Professor, Rhetoric, (2023); MFA 2016 University of Iowa

Cox, Kristin Kaye, Adjunct Assistant Professor, Pharmacy Practice and Science, 2014 (2019); PHARMD 2014 University of Iowa

Cox, Lauren, Adjunct Assistant Professor, Cinematic Arts, 2023 (2023); BA 2016 University of Florida; MA 2018 University of Florida; PHD 2022 University of Florida

Cox, Lois K., Emeritus Professor, Law-Faculty, 1991 (1999); BA 1971 Rice; MA 1973 Tufts; JD 1978 Boston

Cox, Paul Russell, Adjunct Instructor, University College Courses, 2005 (2005); BA 1993 Missouri - Columbia; MA 1995 Missouri - Columbia

Cox, Rachel, Associate Professor, School of Art, Art History, and Design, 2018 (2024); BFA 2006 University of North Texas; MFA 2013 University of New Mexico

Cox, Taylor William, Clinical Assistant Professor, Internal Medicine, (2023); MD 2020 University of Iowa

Coyne, Daniel, Adjunct Assistant Professor, Creative Writing, 2025 (2025); MFA 2025 The University of Iowa

Coyne, Lauren E., Clinical Associate Professor, Obstetrics Gynecology, 2015 (2023); BS 2006 University of Iowa; MD 2010 University of Iowa

Craft, Wendy, Adjunct Instructor, Physical Therapy Rehab Science, 2009 (2024); BA 1992 University of Iowa; MPT 1998 University of Iowa

Craft-Rosenberg, Martha Jane, Emeritus Professor, Nursing, 1980 (1997); BSN 1970 University of Iowa; MA 1978 University of Iowa; PHD 1985 University of Iowa

Craig, Jennifer Nahrgang, Professor, Management and Entrepreneurship, 2020 (2020); PHD 2009 Michigan State University

Craig, Steven Robert, Adjunct Professor, Internal Medicine, 1987 (2005); MD 1979 University of Iowa

Craig, Steven Michael, Adjunct Assistant Professor, Internal Medicine, 2010 (2010); MD 2004 University of Iowa

Cram, Albert Edwin, Emeritus Professor, Surgery, 1975 (1991); BS 1965 University of Nebraska-Lincoln; MD 1969 University of Nebraska-Lincoln

Cram, Ellen, Emeritus Associate Professor, Nursing, 2000 (2005); BSN 1980 Coe; MA 1989 University of Iowa; PHD 2002 University of Iowa

Cram, Emerson, Associate Professor, Communication Studies/Gender, Women's and Sexuality Studies, 2016 (2023); BA 2006 University of Wyoming; MA 2008 University of Northern Iowa; PHD 2015 Indiana University-Bloomington

Cramer, Bradley Douglas, Professor, International Programs/School of Earth, Environment, and Sustainability, 2012 (2024); BSC 1997 The Ohio State University; MS 2004 The Ohio State University; PHD 2009 The Ohio State University

Cramer, Elizabeth Suzanne, Clinical Associate Professor, Family Medicine, 2012 (2023); BS 2005 University of Iowa; MD 2009 University of Iowa

Crawford, Daniel James, Clinical Professor, Nursing, (2024); ADN 2007 Scottsdale Comm College; MSN 2011 University of Iowa; DNP 2013 University of Iowa

Crawford, Eean Robert, Associate Professor, Management and Entrepreneurship, 2011 (2018); BS 2006 Brigham Young; MAC 2006 Brigham Young; PHD 2011 Florida

Crawford, Fred J., Adjunct Instructor, Finance, 2024 (2024); BA 1985 Indiana State University; MBA 1987 The University of Iowa

Creech, James Chauncey, Adjunct Instructor, Family Medicine, 2017 (2017); MD 1987 Univ of Nebraska, NE

Creedon, Pamela J., Emeritus Professor, Journalism Mass Communication, 2002 (2002); BA 1969 Mount Union; MA 1970 Oregon

Creekmur, Corey, Associate Professor, Cinematic Arts/ Gender, Women's and Sexuality Studies/International Programs, 1997 (2000); BA 1979 Florida; MA 1981 University of Illinois at Chicago; PHD 1991 University of Illinois at Urbana Champaign

Cremer, James F., Emeritus Professor, Computer Science, 1992 (2003); BS 1982 Cornell University; MS 1988 Cornell University; PHD 1989 Cornell University

Cretzmeyer, Margaret T., Adjunct Assistant Professor, Social Work, 2006 (2006); BA 1974 The University of Iowa; MSW 1998 The University of Iowa; PHD 2006 University of Iowa

Crippin, Nicholas, Instructor, Family Medicine, 2024 (2024); BA 2011 Northwestern College; DO 2015 Des Moines University

Crnic, Theresa Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2022 (2022); PHARMD 2011 Creighton University

Crocker, Erin, Clinical Professor, Psychiatry, 2011 (2023); MD 2007 South Carolina

Croft, Laurie J., Emeritus Professor, Belin-Blank Center, 1998 (2017); BA 1978 Oklahoma State; MA 1984 Oklahoma; PHD 1994 Tulsa

Croft, Michelle Christine, Adjunct Instructor, Psych Quant Foundations, 2021 (2024); BA 2001 Eastern Illinois Univ; MA 2002 SUNY- Stony Brook; PHD 2008 University of Iowa

Cromwell, John, Clinical Professor, Surgery, 2009 (2017); BS 1989 University of Nebraska-Lincoln; MD 1994 The University of Minnesota-Twin Cities

Croskey, Olivia, Clinical Assistant Professor, Nursing, (2022); MSN 2012 University of Iowa

Cross, Lowell M., Emeritus Professor, Music, 1972 (1981); BA 1961 Texas Tech; BA 1963 Texas Tech; MA 1968 Toronto-Canada

Crossett, Cynthia D., Adjunct Instructor, Counselor Education, 2016 (2022); BA 2002 University of Iowa; JD 2005 University of Iowa

Crossett, Judith H., Emeritus Professor, Psychiatry, 1998 (2008); BA 1968 Grinnell; MA 1970 Toronto; MD 1984 University of Iowa; MS 1988 University of Iowa

Crouch, Amanda, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BS 2010 St. Ambrose University; DPT 2011 St. Ambrose University

Crouse, Andrew Walker, Professor, Law-Faculty, (2023); BA 2001 University of Kansas; JD 2004 Georgetown University

Crowe, Raymond R., Emeritus Professor, Psychiatry, 1972 (1981); BA 1963 Vanderbilt; MD 1966 Vanderbilt

Crowell, Carolyn M., Emeritus Assistant Professor, Nursing, 1968 (1969);

Crowner, Abigail B., Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 University of Iowa

Croxton, Amanda, Adjunct Assistant Professor, Pediatrics, 2018 (2018); DO 2012 Des Moines University

Cruden, Robert W., Emeritus Professor, Biology, 1967 (1978); AB 1958 Hiram; MS 1960 The Ohio State University; PHD 1967 University of California-Berkeley

Cruikshank, Brenda M., Emeritus Associate Professor, Pediatrics, 1972 (1995); BA 1964 DePauw; MD 1967 University of North Carolina at Chapel Hill

Crum, Joseph Murphy, Clinical Assistant Professor, Anesthesia/Emergency Medicine, (2025); DO 2019 Ohio University Heritage College of Osteopathic Me; MD 2019 Ohio University Heritage Colle

Cuddihy, Henri A., Emeritus Associate Professor, Internal Medicine/Occupational Environmental Health, 2000 (2000); BA 1969 New York; MD 1977 Alabama

Cuervo, Luis Jaime, Instructor, Internal Medicine, (2024); MD 2006 University of Texas

Cullen, Joseph John, Emeritus Professor, Surgery, 1993 (2005); BS 1981 Loras; MD 1986 University of Iowa

Cullen, Laura M., Adjunct Assistant Professor, Nursing, 2000 (2024); BSN 1982 University of Iowa; MA 1990 University of Iowa; DNP 2012 The University of Minnesota-Twin Cities

Cullinan, Kiana M., Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); DDS 2021 University of Minnesota

Culp, Kennith Ray, Emeritus Professor, Nursing, 1985 (2007); BSN 1980 University of Iowa; MA 1985 University of Iowa; PHD 1992 University of Iowa

Cummings, Clinton Thomas, Adjunct Assistant Professor, Family Medicine, 2017 (2017); BA 2006 University of Iowa, Iowa City; DO 2011 Des Moines University

Cummings, James Michael, Adjunct Assistant Professor, Family Medicine, 2005 (2005); BA 1992 Central Pella, IA; MD 1996 University of Iowa

Cummings, Stephen Paul, Clinical Associate Professor, Social Work, 2005 (2020); BA 1994 University of Iowa; MSW 2002 University of Iowa

Cunning, David Richard, Professor, Philosophy, 2003 (2017); BA 1993 University of California-Berkeley; MA 1996 University of California-Irvine; PHD 2000 University of California-Irvine

Cunningham, Craig J., Adjunct Instructor, Family Medicine, 2021 (2021); BS 2012 Iowa State University; MD 2016 University of Iowa

Cunningham, Lindsey Anne, Adjunct Instructor, Dental Clinic Administration, 2024 (2024); AA 2009 Kirkwood Community College; BS 2016 Bellevue University

Cunningham-Ford, Marsha Ann, Emeritus Associate Professor, Preventive Community Dentistry, 1979 (1985); BS 1976 Old Dominion; MS 1979 Old Dominion

Curiel, Alejandro, Instructor, Family Medicine, 2024 (2024); MD 2003 Kansas Univ Sch of Med

Currie, Jay Dean, Emeritus Professor, Pharmacy Practice and Science, 1984 (2005); BSPH 1980 University of Iowa; PHARMD 1984 University of Iowa

Curry, Sue J., Emeritus Professor, Public Health Administration, 2008 (2008); BA 1976 Massachusetts; MA 1979 New Hampshire; PHD 1981 New Hampshire

Curtis, Joseph, Clinical Assistant Professor, Prosthodontics, (2021); DMD 2009 Case Western Reserve University; CER 2013 Prosthodontics Cert USAF; MS 2013 UTHSCSA

Curtis, Vanessa Ann, Clinical Professor, Pediatrics, 2011 (2024); MD 2005 University of Wisconsin-Madison

Curtius, Anny Dominique, Professor, International Programs/Languages, Literatures, Linguistics, and Cultures, 2002 (2022); BA 1984 Antilles-Ggyane; MA 1992 Montreal; PHD 1997 Montreal

Curto, Raul E., Professor, Mathematics, 1981 (1987); BS 1975 San Luis-Argentina; MA 1978 State Univ of NY - Stony Brook; PHD 1978 State Univ of NY - Stony Brook

Curto, Roxanna Nydia, Associate Professor, Languages, Literatures, Linguistics, and Cultures/Spanish Portuguese/ University College Courses, 2011 (2017); AB 2001 Harvard; MA 2003 Yale; PHD 2008 Yale

Curtu, Rodica, Professor, , 2007 (2020); BS 1995 Transilvania U of Brasov,Roman; MA 1999 Pittsburgh; PHD 2003 Pittsburgh

Cushatt, Lisa Marie, Adjunct Instructor, Social Work, 2018 (2018); BA 2005 Truman State University; MSW 2007 University of Missouri - Colum

Cushing, Cameron M., Adjunct Instructor, Radiology, 2025 (2025); BA 2009 Iowa State University; MS 2012 University of Iowa

Cusick, Elizabeth Helen, Clinical Assistant Professor, Dermatology, (2022); BS 2012 Brooklyn College; MD 2017 Stony Brook University

Cwiertny, David Michael, Professor, Chemical Biochemical Engineering/Chemistry/Civil-Environmental Engineering, 2011 (2018); BS 2000 University of California-Los Angeles; PHD 2005 Johns Hopkins

Cyndari, Karen, Assistant Professor, Emergency Medicine/ Epidemiology, (2024); MD 2019 State University of New York Upstate Medical Unive

Cyr, Andrew Brian, Adjunct Associate Professor, Pediatrics, 2017 (2024); MD 2013 University of Iowa

Czech, Theresa Marie, Clinical Assistant Professor, Pediatrics, (2019); MD 2011 Wayne State University

Czerniak, Laura Camille, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); BA 2009 Central College; PHARMD 2013 University of Iowa

Czerwionka, Clara Rose, Adjunct Instructor, Social Work, 2025 (2025); MSW 2012 University of Iowa

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D'Agata, John, Professor, English, 2005 (2015); BA 1995 University of Iowa; MFA 1998 University of Iowa

D'Alessandro, Donna M., Professor, Pediatrics, 1995 (2007); BA 1985 Kalamazoo; MD 1989 Wayne State

D'Alessandro, Michael, Professor, Pediatrics/Radiology, 1995 (2004); BS 1985 Wayne State; MD 1989 Wayne State

D'Aunno, Lisa Easley, Adjunct Associate Professor, Social Work, 2008 (2008); AB 1978 Notre Dame; JD 1984 University of Michigan-Ann Arbor

D'Souza, Joseph E., Adjunct Assistant Professor, Family Dentistry, 1983 (1987); BS 1974 University of Iowa; DDS 1983 University of Iowa

Da Costa Ferreira Oberfrank, Natany, Assistant Professor, Nursing, 2020 (2022); BN 2011 Univ of Sao Paulo; PHD 2019 Univ. Of Sao Paulo Brazil

Da Rocha Lessa, Marcos Adriano, Clinical Associate Professor, Anesthesia, (2024); MD 1998 State University of Rio de Jan

Daack-Hirsch, Sandra E., Professor, Nursing, 1987 (2021); BSN 1986 University of Iowa; MSN 1998 University of Iowa; PHD 2007 University of Iowa

Dabdoub, Shareef Majed, Assistant Professor, Dental Research/Periodontics, (2022); BS 2004 University of Cincinnati; PHD 2011 Ohio State University

Dabrowski, Anna, Assistant Professor, Pediatrics, (2024); MD 2017 University of Michigan; PHD 2017 Rackham Graduate School

Daedlow, Kelsey Anne, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2016 University of Iowa

Daft, William Stanley, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1980 University of Iowa; DO 1987 College of Osteopathic Med

Dagle, John Michael, Professor, Epidemiology/Pediatrics, 1998 (2013); BS 1984 Creighton; MD 1991 University of Iowa; PHD 1991 University of Iowa

Dahlby Albright, Ryan Patrick, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1996 Luther College; Decorah, IA; MD 2002 Univ of IA CCOM; Iowa City,IA

Dahlke, Megan Eileen, Adjunct Assistant Professor, Pharmacy Practice and Science, 2012 (2012); PHARMD 2004 University of Iowa

Dahmoush, Laila, Clinical Professor, Pathology/Urology, 2001 (2015); MBCHB 1983 Univ. Alexandria Fac Med-Egypt; MD 1999 THE UNIVERSITY OF MARYLAND-COLLEGE PARK

Dailey, Dana Leigh, Adjunct Instructor, Physical Therapy Rehab Science, 2015 (2024); BA 1984 Northern Illinois University; BS 1986 Northern Illinois University; MS 1993 College of St. Francis

Dailey, Michael E., Associate Professor, Biology, 1996 (2002); BS 1985 Geneva; PHD 1990 Washington

Dailey, Morris O., Emeritus Associate Professor, Pathology, 1984 (1989); BS 1971 University of California-Davis; PHD 1976 University of Illinois at Chicago; MD 1977 University of Illinois at Chicago

Dailey, Scott Alan, Adjunct Assistant Professor, Communication Sciences and Disorders, 2010 (2010); BS 1988 Iowa State; MA 1993 Northern Iowa; PHD 2009 University of Iowa

Daily, Lora Lynn, Adjunct Instructor, Teaching and Learning, (2025); BS 1991 University of Iowa; MED 1996 University of Northern Iowa

Dakovich, Laura, Adjunct Assistant Professor, Internal Medicine, 2025 (2025); DO 2001 Des Moines University

Dalela, Deepansh, Clinical Assistant Professor, Urology, 2025 (2025); MBBS 2013 King George's Medical Universi

Dalhart, Adam, Instructor, Radiation Oncology, (2023); MS 2014 University of Toledo

Dalhoff, Zachary Gerald, Adjunct Assistant Professor, Anesthesia, 2025 (2025); DO 2017 Des Moines Univ. College of Os

Dalrymple, Kajsa E., Adjunct Assistant Professor, Journalism Mass Communication, 2011 (2011); BS 2005 Cornell; MA 2007 University of Wisconsin-Madison; PHD 2011 University of Wisconsin-Madison

Dalton, Brittany Sue, Clinical Assistant Professor, Family Medicine, 2024 (2024); BA 2010 Augustana College; DO 2015 Des Moines University

Dalton, Kathryn Rose, Assistant Professor, Occupational Environmental Health, (2024); PHD 2020 Johns Hopkins

Daly, Jeanette Marie, Adjunct Assistant Professor, Family Medicine, 1993 (1993); BS 1973 Northern Illinois; MS 1978 Northern Illinois; PHD 1992 University of Iowa

Daly, Scott R., Associate Professor, Chemistry, 2014 (2020); PHD 2010 University of Illinois at Urbana Champaign

Dambrosio, Charles A., Emeritus Professor, Creative Writing, 2014 (2014); MFA 1991 University of Iowa

Damiano, Peter Cosimo, Professor, Health Management Policy/Preventive Community Dentistry/University College Courses, 1988 (2001); BS 1982 University of Iowa; DDS 1986 University of Iowa; MPH 1990 University of California-Los Angeles

Damico, Alfonso J., Emeritus Professor, Political Science, 1999 (1999); BA 1964 George Washington; MA 1967 The Ohio State University; PHD 1971 The Ohio State University

Damico, Sandra Bowman, Emeritus Professor, Educ Policy Leadership Studies, 1999 (1999); BA 1962 The Ohio State University; MA 1969 The Ohio State University; PHD 1973 Florida

Dana, Richard Michael, Adjunct Instructor, Interdisciplinary Programs, 2021 (2021); BFA 1984 UI; MFA 2021 University of Iowa

Danaher, Kelly, Associate Professor, Psychological and Brain Sciences/University College Courses, (2025); BA 2004 University of Nebraska; MA 2006 University of Kansas; PHD 2011 University of Kansas

Daniel, Brian Phillip, Clinical Assistant Professor, Internal Medicine, 2004 (2005); BA 1987 Carson-Newman-TN; MD 1991 Vanderbilt

Daniels, Karla Jean, Adjunct Assistant Professor, Biology, 2024 (2024); BA 1976 Luther College; BS 1977 Luther College; PHD 1987 University of Iowa

Daniels, Kelly, Adjunct Instructor, Political Science, 2025 (2025); BAS 2015 University of Iowa

Daniolos, Peter T., Adjunct Professor, Psychiatry, 2010 (2015); BS 1984 Denver; MD 1989 North Dakota

Danley, Dana L., Adjunct Associate Professor, Family Medicine, 2004 (2015); BA 1993 Grinnell; MD 1998 University of Iowa

Dannen, Katelin Eloyce, Assistant Professor, Neuroscience and Pharmacology, 2014 (2023); BA 2009 Augustana College Sioux Falls; PHD 2014 University of Iowa

Dannenberg, Matthew Paul, Associate Professor, School of Earth, Environment, and Sustainability, (2025); MA 2013 Univeristy of North Carolina - Chapel; PHD 2017 University of North Carolina-Chapel

Darbro, Benjamin Will, Professor, Pediatrics, 2011 (2024); BS 1999 Nebraska Wesleyan; MD 2007 University of Iowa; PHD 2007 University of Iowa

Darcy, Isabel K., Associate Professor, Mathematics, 2003 (2008); BS 1987 University of California-Los Angeles; MS 1989 University of California-Los Angeles; PHD 1997 Florida State

Darjania, Vakhtangi, Associate Professor, School of Art, Art History, and Design, 2018 (2024); MFA 2018 University of Iowa

Darling, Alyssa, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DMD 2016 Boston University

Darling, Warren G., Emeritus Professor, Health Sport and Human Physiology, 1987 (2007); BSC 1979 Waterloo-Ontario; MSC 1981 Waterloo-Ontario; PHD 1986 Western Ontario

Das, Shuvendu, Adjunct Assistant Professor, Chemistry, 2014 (2014); PHD 2004 Jadavpur University

Dasgupta, Soura, Professor, Electrical-Computer Engineering, 1985 (1994); BE 1980 Queensland-Australia; PHD 1985 Australian National

Datchuk, Shawn Michael, Professor, Teaching and Learning, 2015 (2025); PHD 2011 Pennsylvania State University

Daubs, Amber Anita, Adjunct Instructor, Teaching and Learning, (2023); MA 1999 University of Northern Iowa

Davick, Jonathan J., Clinical Assistant Professor, Pathology, (2020); BA 2010 St Olaf College; MD 2015 University of Iowa Carver Coll

Davick, Stephen, Adjunct Assistant Professor, Internal Medicine, 2025 (2025); MD 2020 University of Iowa

David, Marcella, Adjunct Instructor, International Programs/ Law-Faculty, 1995 (2024); BS 1986 Rensselaer Polytechnic Institu; JD 1989 UNIVERSITY OF MICHIGAN-ANN ARBOR

Davidovic, Jovana, Associate Professor, Law-Faculty/ Philosophy, 2012 (2018); PHD 2011 The University of Minnesota-Twin Cities

Davids, Michelle R., Adjunct Assistant Professor, Psychiatry, 2017 (2017); DO 2011 Midwestern University

Davidson, Krista R., Clinical Professor, Communication Sciences and Disorders/University College Courses, (2024); DIP 1997 Herscher High School; BS 2001 Bradley University; MS 2004 Purdue University

Davies, Brandon Scott Joseph, Professor, Biochemistry and Molecular Biology, 2012 (2025); PHD 2005 University of California-Berkeley

Davila, Heather, Research Assistant Professor, Internal Medicine, (2021); PHD 2018 University of Minnesota

Davis, Benjamin Phillip, Clinical Associate Professor, Internal Medicine/Pediatrics, 2015 (2021); MD 2008 University of Iowa

Davis, Bethany, Adjunct Instructor, Library Information Science, (2020); BA 2008 UNIVERSITY OF PITTSBURGH; AMLS 2011 KENT STATE UNIVERSITY

Davis, Christine Schaplowsky, Adjunct Assistant Professor, Family Medicine, (2018); BA 2010 Des Moines Univ, IA; BA 2014 Des Moines Univ, IA; DO 2014 Des Moines Univ. IA

Davis, James M., Assistant Professor, Pediatrics, 2018 (2018); PHD 2009 Emory University; MD 2010 Emory University

Davis, Jody, Adjunct Instructor, Preventive Community Dentistry, 2010 (2010); BS 1996 Fort Lewis; DDS 2009 Colorado

Davis, Jonathan Aaron, Assistant Professor, Occupational Environmental Health, (2021); PHD 2017 University of Iowa

Davis, Joshua Wayne, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2006 University of Iowa

Davis, Leodis, Emeritus Professor, Chemistry, 1968 (1976); BS 1956 Missouri; MS 1958 Iowa State; PHD 1960 Iowa State

Davis, Meghan E., Adjunct Instructor, University College Courses, 2023 (2023); BS 2001 Trinity College of Vermont; MA 2005 University of Northern Iowa

Davis, Patricia H., Emeritus Professor, Neurology, 1992 (2005); BS 1973 Queen's-Ontario; MD 1977 Queen's-Ontario

Davis, Robert Andrew, Adjunct Assistant Professor, Creative Writing, 2024 (2024); MFA 2024 The University of Iowa

Davis, Wilson L. Jr., Adjunct Instructor, Internal Medicine, 1990 (1990); MD 1978 University of Iowa

Davison, Scott Robert, Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 2013 University of Minnesota

Dawson, Courtney Keath, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); MPH 2019 University of Iowa; PHARMD 2020 University of Iowa

Dawson, Deborah V., Emeritus Professor, Biostatistics/ Pediatric Dentistry, 2001 (2001); BA 1974 Montclair State; SCM 1976 Johns Hopkins; PHD 1981 University of North Carolina at Chapel Hill

Dawson, Devon Alexander, Clinical Assistant Professor, Neurology, (2025); BA 2016 University of Iowa; PHD 2023 University of Iowa

Dawson, Jeffrey D., Professor, Biostatistics, 1991 (2009); BS 1987 Brigham Young; SCD 1991 Harvard

Dawson, Natalee Rose, Adjunct Assistant Professor, Creative Writing, 2021 (2021); BA 2015 Williams College; MFA 2021 University of Iowa

Dawson, Taylor Leighan, Adjunct Assistant Professor, Creative Writing, 2025 (2025); BFA 2022 Art Academy of Cincinnati; MFA 2025 The University of Iowa

Day, Anthony Alan, Adjunct Professor, Family Medicine, 2008 (2016); BS 1988 University of Iowa; MD 1992 University of Iowa

Dayal, Sanjana, Associate Professor, Internal Medicine, 2014 (2021); PHD 1995 India Institute of Medical Sci

De Abreu Almeida, Miriam, Adjunct Associate Professor, Nursing, 2016 (2016); PHD 2002 Pontificia Univ Catolica

De Andrade, James Pereira, Clinical Assistant Professor, Surgery, (2020); MD 2011 University of Alabama School

De Andrade, Lindsay Mcconnell, Clinical Assistant Professor, Ophthalmology Visual Science/Pediatrics, (2020); MD 2014 University of Iowa

De Boef, Connie Lou, Emeritus Assistant Professor, Nursing, 1993 (2002); BSN 1970 University of Iowa; MA 1991 University of Iowa

De Castro Filho, Luciano Irineu, Professor, Center for Intellectual Freedom/Economics, 2014 (2021); MBA 1999 Getulio Vargas Foundation; MS 2001 IMPA (Brazil); PHD 2004 IMPA (Brazil)

De Groot, Jordan Leigh, Adjunct Instructor, Physical Therapy Rehab Science, 2025 (2025); DPT 2023 The University of Iowa

De La Pena, George R., Professor, Dance, 2004 (2016); BA 2011 SUNY, Empire State College

De La Roca, Amanda Stephanie, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2024 Saint Joseph's University

De Mali, Kris A., Professor, Biochemistry and Molecular Biology, 2006 (2018); PHD 1999 Colorado Health

De Matta, Renato E., Associate Professor, Business Analytics, 1990 (1997); BS 1977 Phillipines; MA 1979 Phillipines; PHD 1989 Pennsylvania

De Mattos Pimenta Vidal, Cristina, Associate Professor, Operative Dentistry, 2016 (2024); DDS 2006 Sao Paulo State University; MS 2009 Sao Paulo State University; PHD 2012 State University of Campinas

De Puma, Richard Daniel, Emeritus Professor, School of Art, Art History, and Design, 1968 (1986); BA 1964 Swarthmore; MA 1967 Bryn Mawr; PHD 1969 Bryn Mawr

De Saint Victor, Carol, Emeritus Professor, English, 1966 (1984); BA 1956 Indiana University-Bloomington; PHD 1966 Indiana University-Bloomington

De Sloover, Yvonne Ann, Adjunct Assistant Professor, Pharmacy Practice and Science, 2002 (2002); PHARMD 2000 University of Iowa

De Souza Talarico, Juliana Nery, Associate Professor, Nursing, 2020 (2020); BN 2003 Universidade de Sao Paulo; MSN 2005 Universidade de Sao Paulo; PHD 2009 Universidade de Sao Paulo

Dean, Brandon O., Assistant Professor, Religion, 2017 (2017); BA 2003 Indiana University; MA 2009 Western Michigan University; PHD 2016 University of Iowa

Deberg, Jennifer, Adjunct Assistant Professor, Nursing/ University College Courses, 2014 (2025); BS 1993 Elizabethtown; MS 2008 Emporia State

Debruine, Emma, Adjunct Instructor, University College Courses, 2025 (2025); BS 2025 University of Iowa

Decker, Beth, Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2016); PHARMD 2015 Drake University

Decker, Evan, Adjunct Instructor, University College, 2024 (2024); BS 2015 University of Iowa

Decock, Sofie, Adjunct Associate Professor, German, 2025 (2025); MA 2004 Ghent University; PHD 2009 Ghent University

Dedeaux-Norris, Tj, Associate Professor, African-American Studies/School of Art, Art History, and Design, 2016 (2022); BA 2010 University of California-Los Angeles; MFA 2012 Yale University

Degollado, Enrique David, Adjunct Assistant Professor, Teaching and Learning, 2020 (2021); MED 2010 Texas State University; MSED 2013 Texas AM Intl University; PHD 2019 University of Texas-Austin

Dehn, Richard William, Emeritus Professor, Physician Assistant, 1994 (2000); BA 1973 University of Iowa; BS 1976 University of Iowa; MPA 1991 Golden Gate

Dehring, Deborah J., Emeritus Associate Professor, Anesthesia, 1993 (1993); BS 1974 University of Wisconsin-Madison; MD 1978 University of Wisconsin-Madison

Deierling, Phillip, Associate Professor, Mechanical Engineering, (2021); BE 2009 University of Iowa; MME 2010 University of Iowa; PHD 2016 University of Iowa

Deimler, Jennifer Lynn, Adjunct Assistant Professor, Pharmacy Practice and Science, 2013 (2013); PHARMD 2005 University of Iowa

Dejong, Douglas V., Emeritus Professor, Accounting, 1980 (1993); BBA 1970 University of Iowa; MBA 1971 University of Iowa; PHD 1980 University of Michigan-Ann Arbor

Dejong, Stacey Lynn, Clinical Assistant Professor, Physical Therapy Rehab Science, 2014 (2014); MPT 1992 University of Nebraska-Lincoln; MS 1998 University of Nebraska-Lincoln; PHD 2011 Washington

Del Castillo, Nicole Suzanne, Adjunct Assistant Professor, Psychiatry, (2022); MD 2009 Southern Illinois SOM; MPH 2016 Harvard TH Chan School Public

Delaney, Connie J., Emeritus Professor, Nursing, 1986 (2002); BSN 1975 Viterbo; MA 1978 University of Iowa; PHD 1986 University of Iowa

Delaty, Simone, Emeritus Professor, French Italian, 1968 (1986); MA 1962 Grenoble-France; PHD 1970 Bordeauz-France

Delaubenfels, Anthony James, Adjunct Instructor, Computer Science, 2023 (2023); BS 1975 Simpson College; MS 1982 University of Iowa; MS 1987 University of Iowa

Delcour, Kimberly Sue, Clinical Associate Professor, Internal Medicine, 2015 (2023); DO 2006 Kirksville College of Osteopa

Deligiorgis, Stavros, Emeritus Professor, English, 1965 (1973);

Dellos, Laura Murphy, Clinical Associate Professor, Obstetrics Gynecology, 2007 (2016); BSN 1985 Missouri, Columb; MSN 1991 California, San Fran

Deloach, Latasha J., Adjunct Instructor, Social Work, 2017 (2017); BSW 2003 University of Iowa; MSW 2008 University of Iowa

Demir, Ibrahim, Associate Professor, Civil-Environmental Engineering/Electrical-Computer Engineering, 2012 (2021); PHD 2010 Georgia

Demir Lira, Ozlem Ece, Assistant Professor, Center for Soc Sci Innovation/Pediatrics/Psychological and Brain Sciences, (2018); PHD 2009 University of Chicago

Demuth, Robert William, Clinical Assistant Professor, Internal Medicine, 2019 (2019); MD 2000 Texas Tech University

Den Adel, Kevin John, Professor, Accounting, 2009 (2022); PHD 1999 University of Iowa

Denburg, Natalie Lisa, Professor, Neurology/Psychological and Brain Sciences, 1999 (2023); BA 1991 New York-Binghamtpm; MA 1994 Michigan State University; PHD 1997 Michigan State University

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Dennis, Leslie, Adjunct Associate Professor, Epidemiology, 1999 (2004); BA 1984 Loretto Heights College; MS 1988 Colorado; PHD 1993 Washington

Dennis-Smithart, Ronda, Clinical Assistant Professor, Pediatrics, 1988 (1988); BS 1978 University of Iowa; MD 1982 University of Iowa

Denniston, Rhawn Flavell, Adjunct Assistant Professor, School of Earth, Environment, and Sustainability, 2001 (2001); PHD 2000 University of Iowa

Denry, Isabelle, Emeritus Professor, Prosthodontics, 2011 (2011); DDS 1981 Paris VII; MS 1986 Paris VII; PHD 1989 Paris VII

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Deobald, Chase Nicholas, Adjunct Assistant Professor, Emergency Medicine, 2022 (2022); DO 2013 Des Moines University

Deol, Rory-Sean Singh, Adjunct Professor, Pathology, 2024 (2024); DO 2016 A.T Still University School

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Depew, David, Emeritus Professor, Communication Studies/ Interdisciplinary Programs, 1990 (1995); BA 1965 St Marys-Calif; MA 1972 University of California-San Diego; PHD 1978 University of California-San Diego

Depew, Mary J., Emeritus Professor, Classics, 1990 (2015); BA 1976 California State; BA 1979 Calif-Irvine; MA 1985 University of California-Los Angeles; PHD 1989 University of California-Los Angeles

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Derin, Yagmur, Assistant Professor, Civil-Environmental Engineering, 2025 (2025); BSC 2011 Middle East Technical Universi; MSC 2014 Middle East Technical Universi; PHD 2019 University of Connecticut

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Desalvo Von Stein, Diana Lynn, Adjunct Instructor, Epidemiology, 2020 (2020); BS 1997 University of Iowa; MPH 2006 University of Iowa

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Deutschendorf, Brian L., Adjunct Instructor, University College Courses, 2023 (2023); MA 2005 Northern Arizona University

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Deyak, David Joseph, Adjunct Instructor, Management and Entrepreneurship, 2015 (2024); BA 1989 Gustavus Adolphus, MN; MA 2001 Troy

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Dick, Diane Lourdes, Professor, Law-Faculty, (2022); MA 1999 Florida International; JD 2005 University of Florida; LLM 2011 University of Florida

Dickens, David, Clinical Professor, Pediatrics, (2019); MD 1996 Upstate Medical University

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Diekema, Daniel James, Emeritus Professor, Internal Medicine, 1999 (2008); BA 1985 Calvin; MD 1989 Vanderbilt; MS 1995 University of Iowa

Diel, Ryan John, Clinical Assistant Professor, Ophthalmology Visual Science, (2024); MD 2018 University of Miami

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Diffley, Kathleen, Emeritus Associate Professor, English, 1983 (1991); BA 1972 Bard; MED 1974 Harvard; MA 1977 Columbia; MPHIL 1980 Columbia; PHD 1983 Columbia

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Diller, Meliah Kay, Adjunct Instructor, Radiology, (2023); BS 2012 The University of Iowa

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Doherty, Cornelius, Emeritus Associate Professor, Surgery, 1991 (1997); BS 1959 San Francisco; MD 1963 St Louis

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Dominic, Paari, Associate Professor, Internal Medicine, 2010 (2022); MBBS 1998 Madras, India

Domsic, Robyn Therese, Adjunct Associate Professor, Internal Medicine, 2024 (2024); MD 2001 University of Iowa; MPH 2008 University of Pittsburgh

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Donald, Sondra Ann-Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2020 (2020); PHARMD 2000 University of Iowa

Donaldson, Melvin Turner, Clinical Assistant Professor, Emergency Medicine, (2024); MD 2020 Universit of Minnesota

Donat, Patrick, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2015 Creighton Uninversity; PHD 2015 Creighton University

Donato, Francisco, Clinical Assistant Professor, Radiology, 2019 (2019); MD 2002 School of Medicine of the Univ

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Doobay, Alissa F., Clinical Associate Professor, Psych Quant Foundations, 2016 (2021); BS 2004 University of Iowa; PHD 2010 University of Iowa

Doobay, Marc Frank, Clinical Assistant Professor, Family Medicine/Physician Assistant, (2020); BS 2005 Univ of Iowa; MPAS 2011 Univ of Iowa

Doorn, Jonathan A., Professor, Pharmaceutical Sciences and Experimental Therapeutics, 2004 (2019); BS 1996 Calvin; MS 1998 University of Michigan-Ann Arbor; PHD 2001 University of Michigan-Ann Arbor

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Dotson, Mitchell P., Adjunct Assistant Professor, Nursing, 2016 (2025); BSN 1997 University of Iowa; MSN 2012 University of Iowa; DNP 2014 University of Iowa

Doucette, William R., Professor, Pharmacy Practice and Science, 1996 (2007); BS 1983 University of Wisconsin-Madison; MS 1988 University of Wisconsin-Madison; PHD 1993 University of Wisconsin-Madison

Dougherty, Jenay Marie, Adjunct Instructor, University College Courses, (2020); BA 2013 Univ of Nebraska at Lincoln; MLIS 2015 Emporia State University

Dove, Edwin L., Emeritus Associate Professor, Biomedical Engineering, 1985 (1992); BS 1973 Virginia Polytechnic Institute; MS 1974 Virginia Polytechnic Institute; PHD 1984 Case Western Reserve

Dowden, Ryan M., Adjunct Assistant Professor, Emergency Medicine, 2017 (2017); MD 1999 Univ of MO-Kansas Cty Schl Med

Dowling, David O., Professor, Journalism Mass Communication, 2006 (2021); PHD 1995 Boulder

Dowling, Jacqueline Anne, Assistant Professor, Civil-Environmental Engineering, 2025 (2025); PHD 2023 California Institute of Techno

Downes, Sara Jo, Clinical Assistant Professor, Ophthalmology Visual Science, 2018 (2018); OD 2011 Southern College of Optometry

Downey, Debora Ann, Adjunct Assistant Professor, Communication Sciences and Disorders, 1993 (2017); BA 1984 Northern Colorado; MA 1986 Northern Colorado

Drack, Arlene V., Professor, Ophthalmology Visual Science/ Pediatrics, 2008 (2018); BS 1981 Scranton; MD 1986 Pennsylvania State University

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Drake, Lon D., Emeritus Professor, Earth and Environmental Sciences, 1968 (1979); BA 1961 Buffalo; MA 1965 University of California-Los Angeles; PHD 1968 The Ohio State University

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Dreher, Melanie, Emeritus Professor, Anthropology/ Community Behavioral Health/Nursing Administration General, 1997 (1997); BSN 1967 Long Island; MA 1974 Teachers College; MPHIL 1976 Columbia; PHD 1977 Columbia

Dreier, James, Adjunct Associate Professor, Music, 2000 (2022); BA 1985 Berklee; MA 2000 University of Iowa

Drew, Cara, Clinical Associate Professor, Family Medicine, 2023 (2025); BS 2009 Morningside College, IA; MD 2014 Univ S. Dakota Sanford

Drew, Janet Marie, Adjunct Instructor, Psych Quant Foundations, 2023 (2023); PHD 1995 University of Iowa

Drey, Megan, Clinical Assistant Professor, Obstetrics Gynecology, (2022); MSN 2021 University of Cincinnati

Dreyer, Nicholas R., Adjunct Assistant Professor, Health Management Policy, 2024 (2024); BA 2003 University of Northern Iowa; MBA 2016 University of Iowa

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Drimbe, Daniel, Assistant Professor, Mathematics, (2024); BA 2011 University of Bucharest; MA 2013 University of Paris-Sud; PHD 2018 University of California SD

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Duck, Steve, Professor, Psychological and Brain Sciences/ Rhetoric, 1986 (1986); BA 1968 Oxford-England; PHD 1971 Sheffield-England; MA 1972 Oxford-England

Dudeja, Vikas, Professor, Surgery, 2025 (2025); MBBS 2001 All India Institute of Med Sci

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Dudgeon, Shelby, Assistant Professor, Business Analytics, 2025 (2025); BS 2016 Texas State University; MS 2019 Mississippi State University; PHD 2024 Mississippi State University

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Duffy, Susan Marie, Instructor, Psychiatry, 2014 (2025); MD 2004 University of Iowa

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Dunn, Suzanne Marie, Adjunct Instructor, Communication Sciences and Disorders, 2006 (2006); BA 1996 University of Iowa; MA 2002 University of Iowa

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Durairaj, Lakshmi, Associate Professor, Internal Medicine, 2003 (2012); MBBS 1991 Kilpauk, India; MS 2004 University of Iowa

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Durham, Frank Dallas, Emeritus Associate Professor, Journalism Mass Communication, 2000 (2007); BA 1982 Tulane; MA 1987 Florida; PHD 1993 University of Wisconsin-Madison

Durham, Meenakshi Gigi, Professor, English/Gender, Women's and Sexuality Studies/Journalism Mass Communication/President, 2000 (2012); BS 1981 Women's Christian-India; BA 1984 West Florida; PHD 1990 Florida

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Durney, Michael Thomas, Assistant Professor, Accounting, (2019); MAC 2012 Brigham Young University; MS 2018 Cornell University; PHD 2019 Cornell University

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Durrenberger, E. Paul, Emeritus Professor, Anthropology, 1978 (1978);

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Dusdieker, Lois Bohlken, Emeritus Associate Professor, Pediatrics, 1977 (1985); BA 1970 University of Iowa; MD 1974 University of Iowa; MS 1979 University of Iowa

Dusdieker, Nile S., Adjunct Assistant Professor, Internal Medicine, 2000 (2000); MD 1974 University of Iowa

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Dutchik, Lisa Marie Lombardo, Associate Professor, Accounting, 2015 (2020); BA 1989 St. Ambrose; MAC 2000 University of Iowa

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Dutta, Sandeep, Adjunct Associate Professor, Pharmaceutical Sciences and Experimental Therapeutics, 2017 (2017); PHD 1998 Univ of New York Buffalo

Dutton, Gary R., Emeritus Professor, Neuroscience and Pharmacology, 1980 (1984); BS 1961 Washington; MS 1965 Indiana University-Bloomington; PHD 1967 Indiana University-Bloomington

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Duys, David K., Associate Professor, Counselor Education, 2005 (2011); BS 1986 Northern Illinois; MSED 1989 Northern Illinois; PHD 1998 Western Michigan

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Dybevik, Heidi J., Associate Professor, Finance, 2004 (2019); BA 1991 Northeast Missouri State; PHD 1997 Purdue University Main Campus

Dyken, Mark E., Professor, Neurology, 1990 (2010); BA 1979 Indiana University-Bloomington; MD 1984 Indiana University-Bloomington

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Earel, James Kent, Adjunct Assistant Professor, Physician Assistant, 2023 (2023); BA 2002 Augustana College, Illinois; MPAS 2008 University of Iowa

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Egge, Jason Alan, Adjunct Assistant Professor, Pharmacy Practice and Science, 2006 (2006); PHARMD 2002 University of Iowa

Eggers, Shoshannah Iylene, Assistant Professor, Epidemiology, (2023); PHD 2018 University of Wisconsin - Madi

Ehle, Joseph James, Clinical Assistant Professor, Obstetrics Gynecology, (2022); MD 2001 University of Iowa

Ehler, Matt, Adjunct Instructor, Physical Therapy Rehab Science, 2011 (2024); MS 2000 Clarke

Ehly, Stewart W., Emeritus Professor, Psych Quant Foundations, 1979 (1996); BA 1971 Massachusetts; PHD 1975 The University of Texas at Austin

Ehn, Nicole Lynn, Adjunct Instructor, Family Medicine, 2017 (2017); BS 2004 University of Iowa; MD 2009 Univ of IA college of Med, IA

Ehrhardt, James C., Emeritus Professor, Radiology, 1970 (1981); BA 1964 University of Iowa; MA 1968 University of California-Berkeley; PHD 1970 University of California-Berkeley

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Ekdale, Brian Robert, Professor, Center for Soc Sci Innovation/Journalism Mass Communication, 2011 (2025); BA 2000 Augustana; MA 2005 Northern Illinois; PHD 2011 University of Wisconsin-Madison

Ekhardt, Tracy L., Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 2000 Oregon Health Sciences U

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El-Hattab, Yasser, Clinical Associate Professor, Anesthesia, 2002 (2017); MBCHB 1985 Alexandria; MSC 1990 Alexandria

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El-Shanti, Hatem, Professor, Pediatrics, 2003 (2017); MBBCH 1983 Cairo, Egypt

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Ellermeier, Craig D., Professor, Microbiology and Immunology, 2007 (2020); BS 1998 Iowa State; MS 2000 University of Illinois at Urbana Champaign; PHD 2003 University of Illinois at Urbana Champaign

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Ellis, Mark, Adjunct Assistant Professor, Preventive Community Dentistry, 2010 (2010); BS 2005 Brigham Young; DDS 2009 The University of Texas at San Antonio

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Elvers, Ronald Dale, Emeritus Associate Professor, Oral Path,RadiologyMedicine, 1996 (2000); BS 1971 University of Iowa; DDS 1974 University of Iowa; MS 1980 Southern California

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Evans, Bryce Alan, Adjunct Assistant Professor, Pediatric Dentistry, (2022); DIPL 2007 Moline Senior High School; BS 2011 Southern Illinois Univ; DMD 2016 Southern Illinois Univ

Evans, Christopher Thomas, Adjunct Assistant Professor, Health Management Policy, 2020 (2020); MHA 2008 University of Iowa

Evans, Richard E., Adjunct Instructor, Physical Therapy Rehab Science, 2009 (2024); BS 1977 University of Iowa

Evans, Stephanie Lyn, Adjunct Instructor, Physical Therapy Rehab Science, 2015 (2024); DPT 2006 University of Iowa

Evans, Thomas C., Adjunct Professor, Health Management Policy, 1999 (2022); BA 1977 DRAKE; MA 1981 DRAKE; MD 1983 University of Iowa

Eveland-Parrott, Stephanie, Assistant Professor, Chemistry, (2024); BS 2013 Florida State University; PHD 2019 Iowa State University

Even, John, Adjunct Instructor, Internal Medicine, 2007 (2007); BS 1999 Iowa State; MD 2003 University of Iowa

Everson, Michael E., Emeritus Associate Professor, Teaching and Learning, 1994 (1999); BA 1969 University of Wisconsin-Madison; MA 1971 Hawaii; PHD 1986 The Ohio State University

Evink, Michele Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2010 (2010); BSPH 1989 South Dakota; MS 1995 South Dakota; PHAR 2006 Kansas

Evliyaoglu, Ferhat, Clinical Assistant Professor, Ophthalmology Visual Science, (2025); MD 2009 Hacettepe University

Ewen, Susan, Assistant Professor, Health Sport and Human Physiology, (2025); BS 2010 Palmer College of Chiropractic; DC 2010 Palmer College of Chiropractic

Ewoldt, Tamara Lynn, Adjunct Instructor, Journalism Mass Communication, 2024 (2024); BS 2001 Iowa State University

Exil, Vernat, Adjunct Professor, Pediatrics, 2018 (2018); MD 1985 University of Panama

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Faerber, Robert, Adjunct Instructor, Industrial Engineering, (2024); MS 1997 University of Idaho

Fagan, Sarah, Emeritus Professor, Languages, Literatures, Linguistics, and Cultures, 1994 (2005); BA 1977 Hawaii; MA 1979 Hawaii; PHD 1985 Cornell

Fagenbaum, Jennifer Rogers, Emeritus Professor, Health Sport and Human Physiology, 2004 (2023); BS 1992 Truman State; MS 1998 Kansas State; PHD 2003 University of Iowa

Fagenbaum, Ray Alan, Professor, Health Sport and Human Physiology, 2005 (2024); BS 1999 University of Iowa; MS 2000 University of Iowa; PHD 2005 University of Iowa

Fahed, Reine, Clinical Assistant Professor, Radiology, (2024); MD 2008 Saint Joseph University

Fahler, Jonathan Andrew, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); DO 2010 Des Moines University

Fain, Sean B., Professor, Biomedical Engineering/Electrical-Computer Engineering/Health Sport and Human Physiology/ Radiology, 2021 (2021); PHD 2000 Mayo Graduate School

Faine, Brett, Clinical Associate Professor, Emergency Medicine/Pharmacy Practice and Science, 2007 (2015); PHARMD 2007 University of Iowa

Faircloth, Jocelyn, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2014 University of Wisconsin

Fairley, Janet A., Emeritus Professor, Dermatology, 2006 (2006); BS 1973 Michigan State University; MD 1977 University of Michigan-Ann Arbor

Fajardo, Laurie Lee, Emeritus Professor, Radiology, 2002 (2002); AB 1980 Washington; MD 1984 University of Illinois at Chicago

Fajardo, Susan Emily, Adjunct Assistant Professor, Pharmacy Practice and Science, 2012 (2019); PHARMD 2011 Iowa

Faldmo, David Norman, Adjunct Assistant Professor, Physician Assistant, (2021); BS 1990 Morningside College; MPAS 1992 University of Iowa

Fales, Evan, Emeritus Associate Professor, Philosophy, 1974 (1979); BA 1964 Haveford; MA 1971 Temple; PHD 1974 Temple

Falline, Robyn Lynn, Adjunct Instructor, University College Courses, 2011 (2014); MA 2007 The University of Texas at Austin

Fallon, Michael J., Adjunct Instructor, School of Earth, Environment, and Sustainability/University College Courses, 2018 (2018); BS 1996 Virginia Polytechnic

Falyar, Christian R., Adjunct Assistant Professor, Nursing, 2017 (2017); BSN 1995 West Virginia University; MSN 2009 Virginia Commonwealth Univ; DNAP 2010 Virginia Commonwealth Univ

Fan, Weiguo, Professor, Business Analytics, 2018 (2018); BENG 1995 Xi'an Jiaotong University; MS 1998 National Univ of Singapore; PHD 2002 University of Michigan

Fang, Hao, Associate Professor, Mathematics, 2005 (2011); BS 1995 Nankai; MA 1998 University of California-Los Angeles; PHD 2001 Princeton

Fangman, Annie M., Adjunct Instructor, Physical Therapy Rehab Science, 2023 (2023); DPT 2015 University of Utah

Faraci, Frank M., Professor, Internal Medicine/Neuroscience and Pharmacology, 1989 (2000); BS 1978 Kansas; MA 1980 Kansas; PHD 1984 Kansas State

Farag, Amany A., Associate Professor, Nursing, 2012 (2020); PHD 2008 Case Western Reserve

Farajzadeh Tehrani, Mohammad, Associate Professor, Mathematics, 2018 (2022); BSC 2007 Sharif Univ of Technology,Iran; PHD 2012 Princeton University

Farjo, Peter David, Clinical Assistant Professor, Internal Medicine, (2023); MD 2015 West Virginia University SOM

Farley, Yvonne Rene, Emeritus Assistant Professor, Social Work, 1998 (2000); BA 1976 Drake; MSW 1994 University of Iowa

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Farooq, Umar, Clinical Professor, Internal Medicine, 2014 (2024); MBBS 2003 Allama Iqbal Medical College

Farrell, Angela Tracy, Clinical Associate Professor, Family Medicine, 2013 (2024); BA 2005 Grinnell, IA; MD 2010 University of Iowa

Farrell, Brian Richard, Associate Professor, Law-Faculty/ University College Courses, 2009 (2021); BA 1995 St. Ambrose; JD 1998 University of Iowa; LLM 2002 Ireland, Galway

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Farrin, Laurel Ann, Professor, School of Art, Art History, and Design, 1997 (2020); BFA 1987 Ohio University; MFA 1993 THE UNIVERSITY OF MARYLAND-COLLEGE PARK

Farthing, Cynthia M., Associate Professor, Mathematics, 2011 (2021); BA 1999 Hiram (Ohio); MS 2002 University of Iowa; PHD 2005 University of Iowa

Fasano, Mary Beth, Emeritus Professor, Internal Medicine, 2004 (2009); BA 1978 John Hopkins; MPH 1981 University of North Carolina at Chapel Hill; MD 1985 Texas Tech

Fasoro, Yetunde, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); BDS 1997 Feder Govt Girls College, Oyo; DDS 2014 University of Minnesota

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Fayed, Aly Maher, Clinical Assistant Professor, Orthopaedics and Rehabilitation, (2025); MBBS 2014 Tanta University; MBCHB 2014 Tanta University

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Fear, Kathleen, Assistant Professor, Nursing, 2002 (2024); BSN 1994 University of Iowa; MSN 2000 University of Iowa

Febos, Melissa, Professor, English, (2023); MFA 2008 Sarah Lawrence College

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Fehn, Bruce R., Emeritus Associate Professor, Teaching and Learning, 1994 (2000); BA 1970 University of Iowa; MA 1971 University of Iowa; PHD 1991 University of Wisconsin-Madison

Fei, Naomi Henna, Clinical Assistant Professor, Internal Medicine, 2021 (2021); MD 2015 Wayne State Univ

Feider, Andrew James, Clinical Associate Professor, Anesthesia, 2016 (2020); MD 2007 Medical College of Wisconsin

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Feinstein, Justin S., Adjunct Assistant Professor, Neurology, (2017);

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Feld, Ronald D., Emeritus Associate Professor, Pathology, 1976 (1980); BS 1968 Massachusetts; PHD 1974 University of Wisconsin-Madison

Felder, Robert B., Emeritus Professor, Internal Medicine, 1980 (1995); BA 1968 University of North Carolina at Chapel Hill; MD 1972 University of North Carolina at Chapel Hill

Feldman, Stuart M., Adjunct Assistant Professor, Emergency Medicine, (2019); DO 1998 Philadelphia College of Osteo

Felker, Kevin, Emeritus Lecturer, Business Analytics, 2001 (2001); MS 1998 Arizona State

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Ferroni, Kelly Lynne, Clinical Assistant Professor, Obstetrics Gynecology, (2021); BA 2009 University of Iowa; MD 2014 University of Iowa

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Fisher, Laura Marie, Adjunct Assistant Professor, Communication Sciences and Disorders, 2023 (2023); BA 2009 University of Iowa; MA 2011 University of Iowa

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Fisher, Peter S., Emeritus Professor, School of Planning and Public Affairs, 1977 (1997); BA 1968 Harvard; MA 1972 Missouri; PHD 1978 University of Wisconsin-Madison

Fisher, Rachel Z., Adjunct Instructor, Journalism Mass Communication, (2019); BA 2002 Marguette University; MA 2007 Eastern Illinois University

Fisher, Rory A., Professor, Internal Medicine/Neuroscience and Pharmacology, 1987 (2004); BS 1976 Rockford; PHD 1983 Iowa State

Fisher, Scott Randall, Adjunct Instructor, Finance, 2016 (2022); BA 1984 University of Iowa; JD 1987 University of Iowa

Fisher, Thomas R., Adjunct Assistant Professor, Pharmacy Practice and Science, 2020 (2020); PHAR 2009 UICOP; PHARMD 2009 UICOP

Fisher, Tyler John, Adjunct Assistant Professor, Pediatrics, 2021 (2021); MD 2011 University of Iowa

Fisher Page, Daria Michelle, Clinical Professor, Law-Faculty, 2017 (2022); BA 1998 Yale University; JD 2005 University of Michigan; LLM 2015 Georgetown University

Fishler, Tiana Mayer, Adjunct Assistant Professor, Creative Writing, 2024 (2024); HS 2017 Poughkeepsie Day School; MFA 2024 University of Iowa

Fitchett, Janalee, Adjunct Assistant Professor, Management and Entrepreneurship, 2020 (2020); BA 1983 University of Nebraska

Fitzgerald, M. Paula, Adjunct Instructor, Marketing, 2010 (2024); PHD 1987 South Carolina

Fitzgerald, Vera J., Emeritus Lecturer, Biology, 1987 (1997); PHD 1980 University of Illinois at Chicago

Fitzke, Kayla Reed, Adjunct Assistant Professor, Psych Quant Foundations, 2017 (2017); MS 2013 University of Kentucky; PHD 2017 Florida State University

Fitzpatrick, Rebecca Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2019); PHAR 2017 The University of Iowa

Fitzpatrick, Sarah Adrienne, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2023); PHARMD 2021 UICOP

Fixmer-Oraiz, Natalie, Associate Professor, Communication Studies/Gender, Women's and Sexuality Studies, 2012 (2020); MA 2003 University of North Carolina at Chapel Hill; PHD 2012 University of North Carolina at Chapel Hill

Flaherty, Conor, Adjunct Instructor, Management and Entrepreneurship, 2025 (2025); BA 2004 University of Northern Iowa

Flaherty, Dawn Marie, Emeritus Assistant Professor, Internal Medicine, 1999 (2002); BA 1985 New College, South Florida;

MS 1987 University of Michigan-Ann Arbor; MD 1992 Wayne State

Flaherty, Lisa Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2002 (2002); PHARMD 2001 Iowa

Flaming, Anna Leigh Bostwick, Adjunct Assistant Professor, Gender, Women's and Sexuality Studies, 2021 (2021); BA 2003 University of Oklahoma; MA 2005 University of Oklahoma; PHD 2013 University of Iowa

Flanagan, Douglas R., Emeritus Professor, Pharmacy, 1978 (1995); BS 1967 University of Michigan-Ann Arbor; MS 1969 University of Michigan-Ann Arbor; PHD 1971 University of Michigan-Ann Arbor

Flanagan, Shawn Whitney, Associate Professor, Health Sport and Human Physiology/University College Courses, 1997 (2017); BA 1988 Northern Iowa; MED 1990 Virginia; PHD 1996 University of Iowa

Flanigan, Michael J., Emeritus Professor, Internal Medicine, 1980 (2003); BS 1971 University of Wisconsin-Milwaukee; MD 1975 University of Wisconsin-Madison

Flatte, Michael E., Professor, Electrical-Computer Engineering/Physics Astronomy, 1995 (2005); AB 1988 Harvard; PHD 1992 University of California-Santa Barbara

Flaum, Michael Alan, Emeritus Professor, Psychiatry, 1990 (2009); BS 1978 Columbia; MD 1982 State U of NY-Stony Brook

Fleck, Arthur C., Emeritus Professor, Computer Science, 1965 (1972); BS 1959 Western Michigan; MA 1960 Michigan State University; PHD 1964 Michigan State University

Fleckenstein, Lawrence L., Emeritus Professor, Pharmaceutical Sciences and Experimental Therapeutics, 1991 (1991); BA 1968 University of California-Berkeley; PHARMD 1972 California-San Francisco

Fleckenstein, Stephanie M., Clinical Associate Professor, Communication Sciences and Disorders, 2003 (2021); BS 1994 University of Iowa; MA 1996 University of Iowa

Fleege, Nicole Margo Grogan, Clinical Assistant Professor, Internal Medicine, (2022); MD 2015 University of Iowa

Fleming, Jeffrey Alan, Adjunct Instructor, Physical Therapy Rehab Science, 2016 (2022); DPT 2004 University of Iowa

Flemming, Matthew, Adjunct Assistant Professor, Internal Medicine, 2007 (2007); BA 1987 McGill , Canada; MD 1991 Albany Medical College

Fletcher, Amy, Associate Professor, Health Sport and Human Physiology, 2004 (2019); BS 1993 University of Nebraska-Lincoln; MS 1996 Tennessee

Fletcher, Steven Lloyd, Clinical Professor, Oral Maxillofacial Surgery, 2010 (2025); BS 1998 Brigham Young; DDS 2006 University of Iowa

Flies, Richard Charles, Adjunct Instructor, Business Analytics, 2025 (2025); BA 2015 North Central College, Napervi; MBA 2016 University of Iowa

Flippo, Kyle Harrington, Assistant Professor, Internal Medicine/Neuroscience and Pharmacology, (2022); BS 2010 Aquinas College; PHD 2017 University of Iowa

Flora, Gagan Deep, Research Assistant Professor, Internal Medicine, (2025); PHD 2018 UNIVERSITY OF READING

Flores, Carlos, Clinical Assistant Professor, Family Medicine, (2025); MD 2020 Mcgovern Medical School

Floriani, Franciele, Clinical Assistant Professor, Prosthodontics, (2023); DDS 2010 Federal University of Santa Ca; MSC 2019 Federal University of Santa Ca; PHD 2023 Federal University of Santa Ca

Floy, Brad Wayne, Adjunct Assistant Professor, Health Sport and Human Physiology, 2014 (2017); BS 2002 University of Iowa; MS 2004 University of Iowa; PHD 2012 University of Iowa

Floyd, Bart Matthew, Adjunct Instructor, Finance, 2025 (2025); BA 1990 Cornell College; MBA 1995 University of Iowa

Fluharty, Charles W., Adjunct Professor, Health Management Policy, 2014 (2014); MDIV 1973 Yale Divinity School

Flunker, John Craft, Assistant Professor, Epidemiology/ Occupational Environmental Health, (2024); MS 2011 Univer of Missouri St Louis; MPH 2015 University of Kentucky; PHD 2021 University of Kentucky

Flygt, Leeanne Patricia, Clinical Assistant Professor, Pediatrics, 2022 (2022); BS 2009 University of Wisconsin; MAT 2012 University of North Carolina; MD 2016 University of Michigan

Flynn, Mary Leslie, Clinical Associate Professor, Management and Entrepreneurship, 2011 (2022); MS 1989 University of Iowa; PHD 2013 The University of Minnesota-Twin Cities

Flynn, Ryan Thomas, Clinical Professor, Radiation Oncology, 2007 (2019); BA 2002 Luther; MS 2004 University of Wisconsin-Madison; PHD 2007 University of Wisconsin-Madison

Fobi, Daniel, Assistant Professor, School of Earth, Environment, and Sustainability, (2025); BA 2017 University of Ghana, Legon; MSC 2021 Indiana University; PHD 2025 Indiana University

Fodor, Sarah K., Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DDS 2018 Marquette University

Foley Nicpon, Megan, Professor, Psych Quant Foundations, 2005 (2018); BA 1995 Arizona State; MED 2000 Arizona State; PHD 2003 Arizona State

Folk, James C., Emeritus Professor, Ophthalmology Visual Science, 1980 (1989); BS 1974 Pennsylvania State University; MD 1977 Thomas Jefferson

Folland, Thomas Graeme, Assistant Professor, Physics Astronomy, (2020); A 2008 Balcarras School, Cheltenham,; MS 2012 The University of Manchester; MSC 2012 The University of Manchester; PHD 2017 The University of Manchester

Follmer, Carl Roland, Associate Professor, Accounting/Office of the Provost, 2017 (2024); BA 2008 University of Iowa; MA 2011 University of Iowa

Folsom, Lowell Edwin, Emeritus Professor, English, 1976 (1987); BA 1969 Ohio Wesleyan; MA 1972 Rochester; PHD 1976 Rochester

Foody, Meaghan Eileen, Clinical Assistant Professor, Communication Sciences and Disorders/Otolaryngology-Head Neck Surgery, (2021); BA 2012 Purdue University; MS 2014 Utah State University

Forbes, Andrew A., Professor, Biology/University College Courses, 2010 (2023); BA 2003 Colgate; PHD 2008 Notre Dame

Forbes, Melissa S., Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2016); PHARMD 2010 University of Wisconsin-Madison

Forbes, Morgan Jean, Adjunct Instructor, Teaching and Learning, (2024); BA 2020 University of Iowa; MAT 2023 University of Iowa

Forbes, Robert B., Emeritus Professor, Anesthesia, 1983 (1994); BA 1971 Alberta-Canada; MD 1975 Alberta-Canada

Forbes, Tori M., Professor, Chemistry/Civil-Environmental Engineering/Core Research Facilities, 2010 (2022); BS 2001 Beloit; PHD 2007 Notre Dame

Forcucci, Chris, Adjunct Assistant Professor, Nursing, 1999 (2024); BSN 1994 Iowa

Ford, Bradley, Clinical Professor, Pathology, 2012 (2025); BS 1999 Cornell; PHD 2005 SUNY; MD 2007 New York

Ford, Brett Weston, Adjunct Instructor, Physical Therapy Rehab Science, 2014 (2024); BS 2007 University of Illinois at Urbana Champaign; DPT 2009 University of Iowa

Ford, Donald Lehman, Adjunct Instructor, Law-Faculty, 2016 (2022); BA 1980 American; JD 1985 Virginia; AMLS 2002 Pittsburgh

Ford, Emily, Clinical Assistant Professor, Nursing, (2023); BSN 2017 University of Iowa; DNP 2022 University of Iowa

Ford, Krista Marie, Clinical Assistant Professor, Nursing, 2013 (2019); BSN 2006 Bradley; MSN 2011 University of Iowa; DNP 2013 University of Iowa

Ford, Taylor, Adjunct Instructor, Social Work, 2017 (2017); MSW 2014 Washington Univ, St. Louis MO

Forman, Jeana Renee, Adjunct Assistant Professor, Nursing, 2009 (2024); BSN 2000 Iowa; MSN 2004 Phoenix

Forness, Caitlin M., Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2014 University of Iowa

Forsyth, Robert A., Emeritus Professor, Psych Quant Foundations, 1965 (1974); BS 1959 St. Vincent; MA 1963 Kent State; PHD 1967 University of Iowa

Forsythe, Eric, Emeritus Professor, Theatre Arts, 1986 (1994); BA 1969 Dartmouth; MFA 1971 Carnegie Mellon; PHD 1973 Carnegie Mellon

Forsythe, Robert, Emeritus Professor, Economics, 1981 (1986); BS 1970 Pennsylvania State University; MS 1972 Carnegie Institute of Technolo; MS 1974 Carnegie-Mellon; PHD 1975 Carnegie Mellon

Fortis, Spyridon, Clinical Professor, Internal Medicine, 2015 (2024); MD 2005 University of Crete

Fosse, Richard A., Emeritus Professor, Civil-Environmental Engineering, 2015 (2018); BS 1982 Iowa State University

Foster, Kristin, Clinical Assistant Professor, Nursing, (2024); BSN 2004 Truman State; MSN 2011 University of Iowa; DNP 2020 University of Iowa

Foster, Margaret Long, Adjunct Assistant Professor, Obstetrics Gynecology, 2024 (2024); MD 2020 University of Iowa

Foster, Meghann K., Assistant Professor, Accounting, 2017 (2025); BA 2001 University of Iowa; MA 2016 Washington State University

Foster, Patricia Ann, Emeritus Professor, English/University College Courses, 1994 (2006); BA 1970 Vanderbilt; MFA 1980 University of California-Los Angeles; MFA 1986 University of Iowa; PHD 1993 Florida State

Foster, Trista Lynn, Adjunct Instructor, Management and Entrepreneurship, 2025 (2025); BA 2004 St Louis University; JD 2007 St Louis Univ School of Law; MBA 2024 University of Iowa

Foster Jr., Charles T., Professor, School of Earth, Environment, and Sustainability, 1978 (2001); BA 1971 University of California-Santa Barbara; MA 1974 Johns Hopkins; PHD 1975 Johns Hopkins

Fowler, Dana, Associate Professor, Nursing, 2015 (2019); ADN 2000 Kirkwood Community College; MSN 2004 University of Iowa; DNP 2017 The University of Iowa

Fowler, Sandra, Adjunct Instructor, School of Planning and Public Affairs, 2025 (2025); MPA 2008 Upper Iowa University

Fowler, Shelby Lynn, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2018 Drake University

Fowles, Don C., Emeritus Professor, Psychological and Brain Sciences, 1970 (1982); BS 1961 Massachusetts Inst of Technolo; MA 1965 Harvard; PHD 1967 Harvard

Fox, Christopher William, Adjunct Assistant Professor, Pharmacy Practice and Science, 2020 (2020); PHARMD 2020 University of Iowa

Fox, Claire, Professor, American Studies/English/International Programs/Spanish Portuguese, 2001 (2014); BA 1986 Yale; MA 1988 University of Iowa; PHD 1995 University of Iowa

Fox, Mark Herbert, Adjunct Assistant Professor, Internal Medicine, (2020); BA 2008 University of Iowa; MD 2014 University of Iowa

Fox, Matthew G., Adjunct Assistant Professor, Family Medicine, 1999 (2002); BS 1988 Appalachian State; MD 1994 South Dakota

Fraer, Mony, Clinical Professor, Internal Medicine, 2009 (2018); MD 1992 Grigore T Popa, Romania

Frahm, Josh B., Adjunct Instructor, Accounting/University College Courses, 2013 (2013); BBA 2004 University of Iowa; MBA 2009 Colorado Technical

Fraizer, Michael Christopher, Assistant Professor, , 2007 (2007); BS 1993 Notre Dame; MD 1997 University of Iowa

Francis, Nathalie, Instructor, Family Medicine, (2025); BS 2013 University of West Florida; MPH 2015 University of West Florida; MD 2019 University of The Americas

Francis, Sarah Elizabeth, Adjunct Assistant Professor, Pediatrics, 2020 (2020); MD 2015 University of Iowa

Franciscus, Robert, Professor, Anthropology/Orthodontics, 1998 (2012); BA 1985 Texas A M; MA 1987 New Mexico; PHD 1995 New Mexico

Franck, Carla Catherine, Adjunct Instructor, Physical Therapy Rehab Science, 2021 (2024); BA 2007 Coe College; DPT 2009 University of Iowa

Franck-Rezac, Samantha R., Adjunct Instructor, Pharmacy Practice and Science, 2024 (2024); BS 1994 University of Northern Iowa

Francois, Rachel Jean, Adjunct Assistant Professor, Nursing, 2017 (2025); MSN 2004 Iowa

Frank, Alan Raymond, Emeritus Professor, Teaching and Learning, 1970 (1985); BA 1963 University of California-Los Angeles; MA 1965 California State-LA; PHD 1970 University of Iowa

Frank, Carl Andrew, Professor, Anatomy Cell Biology/ Biology, 2010 (2025); BS 1997 Mass Institute of Tech; PHD 2003 University of California-Berkeley

Frank, Frederick M., Clinical Assistant Professor, Internal Medicine/Psychiatry, (2025); DO 1997 Des Moines University

Frank, Roslyn May, Emeritus Professor, Spanish Portuguese, 1968 (1988); BA 1961 University of Iowa; MA 1963 University of Iowa; PHD 1972 University of Iowa

Frank, Sarah Rosen, Associate Professor, Economics, 2010 (2025); BA 1999 Wellesley; PHD 2009 University of California-Berkeley

Frankel, Joseph, Emeritus Professor, Biology, 1962 (1971); BA 1956 Cornell; PHD 1960 Yale

Franken Jr., Edmund A., Emeritus Professor, Radiology, 1979 (1979); MD 1961 Oklahoma

Franzman, Michael R., Adjunct Assistant Professor, Periodontics, 2008 (2008); BA 2000 Wartburg; DDS 2004 University of Iowa; MS 2007 University of Iowa

Fraser, Tammy, Adjunct Instructor, University College Courses, 2020 (2020); BA 1993 Mount Holyoke College; MA 2000 Marist College

Fravel, Michelle A., Clinical Professor, Pharmacy Practice and Science, 2006 (2024); PHARMD 2006 University of Iowa

Fredericks, Mohammed Masud, Adjunct Assistant Professor, Health Management Policy, (2020); BS 2013 University of California, SD; PHARMD 2020 University of Iowa; MHA 2022 University of Iowa

Freedman, Eric B., Assistant Professor, Psych Quant Foundations/Teaching and Learning, 2019 (2019); BA 1999 Swarthmore College; MS 2004 University Wisconsin Madison; PHD 2009 University Wisconsin Madison

Freeman, John H., Professor, Office of the Provost/ Psychological and Brain Sciences, 1998 (2007); BA 1989 University of California-Berkeley; PHD 1994 University of North Carolina at Chapel Hill

Freet, Daniel James, Clinical Professor, Surgery, 2025 (2025); MD 1995 University of Iowa

Frerichs, Mitchell W., Instructor, Hospital Dentistry, (2025); BA 2016 Wartburg College; DDS 2020 The University of IOWA

Freund, Erin Ponto, Adjunct Assistant Professor, Music, 2022 (2022); BM 2006 Oberlin Conservatory of Music; MM 2007 Northwestern University; DMA 2011 Northwestern University

Frey Law, Laura A., Professor, Nursing/Physical Therapy Rehab Science, 2003 (2022); MPT 1993 University of Iowa; MS 1994 University of Michigan-Ann Arbor; PHD 2004 University of Iowa

Frick, Melissa Anne, Adjunct Instructor, Educ Policy Leadership Studies, 2025 (2025); BA 1991 Luther College; MAT 1995 Morningside Collegw; MA2 2017 St. Ambrose University

Fridrich, Kirk Lee, Professor, Oral Maxillofacial Surgery, 1988 (1997); BS 1979 University of Nebraska-Lincoln; DDS 1983 University of Nebraska-Lincoln; MS 1987 University of Iowa

Friedl, Christopher Colby, Adjunct Assistant Professor, Endodontics, 2015 (2015); BS 2007 University of Michigan-Ann Arbor; DDS 2011 University of Michigan-Ann Arbor; CER 2015 University of Iowa

Friedley, Kizer Elaine, Instructor, Pathology, (2023); BA 2009 University of Northern Iowa; MBA 2018 Walden University

Friedmann, Angela, Adjunct Instructor, Preventive Community Dentistry, 2022 (2022); AASC 2009 DMACC; BAST 2019 University of Iowa

Friestad, Gregory Kirk, Associate Professor, Chemistry, 2005 (2005); BS 1990 Bradley, Illinois; PHD 1995 Oregon

Frisbie, David A., Emeritus Professor, Psych Quant Foundations, 1981 (1992); BA 1966 University of Wisconsin-Lacrosse; MS 1969 Michigan State University; PHD 1971 Michigan State University

Frisvold, David E., Associate Professor, Economics, 2013 (2016); BS 1998 Wake Forest; MA 2005 Vanderbilt; PHD 2006 Vanderbilt

Fritz, Angela I., Assistant Professor, Library Information Science, 2022 (2024); MA 1992 University of Wisconsin; MA 1998 University of Wisconsin; PHD 2010 Loyola University

Fritz, Larson, Adjunct Instructor, Rhetoric, 2023 (2023); MFA 2023 University of Iowa Nonfiction Writing Program

Fritzgerald, Chelsey Jo, Adjunct Assistant Professor, Pharmacy Practice and Science, (2019); PHARMD 2013 Chicago State

Fritzsch, Bernd, Emeritus Professor, Biology, 2008 (2008); PHD 1978 Tech Univ Darmstadt

Frohman, Charles D., Emeritus Professor, Mathematics, 1990 (1998); MA 1978 Kalamazoo; MA 1981 Indiana University-Bloomington; PHD 1984 Indiana University-Bloomington

From, Robert P., Emeritus Associate Professor, Anesthesia, 1983 (1990); BA 1971 Drake; DO 1974 Drake

Frommelt-Kuhle, Molly, Associate Professor, Nursing, (2020); BSN 2001 Clarke College; MSN 2004 Clarke College; PHD 2011 Univ of Northern Colorado

Frost, Iris Bonny, Adjunct Associate Professor, Rhetoric, 1993 (1993); BA 1973 MIAMI; MSJ 1976 Northwestern University; JD 1998 University of Iowa

Froyum Roise, Adam J., Adjunct Assistant Professor, Family Medicine, 2013 (2013); BA 2001 Concordia, MA; MPH 2007 University of North Carolina at Chapel Hill; MD 2008 University of North Carolina at Chapel Hill

Fry, Dennis M., Adjunct Instructor, Surgery, 2017 (2017); MD 1994 Creighton University

Frye, Jared Robert Lee, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2019); PHARMD 2017 Wingate University

Fu, Hai, Associate Professor, Physics Astronomy, 2013 (2019); BS 2003 Nanjing, China; PHD 2008 Hawaii

Fuchs, Joel Andrew, Adjunct Assistant Professor, Internal Medicine, 2020 (2020); MD 2017 Creighton University

Fuentes, Ernesto J., Professor, Biochemistry and Molecular Biology/Microbiology and Immunology, 2006 (2024); PHD 1999 University of Illinois at Urbana Champaign

Fuentes, Jennifer, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BS 1998 Wartburg College; MPT 2000 Mayo School of Health

Fugenschuh, Julie Ann, Adjunct Instructor, Social Work, 2020 (2020); BA 1985 St. Mary's College; MSW 2010 University of Iowa

Fukawa, Michele Kazuko, Adjunct Instructor, Law-Faculty, 2023 (2023); BA 1999 Reed College; JD 2013 Gonzaga University

Fuller, John W., Emeritus Professor, School of Planning and Public Affairs, 1979 (1979); AB 1962 San Diego State; PHD 1968 Washington State

Fuller, Kent R., Emeritus Professor, Mathematics, 1967 (1975); BS 1960 Mankato State; MS 1962 Mankato State; MA 1965 Oregon; PHD 1967 Oregon

Fuller, Laura Lu, Clinical Professor, Psychiatry/Urology, 2012 (2023); MA 1992 University of Iowa; PHD 1997 University of Iowa

Fulmer, Gavin W., Adjunct Associate Professor, Teaching and Learning, 2016 (2020); BS 1999 University of Redlands; PHD 2007 SUNY at Buffalo

Fulwider, Robert E., Adjunct Instructor, Finance, 2014 (2019); BS 1967 Iowa State; MS 1972 Iowa State

Fumerton, Richard, Professor, Philosophy, 1974 (1985); BA 1971 Toronto-Canada; MA 1973 Brown; PHD 1974 Brown

Fung, Edward Li-Yu, Adjunct Associate Professor, Operative Dentistry, 2002 (2020); BS 1988 Creighton; JD 1993 University of Iowa; DDS 1998 University of Iowa

Fuortes, Laurence Julius, Emeritus Professor, Internal Medicine/Occupational Environmental Health, 1987 (2002); BS 1976 Northern Illinois; MD 1980 University of Illinois at Urbana Champaign; MS 1987 University of Iowa

Furner, Beatrice Ann, Emeritus Professor, Teaching and Learning, 1964 (1975); BS 1960 SUNY; MA 1963 University of Iowa; PHD 1967 University of Iowa

Furness, Kevin James, Adjunct Instructor, Family Medicine, 2017 (2017); BA 2004 Wartburg College, Waverly IA; DO 2012 Kirksville Col of Osteo Med,MO

Furqan, Muhammad, Adjunct Professor, Internal Medicine, 2014 (2024); MBBS 2005 Dow Medical College

Furr, Jolene Jamison, Adjunct Instructor, Pharmacy Practice and Science, 2021 (2021); BS 1992 University of Iowa

Furtado, Justin, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2022 MCPHS University

Fustino, Nicholas John, Adjunct Assistant Professor, Pediatrics, 2012 (2012); BA 2001 Wake Forest; MD 2005 Massachusetts

G

G'Sell, Brady, Associate Professor, Anthropology/Gender, Women's and Sexuality Studies, 2018 (2025); BA 2003 Vassar College; MA 2009 University of Chicago; PHD 2018 University of Michigan

Gaddam, Ravinder Reddy, Research Assistant Professor, Internal Medicine, (2023); PHD 2017 University of Otago

Gaeth, Gary J., Emeritus Professor, Marketing, 1983 (1996); BS 1974 Northern Michigan; MS 1977 Wyoming; MS 1980 Kansas State; PHD 1984 Kansas State

Gaffney, Gary Robert, Emeritus Associate Professor, Psychiatry, 1993 (1993); BS 1977 University of Iowa; MD 1981 University of Iowa

Gagnon-Bartsch, Tristan, Assistant Professor, Economics, 2024 (2024); BA 2008 University of California Berke; PHD 2014 University of California Berke

Gaillard, Zkara Kevina, Adjunct Assistant Professor, Creative Writing, 2023 (2023); MFA 2023 The University of Iowa

Gaine, Marie Elizabeth, Assistant Professor, Pharmaceutical Sciences and Experimental Therapeutics/Psychiatry, (2020); PHD 2012 Queen's University Belfast

Galarza, Mayra, Adjunct Instructor, Preventive Community Dentistry, 2018 (2018); BS 2008 University of Illinois; DDS 2014 University of Iowa

Galbraith, William B., Emeritus Professor, Internal Medicine, 1994 (1995); BS 1953 Arizona State; MD 1957 George Washington

Galbreath, Jana Catherine, Adjunct Assistant Professor, Nursing, 2024 (2024); BSN 2015 University of Iowa; DNP 2020 University of Iowa

Galindo, Ashley L., Adjunct Instructor, Rhetoric, 2023 (2023); HS 2002 Sweetwater Union; AA 2017 SD City College; BA 2019 Humboldt State; MFA 2023 University of Iowa

Gall, Meredith Mahy, Adjunct Instructor, Languages, Literatures, Linguistics, and Cultures, (2019); BA 1992 Marquette University; MS 2000 Minnesota State University

Gallagher, Jacob, Adjunct Asst In Instruction, Health Sport and Human Physiology, 2024 (2024); PHD 2023 The University of Iowa

Gallagher, Mariam, Adjunct Assistant Professor, Family Medicine, 2024 (2024); DO 2015 A.T.Still Univ; School of Hlth; MPH 2015 A.T.Still Univ; School of Hlth

Gallanis, Thomas P., Emeritus Professor, Law-Faculty, 2008 (2008); JD 1990 University of Illinois at Chicago; LLM 1993 Cambridge; PHD 1997 Cambridge

Gallardo Penchi, Fabiola Marie, Adjunct Instructor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2024 University of Iowa

Gallion, Michael Eugene, Adjunct Assistant Professor, Nursing, 2020 (2025); MS 2010 Mount Marty College

Gallo, Laura, Associate Professor, Counselor Education, (2024); BA 1996 Central College; MA 2005 University of Iowa; PHD 2016 University of Iowa

Galoni, Chelsea, Assistant Professor, Marketing, 2019 (2019); PHD 2019 Northwestern University

Galusha, Yvonne, Emeritus Assistant Professor, Business Analytics, 2003 (2024); BS 1981 Graceland; MBA 1991 Wichita State

Galvin, James A., Emeritus Professor, Creative Writing, 1983 (1992); BA 1974 Antioch; MFA 1977 University of Iowa

Galvin, Joseph William, Assistant Professor, Orthopaedics and Rehabilitation, (2024); DO 2011 Kirksville College

Galvin-Almanza, Emily, Adjunct Instructor, Law-Faculty, 2024 (2024); AB 2004 Harvard University; JD 2010 Stanford University

Gamaleldin, Maysoon M., Clinical Assistant Professor, Surgery, (2025); MBCHB 2010 Dubai Medical College; MD 2010 Dubai Medical College

Gambini, Francesco, Adjunct Instructor, Business Analytics, 2021 (2021); BS 2003 Santa Clara University

Gander, Phillip Evan, Research Assistant Professor, Health Sport and Human Physiology/Neurosurgery/Otolaryngology-Head Neck Surgery/Radiology, (2021); BA 2002 Simon Fraser University; PHD 2009 McMaster University

Gandhi, Reema Vipin, Adjunct Assistant Professor, Pharmacy Practice and Science, 2022 (2022); PHARMD 2015 University of Kansas

Ganesan, Sukirth Murthy, Associate Professor, Periodontics, 2019 (2024); BDS 2010 Tamil Nadu Dr. MGR medical uni; PHD 2018 Ohio State University

Gange, Kara, Clinical Associate Professor, Orthopaedics and Rehabilitation, (2021); BS 1994 Minnesota State University; MED 1998 University of Nebraska; PHD 2010 North Dakota State

Gangi, Ratna, Adjunct Assistant Professor, Internal Medicine, 2019 (2019); MBBS 2006 Osmania Medical College

Ganim, Russell, Professor, French Italian/International Programs, 2011 (2011); BA 1983 Grinnell; MA 1987 Virginia; PHD 1992 Virginia

Gant, Lauren Christine, Adjunct Assistant Professor, Occupational Environmental Health, 2014 (2014); PHD 2012 University of Iowa

Gantz, Bruce Jay, Professor, Neurosurgery/Otolaryngology-Head Neck Surgery, 1980 (1987); BS 1968 University of Iowa; MD 1974 University of Iowa; MS 1980 University of Iowa

Gantz, Stephanie C., Assistant Professor, Molecular Physiology Biophysics, 2020 (2020); BA 2007 Reed College; PHD 2015 Oregon Health Science Univ

Ganz, Kathryn Anne, Adjunct Assistant Professor, Pharmacy Practice and Science, 2019 (2019); PHARMD 2014 University of Iowa

Gao, Xiang, Assistant Professor, Surgery, (2025); MD 2016 Oregon Health and Science; MPH 2016 Oregon Health and Science

Garaicoa Pazmino, Carlos, Clinical Associate Professor, Periodontics, (2025); DDS 2011 University Catolica de Santiago; MS 2017 University of Michigan; MSC 2017 University of Michigan

Garcia, Luis J., Clinical Associate Professor, Surgery, 2013 (2018); MD 2004 Pennsylvania State University

Garcia Zea, Edgar David, Clinical Assistant Professor, Prosthodontics, (2024); DDS 2011 Universidad Catolica Santiago; MS 2014 Universidad Nacional Autonoma

Gardinier, Minnetta V., Emeritus Associate Professor, Neuroscience and Pharmacology, 1998 (1998); BS 1975 Le Moyne College; PHD 1988 Louisiana St Univ -New Orleans

Gardner, Miriam, Instructor, Pediatrics, 2014 (2024); MD 1981 University of North Carolina at Chapel Hill

Gardner, Robb Michael, Adjunct Instructor, Physical Therapy Rehab Science, 2014 (2024); BA 1994 Luther College; MPT 1996 University of Iowa; MHA 2006 The University of Minnesota-Twin Cities

Gardner, Sue Ellen, Professor, Nursing, 2000 (2015); BSN 1981 University of Iowa; MA 1990 University of Iowa; PHD 1999 University of Iowa

Garfinkel, Jon A., Professor, Finance, 1999 (2012); BA 1988 Virginia Tech; PHD 1994 Florida

Garlick, Julia, Associate Professor, Economics, 2016 (2024); MA 2012 Yale University; MPHIL 2013 Yale University; PHD 2016 Yale University

Garner, Sarah Ann, Adjunct Assistant Professor, Internal Medicine, 2011 (2011); BS 2002 University of Iowa; MD 2007 University of Iowa

Garr, Valerie Susanne, Adjunct Assistant Professor, Nursing/University College Courses, 2002 (2024); BA 1987 University of Iowa; MA 1995 University of Iowa

Garrett, Kathryn Ann, Adjunct Instructor, University College Courses, 2016 (2016); BA 2008 University of Iowa; MA 2010 University of Iowa

Garrett, Robert E., Emeritus Associate Professor, Family Medicine, 1997 (1997); BA 1971 Trinity; MA 1974 Johns Hopkins; MD 1981 University of California-San Diego; MS 1986 Case Western Reserve

Garrido, Elena, Clinical Assistant Professor, Anesthesia, 2021 (2021); MD 1989 Valencia University

Garvey, Michael J., Emeritus Professor, Psychiatry, 1985 (1992); BA 1968 Stanford; MD 1971 Stanford

Garvin, Cory G., Adjunct Assistant Professor, Pharmacy Practice and Science, 2006 (2006); PHARMD 1996 University of Iowa

Garvin, Justin Wayne, Professor, Mechanical Engineering, 2010 (2023); BSE 2001 University of Iowa; MS 2003 University of Iowa; PHD 2006 University of Iowa

Garvin, Lauren Angela, Clinical Associate Professor, Psychiatry, (2022); BA 2008 Univ of Michigan, Ann Arbor; AM 2013 University of Iowa; PHD 2016 University of Iowa

Garvin, Mona Kathryn, Professor, Electrical-Computer Engineering/Ophthalmology Visual Science, 2008 (2019); BSE 2003 University of Iowa; MS 2004 University of Iowa; PHD 2008 University of Iowa

Garza, Nicholas A., Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2023 University of Iowa

Gaspar, Katie Ann, Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2015); PHARMD 2013 University of Iowa

Gasparoni, Alberto, Clinical Associate Professor, Dental Clinic Administration/Oral Path,RadiologyMedicine, 2006 (2013); DDS 1985 Siena (Italy); DPHIL 2003 University of Iowa; DDS 2010 University of Iowa

Gassman, Christina Jean, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 University of Iowa

Gassmann, Michael Jon, Adjunct Assistant Professor, Pharmacy Practice and Science, 2014 (2016); PHARMD 2014 University of Iowa

Gates, Chelsey, Adjunct Instructor, Psych Quant Foundations, 2023 (2023); HS 2008 D.C. Everest High School; BS 2012 UW-La Crosse; PHD 2023 The University of Iowa

Gates, Kristina Marie, Adjunct Assistant Professor, Nursing, 2023 (2025); BSN 2008 Mount Mercy University; DNP 2020 University of Iowa

Gatica, Juan A., Emeritus Professor, Mathematics, 1975 (1990); PHD 1972 University of Iowa

Gause, Michael, Assistant Professor, Music, (2022); BM 2014 University of Northern Texas; DMA 2014 University of Northern Texas; MM 2017 Western Michigan University; DMA 2022 Michigan State University

Gavruseva, Elena, Associate Professor, Languages, Literatures, Linguistics, and Cultures, 1998 (2005); BS 1991 Moscow Linguistic; MA 1993 Georgetown; PHD 1998 Georgetown

Gay, Paula Bradbury, Adjunct Instructor, Communication Sciences and Disorders, 2012 (2012); BFA 2002 University of Iowa; MA 2009 University of Iowa; DAUD 2010 University of Iowa

Gayley, Kenneth, Associate Professor, Physics Astronomy, 1997 (2003); AB 1983 Princeton; PHD 1990 San Diego

Gaynor, Lorraine Ann Marie, Assistant Professor, Law-Faculty, 2023 (2024); BA 2004 Grinnell College; JD 2011 The University of Iowa

Gazdowicz, Sarah Josephine, Adjunct Assistant Professor, Theatre Arts, 2023 (2023); MFA 2023 University of Iowa

Gazley, Bou Francis, Adjunct Instructor, Business Analytics, 2023 (2023); MBA 2023 University of Iowa

Ge, Xinjie, Adjunct Instructor, Finance, 2024 (2024); BS 2023 Anhui University

Geary, Sean Michael, Adjunct Assistant Professor, Pharmaceutical Sciences and Experimental Therapeutics, 2020 (2023); BSC 1986 Univ of Adelaide; PHD 1993 Univ of Adelaide

Gebhardt, Joanna Bomkamp, Clinical Assistant Professor, Ophthalmology Visual Science, (2022); BS 2007 University of Wisconsin; OD 2011 Southern College of Optometry

Gebhardt, Michael J., Assistant Professor, Microbiology and Immunology, 2022 (2022); BS 2007 University of Wisconsin - La C; PHD 2017 University of Chicago

Gebhart, Gerald Francis, Emeritus Professor, Neuroscience and Pharmacology, 1973 (1981); BS 1967 University of Illinois at Urbana Champaign; MS 1969 University of Iowa; PHD 1971 University of Iowa

Gebska, Milena Anna, Clinical Professor, Internal Medicine, 2011 (2024); MD 1995 Silesia,Poland; PHD 2002 London, UK

Gede, Laura, Assistant Professor, Cinematic Arts, (2024); BS 2017 Towson; MFA 2023 Northwestern University

Gedminas, Jenna Marie, Clinical Assistant Professor, Pediatrics, 2022 (2022); BA 2008 University of Florida; MS 2009 Rosalind Franklin University; MD 2013 Chicago Medical School

Gedney-Lose, Amalia, Clinical Associate Professor, Nursing, (2024); BSN 2013 University of Iowa; DNP 2017 University of Iowa

Geerling, Joel, Associate Professor, Neurology, 2016 (2024); MD 2008 Washington University; PHD 2008 Washington University

Geetha, Parvathy Krishna, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MBBS 2012 T.D. Medical College

Geha, Andrew James, Adjunct Instructor, Family Medicine, 2019 (2019); BS 2006 Creighton Univ, Omaha, NE; DO 2010 DesMoines Univ, Iowa

Gehl, Brian Kenneth, Adjunct Assistant Professor, Psychological and Brain Sciences, 2009 (2010); BA 1999 Jamestown; PHD 2010 University of Iowa

Gehl, Carissa Rose Nehl, Clinical Associate Professor, Psychiatry, 2012 (2020); BS 2000 University of Iowa; PHD 2007 University of Iowa

Gehlbach, Brian, Clinical Professor, Health Sport and Human Physiology/Internal Medicine/Neurology, 2011 (2018); MD 2005 Washington

Gehring, David Charles, Adjunct Assistant Professor, Orthodontics, 2009 (2009); BA 1989 Coe; DDS 1993 University of Iowa; MS 1995 University of Iowa

Gehrs, Karen M., Emeritus Professor, Ophthalmology Visual Science, 1996 (2016); BS 1983 Rhodes; MD 1987 Missouri

Gehrs, Whitney Anne, Adjunct Instructor, Teaching and Learning, 2024 (2024); BED 2010 University of Wisconsin-Whitew; MA 2024 University of Iowa

Geick, Lynn Brian, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1988 Wartburg College; MD 1992 Univ of IA CCOM, Iowa City

Geisinger, Ashley Jane, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2009 University of Iowa

Geist, Lois J., Emeritus Professor, Internal Medicine, 1990 (2009); BS 1978 Trinity; MS 1980 Case Western Reserve; MD 1984 Case Western Reserve

Gellhaus, Thomas M., Emeritus Professor, Obstetrics Gynecology, 1991 (2020); BA 1979 Augustana College, Sioux Falls; MD 1983 Oklahoma

Genadry, Rene, Adjunct Professor, Obstetrics Gynecology, 2012 (2012); MD 1971 St. Joseph,Beirut

Geneser, Matthew K., Clinical Professor, Pediatric Dentistry, 2009 (2022); BA 2002 University of Iowa; DDS 2006 University of Iowa

Geng, Maxwell Lei, Professor, Chemistry, 1995 (2008); BS 1986 Science and Technology-China; PHD 1994 Duke

Genkinger, Katie Jane, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2011 University of Iowa

Gentil-Archer, Anne Christine, Adjunct Assistant Professor, Nursing, 2010 (2021); BSN 2002 University of Iowa; DNP 2013 University of Iowa

Georgakakos, Peter K., Clinical Associate Professor, Emergency Medicine, (2024); BS 2009 Tufts University; DO 2015 A.T. Still University; BS 2019 Tufts University

George, Michelle M., Adjunct Assistant Professor, Pharmacy Practice and Science, 2003 (2013); BA 1997 Wartburg; PHARMD 2000 Creighton

Gerard, Sarah Ellen, Assistant Professor, Biomedical Engineering, (2022); PHD 2018 University of Iowa

Gerdes, Harrison John, Clinical Assistant Professor, Anesthesia, (2022); MD 2018 Medical Doctorate of Wisconsin

Gerdts, Emily Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2006 (2006); PHARMD 2002 Iowa

Gerke, Alicia, Associate Professor, Internal Medicine, 2008 (2018); BS 1998 South Florida, Tampa; MBA 2002 South Florida, Tampa; MD 2002 South Florida, Tampa

Gerken, Kathryn C., Emeritus Associate Professor, Psych Quant Foundations, 1973 (1978); BS 1962 Southern Illinois; MA 1967 Bradley; PHD 1974 Southern Illinois

Gerking, Michael Todd, Adjunct Instructor, Pharmacy Practice and Science, 2008 (2008); BSPH 1986 University of Iowa

Gerlach, Peter Arno, Assistant Professor, Languages, Literatures, Linguistics, and Cultures, 2015 (2015); BA 2002 Ripon College; MA 2006 Univ of Northern Colorado; PHD 2015 Syracuse University

German, Justin Calvin, Adjunct Assistant Professor, Internal Medicine, 2025 (2025); MD 2021 University of Nebraska

Gerr, Fredric E., Emeritus Professor, Epidemiology/ Occupational Environmental Health, 2002 (2002); BA 1978 Clark; MD 1978 New York-Stony Brook

Gerstner, Nels, Assistant Professor, Chemistry, 2025 (2025); PHD 2019 University of Wisconsin-Madiso

Getz, Christine, Emeritus Professor, Music, 1999 (2012); BM 1979 Evansville; MM 1982 Southern Illinois; PHD 1991 University of North Texas

Geweke, John F., Emeritus Professor, Economics/Statistics Actuarial Science, 1999 (1999); BS 1970 Michigan State University; PHD 1975 The University of Minnesota-Twin Cities

Geyer, Pamela, Emeritus Professor, Biochemistry and Molecular Biology, 1989 (2000); BSC 1978 McGill; PHD 1983 The Ohio State University

Gfeller, Kay E., Emeritus Professor, Communication Sciences and Disorders/Music/Otolaryngology-Head Neck Surgery, 1985 (1993); BM 1971 Drake; MM 1974 Northwestern Univeristy; PHD 1982 Michigan State University

Ghali, Magdi G., Adjunct Assistant Professor, Internal Medicine, 1986 (1986); MBBCH 1975 Cairo, Egypt

Ghannam, Malik, Adjunct Assistant Professor, Neurology, (2023); MD 2014 Ain Shams University

Ghatge, Madankumar Vasantrao, Research Assistant Professor, Internal Medicine, (2025); PHD 2018 Manipal Academy of Higher Educ

Ghazal, Tariq Sabah Abdulghany, Adjunct Assistant Professor, Preventive Community Dentistry, 2017 (2017); BDS 2006 University of Baghdad; PHD 2017 University of Iowa

Ghazvinizadeh, Anahita, Adjunct Assistant Professor, Cinematic Arts, (2018); BA 2011 Tehran University of Art; BFA 2011 Tehran University of Art; MFA 2013 Art Institute of Chicago

Gheriani, Gatr-Alnada, Clinical Assistant Professor, Internal Medicine, (2023); MBCHB 2010 University of Benghazi

Ghoneim, Mohamed M., Emeritus Professor, Anesthesia, 1967 (1976); MBBCH 1957 Ein Shams-Egypt; MD 1957 Cairo-Egypt; FFARCS 1963 London -England

Ghosh, Joyee, Associate Professor, Statistics Actuarial Science, 2010 (2016); PHD 2008 Duke

Ghosh, Sukumar, Emeritus Professor, Computer Science, 1984 (1996); BSC 1964 Calcutta; BTECH 1966 Calcutta-India; PHD 1971 Calcutta

Ghosheh, Natalie Jana, Adjunct Assistant Professor, Pediatric Dentistry, 2008 (2008); BA 2002 University of Iowa; DDS 2006 University of Iowa; CER 2008 University of Iowa

Giannakouros, Stratis, Adjunct Instructor, School of Earth, Environment, and Sustainability, 2019 (2019); BA 2001 Loras College; MA 2013 Colorado State University

Gibbs, Christopher Martin, Adjunct Assistant Professor, Internal Medicine, 2020 (2020); MD 2000 Creighton University SOM

Gibbs, Jenna Leigh, Adjunct Assistant Professor, Occupational Environmental Health, 2022 (2022); BA 2005 Univ of Iowa; MPH 2008 Univ of Iowa; PHD 2012 Univ of Washington

Giblin, Blandina Kaduma, Emeritus Lecturer, French Italian, 2001 (2006);

Giblin, James L., Emeritus Professor, History, 1986 (2001); BA 1975 McGill; MA 1978 McGill; PHD 1986 University of Wisconsin-Madison

Gibson, Craig A., Professor, Classics, 1999 (2011); BA 1990 Rhodes; PHD 1995 Duke

Gidal, Eric, Professor, English/International Programs, 1996 (2016); BA 1988 Brandeis; MA 1992 University of Michigan-Ann Arbor; PHD 1995 University of Michigan-Ann Arbor

Gienapp, Barbara Ann Brady, Adjunct Instructor, Communication Sciences and Disorders, 1989 (1996); BS 1982 South Dakota; MA 1984 South Dakota

Gier, David, Emeritus Professor, Music, 1995 (2008); BM 1983 University of Michigan-Ann Arbor; MM 1985 Yale; MA 1986 Yale; DMA 1992 Yale

Gilbert, Miriam, Emeritus Professor, English, 1969 (1982); BA 1965 Brandeis; MA 1967 Indiana University-Bloomington; PHD 1969 Indiana University-Bloomington

Gilbert, Paul A., Adjunct Associate Professor, Community Behavioral Health, 2015 (2021); BA 1989 University of Michigan-Ann Arbor; MS 2003 Harvard; PHD 2013 University of North Carolina at Chapel Hill

Gilg, Joseph, Adjunct Instructor, Internal Medicine, 2005 (2005); BS 1983 University of Nebraska-Lincoln; MD 1987 University of Nebraska-Lincoln

Gill, Christine Marie, Clinical Assistant Professor, Neurology, 2019 (2019); MD 2014 University of Iowa

Gillan, Edward G., Professor, Chemistry, 1997 (2023); BS 1989 University of California-Berkeley; PHD 1994 University of California-Los Angeles

Gillitzer, Michelle Angela, Assistant Professor, Nursing, (2024); BSN 2004 University of Iowa; DNP 2019 University of Iowa

Gilmore, Sara Ann, Adjunct Assistant Professor, English, 2010 (2022); BA 2004 Wisconsin @ Madison; MFA 2010 Iowa

Gilotti, Jane A., Emeritus Professor, Earth and Environmental Sciences, 1999 (2013); BA 1978 Maine; MA 1984 Johns Hopkins; PHD 1987 Johns Hopkins

Gilroy, Melissa Leah Bowman, Instructor, Teaching and Learning, 2019 (2025); BA 2005 University of Iowa

Gilster, Megan E., Associate Professor, Center for Soc Sci Innovation/Social Work, 2013 (2020); BA 1999 Lawrence; DR 2010 University of Michigan-Ann Arbor

Gimer, David Arthur, Instructor, Family Dentistry, 2011 (2024); DDS 1976 University of Iowa

Gingrich, Roger D., Emeritus Professor, Internal Medicine, 1981 (1993); BA 1970 Macalaster; MD 1974 Cornell; PHD 1981 Oxford

Girotra, Saket, Adjunct Professor, Internal Medicine, 2012 (2025); MBBS 2002 New Delhi, India

Gisi, Paul Jeffrey, Adjunct Assistant Professor, Obstetrics Gynecology, 2015 (2015); MD 1992 Univ. of South Dakota

Gittler, Josephine, Professor, Law-Faculty/Nursing/Pediatrics, 1973 (1977); BA 1965 Barnard; JD 1968 Northwestern Univeristy

Giudici, Michael C., Emeritus Professor, Internal Medicine, 2012 (2013); MD 1980 University of Iowa

Giudici, Paula Annechino, Clinical Assistant Professor, Dermatology, 2012 (2012); MD 1982 University of Iowa

Givler, Hannah, Adjunct Lecturer, School of Art, Art History, and Design, 2015 (2015); BFA 2009 The Ohio State University; MFA 2012 Art Institute of Chicago

Glanville, Jennifer, Emeritus Professor, Sociology and Criminology, 2001 (2017); BA 1992 New College; MA 1997 University of North Carolina at Chapel Hill; PHD 2001 University of North Carolina at Chapel Hill

Glass, Jason David, Assistant Professor, Management and Entrepreneurship, 2019 (2025); BBA 1999 University of Iowa; MBA 2010 University of Iowa

Glass, Loren Daniel, Professor, English/Interdisciplinary Programs, 2004 (2014); BA 1988 University of California-Berkeley; MA 1990 University of California-Davis; PHD 1997 Duke

Gleason, Cristi A., Professor, Accounting, 2003 (2017); BS 1990 Brigham Young; MAC 1992 Brigham Young; PHD 1998 Cornell

Glenn, Elliott Daniel, Adjunct Assistant Professor, Endodontics, 2021 (2021); BSE 2014 University of Iowa; DDS 2018 University of Iowa

Glenn, Kevin A., Clinical Professor, Internal Medicine, 2002 (2022); MD 1998 University of Illinois at Urbana Champaign

Glick, Jason Scott, Adjunct Assistant Professor, Pediatric Dentistry, (2024); DDS 2003 University of Michigan; CER 2009 Amer. Board of Ped. Dent.; MPH 2023 University of Michigan

Glick, Jessica Tucker, Adjunct Assistant Professor, Health Management Policy, 2023 (2023); BA 2003 Univ. of Oklahoma; JD 2007 University of Iowa

Glick, Orpha J., Emeritus Associate Professor, Nursing, 1967 (1995); BS 1960 Eastern Mennonite; BS 1965 University of Iowa; MA 1967 University of Iowa; PHD 1982 University of Iowa

Glienke, Kyle James, Adjunct Instructor, Family Medicine, 2018 (2018); BS 2009 Buena Visaq Univ, Iowa; MD 2013 Univ of IA CCOM, IowaCity,IA

Gloer, James B., Professor, Chemistry, 1984 (1994); BS 1978 Florida; PHD 1983 University of Illinois at Urbana Champaign

Glover, Joseph, Adjunct Assistant Professor, Philosophy, 2024 (2025); AA 2013 West Valley CC; BA 2015 San Jose State; MA 2018 Northern Illinois

Glykys, Joseph Charalambos, Associate Professor, Neurology/Pediatrics, (2022); MD 2001 Univ de Carabobo Esc De Med; PHD 2007 University of California

Gnade, Colette, Clinical Assistant Professor, Obstetrics Gynecology, (2024); BS 2013 University of Virginia; MD 2017 Univesity of Iowa

Gnanapragasam, Helen Prathiba, Clinical Assistant Professor, Internal Medicine, (2021); MBBS 2009 Tribhuvan University

Goblirsch, William Joseph, Adjunct Instructor, Medicine Administration, 2023 (2024); MFA 2018 University of Iowa

Godar, Madeline Claire, Adjunct Assistant Professor, Family Medicine, 2021 (2021); BA 2011 University of Iowa; MS 2013 Des Moines University; MD 2017 Univ of Iowa CCOM

Goddard, Stephen Maurice, Professor, Computer Science, 2018 (2018); PHD 1998 University of North Carolina

Godfrey, Martha Anne, Clinical Assistant Professor, Surgery, (2024); MD 2015 Emory University SOM

Goedken, Amber, Associate Professor, Pharmacy Practice and Science, 2012 (2020); PHARMD 2004 University of Iowa

Goeken, James, Emeritus Professor, Pathology, 1976 (1990); AB 1967 University of Illinois at Chicago; MD 1972 Missouri

Goeken, Nancy Smith, Emeritus Professor, Internal Medicine, 1983 (1993); BA 1968 Missouri; PHD 1972 Missouri

Goepferd, Stephen J., Emeritus Professor, Pediatric Dentistry, 1978 (1989); BS 1973 The University of Minnesota-Twin Cities; DDS 1973 The University of Minnesota-Twin Cities; MS 1978 The University of Minnesota-Twin Cities

Goerdt, Christopher John, Emeritus Professor, Internal Medicine, 1994 (2007); BA 1983 University of Iowa; MD 1988 University of Iowa; MPH 1994 The University of Minnesota-Twin Cities

Goertz, Christine, Adjunct Professor, Epidemiology, 2019 (2019); PHD 1999 University of Minnesota

Goertzen, Grant Patrick, Clinical Assistant Professor, Pediatrics, (2025); MD 2022 University of Nebraska-Medical Center

Goettel, Katherine Elizabeth M., Clinical Associate Professor, Law-Faculty, 2019 (2024); BA 2003 UNI; BS 2003 UNI; JD 2007 The University of Iowa

Goetz, Christopher James, Associate Professor, Cinematic Arts, 2016 (2023); BA 2006 Michigan State University; MA 2007 Univ. of Calif, Berkeley; PHD 2016 Univ. of Calif, Berkeley

Goetz, Jessica, Associate Professor, Biomedical Engineering/ Orthopaedics and Rehabilitation, 2009 (2019); BSE 2003 University of Iowa; PHD 2008 University of Iowa

Goff, Harold M., Emeritus Professor, Chemistry, 1976 (1985); BS 1969 Missouri; MA 1971 Missouri; PHD 1976 The University of Texas at Austin

Gogerty, Megan Ellen, Associate Professor, Theatre Arts/ University College Courses, 2008 (2021); BA 1997 University of Iowa; MFA 2004 The University of Texas at Austin

Goins, Kenneth M., Clinical Professor, Ophthalmology Visual Science, 2003 (2006); BA 1982 Tennessee; MD 1986 Kentucky

Goins, Sheila T., Adjunct Assistant Professor, Marketing, 2003 (2003); MS 1986 HARVARD; MBA 1990 Chicago; PHD 2000 CHICAGO

Goins-Fernandez, Joyce, Clinical Associate Professor, Medicine Administration/Pediatrics, 2016 (2023); BSC 2000 Xavier University of Louisiana; PHD 2012 University of Iowa

Goldman, Jeffrey Howard, Clinical Associate Professor, Internal Medicine, (2022); MD 1976 Univ of Illinois

Goldsmith, Daena J., Adjunct Instructor, Spanish Portuguese, 2022 (2022); BS 1986 Lewis Clark College; MA 1988 University of Washington; PHD 1990 University of Washington

Goley, Nana, Assistant Professor, Languages, Literatures, Linguistics, and Cultures, (2024); MA 2013 University of Wisconsin

Gollnick, Brian, Associate Professor, International Programs/ Spanish Portuguese, 1999 (2006); BA 1992 Washington; MA 1996 University of California-San Diego; PHD 1998 University of California-San Diego

Golz, Sabine I., Emeritus Associate Professor, German, 1987 (1994); MA 1984 Cornell; PHD 1987 Cornell

Gomes, Joseph Stephen, Assistant Professor, Chemical Biochemical Engineering, (2019); PHD 2015 University of California Berkeley

Gomez, Manuel, Clinical Associate Professor, Endodontics, 2000 (2000); DDS 1977 Javeriana University-Columbia

Gomez Velez, Jesus, Associate Professor, Civil-Environmental Engineering, (2025); BS 2005 National University of Colombi; MS 2008 New Mexico Institute of Mining; PHD 2012 New Mexico Institute of Mining

Gompper, David Karl, Professor, International Programs/ Music, 1991 (2001); BM 1978 San Diego State; MM 1980 Royal College of Music-London; DMA 1988 University of Michigan-Ann Arbor

Gonzalez, Rebecca, Assistant Professor, Linguistics/Spanish Portuguese, 2018 (2018); MA 2006 Universidad Carlos III de Madr; MA 2012 University of Florida; PHD 2018 Indiana University

Gonzalez Bosquet, Jesus, Associate Professor, Obstetrics Gynecology, 2014 (2023); MD 1988 Barcelona; PHD 1998 Med. Sch Univ. of Barcelona; MS 2007 Mayo

Gooblar, David, Associate Professor, English/Gender, Women's and Sexuality Studies, 2015 (2025); MA 2003 King's College London; PHD 2008 University of London

Good, Brooke Lee, Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); AS 2011 KIrkwood Community College

Good, Mary, Adjunct Assistant Professor, Anthropology, 2023 (2023); BA 1999 University of Michigan; MA 2000 University of Chicago; PHD 2012 University of Arizona

Goodheart, Michael Joseph, Clinical Professor, Obstetrics Gynecology, 2005 (2024); BA 1990 North Carolina State; BS 1990 North Carolina State; MD 1995 East Carolina SOM

Goodman, Frederick M., Emeritus Professor, Mathematics, 1984 (1990); AB 1971 Harvard; AM 1971 Harvard; PHD 1979 University of California-Berkeley

Goodman, Shawn S., Associate Professor, Communication Sciences and Disorders, 2006 (2014); BS 1996 Brigham Young; MS 1998 Brigham Young; PHD 2003 Indiana University-Bloomington

Goodrich, Amber Lois, Clinical Associate Professor, Obstetrics Gynecology, (2025); BSN 2011 Allen College, Wateroloo; MSN 2015 Univ. of Cincinnati

Goodson, Angie R., Adjunct Assistant Professor, Internal Medicine, 2001 (2001); MD 1996 University of Iowa

Gopinath, Shyam, Associate Professor, Marketing, (2024); MS 2005 University of Virginia; PHD 2011 Northwestern University

Gordon, Adam Scott, Adjunct Assistant Professor, Family Medicine, 2025 (2025); BS 2016 UW EauClaire, WI; MD 2021 East TN State Univ, TN

Gordon, Colin, Professor, History, 1994 (2004); BA 1985 Alberta-Edmonton; MA 1986 York-Toronto; PHD 1990 University of Wisconsin-Madison

Gordon, David Jon, Associate Professor, Pediatrics, 2014 (2019); MD 2004 University of Illinois at Chicago

Gordon, Donal K., Adjunct Assistant Professor, Family Medicine, 2009 (2009); MFA 1996 Notre Dame; MD 2004 University of Iowa

Gordon, Ellen Elizabeth Isom, Emeritus Professor, Internal Medicine, 1985 (2004); MD 1979 Med Univ of South Carolina

Gordon, Jean K., Emeritus Associate Professor, Communication Sciences and Disorders, 2000 (2007); BA 1985 Bishop's; MS 1992 McGill; PHD 2001 McGill

Gordon, Joel A., Emeritus Professor, Internal Medicine, 1985 (2004); BA 1972 Colorado-Boulder; MD 1976 Colorado-Denver

Gordon, Kristina Marie, Assistant Professor, Health Sport and Human Physiology, 2015 (2024); BA 2007 San Jose State University; MA 2013 University of Iowa

Gore, Malhar Smashi, Adjunct Assistant Professor, Family Medicine, 2021 (2021); BA 1986 Rollins College, Winter ParkFL; MD 1991 Univ of S Florida, Tampa, FL

Goree, John A., Professor, Mechanical Engineering/ Physics Astronomy, 1985 (1996); BS 1980 California Inst of Technology; MA 1982 Princeton; PHD 1985 Princeton

Gorman, Janet L., Adjunct Instructor, Counselor Education, 2013 (2013); AA 1974 Art Institute of Pittsburgh; BS 1979 LaRoche College; MOL 2007 St. Ambrose

Gorney, Carol S., Clinical Professor, Physician Assistant, 2008 (2019); BS 1990 University of Iowa; MPAS 2005 University of Nebraska-Lincoln

Gorsh, Jay A., Adjunct Instructor, Psych Quant Foundations/ University College Courses, 2011 (2014); BA 1998 Northern Iowa; MS 2007 University of Wisconsin-Madison; PHD 2019 University of Iowa

Gorzelitz, Jessica Susan, Assistant Professor, Health Sport and Human Physiology/Obstetrics Gynecology, (2022); BS

2013 Univ of Wisconsin-Madison; MS 2016 Univ of Wisconsin-Madison; PHD 2020 Univ of Wisconsin-Madison

Goshit, Sunday Damina, Adjunct Assistant Professor, Languages, Literatures, Linguistics, and Cultures/University College Courses, 2020 (2020); MA 2006 University of Iowa; PHD 2009 The University of Iowa; MS 2012 University of Iowa

Gosse, Matthew David, Clinical Assistant Professor, Pathology, (2023); BSE 2013 University of Iowa; MD 2018 Univ. of Iowa Carver College of Medicine

Goswami, Prabhat, Professor, Radiation Oncology, 2000 (2011); BS 1974 St Anthony's; MS 1976 Guahati; PHD 1983 Guahati

Goswami, Sauvik, Adjunct Instructor, University College Courses, 2020 (2020); BS 2013 University of Iowa

Goto, Michihiko, Associate Professor, Internal Medicine, 2014 (2022); MD 2004 Kagoshima; MS 2012 University of Iowa

Gottam, Hima Bindu, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); BSPH 2007 Acharya Nagarjuna University; MS 2009 Western Illinois University

Gould, Abigail Renee, Adjunct Instructor, University College Courses, 2025 (2025); MSC 2004 Drake University; BA 2013 Luther College

Gould, David L., Adjunct Instructor, University College Courses, 2001 (2003); BA 1982 Northern Illinois; MA 1992 University of Iowa

Govil-Dalela, Tuhina, Clinical Assistant Professor, Pediatrics, 2025 (2025); MBBS 2012 Kasturba Medical College

Govindarajan, Ramprakash, Adjunct Assistant Professor, Pharmaceutical Sciences and Experimental Therapeutics, 2015 (2015); BSPH 1995 University of Mumbai; MPHAR 1998 University of Mumbai; MSPS 1998 University of Mumbia; PHD 2002 University of Mumbai

Goyeneche, Cristina, Assistant Professor, Theatre Arts, (2024); BA 2015 California State University; MFA 2018 The University of Iowa

Graber, Mark A., Emeritus Professor, Emergency Medicine, 1994 (2005); BS 1978 William and Mary; MD 1981 Eastern Virginia

Grace, Martin F., Professor, Finance, (2024); MA 1981 The University of Florida; JD 1986 The University of Florida; PHD 1986 The University of Florida

Grace, Sarah Catherine, Adjunct Assistant Professor, Marketing, 2024 (2024); BA 2013 Truman State University; DR 2021 University of Arkansas

Grady, Michael S., Adjunct Professor, Neurosurgery, (2021);

Grady, Mila, Emeritus Lecturer, Nursing, 2001 (2001); BSN 1978 University of Iowa; MSN 1981 The University of Texas at Austin

Graff, Curt G., Adjunct Instructor, University College Courses, 2015 (2015); MA 1997 University of Iowa; PHD 2011 University of Iowa

Grafft, Amanda Jo, Clinical Assistant Professor, Pediatrics, (2022); BA 2001 Coe College; PHD 2012 University of Iowa

Graham, Ashlee K., Clinical Assistant Professor, Pediatrics, 2025 (2025); DO 2019 Kirksville College of Ostepat

Graham, Laura R., Emeritus Professor, Anthropology, 1990 (2016); BA 1979 Stanford; MA 1983 The University of Texas at Austin; PHD 1990 The University of Texas at Austin

Graham, Megan Kathleen, Clinical Associate Professor, Law-Faculty, 2024 (2024); BS 2008 Georgetown University; MA 2009 Queens University Belfast; JD 2015 New York University

Graham, Michael, Professor, Radiation Oncology/Radiology, 1999 (1999); BSEE 1965 Mass Inst of Technology; MSEE 1966 University of California-Berkeley; MS 1969 University of California-Berkeley; PHD 1973 University of California-Berkeley; MD 1976 University of California-San Francisco

Graham, Scott M., Professor, Neurosurgery/Otolaryngology-Head Neck Surgery, 1990 (2004); MBBS 1981 Adelaide; FRACS 1988 Royal Australia C of Surgeons

Grajczyk-Haddad, Karen, Adjunct Instructor, University College Courses, 2021 (2021); BS 2013 The University of Toledo; MPH 2015 The University of Toledo

Granner, Daryl K., Emeritus Professor, Molecular Physiology Biophysics, 2005 (2006); BA 1958 University of Iowa; MD 1962 University of Iowa; MS 1962 University of Iowa

Granner, Mark A., Clinical Professor, Neurology/ Neurosurgery, 1993 (2007); BA 1983 Grinnell; MD 1987 University of Iowa

Granner, Stacy Ann, Instructor, Pediatrics, 2014 (2024); MD 1994 University of Wisconsin-Madison

Grassian, Vicki H., Adjunct Professor, Chemical Biochemical Engineering, 1990 (2002); BS 1981 New York-Albany; MS 1982 Rensselaer Polytechnic; PHD 1987 University of California-Berkeley

Gratton, David G., Associate Professor, Hospital Dentistry/ Oral Maxillofacial Surgery, 2001 (2011); BS 1990 Western Ontario; DDS 1994 University of Michigan-Ann Arbor; MS 1997 University of Iowa

Gravert, Jacqueline Claire, Adjunct Assistant Professor, Pharmacy Practice and Science, 2014 (2020); PHARMD 2013 University of Iowa; MPH 2015 University of Iowa

Graves, Leann Susan Ott, Adjunct Instructor, Teaching and Learning, (2023); BA 1975 University of Iowa; BA 1981 University of Iowa; MA 1981 University of Iowa

Graves, Naomi Arlene, Adjunct Assistant Professor, Pharmacy Practice and Science, 2020 (2020); PHARMD 2003 University of Minnesota

Graves, Stephen Andrew, Associate Professor, Biomedical Engineering/Radiation Oncology/Radiology, 2019 (2025); PHD 2007 University of Wisconsin

Gray, Tonya Lynn, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1994 Univ of Iowa; Iowa City, IA; MD 1998 Univ of IA CCOM; Iowa City,IA

Green, Lesley Anna, Instructor, Internal Medicine, (2024); MD 2018 University of Guayaquil

Green, Lucilia Santos, Professor, Library Information Science, (2023); BS 1999 East Texas Baptist University; MLIS 2004 Texas Woman's University; DED 2010 Texas Tech University; EDD 2010 Texas Tech University

Green, Nicole Marie, Adjunct Assistant Professor, Biology, 2023 (2023); BS 2012 Southern Illinois University; PHD 2018 Kansas State University

Green, Steven H., Professor, Biology/Otolaryngology-Head Neck Surgery, 1987 (2006); BS 1975 University of Wisconsin-Madison; PHD 1982 Calif Inst of Tech (Pasadena)

Green-Tader, Kathy L., Adjunct Instructor, Teaching and Learning, 2016 (2024); BME 1982 Wheaton College; MA 2010 University of Connecticut

Greene, Barry, Emeritus Professor, Health Management Policy, 1999 (1999); BA 1963 Wartburg; MA 1967 Northern Illinois; PHD 1971 St Louis

Greenhoe, David S., Emeritus Professor, Music, 1979 (1989); BM 1964 Eastman School of Music; MM 1969 Ball State

Greenlee, Jeremy D., Professor, Neurosurgery/ Otolaryngology-Head Neck Surgery/Pediatrics, 2005 (2017); BS 1993 University of Michigan-Ann Arbor; MD 1998 Indiana University-Bloomington

Greenlees, Teresa, Adjunct Instructor, Marketing, 2024 (2024); BA 1997 Rollins College; MBA 2009 University of Chicago Booth

Greenough, Paul R., Emeritus Professor, History, 1974 (1987); BS 1968 Columbia; MA 1970 University of Illinois at Chicago; PHD 1977 University of Illinois at Chicago

Greenwood, Amy Rebecca, Clinical Assistant Professor, Oral Path,RadiologyMedicine/Pharmacy Practice and Science, 2020 (2020); PHARMD 2020 University of Iowa

Greenwood-Sanchez, David, Assistant Professor, Center for Soc Sci Innovation/Political Science, (2023); BA 2008 Whitman College; MA 2015 Univ of Wisconsin-Madison; PHD 2022 Univ of Wisconsin-Madison

Gregory, Grant Ryder, Adjunct Assistant Professor, Political Science, 2024 (2024); BA 2016 The University of Iowa; BS 2016 The University of Iowa

Greiner, Andrea Lynn, Clinical Professor, Obstetrics Gynecology, 2006 (2022); BS 1992 Missouri, Columbia; MD 1998 Missouri, Columbia

Greiner, Mark A., Professor, Ophthalmology Visual Science/ Pharmaceutical Sciences and Experimental Therapeutics, 2012 (2024); MD 2007 University of California-Davis

Grewal, Amandeep, Professor, Law-Faculty, 2011 (2016); BA 2002 Williams; JD 2005 University of Michigan-Ann Arbor; LLM 2006 Georgetown

Grewal, Navneet Kaur, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); BDS 2010 Genesis Inst of Dental Science; DDS 2018 University of Minnesota

Grewe, Brenda Marie, Emeritus Associate Professor, Biology, 1998 (2018); BS 1981 Creighton; PHD 1987 Indiana University-Bloomington

Greyser, Naomi, Associate Professor, English/Gender, Women's and Sexuality Studies, 2006 (2016); BA 1995 Wesleyan; MA 1998 University of California-Irvine; PHD 2004 University of California-Irvine

Griebel, Kurt Donald, Adjunct Instructor, Marketing/ University College Courses, 2013 (2013); BA 1985 St. Ambrose

Griffin, Benjamin, Assistant Professor, Internal Medicine, (2019); MD 2012 University of Miami SOM

Griffin, Daniel Thomas, Clinical Assistant Professor, Pathology, (2022); BS 2012 University of Missouri; MD 2016 St. Louis University

Griffin, Emily Jane, Assistant Professor, Nursing, 2012 (2024); MN 2000 Montana State; DNP 2022 University of Iowa

Griffin, Jacqulyn Renee, Adjunct Instructor, Nursing, 2020 (2023); BSN 2010 Grand Canyon University; MSN 2016 University of Missouri- KC

Griffiths, Timothy, Adjunct Professor, Neurosurgery, 2009 (2009); MD 1998 Oxford, England

Grigoris, Fotis, Assistant Professor, Finance, 2023 (2023); BS 2013 Monash University; PHD 2020 University of North Carolina

Griguer, Corinne E., Professor, Radiation Oncology, 2018 (2024); PHD 1992 Univ of Montpellier, France

Grimley, Jeffrey Michael, Adjunct Assistant Professor, Operative Dentistry, 2023 (2023); DDS 1983 University of Iowa

Grimm, Alecia Renae, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025);

Grinde, Krista Marie, Clinical Assistant Professor, Pediatrics, 2023 (2023); DO 2016 A.T. Still University - Kirksville College of Oste

Grisamore, Jeffrey Glen, Professor, Journalism Mass Communication, 2018 (2023); BA 1981 The Univeristy of Iowa

Grismore, Steven Dean, Emeritus Lecturer, Music, 2000 (2006); MA 1990 University of Iowa

Groben, Lucas Paul, Adjunct Assistant Professor, Internal Medicine, 2014 (2014); DO 2006 Des Moines College of Osteop

Groeltz, Amy Rebecca, Adjunct Assistant Professor, Family Dentistry, 2016 (2015); DDS 2004 University of Iowa

Groen, Amy, Adjunct Associate Professor, Pediatrics, 2012 (2019); DO 2005 Des Moines

Gronstal, Ingrid Marie, Adjunct Instructor, Law-Faculty, 2023 (2023); BS 2005 University of Iowa; JD 2011 University of Iowa

Groos, Jennifer A., Adjunct Assistant Professor, Pediatrics, 2005 (2005); BS 1997 Loras College; MD 2001 University of Iowa

Gros-Louis, Julie J., Associate Professor, Psychological and Brain Sciences, 2008 (2020); BS 1992 University of Michigan-Ann Arbor; MA 1995 Pennsylvania; MA 1996 Pennsylvania; PHD 2001 Pennsylvania

Grose, Charles, Emeritus Professor, Pediatrics, 1984 (1987); BA 1963 Beloit; MD 1967 University of Illinois at Chicago

Grosland, Nicole Marie, Professor, Biomedical Engineering/ Engineering Administration, 1998 (2012); BSE 1994 University of Iowa; PHD 1998 University of Iowa

Gross, Molly Elizabeth, Adjunct Instructor, Surgery, 2017 (2017); MD 2008 Mayo Medical School

Gross, Peter, Adjunct Instructor, Journalism Mass Communication, 2019 (2022); PHD 1984 University of Iowa

Gross, Thomas J., Professor, Internal Medicine, 1991 (2015); BS 1980 University of Michigan-Ann Arbor; MD 1983 University of Michigan-Ann Arbor

Groth, Christopher Lee, Clinical Associate Professor, Neurology, 2018 (2025); MD 2012 University of Iowa

Grove, Deeann, Adjunct Instructor, Educ Policy Leadership Studies, 2022 (2023); BA 1993 University of Iowa; MA 2007 University of Iowa; PHD 2014 University of Iowa

Groves, Andrew Paul, Clinical Assistant Professor, Pediatrics, 2022 (2022); BA 2012 Northwestern University; MD 2016 Washington University

Groves, Patricia Sue, Associate Professor, Nursing, 2011 (2021); BSN 1998 Missouri Columbi; PHD 2011 Missouri Columbi

Gruca, Thomas S., Professor, Marketing, 1991 (2006); BS 1983 University of Illinois at Urbana Champaign; MBA 1985 University of Illinois at Urbana Champaign; PHD 1989 University of Illinois at Urbana Champaign

Grueneis, Caroline Aimee, Adjunct Instructor, University College Courses, 2023 (2023); BA 2022 University of Michigan

Grueter, Chad, Associate Professor, Internal Medicine, 2012 (2019); PHD 2006 Vanderbilt

Grumbach, Isabella, Adjunct Professor, Internal Medicine, 2006 (2018); MD 1992 Ruhr Univ Germany

Grunder, Richard W., Adjunct Associate Professor, Operative Dentistry, 1995 (2012); DDS 1984 University of Iowa

Guayara Sanchez, Consuelo, Assistant Professor, Rhetoric, 2007 (2008); MA 1994 University of Iowa; PHD 2007 University of Iowa

Gudenkauf, Julie, Assistant Professor, Neurology, (2023); MD 2017 University of Iowa

Guentner, Wendelin, Emeritus Professor, French Italian, 1985 (1998); BA 1972 St. Teresa; MA 1974 Magistere-Paris; MA 1975 Delaware; PHD 1982 University of Illinois at Chicago

Guernsey, Alison Klare, Clinical Professor, Law-Faculty, (2022); BA 2001 Univ. of Michigan; JD 2008 University of Iowa

Guerra, Jorge Oswaldo, Assistant Professor, American Studies/Magid Center for Writing, 2014 (2014); MFA 2014 University of Iowa

Guerrero, Martin Alexander, Adjunct Assistant Professor, Internal Medicine, 2025 (2025); MD 2013 Jefferson Medical College

Guinn, Kelly Marie, Adjunct Assistant Professor, Sociology and Criminology, 2024 (2024); BA 2016 University of Miami (FL)

Gujadhur, Khushal Anand, Adjunct Assistant Professor, Creative Writing, 2025 (2025);

Gullickson, Gregory Leo, Clinical Associate Professor, Internal Medicine/Psych Quant Foundations, 2000 (2017); BA 1979 Nortre Dame; MA 1983 University of Iowa; PHD 1993 University of Iowa

Gumusoglu, Serena Banu, Assistant Professor, Obstetrics Gynecology/Psychiatry, (2024); BS 2012 The George Washington U; MSC 2015 Yale University; PHD 2020 University of Iowa

Gunderson, Alan Eric, Clinical Associate Professor, Internal Medicine, 2014 (2021); MD 2007 New York Medical

Gunderson, Carissa B., Clinical Associate Professor, Psychiatry, 2014 (2023); MD 2009 University of Wisconsin-Madison

Gundlach, Cory Keith, Adjunct Instructor, Interdisciplinary Programs/International Programs, 2018 (2018); BA 2009 Colorado State University; MA 2012 University of Iowa; PHD 2019 The University of Iowa

Guo, Man, Associate Professor, Social Work, 2011 (2018); BSW 2003 Renmin of China; MSW 2005 Hong Kong; DR 2011 University of Southern Califor; PHD 2011 Southern California

Gupta, Prahlad, Associate Professor, Psychological and Brain Sciences, 1999 (2005); BA 1980 Delhi; MBA 1982 Delhi; MS 1991 Carnegie Mellon; PHD 1995 Carnegie Mellon

Gupta, Shishir K., Adjunct Assistant Professor, Pharmacy Practice and Science, 2013 (2013); PHARMD 2007 Virginia Commonwealth

Gupta, Umang, Clinical Professor, Pediatrics, (2024); MBBCH 1998 Burdwan Medical College

Gurung, Prajwal, Associate Professor, Internal Medicine, 2016 (2022); BS 2005 Winona State University; PHD 2011 University of Iowa

Gurwell, Adelaide Maria, Emeritus Assistant Professor, Family Medicine, 1997 (1997); BSN 1980 Iowa Methodist; BGS 1986 Drake; MD 1991 University of Iowa

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Gussin, Gary N., Emeritus Professor, Biology, 1969 (1980); BS 1961 University of Michigan-Ann Arbor; PHD 1966 Harvard

Gustafson, Carolina Murphy, Assistant Professor, Nursing, (2025); BA 2015 Vassar College; MSN 2018 Yale University School of Nurs; PHD 2023 Emory University

Guthart, Lisa Nicole, Adjunct Instructor, Teaching and Learning, 2025 (2025); BS 1992 Iowa State University

Gutierrez, Jeydith Traeger, Clinical Associate Professor, Internal Medicine, 2015 (2021); MD 2008 Central Univ of Venezuela

Gutmann, Ludwig, Emeritus Professor, Neurology, 2013 (2013); MD 1959 Columbia

Gutting, April, Adjunct Instructor, Law-Faculty, 2020 (2024); BA 1998 University of Iowa; JD 2006 University of Iowa

Guymon, C. Allan, Emeritus Professor, Chemical Biochemical Engineering, 2002 (2009); BS 1993 Weber State; MS 1995 Colorado; PHD 1997 Colorado

Guyton, Kristina L., Clinical Assistant Professor, Surgery, (2020); MD 2012 Pritzler School of Medicine

Guzman-Armstrong, Sandra, Clinical Professor, Operative Dentistry, 2001 (2017); DDS 1994 University of Iowa; MS 1999 University of Iowa

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Haas, Jilene Joyce, Adjunct Instructor, Pharmacy Practice and Science, 2024 (2024); BM 2014 New England Conservatory; MM 2016 Northwestern University; PHARMD 2024 University of Iowa

Haase, Stephanie Jean, Adjunct Instructor, Biology, (2021); BS 2013 Iowa State University; PHD 2019 University of Iowa

Habelhah, Hasem, Associate Professor, Pathology, 2005 (2011); BS 1987 Beijing Normal; MS 1990 Beijing Normal; PHD 1998 Hokkaido

Hackbarth, Jacob, Adjunct Assistant Professor, Chemistry, 2025 (2025); PHD 2023 University of Iowa

Hacker, William, Instructor, Biochemistry and Molecular Biology, (2023); BA 1997 Brown Univ; PHD 2003 Cornell Univ; PHD 2020 University of Iowa

Haddad, Majd S., Clinical Instructor, Hospital Dentistry, 2022 (2023); DDS 2011 University of Iowa; CER 2016 OMS - Tripler Army Medical Cen

Hadder, Brent Allen, Clinical Associate Professor, Anesthesia, 2009 (2019); BS 1998 Alabama; MD 2004 Alabama School of Med

Hade, Allison Leigh, Adjunct Professor, Pathology, 2024 (2024); BS 2014 University of Iowa; DO 2019 University of Des Moines

Hadlandsmyth, Katherine, Associate Professor, Anesthesia/ Nursing, (2022); BA 2003 Claremont McKenna College; MA 2009 University of Missouri; PHD 2011 University of Missouri

Haefner, Julie, Adjunct Instructor, Pharmacy Practice and Science, 2022 (2022); BSPH 1998 Drake University

Hagan, David V., Assistant Professor, Languages, Literatures, Linguistics, and Cultures, 2010 (2010); BA 1986 Montana; MA 1993 Montana; PHD 2006 University of Iowa

Hagarty, Bradley Tyler, Adjunct Instructor, Preventive Community Dentistry, 1998 (1998); DDS 1994 University of Iowa

Hagarty, Kimberly Marie, Adjunct Assistant Professor, Emergency Medicine, 2023 (2023); MD 2016 University of Iowa

Hagedorn, Justin, Adjunct Instructor, University College Courses, 2023 (2023); MED 2019 The University of Maine

Hageman, Kara, Adjunct Instructor, Psych Quant Foundations/Teaching and Learning, 2013 (2013); BA 1996 Wartburg College; MAT 1999 University of Iowa; PHD 2020 The University of Iowa

Hagerla, Denise, Adjunct Instructor, Social Work, 2022 (2022); BA 1994 Loyola University Chicago; MSW 2003 University of Chicago

Hagiwara, Mariko, Clinical Associate Professor, Internal Medicine, 2017 (2023); MD 2004 Yamanashi Medical University

Hagiwara, Yuya, Clinical Associate Professor, Internal Medicine, 2017 (2022); MD 2004 Yamanashi Medical University,

Hagle, Timothy M., Associate Professor, Political Science, 1988 (1994); BA 1978 Michigan State University; BS 1978 Michigan State University; JD 1982 J D Cooley Law School; MA 1985 Michigan State University; PHD 1988 Michigan State University

Hagner, Miles David, Instructor, Internal Medicine, (2023); MD 2017 The University of Toledo College of Medicine

Hahn, Oscar A., Emeritus Professor, Spanish Portuguese, 1977 (1983); PHD 1963 Chile; MA 1972 University of Iowa; PHD 1977 University of Maryland-College Park

Haim, Hillel, Research Associate Professor, Microbiology and Immunology, 2012 (2025); MD 2001 Hebrew, Jerusalem; PHD 2007 Hebrew,Jerusalem

Haines, Don R., Emeritus Associate Professor, Music, 1974 (1978); BM 1959 Illinois Wesleyan; MM 1961 Eastman School of Music; DMA 1973 Rochester

Haines, Emily Catherine, Adjunct Assistant Professor, Internal Medicine, 2014 (2014); DO 2008 Des Moines University

Hais, Michael D., Adjunct Assistant Professor, Political Science, 2022 (2022); PHD 1973 University of Maryland

Hajar, Zeina, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MD 2012 Lebanese University

Hakes, Thomas E., Adjunct Instructor, Internal Medicine, 1990 (1990); MD 1978 University of Iowa

Halbmaier, Katie Anne, Associate Professor, Nursing, 2016 (2025); BSN 2013 University of Iowa; DNP 2018 The University of Iowa

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Hale, Benjamin William, Clinical Assistant Professor, Pediatrics, 2023 (2023); MD 2013 University of Colorado School of Medicine

Halekas, Jasper S., Professor, Physics Astronomy, 2014 (2022); BS 1997 University of Washington; MA 2000 University of California-Berkeley; PHD 2003 University of California-Berkeley

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Hall, Ashley R., Assistant Professor, Communication Studies, (2023); PHD 2016 University of Pittsburgh

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Hall, Greg, Assistant Professor, Accounting, 2021 (2025); BBA 1984 University of Iowa; MED 1991 University of Missouri; MBA 2019 The University of Iowa

Hall, Jaclyn Ann, Adjunct Instructor, Physical Therapy Rehab Science, 2014 (2024); BS 2002 University of Iowa; DPT 2005 University of Iowa; MBA 2016 University of Iowa

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Hall, Penelope Jane, Emeritus Associate Professor, Communication Sciences and Disorders, 1968 (1991); BA 1965 University of Iowa; MA 1967 University of Iowa

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Halterman, Tom, Adjunct Assistant Professor, Pharmacy Practice and Science, 2002 (2003); BS 1989 University of Iowa

Halverson, Bradley Joseph, Adjunct Assistant Professor, Internal Medicine, 2019 (2019); DO 2006 Des Moines University

Halyko, Michael Andrew, Clinical Assistant Professor, Pediatrics, (2021); MD 2015 Southern IL University

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Hamling, Scott, Adjunct Instructor, Surgery, 2017 (2017); MD 2001 University of Iowa

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Hammar, Karen, Clinical Assistant Professor, Health Management Policy, 2023 (2024); MOT 2012 St. Ambrose University; MHA 2023 University of Iowa

Hammond, Donna L., Emeritus Professor, Anesthesia, 2000 (2000); BS 1975 New York-Buffalo; PHD 1980 University of Illinois at Chicago

Hammond, Taylor Christian, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2020 Drake University

Hamon, David Alexandre, Clinical Associate Professor, Internal Medicine, 2021 (2021); MD 2009 Universit?? de Paris UFR

Hamot, Gregory Edward, Emeritus Professor, Teaching and Learning, 1995 (2007); BA 1975 Northwestern Univeristy; MA 1976 The Ohio State University; PHD 1995 The Ohio State University

Hamzeh, Nabeel Y., Professor, Internal Medicine, (2022); MBBS 1997 University of Jordan

Han, Ian C., Associate Professor, Ophthalmology Visual Science, 2016 (2021); MD 2009 Duke University

Han, Weimin, Professor, Mathematics, 1991 (1999); BS 1983 Fudan-Shanghai; MS 1986 Academia Sinica-Beijing; PHD 1991 THE UNIVERSITY OF MARYLAND-COLLEGE PARK

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Hand, Brian, Professor, Teaching and Learning, 2005 (2005); BS 1975 Flinders Univ; MS 1986 Curtin Univ; PHD 1993 Curtin Univ

Hand, Gregory, Professor, Music, 2008 (2023); BM 1995 Northwestern Univeristy; MM 2002 University of Michigan-Ann Arbor; DMA 2006 University of Michigan-Ann Arbor

Hand, Jed Stephen, Emeritus Professor, Preventive Community Dentistry, 1982 (1994); BS 1967 Bowling Green; DDS 1970 University of Michigan-Ann Arbor; MHSA 1980 University of Michigan-Ann Arbor

Handler, Emma Kathryn, Instructor, Anatomy Cell Biology, (2022); BA 2012 Colorado State University; MA 2017 University of Iowa; PHD 2020 University of Iowa

Handler, Nathan Hunter, Adjunct Assistant Professor, Internal Medicine, 2022 (2022); BA 2008 Coe College; DO 2018 Kansas City University

Handoo, Nidhi Q., Clinical Associate Professor, Oral Path,RadiologyMedicine, 2010 (2020); BDS 1995 Vasantdada Patil Dent; MS 2008 University of Iowa

Hangauer, Kelly, Adjunct Instructor, University College Courses, 2021 (2021); AA 2013 Johnson Co Community College; BA 2015 Univ of Missouri-Kansas City; MLIS 2017 Emporia State University

Hanken, Jacob Josiah, Adjunct Assistant Professor, Pharmacy Practice and Science, 2019 (2019); PHARMD 2011 University of Iowa

Hanken, Kaitlin Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHARMD 2014 Drake University

Hankewich, Jillien F., Adjunct Instructor, Pharmacy Practice and Science, 2011 (2011); BSPH 1989 Alberta

Hanley, Paul F., Associate Professor, Civil-Environmental Engineering, 1999 (2006); BSC 1988 Rutgers University-New Brunswick; MSE 1990 New Jersey Technology; MUP 1994 University of Illinois at Urbana Champaign; PHD 1999 University of Illinois at Urbana Champaign

Hanley, Sarah, Emeritus Professor, History, 1976 (1987); BA 1967 Pittsburgh; MA 1970 University of Iowa; PHD 1975 University of Iowa

Hanly, Elyse Katharine, Adjunct Assistant Professor, Otolaryngology-Head Neck Surgery, 2024 (2024); MD 2017 New York Medical College

Hanna, Michael G., Adjunct Professor, Neurology, 2013 (2013); MBCHB 1988 Manchseter

Hanna-Bergen, Laura, Clinical Assistant Professor, Obstetrics Gynecology, (2023); MSN 2005 University of Phoenix

Hanrahan, Kate Duchene, Clinical Professor, Family Medicine, 2010 (2022); BA 2001 St. Thoma, MN; MD 2005 University of Iowa

Hanrahan, Kimberly Ann, Adjunct Instructor, Social Work, 2011 (2011); BSW 1994 University of Iowa; MSW 2004 University of Iowa

Hanrahan, Kirsten Marie, Adjunct Assistant Professor, Nursing, 2012 (2012); BSN 1985 University of Iowa; MA 1994 University of Iowa; DNP 2010 University of Iowa

Hansel, Heidi Ann, Adjunct Instructor, Accounting, 2020 (2024); MS 1999 Iowa State University; DPHIL 2006 Iowa State University; MAC 2021 Iowa State University

Hansen, Calvin, Adjunct Assistant Professor, Neurology, 2015 (2007); MD 1988 Nebraska Medical

Hansen, Douglas Andrew, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2009 University of Iowa

Hansen, Kaitlyn, Adjunct Assistant Professor, Gender, Women's and Sexuality Studies, 2024 (2024); BA 2016 Augustana College; MA 2019 University of Iowa; PHD 2024 University of Iowa

Hansen, Marlan Rex, Professor, Molecular Physiology Biophysics/Neurosurgery/Otolaryngology-Head Neck Surgery, 2003 (2013); BS 1990 Brigham Young; MD 1994 Chicago, Pritzker

Hansen, William Eastman, Adjunct Instructor, Teaching and Learning, 2021 (2023); MA 2017 Univ of Northern Colorado; PHD 2021 University of Iowa

Hanson, Alison Jean, Adjunct Assistant Professor, Biology, 2024 (2024); PHD 2011 Vanderbilt University; MD 2015 Vanderbilt University

Hanson, Amber Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); AA 2003 North IA Area Community Colleg; PHARMD 2011 University of Iowa

Hanson, Daniel Herbert, Adjunct Assistant Professor, Mechanical Engineering, 2005 (2005); BS 1979 University of Illinois at Urbana Champaign; MS 1998 University of Iowa; PHD 2004 University of Iowa

Hanson, Douglas Lee, Adjunct Assistant Professor, Internal Medicine, 2005 (2005); MD 1997 University of Iowa

Hanson, James William, Emeritus Professor, Pediatrics, 1976 (1984);

Hanson, Kerby Lynn, Adjunct Instructor, Social Work, 2018 (2018); BA 1997 University of Northern Iowa; MSW 2014 University of Iowa

Hanson, Lauryn Beth, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 University of Iowa

Hao, Jiaqing, Research Assistant Professor, Pathology, (2024); PHD 2014 Peking University

Harata, Nobutoshi Charles, Associate Professor, Molecular Physiology Biophysics, 2007 (2015); MD 1987 Tohoku, Sendai Japan; PHD 1991 Tohoku, Sendai, Japan

Harb, Nidal Harb, Clinical Associate Professor, Internal Medicine, 1991 (2021); MD 1980 Leningrad

Harder, Mckenzie A., Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2016); PHARMD 2002 University of Iowa

Hardin, Richard A., Adjunct Professor, Mechanical Engineering, 1994 (2011); BS 1986 Kansas; MS 1988 Kansas; PHD 1994 Kansas

Hardin, Sarah E., Assistant Professor, Health Sport and Human Physiology, (2022); BS 1985 Univ of Illinois at Urbana-Cha; MS 1987 Univ of Illinois at Urbana-Cha; PHD 1999 Florida State University

Harding, Christin, Adjunct Assistant Professor, Military Science, 2019 (2019); BA 2019 University of Iowa

Hardisty, Lisa Irene, Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 2007 University of Iowa

Hardt, Sarah Rae, Adjunct Assistant Professor, Pharmacy Practice and Science, 2022 (2022); PHAR 2012 University of Texas at Austin

Hardy-Fairbanks, Abbey Joy, Clinical Professor, Obstetrics Gynecology, 2010 (2023); BA 2002 Colorado; MD 2006 Creighton

Haret, Denisa M., Clinical Associate Professor, Anesthesia/ Pediatrics, 2009 (2018); DMS 1992 Gr. T. Popa Univ of Med

Hargens, Benson Friedrick, Adjunct Assistant Professor, Family Medicine, 2021 (2021); BS 2008 Iowa State University; MPH 2011 University of Iowa; MD 2015 University of Iowa

Harker, Sheena L., Adjunct Instructor, Family Medicine, 2017 (2017); BA 2007 Augustana College, Rock Is, IL; DO 2011 Des Moines Univ COM, IA

Harkness, Dan J., Adjunct Assistant Professor, Family Medicine, 2014 (2014); BS 1991 University of Iowa; MS 1993 Northern IL Univ; DeKalb, IL; PHD 2004 Iowa State Univ; Ames, IA

Harkness, Sarah Katherine, Associate Professor, Sociology and Criminology, 2011 (2019); MA 2005 Kent State; PHD 2011 Stanford

Harland, Karisa Kay, Research Assistant Professor, Emergency Medicine/Epidemiology/Law-Faculty, 2016 (2016); BA 2001 University of Iowa; MPH 2004 University of Iowa; PHD 2010 University of Iowa

Harmer, Reghan Olivia, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2021 University of Iowa

Harmon, Heidi Marie, Clinical Professor, Pediatrics, 2018 (2024); MD 2004 Case Western Reserve Universit

Harmon, Nathan Mikael, Adjunct Assistant Professor, Emergency Medicine, 2017 (2017); BS 2003 University of Iowa; MD 2008 University of Iowa

Harms, Dixie Lee, Adjunct Assistant Professor, Nursing, 2010 (2025); BSN 1986 Drake; MSN 1993 Drake; DNP 2009 University of Iowa

Harms, Jessica Lynn, Adjunct Assistant Professor, Dermatology, (2020); BS 2012 University of Nebraska; MA 2016 University of Nebraska; MD 2016 U of Nebraska Medical Center

Harms, Scott Michael, Adjunct Instructor, Physical Therapy Rehab Science, 2010 (2024); BA 2003 Northern Iowa; DPT 2005 University of Iowa

Harmsen, Jody M., Adjunct Assistant Professor, Family Medicine, 2011 (2011); BA 1994 Chicago; MD 2005 Chicago

Harold, Nathan R., Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2016); PHARMD 2012 University of Iowa

Harper, Dennis Carlin, Emeritus Professor, Counselor Education/Pediatrics/Teaching and Learning, 1972 (1985); BA 1964 Augustana; MA 1966 University of Iowa; PHD 1972 University of Iowa

Harper, John Brammer, Emeritus Assistant Professor, English, 1976 (1982); BA 1962 Stanford; MBA 1966 University of Iowa

Harper, Kristine Marie, Instructor, Teaching and Learning, (2025); BA 1989 University of Northern Iowa; MA 1995 University of Iowa

Harper, Matthew M., Associate Professor, Ophthalmology Visual Science, 2013 (2022); BS 2003 Iowa State; PHD 2007 Iowa State

Harper, Samuel Franklin, Adjunct Instructor, Political Science, 2025 (2025); PHD 2025 University of Iowa

Harring, Kristen Elizabeth, Instructor, Pediatrics, 2019 (2025); BS 2007 University of North Carolina, Chapel Hill; MS 2011 Washington State; MD 2012 Washington University

Harrington, Jeanette, Emeritus Assistant Professor, Anesthesia, 1990 (1997); BS 1975 The University of Minnesota-Twin Cities; MD 1983 The University of Minnesota-Twin Cities

Harris, Christopher J., Adjunct Instructor, Finance, 2014 (2021); BA 1990 Lewis, IL

Harris, Danielle Kristine, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHARMD 2014 University of Iowa

Harris, Katherine Irene, Clinical Professor, Internal Medicine, 2010 (2020); MD 2007 University of Iowa

Harris, Kimm Marie, Associate Professor, Management and Entrepreneurship, 2012 (2021); MBA 2010 University of Iowa

Harris, Mark James, Adjunct Assistant Professor, Pharmacy Practice and Science, 2008 (2008); PHARMD 1997 Creighton

Harris, Phyllis, Assistant Professor, Management and Entrepreneurship, (2024); MBA 1995 Northwestern University

Harris, Sabrina, Assistant Professor, School of Planning and Public Affairs, (2024); MARCH 2015 University of S?#o Paulo

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Harry, Adam, Assistant Professor, Music/Teaching and Learning, 2018 (2018); BM 2002 Univ of Wisconsin-Madison; MM 2008 Univ of Wisconsin-Madison; PHD 2018 Univ of Wisconsin-Madison

Harshman, Jordan T., Associate Professor, Chemistry, 2015 (2025); PHD 2015 Miami University

Harshman, Lyndsay, Associate Professor, Pediatrics, 2016 (2022); BS 2006 University of Iowa; MD 2009 University of Iowa

Hart, Kimberly June, Clinical Professor, Psychiatry, 2015 (2023); PHD 2009 University of Iowa

Hart-Fernandez, Megan Renee, Associate Professor, Nursing, (2025); BSN 2005 Mount Mercy College; MSN 2011 University of Iowa; DNP 2012 University of Iowa

Hartgrave, Cassandra, Adjunct Assistant Professor, Pathology, 2023 (2023); BS 2002 South Dakota State University; MPH 2006 Capella Univerity

Harthan, Aaron A., Adjunct Assistant Professor, Pharmacy Practice and Science, 2011 (2011); PHARMD 2008 Iowa

Hartley, Carolyn, Associate Professor, Social Work, 1993 (2003); BS 1986 Loyola; MA 1988 University of Illinois at Chicago; PHD 1995 University of Illinois at Chicago

Hartley, Patrick Gerard, Clinical Professor, Internal Medicine/Occupational Environmental Health, 1994 (2008); MBBCH 1985 University College-Dublin; MPH 2000 University of Iowa

Hartman, Robert John, Emeritus Lecturer, Accounting, 1999 (1999); BS 1975 Pennsylvania State University; MAC 1998 University of Iowa

Hartnett, Matthew, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MD 2019 University of Iowa

Harts, Kristin L., Adjunct Assistant Professor, Internal Medicine, 2005 (2017); MD 1997 University of Nebraska-Lincoln

Hartsgrove Mooers, Kristen Lee, Associate Professor, Theatre Arts, 2015 (2025); BA 1996 University of Wisconsin-Madison; MFA 2006 Illinois State University

Hartshorn, Jennifer Elizabeth, Clinical Professor, Preventive Community Dentistry, 2013 (2025); BA 2008 Central College, Pella, IA; DDS 2012 University of Iowa

Hartwig, Amy Christina, Adjunct Assistant Professor, Pharmacy Practice and Science, 2014 (2008); PHARMD 1999 University of Iowa

Harty, John, Professor, Pathology, 1993 (2003); BS 1980 The University of Minnesota-Twin Cities; PHD 1989 The University of Minnesota-Twin Cities

Hartz, Arthur J., Emeritus Professor, Family Medicine, 1997 (1997); BA 1966 Swathmore College; PHD 1974 Johns Hopkins; MD 1982 Medical Col of Wisconsin

Harvey, Hayley L., Adjunct Instructor, Preventive Community Dentistry, 2001 (2001); DDS 1994 University of Iowa

Harvey, John H., Emeritus Professor, Psychological and Brain Sciences, 1986 (1986); BS 1968 South Carolina; MA 1970 Missouri; PHD 1971 Missouri

Harvey, Kyle W., Adjunct Assistant Professor, Aerospace Studies, 2024 (2024); BS 2016 Excelsior College; MS 2023 University of Louisville

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Harwani, Sailesh, Clinical Assistant Professor, Internal Medicine, 2013 (2014); BA 1996 University of Illinois at Chicago; MD 2006 University of Illinois at Chicago

Harwood, Casey Mackenzie, Associate Professor, Mechanical Engineering, 2017 (2024); BS 2011 The Webb Institute; MS 2014 University of Michigan; PHD 2016 University of Michigan

Hasan, Ali Majed, Associate Professor, Philosophy, 2008 (2016); BA 2001 Washington; MA 2005 Washington; PHD 2008 Washington

Hasbun Zegpi, Maria Trinidad, Clinical Assistant Professor, Dermatology, (2025); MD 2007 Universidad de Los Andes

Hashimoto, Rintaro, Clinical Assistant Professor, Internal Medicine, (2022); MD 2008 Osaka Univ, Japan

Haskell, Sarah, Associate Professor, Pediatrics, 2011 (2019); BS 2001 University of Nebraska-Lincoln; DO 2005 Kansas City

Haskins, Motier F., Associate Professor, Social Work, 2008 (2023); MSW 1983 Syracuse

Hass, Curtis, Emeritus Associate Professor, Radiation Oncology, 2002 (2002); MD 1960 University of Iowa

Hassan, Imran, Adjunct Professor, Surgery, 2014 (2020); MBBS 1995 Aga Khan Med

Hassan, Mubariz Ahmed, Clinical Assistant Professor, Internal Medicine, (2025); MBBS 2013 King Edward Medical University

Hassan, Waleed, Clinical Assistant Professor, Internal Medicine, (2024); MBBCH 2008 Minia University, Egypt; MBBS 2008 Minia University

Hassman, Benjamin John, Associate Professor, Philosophy/Rhetoric/University College Courses, 2015 (2021); MA 2008 University of Iowa; PHD 2011 University of Iowa

Hatcher, William B., Emeritus Professor, Music, 1987 (1987); BME 1957 University of Nebraska-Lincoln; MMUS 1960 University of Nebraska-Lincoln

Haug, Edward J., Emeritus Professor, Mechanical Engineering, 1968 (1976); BS 1962 Missouri; MS 1964 Kansas State; PHD 1966 Kansas State

Haugen, Alice Bordwell Fulton, Emeritus Professor, Biochemistry and Molecular Biology, 1981 (1993); BS 1973 Brown; PHD 1977 Brown

Haugen, Eric, Adjunct Assistant Professor, Pediatrics, 2004 (2004); BS 1995 Drake; MD 2000 North Dakota

Haugen, Thomas H., Associate Professor, Pathology, 1990 (1997); BA 1971 University of California-Berkeley; PHD 1976 University of California-Davis; MD 1983 University of Iowa

Haughton, Anthony Alexander, Adjunct Instructor, African-American Studies, 2023 (2023); AB 2021 University of Iowa

Haugsdal, Jaclyn Marie, Clinical Associate Professor, Ophthalmology Visual Science, (2025); MD 2013 University of Iowa

Haugsdal, Michael Larson, Clinical Associate Professor, Obstetrics Gynecology, (2023); BS 2008 University of Iowa

Hauser, Scott Richard, Adjunct Instructor, Management and Entrepreneurship, 2005 (2022); MBA 1993 University of Northern Iowa

Hauserman, Nancy Russell, Emeritus Professor, Management and Entrepreneurship, 1977 (1995); BA 1971 Rhode Island; JD 1976 University of Iowa

Hausman-Miller, Brenda, Adjunct Instructor, Preventive Community Dentistry, 2006 (2006); DDS 2002 University of Iowa

Havel, Jessica Kay, Adjunct Assistant Professor, Pharmacy Practice and Science, 2003 (2003); PHARMD 2000 University of Iowa

Havens, Timothy John, Professor, African-American Studies/Communication Studies, 2003 (2014); BA 1990 University of Wisconsin-Madison; MA 1994 George Mason; DPHIL 2000 Indiana University-Bloomington

Haverkamp, Michael John, Adjunct Instructor, Educ Policy Leadership Studies, (2023); BA 1982 University of Northern Iowa; MA 1991 University of Iowa

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Hawthorne, Clint Ross, Adjunct Assistant Professor, Emergency Medicine, (2022); MD 2009 University of Iowa

Hayakawa, Minako, Clinical Assistant Professor, Neurology/Radiology, 2003 (2003); MD 1990 ST MARIANNA, JAPAN

Hayashi, Tokuhito, Clinical Assistant Professor, Anesthesia, (2025); MD 2006 Nihon Univeristy School of Medicine

Hayashi, Yuri, Clinical Assistant Professor, Anesthesia, (2024); MD 2012 University of Osaka

Haycraft, Edwin J., Adjunct Instructor, Psychiatry/Social Work, 2007 (2007); BSW 2001 University of Iowa; MSW 2003 University of Iowa

Hayes, Ansley, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 University of Mississippi

Hayes, Antony J., Adjunct Instructor, Radiology, 2025 (2025); MD 2013 Medical College of Wisconsin

Hayes, Joy, Professor, Communication Studies, 1994 (2024); BA 1987 Reed; MA 1988 University of California-San Diego; PHD 1994 University of California-San Diego

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Hayward, Erin Elizabeth, Clinical Assistant Professor, Family Medicine, 2019 (2019); BA 2004 Kenyon College,Gambier,OH; MD 2015 JohnsHopkins Univ, BaltimoreMD

Hazeltine, Richard Eliot, Professor, Psychological and Brain Sciences, 2003 (2015); BA 1990 Harvard; PHD 1997 University of California-Los Angeles

Hazelton, Lisa M., Adjunct Assistant Professor, Internal Medicine, 2000 (2000); MD 1987 Louisville Medical

Hazen, Timothy James, Adjunct Assistant Professor, Psych Quant Foundations, 2018 (2018); BA 1991 Yale University; MFA 1996 University of Iowa; MA 2005 University of Iowa; PHD 2009 University of Iowa

Hazlett, Brian T., Adjunct Instructor, University College Courses, 2023 (2023); BS 1978 Houghton College; MS 1981 Michigan State University; PHD 1988 University of Michigan

He, Bin, Associate Professor, Biology, 2017 (2025); MS 2008 University of Chicago; PHD 2012 University of Chicago

He, Zhexiang, Clinical Assistant Professor, Internal Medicine, (2025); BS 2007 University of Henan Agricult.; BS 2011 University of North Texas; DO 2022 Arkansas College of Osteop.

Healy, Anne Grady, Instructor, Family Medicine, 2023 (2023); BS 2010 Univ of South Dakota; MD 2015 Univ of S Dakota Sch of Med

Hebl, Lisa Marie, Adjunct Instructor, Preventive Community Dentistry, 1999 (1999); BS 1982 University of Iowa

Heckel, Philip H., Emeritus Professor, Earth and Environmental Sciences, 1971 (1978); BA 1960 Amherst; PHD 1966 RICE

Hecker, Emily, Adjunct Instructor, Journalism Mass Communication, 2025 (2025); BA 2015 Drake University; MA 2021 The University of Iowa

Heckner, Elke, Associate Professor, Languages, Literatures, Linguistics, and Cultures/University College Courses, 2013 (2023); MA 1992 Johns Hopkins; PHD 2000 Johns Hopkins

Heddens, Heather B., Adjunct Associate Professor, Dentistry Administration, 1987 (2016); DDS 1980 University of Iowa

Hedding, Kylah, Assistant Professor, Journalism Mass Communication, 2016 (2016); BA 2001 University of Pennsylvania; MA 2011 University of Denver; PHD 2016 University of North Carolina at Chapel Hill

Heeren, Amanda Christie, Adjunct Instructor, Social Work, 2018 (2018); BA 2007 University of Iowa; MSW 2010 University of Northern Iowa

Heeren, Tessa, Adjunct Instructor, Social Work, (2019); BA 2013 Iowa State University; MSW 2016 University of Iowa

Hefti, Marco Matthias, Associate Professor, Pathology, 2017 (2025); MD 2008 Mount Sinai School of Medicine

Hegarty, Kay Louise, Professor, Accounting, 2017 (2024); BBA 1980 University of Iowa

Hegde, Savita V., Instructor, Family Medicine, 2008 (2024); MD 1995 Karnatak , INDIA

Hegeman, Mary-Ann V., Adjunct Instructor, Teaching and Learning, (2023); BA 1980 Dordt College

Hegeman, Rebecca Lea, Emeritus Professor, Internal Medicine, 1993 (2017); BSN 1977 University of Iowa; MD 1986 University of Iowa

Hegland, Adam, Adjunct Instructor, Accounting, 2023 (2023); BBA 2022 University of Iowa; MAC 2023 University of Iowa

Hegmann, Theresa Elaine, Emeritus Professor, Physician Assistant, 2001 (2012); BS 1987 University of Iowa; BS 1991 University of Iowa; MPAS 1999 University of Nebraska-Lincoln

Hegouet, Courtney Marlene, Adjunct Lecturer, Radiology, 2023 (2023); BA 2006 University of Iowa; CER 2006 University of Iowa

Heiar, Kurt Francis, Clinical Associate Professor, Management and Entrepreneurship, 2013 (2020); BS 1983 University of Iowa

Heidel, Richard M., Professor, Music, 2008 (2015); BME 1986 Texas Tech; MM 1989 Texas Tech; EDD 1999 University of Illinois at Urbana Champaign

Heidger, Paul M., Emeritus Professor, Anatomy Cell Biology, 1974 (1979); BA 1963 Northern Colorado; PHD 1967 Tulane

Heiken, Lisa Christine, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHAR 2011 St. Louis college of Pharmacy

Heikens, Ellen Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2016 Drake University

Heimer, Karen, Professor, Gender, Women's and Sexuality Studies/Law-Faculty/Sociology and Criminology, 1991 (2006); BA 1981 Florida Atlantic; MA 1984 University of Wisconsin-Madison; PHD 1989 University of Wisconsin-Madison

Hein, Alicia Mariel, Adjunct Instructor, University College Courses, 2023 (2023); BA 2020 University of Iowa; MS 2022 Florida International Universi

Hein, Herman A., Emeritus Professor, Epidemiology/ Pediatrics, 1973 (1981); BA 1959 Wartburg; MD 1963 University of Iowa

Heine, David, Adjunct Assistant Professor, Family Medicine, 2017 (2017); BA 1991 Luther College, Decorah, IA; MD 1995 Mayo Med School, MN

Heineman, Elizabeth, Professor, Gender, Women's and Sexuality Studies/History/International Programs, 1999 (2013); BA 1985 Oberlin; MA 1988 University of North Carolina at Chapel Hill; PHD 1993 University of North Carolina at Chapel Hill

Heinemann, John M., Adjunct Associate Professor, Health Management Policy, 2018 (2022); BS 2007 University of South Dakota; MHA 2012 University of Iowa; MPH 2012 University of Iowa

Heintz, Brett, Adjunct Professor, Pharmacy Practice and Science, 2012 (2020); BS 2001 San Diego State; PHAR 2005 University of California-San Francisco

Heintz, Shannon Joy, Adjunct Associate Professor, Pharmacy Practice and Science, 2012 (2017); PHAR 2007 University of Iowa

Heinz, Michelle Lynn, Adjunct Instructor, Social Work, 2019 (2019); BA 2007 University of Iowa; MSW 2018 University of Iowa

Heiser, Scott Alan, Adjunct Instructor, Business Analytics, (2024); BA 1990 University of Iowa; BBA 1990 University of Iowa; MBA 2004 University of St. Thomas

Heistad, Donald, Professor, Internal Medicine, 1970 (1976); BS 1959 University of Illinois at Chicago; MD 1963 University of Illinois at Chicago

Heithoff, Brad Eugene, Instructor, Family Medicine, (2024); BS 1997 University of Iowa; MD 2002 University of Iowa

Heitzman, Kendall, Associate Professor, Asian Slavic Languages Literature/Languages, Literatures, Linguistics, and Cultures, 2012 (2019); MA 1998 Johns Hopkins; MA 2002 Dartmouth; PHD 2012 Yale

Heitzman, Yuri K., Adjunct Instructor, Asian Slavic Languages Literature, 2024 (2024); BS 1995 Keio University

Helderbrand, Payton Alizabeth, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2021 University of Iowa

Hellstein, John W., Professor, Oral Path,RadiologyMedicine, 2002 (2002); BA 1977 Missouri-Kansas City; DDS 1991 Missouri-Kansas City; MS 1991 University of Iowa

Helms, Charles M., Emeritus Professor, Health Management Policy/Internal Medicine, 1976 (1991); BA 1964 Cornell; PHD 1969 Rochester; MD 1971 Rochester

Helms, Lelia Biggs, Emeritus Professor, Educ Policy Leadership Studies, 1979 (1993); BA 1964 Sarah Lawrence; MA 1966 Tufts; PHD 1968 Tufts; JD 1984 University of Iowa

Hemann, Lynda Lorraine, Adjunct Assistant Professor, Internal Medicine, 2009 (2009); MD 1998 University of Iowa

Hemesath, Karla, Clinical Professor, Family Medicine/ Psychiatry, 2016 (2024); BS 1988 Viterbo College, LaCrosseWI; MS 1993 Kansas State University, KS; PHD 1996 Kansas State University, KS

Hemley, Robin, Emeritus Professor, English, 2004 (2004); BA 1980 Bloomingtron, IN; MFA 1982 Iowa

Hemming, Alan William, Clinical Professor, Surgery, (2019); MD 1987 University of British Columbia

Hemming-Meyer, Sarah Ann, Adjunct Assistant Professor, Emergency Medicine, 2017 (2017); BSN 2005 Coe College; MD 2013 Des Moines University

Hemmingson-Van Beek, Marta Jane, Clinical Professor, Dermatology, 2003 (2017); BA 1993 Gustavus Adolphus, St. Peter; MD 1997 University of Iowa; MPH 2003 University of Iowa

Hemsley, Ryan Michael, Adjunct Assistant Professor, Pediatric Dentistry, (2023); BS 2015 Univ of Nebraska; DDS 2021 University of Iowa; CER 2023 University of Iowa - Ped. Dent

Henderson, Stephanie Leeson, Adjunct Assistant Professor, Internal Medicine, 2020 (2020); MD 2009 University of Iowa

Henderson, Travis Eugene, Adjunct Instructor, Teaching and Learning, (2023); BA 2011 University of Iowa; MA 2014 University of Iowa

Hendricks, Tina, Clinical Assistant Professor, Ophthalmology Visual Science, (2024); MD 2020 Mayo Clinic Alix School of Med

Hendrickson, Jo M., Emeritus Professor, Teaching and Learning, 1989 (1996); BA 1969 University of Wisconsin-Madison; MA 1971 University of Wisconsin-Madison; PHD 1977 George Peabody

Hendrickson, Kristi Irene, Associate Professor, Center for Soc Sci Innovation/Communication Sciences and Disorders, 2016 (2025); BA 2007 Univ. of California, Davis; PHD 2016 San Diego State/UC San Diego

Hendrix, Stephen Douglas, Emeritus Professor, Biology, 1975 (1994); BS 1969 Florida State; PHD 1975 University of California-Berkeley

Henkin, Alan B., Emeritus Professor, Educ Policy Leadership Studies, 1975 (1985); BS 1962 Alabama; MA 1963 Alabama; PHD 1967 Alabama; PHD 1972 University of Wisconsin-Madison

Henning, Grant, Assistant Professor, Urology, 2025 (2025); MD 2018 University of Iowa

Henning, Rachel Elizabeth, Instructor, Pediatrics, 2025 (2025); MD 2019 Medical College of Wisconsin

Hensley, David Keith, Clinical Professor, Interdisciplinary Programs/Management and Entrepreneurship, 2000 (2006); BS 1986 University of Iowa; MBA 1992 Missouri-Kansas City

Henson, Anne Kathleen, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MD 2016 Univ. of Illinois

Hepfer, Katie Lynn, Adjunct Associate Professor, Nursing, (2023); BA 2009 Univ of Iowa; BSN 2009 Univ of Iowa; DNP 2016 University of Iowa

Herbst, Martha Oelschlaeger, Clinical Assistant Professor, Anesthesia/Pediatrics, (2019); MD 2012 University of Iowa

Herchenbach, Brooke, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2020 University of Nebraska

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Herman, Ellen, Emeritus Professor, Teaching and Learning, 2000 (2006); BS 1972 Northern Illinois; MS 1976 Western Illinois; PHD 1990 University of Iowa

Herman, Jay Alan, Adjunct Instructor, University College Courses, 2004 (2013); BBA 1989 University of Iowa

Herman, Ronald Alton, Emeritus Professor, Pharmacy Practice and Science, 1990 (2010); BSPH 1976 University of Iowa; MS 1978 University of Iowa; PHD 1992 University of Iowa

Herman, Ted, Emeritus Professor, Computer Science/Internal Medicine, 1991 (2008); BS 1975 University of Nebraska-Lincoln; PHD 1991 The University of Texas at Austin

Hermanson, John Paul, Adjunct Assistant Professor, Orthodontics, (2025); DDS 1998 Univiersity of Iowa

Hernandez, Maria Marcela, Clinical Professor, Family Dentistry, 2003 (2021); DDS 1988 Javeriana; MS 2001 University of Iowa

Hernandez Fernandez, Viridiana, Assistant Professor, History, (2022); PHD 2021 Univ of California - Davis

Hernando Llorens, Maria Belen, Assistant Professor, Teaching and Learning, 2022 (2022); LIC 2003 Universidad de Santiago de Com; MA 2005 Universidad Antonio de Nebrija; PHD 2019 University of Wisconsin-Madiso

Herr, Cheryl T., Emeritus Professor, English, 1985 (1994); BA 1971 Duke; MA 1974 University of North Carolina at Chapel Hill; PHD 1978 University of North Carolina at Chapel Hill

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Herrera-Enriquez, Karela Berenisse, Clinical Assistant Professor, Internal Medicine, (2025); MD 2014 UCSM Catholic University; MD 2024 UCSM Catholic University

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Herring, Morgan Sayler, Clinical Associate Professor, Pharmacy Practice and Science, 2012 (2019); PHARMD 2008 Kansas

Herrmann, Jacob, Assistant Professor, Biomedical Engineering, (2022); BS 2012 Boston University; MS 2014 Boston University; PHD 2018 University of Iowa

Herrmann, Megan Lynn, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2014 University of Iowa

Hertz, Alexandria, Clinical Assistant Professor, Urology, 2025 (2025); MD 2015 Univ of Texas Health Science C

Herwaldt, Loreen A., Professor, Epidemiology/Internal Medicine, 1987 (2002); BA 1973 Grinnell; MD 1977 University of Wisconsin-Madison

Herz, Katherine T., Adjunct Instructor, Interdisciplinary Programs, 2018 (2018); MA 1994 University of Kansas; MPH 2003 George Washington University

Hesler, Sean Douglas, Adjunct Instructor, Management and Entrepreneurship, 2014 (2014); AA 1991 Southeastern Community; BS 1993 Western Illinois; MS 1996 Central Missouri State; MBA 2017 The University of Iowa

Hess, Derek T., Adjunct Professor, Psychiatry, 2023 (2023); BA 2004 State University of New York; JD 2008 Golden Gate University; PHD 2011 Palo Alto University

Hethcote, Herbert W., Emeritus Professor, Mathematics, 1969 (1979); BS 1964 Colorado; MA 1965 University of Michigan-Ann Arbor; PHD 1968 University of Michigan-Ann Arbor

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Hichwa, Richard Daniel, Emeritus Professor, Radiology, 1988 (2003); BS 1975 Notre Dame; MS 1977 University of Wisconsin-Madison; PHD 1981 University of Wisconsin-Madison

Hickey, Ashley, Adjunct Assistant Professor, Pharmacy Practice and Science, 2022 (2022); PHARMD 2017 University of Iowa

Hicks, Marlow B., Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); MS 1980 Georgia Institute of Tech

Hicks, Tara Lynn, Adjunct Assistant Professor, Biology, 2024 (2024); BS 2018 Upper Iowa University, Fayette; PHD 2024 The University of Iowa

Hiew, Tze Ning, Assistant Professor, Pharmaceutical Sciences and Experimental Therapeutics, (2023); BSPH 2012 National Univ of Singapore; PHD 2018 National Univ of Singapore

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Hildreth, Katelin Michelle, Assistant Professor, Nursing, 2023 (2024); BSN 2014 University of Iowa; DNP 2020 Creighton University

Hilgerson, Alan Dean, Adjunct Associate Professor, Internal Medicine, 2007 (2016); BA 1994 University of Iowa; DO 1998 Osteopathic Med DM, IA

Hilker, Charlotte May, Adjunct Assistant Professor, Communication Sciences and Disorders, (2024); BA 2020 Butler University; MA 2023 University of Iowa

Hill, Emily Dubord, Adjunct Instructor, University College Courses, (2019); BA 2008 University of North Dakota; MA 2011 University of North Dakota

Hill, Mary Kay, Clinical Assistant Professor, Dental Clinic Administration/Oral Path,RadiologyMedicine, 2012 (2012); DDS 2011 University of Iowa

Hill, Matthew E., Professor, Anthropology, 2007 (2024); BA 1990 Boston; MA 1994 Kansas; PHD 2007 University of Arizona

Hillis, Stephen Lawrence, Research Professor, Biostatistics/ Radiology, 1995 (2010); BA 1972 University of Iowa; MFA 1978 University of Iowa; MS 1982 University of Iowa; PHD 1987 University of Iowa

Himmelreich, Lynne D., Emeritus Associate Professor, Obstetrics Gynecology, 2007 (2012); MPH 1995 Boston

Hindman, Bradley J., Emeritus Professor, Anesthesia, 1988 (2002); BA 1978 Oregon; MD 1982 Oregon Health Sciences

Hinds, Daniel Martin, Clinical Assistant Professor, Pediatrics, (2022); BS 2011 Indiana University; MS 2012 Purdue University; MD 2016 Indiana University

Hines, Jeffrey Thomas, Adjunct Instructor, Aerospace Studies, 2022 (2022);

Hines, N. William, Emeritus Professor, Law-Faculty, 1962 (1967); AB 1958 Baker; LLB 1961 Kansas

Hingstman, David, Emeritus Associate Professor, Communication Studies, 1995 (2002); BA 1975 Princeton; JD 1978 Harvard; PHD 1990 Northwestern Univeristy

Hinshaw, Kate, Assistant Professor, Cinematic Arts/College of Liberal Arts Sciences, 2025 (2025); MFA 2020 Arts

Hinzman, Michelle, Adjunct Instructor, Psych Quant Foundations, 2021 (2024); MA 2009 University of Northern Iowa; PHD 2019 University of Iowa

Hippee, Camilla Elisabeth, Instructor, Microbiology and Immunology, (2024); BA 2017 Vassar College; PHD 2024 University of Iowa

Hitchcock, Shannon Elizabeth, Adjunct Instructor, Physical Therapy Rehab Science, 2023 (2023); BS 2016 The University of Iowa; DPT 2019 The University of Iowa

Hitchon, Patrick, Professor, Neurosurgery, 1980 (1989); BS 1969 American University of Beirut; MD 1974 American University of Beirut

Hitlin, Steven, Professor, Sociology and Criminology, 2005 (2016); BA 1996 William and Mary; MA 1999 University of Wisconsin-Madison; PHD 2003 University of Wisconsin-Madison

Ho, Beng Choon, Professor, Psychiatry, 1999 (2014); MD 1989 Singapore

Ho, Theresa Deland, Instructor, Microbiology and Immunology, 2017 (2022); BS 1995 U of Notre Dame; MS 1997 U of Ill-Urbana; PHD 2001 U of Ill-Urbana

Hoadley, Keri, Adjunct Associate Professor, Physics Astronomy, 2021 (2024); BS 2011 Florida Institute of Technolog; MS 2014 University of Colorado - Bould; PHD 2017 University of Colorado - Bould

Hoballah, Jamal Jawad, Emeritus Professor, Surgery, 1991 (2002); BS 1976 Amer Univ of Beirut-Lebanon; MD 1981 Amer Univ of Beirut-Lebanon

Hobbs, Ryan Alan, Adjunct Professor, Pharmacy Practice and Science, 1997 (2023); BS 1990 University of Iowa; BSPH 1990 University of Iowa

Hobbs, Theresa L., Adjunct Instructor, Pharmacy Practice and Science, 2024 (2024); BSPH 1991 University of Iowa

Hobson, Amy Alicia, Clinical Assistant Professor, Pediatrics, (2024); DO 2018 Midwestern University

Hochstrasser, Julie B., Emeritus Professor, School of Art, Art History, and Design, 1998 (2017); BA 1976 Swarthmore; MA 1984 Berkeley; PHD 1995 Berkeley

Hodges, Jacob T., Clinical Assistant Professor, Internal Medicine, (2021); MD 2009 University of Kansas

Hodges, Matthew Charles, Adjunct Instructor, Business Analytics, 2024 (2024); BA 2009 University of Iowa; MS 2024 University of Iowa

Hodgson-Zingman, Denice, Professor, Biomedical Engineering/Internal Medicine, 2006 (2020); BSE 1989 Johns Hopkins; MSE 1992 Johns Hopkins; MD 1996 Johns Hopkins

Hoefing, Emily Faye, Adjunct Assistant Professor, Pharmacy Practice and Science, 2020 (2020); PHARMD 2012 Drake University

Hoehns, Barbara Jean, Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2016); PHARMD 1995 University of Iowa

Hoehns, James Dewey, Clinical Professor, Pharmacy Practice and Science, 1995 (2024); BSPH 1992 University of Iowa; PHARMD 1994 University of Iowa

Hoehns, Thomas Brent, Adjunct Instructor, Family Medicine, 2019 (2019); BS 1988 Iowa State University; MD 1992 University of Iowa College of Medicine

Hoenicke-Moore, Michaela, Emeritus Associate Professor, History, 2007 (2011); MA 1989 University of North Carolina at

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Hoenig, Kelly Christine, Adjunct Associate Professor, Pharmacy Practice and Science, 2005 (2014); PHARMD 2003 University of Iowa

Hoffman, Amanda Lee, Clinical Assistant Professor, Internal Medicine, (2019); BS 2012 University of Northern Iowa; MD 2016 University of Pittsburgh School of Medicine

Hoffman, Eric Alfred, Professor, Biomedical Engineering/ Internal Medicine/Radiology, 1992 (1996); BA 1974 Antioch; PHD 1981 The University of Minnesota-Twin Cities

Hoffman, Ernst F., Adjunct Assistant Professor, Emergency Medicine, 2022 (2023); BS 1991 University of Iowa; DO 1995 Des Moines University

Hoffman, Henry T., Professor, Otolaryngology-Head Neck Surgery/Radiation Oncology, 1990 (2000); BA 1976 South-Tennessee; MD 1980 University of California-San Diego

Hoffman, Lesa, Professor, Psych Quant Foundations, (2019); BA 1999 University of Nebraska-Lincoln; MA 2000 University of Kansas; PHD 2003 University of Kansas

Hoffman, Matthew Richard, Assistant Professor, Communication Sciences and Disorders/Otolaryngology-Head Neck Surgery/Pediatrics, (2022); BS 2009 University of Wisconsin; PHD 2013 University of Wisconsin; MD 2015 University of Wisconsin

Hoffman, Monica A., Adjunct Assistant Professor, Internal Medicine, (2020); MD 2006 University of Minnesota Med School

Hoffman, Richard Michael, Emeritus Professor, Internal Medicine, 2015 (2015); MD 1984 Johns Hopkins

Hoffman, Valerie Forman, Adjunct Assistant Professor, Epidemiology, 2004 (2004); BA 1996 Lehigh; MPH 1999 Yale; PHD 2002 John Hopkins

Hoffman-Smith, Lianne, Adjunct Assistant Professor, Creative Writing, 2023 (2023); BA 2019 Mount Holyoke College; MFA 2023 University of Iowa

Hoffmann, Darren Samuel, Associate Professor, Anatomy Cell Biology/Oral Path,RadiologyMedicine, 2006 (2022); BA 2000 Concordia; PHD 2006 University of Iowa

Hoffmann, Jeffrey J., Adjunct Assistant Professor, Family Medicine, 1994 (2002); BS 1976 Loras; DO 1984 Osteopathic Medicine-Des Moine

Hofmeyer, Brooke Anne Steed, Adjunct Assistant Professor, Pharmacy Practice and Science, 2014 (2017); PHARMD 2014 University of Iowa

Hofmeyer, Sarah Lois, Assistant Professor, Center for Soc Sci Innovation/School of Planning and Public Affairs, (2024); MUP 2020 University of Kansas; PHD 2024 University of Kansas

Hofstra, Jorie, Assistant Professor, Sociology and Criminology, (2025); PHD 2020 Rutgers

Hogan, Michael Joseph, Emeritus Professor, History, 2004 (2004); BA 1965 Northern Iowa; MA 1967 University of Iowa; PHD 1974 University of Iowa

Hoganson, Deana D., Adjunct Assistant Professor, Internal Medicine, 2012 (2012); MD 2004 University of Iowa

Hogden, Christopher Terrence, Assistant Professor, Endodontics, (2022); BS 2013 Purdue University; DDS 2018 University of Iowa

Hogg, Barbara Jean, Adjunct Instructor, Statistics Actuarial Science, 2024 (2024); MS 1984 Northwestern University

Hogg, Isabel Frances, Adjunct Instructor, University College Courses, 2023 (2023); BS 2023 University of Iowa

Hogg, Robert Mason, Adjunct Instructor, Law-Faculty, 2024 (2024); BA 1988 The University of Iowa; MA 1991 University of Minnesota-Twin; JD 1995 University of Minnesota-Twin

Hogrefe, Christopher Paul, Clinical Professor, Emergency Medicine, 2016 (2023); BS 2004 Creighton; MD 2008 University of Iowa

Hogue, Matthew H., Clinical Associate Professor, Orthopaedics and Rehabilitation, (2025); BS 2007 Trinity University; MD 2012 University of Texas @ Houston

Hohl, Raymond J., Emeritus Professor, Internal Medicine, 1991 (2000); BS 1978 University of Illinois at Urbana Champaign; MD 1984 Rush

Holbrook, Anna Elizabeth, Adjunct Instructor, University College Courses, 2018 (2018); BS 2013 UW-La Crosse; MS 2016 Kansas State University

Holland, Kaylah, Adjunct Instructor, Teaching and Learning, (2023); MA 2016 University of Memphis; DED 2019 University of Memphis

Hollier, Carol, Adjunct Instructor, University College Courses, 2025 (2025); BA 1991 Reed College; MLIS 2008 Kent State University

Hollingworth, Andrew R., Professor, Psychological and Brain Sciences, 2002 (2011); BA 1988 University of Illinois at Chicago; MED 1992 Harvard; PHD 2000 Michigan State University

Hollingworth, Liz, Professor, Educ Policy Leadership Studies, 2006 (2017); BA 1992 University of California-Los Angeles; MS 1994 Northwestern Univeristy; PHD 2005 University of Iowa

Hollmer, Cara E., Adjunct Assistant Professor, Emergency Medicine, 2022 (2022); DO 2010 Des Moines University

Holloway, Julie Ann, Emeritus Professor, Prosthodontics, 2011 (2011); DDS 1990 The Ohio State University; MS 1993 The Ohio State University

Holm, Adrian Nathan, Clinical Associate Professor, Internal Medicine, 2010 (2016); BA 1997 Luther; MD 2004 Des Moines

Holm, Eric J., Adjunct Assistant Professor, Internal Medicine, 2007 (2007); BA 1999 Central College; MD 2003 University of Iowa

Holm, Lydia Jean, Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 1998 University of Iowa

Holman, Carol Joy, Clinical Professor, Pathology, 2011 (2018); BS 1990 Valparaiso; MD 1999 University of Illinois at Urbana Champaign; PHD 1999 University of Illinois at Urbana Champaign

Holmes, David Charles, Emeritus Professor, Family Dentistry, 2004 (2010); BS 1973 University of Iowa; DDS 1978 University of Iowa; MS 1991 University of Iowa

Holmes, James H., Assistant Professor, Biomedical Engineering/Electrical-Computer Engineering/Radiology, 2021 (2021); PHD 2006 University of Wisconsin

Holmes, Jeffrey Scott, Adjunct Instructor, University College Courses, 2014 (2014); BA 1989 Simpson

Holstein, Ellen Susanne, Adjunct Instructor, Religion, 2011 (2011); BA 1982 Concordia, MN; MDIV 1987 Wartburg Theological; MA 1998 University of Iowa

Holstein, Jay A., Emeritus Professor, Religion, 1970 (1982); BA 1960 Temple; MA 1966 Hebrew Union; PHD 1970 Hebrew Union

Holt, Joshua, Clinical Assistant Professor, Orthopaedics and Rehabilitation/Pediatrics, (2018); BS 2007 University of Utah; MD 2012 University of North Carolina

Holte, James Burke, Adjunct Instructor, Physical Therapy Rehab Science, 2015 (2023); BS 1983 IOWA STATE

Holte, Lenore Ann, Emeritus Professor, Communication Sciences and Disorders, 1998 (2007); BS 1977 The University of Minnesota-Twin Cities; MA 1979 The University of Minnesota-Twin Cities; PHD 1989 Syracuse

Holton, Nathan Eugene, Instructor, Anatomy Cell Biology, 2010 (2022); MA 2002 Northern Illinois; PHD 2009 University of Iowa

Holton, Timothy Joseph, Instructor, Oral Maxillofacial Surgery, 2017 (2024); BSC 1981 Iowa State University; DDS 1986 University of Iowa; MS 1992 University of Iowa

Holubar, Mary Jean Pisarik, Instructor, Teaching and Learning, (2025); BA 1988 University of Iowa; MA 1997 University of Iowa

Homan, Elizabeth M., Adjunct Associate Professor, Psychiatry, (2023); MD 2010 University of Illinois

Hommeida, Salim, Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 2010 Univesity of Aleppo

Hong, Albert H., Adjunct Instructor, Preventive Community Dentistry, 2018 (2018); DMD 2004 A.T. Still Univ-Arizona

Hong, Dae S., Associate Professor, Teaching and Learning, 2013 (2020); MS 2005 Teachers College; EDD 2007 Teachers College

Hong, Liu, Professor, Biomedical Engineering/Dental Research/Prosthodontics, 2009 (2019); MD 1990 Shanghai Second Medical; MS 1993 Shanghai Second Medical; PHD 2000 Koyota

Hong, Sandy D., Clinical Professor, Pediatrics, 2007 (2019); MD 2001 University of California-Los Angeles

Honings, Joseph Peter, Adjunct Assistant Professor, School of Earth, Environment, and Sustainability, 2025 (2025); PHD 2022 Louisiana State University

Hood, Albert B., Emeritus Professor, Counselor Education, 1965 (1965); BA 1951 New Hampshire; EDD 1957 Cornell

Hoogeveen, Kaitlin Joy, Adjunct Assistant Professor, Pediatric Dentistry, 2017 (2017); BA 2011 Northwestern College; DDS 2015 U of Iowa College of Dentistry

Hooks, Adam G., Associate Professor, English/ Interdisciplinary Programs, 2009 (2016); MA 2003 Georgetown; MPHIL 2006 Columbia, New York City; PHD 2009 Columbia, New York City

Hooley, Isaac W., Adjunct Instructor, Psych Quant Foundations, 2021 (2023); BSW 2007 Goshen College, Indiana; PHD 2020 Univ. of Iowa

Hoover, Hiram D., Emeritus Professor, Psych Quant Foundations, 1967 (1980); BS 1962 Missouri; MA 1964 University of Iowa; PHD 1969 University of Iowa

Hope, Geoffrey R., Emeritus Professor, French Italian, 1978 (2003); BA 1969 Johns Hopkins; MED 1971 Temple; MA 1975 Pennsylvania; PHD 1979 Pennsylvania

Hoper, Sarah Ann, Adjunct Assistant Professor, Emergency Medicine, 2017 (2017); BS 1998 University of St Thomas; JD 2008 University of Iowa; MD 2009 University of Iowa

Hopf, Crystal Lavone, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2003 University of Nebraska Medical

Hopkins, Mark Loren, Clinical Assistant Professor, Educ Policy Leadership Studies, (2022); BA 1993 Buena Vista Univ; MSED 2000 Peru State College; PHD 2019 University of Iowa

Hopkins, Samatha, Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); DDS 2020 University of Iowa

Hopson, James R., Clinical Associate Professor, Internal Medicine, 2015 (2015); MD 1983 University of Iowa

Hoque, Md Naimul, Assistant Professor, Computer Science, (2025); MS 2020 Stony Brook University; PHD 2024 University of Maryland

Hora, Erin Lynn, Adjunct Instructor, Teaching and Learning, 2025 (2025); BS 2014 The University of Iowa

Horn, Kelly Rae, Clinical Assistant Professor, Obstetrics Gynecology, (2024); DNP 2022 Northern Kentucky University

Hornbuckle, Keri C., Professor, Civil-Environmental Engineering/Occupational Environmental Health, 1998 (2007); BA 1987 Grinnell; PHD 1996 The University of Minnesota-Twin Cities

Horner, Kathleen Elizabeth, Adjunct Assistant Professor, Pharmacy Practice and Science, 2005 (2007); BS 1999 Saint Louis; PHARMD 2004 University of Iowa

Hornick, Douglas B., Clinical Professor, Internal Medicine, 1988 (2002); BS 1978 St. Lawrence; MD 1982 THE UNIVERSITY OF MARYLAND-COLLEGE PARK

Horsfield, Michael Joseph, Adjunct Instructor, Physical Therapy Rehab Science, 2013 (2024); MPT 1993 University of Iowa; MBA 2001 University of Iowa

Horton, Douglas James, Adjunct Associate Professor, Family Dentistry, 1997 (2012); DDS 1976 University of Iowa

Horton, Sara Claire, Clinical Assistant Professor, Pediatrics, 2022 (2022); BS 2011 Mississippi State University; MD 2016 University of Mississippi

Horvath, Matthew Thomas, Adjunct Professor, Psychiatry, 2023 (2023); DO 1994 Des Moines University

Horwitz, Phillip Andrew, Clinical Professor, Internal Medicine, 2003 (2014); BA 1989 Colorado; MD 1995 Washington

Horwitz, Richard P., Emeritus Professor, American Studies, 1977 (1988); BA 1971 Pennsylvania; MA 1972 Pennsylvania; PHD 1975 Pennsylvania

Hoshi, Hisakazu, Clinical Professor, Surgery, 2007 (2017); MD 1991 Shiga Univ. of Med Science

Hoskins, Rachel Jane, Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2015); PHARMD 2013 University of Iowa

Hosmanek, Andrew John, Professor, Management and Entrepreneurship, 2006 (2025); BBA 2001 University of Iowa; JD 2005 University of Iowa; MBA 2005 University of Iowa; PHD 2015 University of Iowa

Hospodarsky, Amy, Adjunct Instructor, Journalism Mass Communication, 2024 (2024); BA 2008 University of Northern Iowa

Hosseini, Seyed Mojtaba, Assistant Professor, Business Analytics, 2022 (2022); MS 2016 University of Istanbul; PHD 2022 University of California Irvin

Hostert, Matheus, Assistant Professor, Physics Astronomy, 2024 (2024); BSC 2015 Univ Federal de Santa Catarina; PHD 2019 Durham University

Hoth, Karin, Professor, Psychiatry, 2013 (2024); MA 2001 University of Iowa; PHD 2005 University of Iowa

Hottel, Wesley, Adjunct Assistant Professor, Epidemiology, 2024 (2024); BS 2011 University of Iowa; MS 2016 University of Iowa; PHD 2019 University of Iowa

Houge, Todd, Professor, Finance, 1998 (2018); BA 1992 Wartburg; MBA 1994 University of Iowa; PHD 1998 University of Iowa

Hougen, Helen Yang, Clinical Assistant Professor, Urology, (2023); MD 2016 University of Virginia

Hourcade, Juan Pablo, Professor, Computer Science/ Nursing, 2006 (2022); BS 1996 American University; MS 2000 THE UNIVERSITY OF MARYLAND-COLLEGE PARK; PHD 2003 THE UNIVERSITY OF MARYLAND-COLLEGE PARK

House, Hans Robert, Clinical Professor, Emergency Medicine, 2002 (2012); MD 1997 Southern California

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Houselog, Grant, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); BS 2010 Loras College; PHARMD 2016 University of Iowa

Houser, Kara Marie, Clinical Assistant Professor, Social Work, 2012 (2024); BSW 2001 University of Iowa; MSW 2004 St. Ambrose

Houston, Douglas W., Professor, Biology, 2004 (2016); BS 1992 Florida Inst. of Tech; PHD 1999 Miami School of Med

Houston, Stephanie Jane, Clinical Assistant Professor, Pediatrics, (2021); DO 2012 Des Moines University College of Osteopathic Medic

Houtman, Jon C., Professor, Internal Medicine/Microbiology and Immunology, 2005 (2022); BA 1994 The University of Minnesota-Twin Cities; PHD 1999 University of Wisconsin-Madison

Hovda, Craig Andrew, Adjunct Assistant Professor, Emergency Medicine, 2017 (2017); BA 1978 Augustana College - Sioux Fall; MD 1982 University of Iowa

Hovenkamp, Herbert, Emeritus Professor, Law-Faculty, 1986 (1986); MA 1971 The University of Texas at Austin; PHD 1976 The University of Texas at Austin; JD 1978 The University of Texas at Austin

Howard, Ashley M., Assistant Professor, African-American Studies/History, (2019); BA 2003 DePaul University; MA 2006 University of Nebraska-Omaha; PHD 2012 U of Illinois-Urbana-Champaign

Howard, Benjamin Wallace, Adjunct Assistant Professor, Family Medicine, 2023 (2023); BS 2010 Iowa State Univ,Iowa; DO 2014 Des Moines Univ, Iowa

Howard, Keith, Associate Professor, Health Sport and Human Physiology, (2025); BS 1995 Colorado State University; MA 2001 University of North Carolina; PHD 2017 North Carolina State Univ

Howard, Lumea Marie, Adjunct Assistant Professor, Internal Medicine, 2020 (2020); DO 2015 Univ of Osteopathic Medicine

Howard, Matthew A., Professor, Neurology/Neurosurgery/ Otolaryngology-Head Neck Surgery, 1993 (2002); BS 1981 Tufts; MD 1985 Virginia

Howard, Michelle, Assistant Professor, Radiation Oncology, (2020); PHD 2017 Mayo Clinic Graduate School

Howdeshell, Seth, Clinical Assistant Professor, Psychiatry, (2024); MD 2019 Washington University

Howe, Brian, Adjunct Associate Professor, Orthodontics, 2014 (2022); DMD 2006 Tufts

Howe, James Robinson V., Professor, Surgery, 1996 (2005); AB 1982 Dartmouth; MD 1987 Vermont

Howe, Jonathan, Adjunct Assistant Professor, Emergency Medicine, 2022 (2022); DO 2012 Des Moines University

Howe, Michael, Adjunct Instructor, Law-Faculty, 2022 (2022); LLM 2007 New York University

Howe, Vera M., Clinical Associate Professor, Ophthalmology Visual Science, 2015 (2024); OD 1999 University of Illinois at Urbana Champaign

Howell, Nicholas Mark, Adjunct Assistant Professor, Pharmacy Practice and Science, 2007 (2007); PHARMD 2006 University of Iowa

Howes, Gregory Gershom, Professor, Physics Astronomy, 2008 (2022); BS 1994 CalTech; MS 1998 University of California-Los Angeles; PHD 2004 University of California-Los Angeles

Howing, Drew, Adjunct Instructor, University College Courses, 2025 (2025); BS 2014 South Dakota State University; MS 2021 Montana State University

Howland, Chelsea Renee, Assistant Professor, Nursing, 2024 (2024); BSN 2012 Southern IL U Edwardsville; MSN 2016 Southern IL U Edwardsville; PHD 2022 University of Missouri

Howren, Matthew Bryant, Associate Professor, Internal Medicine, 2009 (2023); BA 2003 South Alabama; MA 2007 University of Iowa; PHD 2009 University of Iowa

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Hrabe, Jennifer, Clinical Associate Professor, Surgery, (2022); MD 2008 University of Minnesota

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Hribar, Steven Paul, Professor, Accounting, 2006 (2012); PHD 2000 University of Iowa

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Hsieh, Pedro, Clinical Assistant Professor, Internal Medicine, (2023); MD 1992 Faculdade de Medicina da Unive

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Huang, Chou-Long, Professor, Internal Medicine, 2017 (2017); MD 1981 Taipei Medical Univ

Huang, Jian, Emeritus Professor, Statistics Actuarial Science, 1994 (2000); BS 1985 Wuhan University; MS 1987 Wuhan University; PHD 1994 Washington

Huang, Kevin, Clinical Assistant Professor, Surgery, (2021); MD 2014 Albert Einstein College of Medicine

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Huang, Yuan, Adjunct Assistant Professor, Biostatistics, 2017 (2017); PHD 2015 Pennsylvania State University

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Humphries, Raleigh Green, Adjunct Associate Professor, Urology, 2020 (2020); MD 1983 University of Virginia

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Hunter, William Curtis, Emeritus Professor, Finance, 2006 (2006); BS 1970 Hampton; MBA 1972 Northwestern Univeristy; PHD 1978 Northwestern Univeristy

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Huston, Craig Charles, Adjunct Assistant Professor, Emergency Medicine, 2017 (2017); BS 1993 University of Iowa; MD 1997 University of Iowa

Huston, Kelly, Adjunct Assistant Professor, Operative Dentistry, 2012 (2012); BS 2006 University of Iowa; DDS 2012 University of Iowa

Hutchinson-Reuss, Cory Bysshe, Adjunct Assistant Professor, English, 2023 (2023); MA 1999 University of Central Arkansas; PHD 2010 University of Iowa

Huwe, Cindy Lee, Adjunct Assistant Professor, Family Medicine, 2020 (2020); MD 1987 University of Minnesota

Huynh, Tony, Adjunct Assistant Professor, Pharmacy Practice and Science, 2013 (2017); PHARMD 2013 University of Iowa

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Hwang, Kai, Associate Professor, Psychiatry/Psychological and Brain Sciences, 2018 (2024); BSC 2004 National Chung-Cheng Universit; PHD 2012 Univedrsity of Pittsburgh

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Irinaka, Lynda J., Adjunct Instructor, Teaching and Learning, (2023); BA 1982 Arizona State; MED 2006 Graceland University

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Irish, Erin E., Associate Professor, Biology, 1990 (1999); BA 1980 Hiram; PHD 1984 Indiana University-Bloomington

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Irwin, Keeli Ann, Adjunct Instructor, Nursing, 2018 (2023); BSN 2000 Iowa; MSN 2004 Iowa

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Isbell, Anna Luella, Assistant Professor, School of Art, Art History, and Design, (2024); PHD 2020 University of Iowa

Ismael, Yousef Mohammad, Clinical Assistant Professor, Radiation Oncology, 2019 (2019); MD 2005 Al-Quds University

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Iverson, Erin Rachel, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHAR 2008 The University of Iowa

Iverson, Katie Cook, Adjunct Assistant Professor, Physician Assistant, 2009 (2015); MPAS 2004 University of Iowa

Iverson, William L., Clinical Professor, Internal Medicine, 2002 (2014); BA 1990 University of Iowa; MD 1995 University of Iowa

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Jackson, Amy Lynn, Adjunct Assistant Professor, Pharmacy Practice and Science, 2000 (2000); PHARMD 1999 Drake

Jackson, Donald F., Emeritus Associate Professor, Classics, 1967 (1973); BA 1962 Niagara; MA 1964 Indiana University-Bloomington; PHD 1967 Indiana University-Bloomington

Jackson, Jay Brooks, Professor, Pathology, 2017 (2017); MD 1982 Dartmouth Medical School

Jackson, Jessica Leigh, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2012 University of Iowa

Jackson, Robert A., Emeritus Associate Professor, Social Work, 1975 (2001); BA 1963 St. Ambrose; MA 1967 Aquina Inst of Theology; MSW 1974 University of Iowa

Jacob, Alexandrea Maria, Adjunct Assistant Professor, Family Medicine, 2020 (2020); BS 2011 Grand View Univ., Des Moines IA; DO 2016 Des Moines University

Jacob, Mathews, Adjunct Professor, Electrical-Computer Engineering, 2011 (2019); MS 1993 Ind Inst, Bangalore; PHD 2003 Swiss Fed Inst of Tech

Jacobi, Susan Marie, Adjunct Assistant Professor, Internal Medicine, 2008 (2008); BS 1982 Iowa State; MD 1986 University of Iowa

Jacobitz-Kizzier, Sarah Marie, Adjunct Instructor, Family Medicine, 2017 (2017); BS 2003 Univ of Nebraska-Lincoln,NE; MS 2007 Univ of WisconsinMadison; MD 2012 Univ of Nebraska COM, NE

Jacobs, Terry Alan, Adjunct Instructor, Law-Faculty, 2017 (2023); BBA 1979 University of Iowa; JD 1981 University of Iowa; MA 1981 University of Iowa

Jacobsen, Cheryl Denise, Adjunct Assistant Professor, Interdisciplinary Programs, 1998 (2000); BS 1984 Iowa State University

Jacobsen, Ryan B., Clinical Associate Professor, Pharmacy Practice and Science, 2005 (2018); BA 1998 Dana College; PHARMD 2002 Creighton

Jacobson, Annelise, Assistant Professor, Nursing, (2024); BSN 2015 University of Iowa; MSN 2022 University of Iowa

Jacobson, Richard Yngve, Adjunct Instructor, Nursing, 2017 (2023); BSN 1998 University of Iowa; MSN 2005 University of Texas; DNP 2014 Northeastern University

Jacobson, Wayne, Adjunct Assistant Professor, Educ Policy Leadership Studies, 2011 (2011); MA 1986 The University of Minnesota-Twin Cities; MS 1993 University of Wisconsin-Madison; PHD 1997 University of Wisconsin-Madison

Jaeger, Andrea Dawn, Adjunct Instructor, Law-Faculty, 2023 (2023); BA 2009 University of Northern Iowa; MS 2010 Iowa State University; JD 2013 Drake University

Jaffe, Gilad Ross, Adjunct Assistant Professor, Creative Writing, 2023 (2023); MFA 2023 The University of Iowa

Jaggi, Sandeep, Adjunct Instructor, Law-Faculty, 2024 (2024); MS 1988 Tulane University; PHD 1989 Tulane University; JD 1997 Santa Clara University

Jahansouz, Arian, Adjunct Assistant Professor, Emergency Medicine, 2024 (2024); MD 2020 University of Missouri

Jain, Aditi, Clinical Associate Professor, Operative Dentistry, 2016 (2022); BDS 2012 Ghandi Univ Health Science-IND; CER 2016 University of Iowa; MS 2016 University of Iowa

Jain, Subhash C., Emeritus Professor, Civil-Environmental Engineering, 1971 (1982); BS 1957 Agra-India; BE 1960 Roorkee - India; ME 1966 Roorkee-India; PHD 1971 University of Iowa

Jakaitis, Michelle, Adjunct Assistant Professor, Pharmacy Practice and Science, 2020 (2020); PHARMD 2020 University of Iowa

Jalal, Diana I., Professor, Internal Medicine, (2024); MD 1998 University of Jordan

James, Melinda Kay, Adjunct Instructor, Pharmacy Practice and Science, 2015 (2015); BSPH 1988 University of Iowa

James, Paul Arthur, Emeritus Professor, Family Medicine, 2001 (2005); BA 1980 University of North Carolina at Chapel Hill; MD 1984 University of North Carolina at Chapel Hill

James, Stephanie Scheffler, Clinical Associate Professor, Pediatrics, 2021 (2022); BS 2007 Rogers State University; MS 2009 Oklahoma State University; DO 2015 Oklahoma State University

Jamieson, Denise J., Professor, Administration/Obstetrics Gynecology, 2023 (2023); MPH 1991 University of North Carolina; MD 1992 Duke University

Jamil, Marium, Adjunct Assistant Professor, Neurology, 2025 (2025); MBBS 2015 Dow Medical College

Janechek, Jennifer Anne, Adjunct Instructor, Rhetoric, (2023); BA 2009 Palm Beach Atlantic University; MA 2012 University of South Florida; PHD 2017 University of Iowa

Janik, Christine, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2001 University of Iowa

Janouschek, Hildegard, Clinical Assistant Professor, Psychiatry, 2017 (2017); MD 2007 University of Regensburg

Jans, Shannon Marie Hammer, Instructor, Psychiatry, 2021 (2025); BA 2012 Iowa State University; MD 2017 University of Iowa

Janssen, Brandi, Clinical Professor, Occupational Environmental Health/Public Health Administration, 2014 (2025); BA 1998 Grinnell College; MA 2009 University of Iowa

Janz, Kathleen F., Emeritus Professor, Epidemiology/Health Sport and Human Physiology, 1982 (2004); BS 1978 University of Wisconsin-Stevens Point; MA 1982 Northern Colorado; EDD 1990 Northern Colorado

Japsen, Bruce R., Adjunct Instructor, Journalism Mass Communication, 2016 (2013); BA 1988 University of Iowa

Jarratt, Lindsay Ann, Adjunct Instructor, Sociology and Criminology, 2010 (2024); BS 2001 Bowling Green; MED 2004 Bowling Green; PHD 2023 University of Iowa

Jarvis, Kate Marguerite, Adjunct Assistant Professor, Psychiatry, 2023 (2023);

Jarvis, Samuel Paul Lee, Adjunct Instructor, Occupational Environmental Health, 2020 (2023); MS 2012 Westerm Illinois University

Jasper, Duane Donald, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1973 Loras College, Dubuque, IA; MD 1982 Univ of IA Coll of Med, IA

Jasper, Jill Marie, Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 1999 University of Iowa

Jawahar, Aravinth Prasanth, Clinical Assistant Professor, Pediatrics, 2025 (2025); MBBS 2014 Theni Govern Med College Hosp

Jawahar Hussaini, Syed Mubeen, Associate Professor, Chemical Biochemical Engineering/Civil-Environmental Engineering, 2014 (2021); ME 2004 Birla Institute of Tech Sci; PHD 2009 University of California-Riverside

Jay, Laurent Olivier, Professor, Mathematics, 1998 (2009); BSC 1989 Geneva-Switzerland; MS 1990 Geneva-Switzerland; PHD 1994 Geneva-Switzerland

Jaynes, Allison N., Associate Professor, Physics Astronomy/ University College Courses, 2017 (2022); BS 2006 Univ. No Carolina Greensboro; PHD 2013 Univ. of New Hampshire

Jedlicka, Charles Richard, Assistant Professor, Health Sport and Human Physiology, 2024 (2024); BA 2018 Winona State University; MA 2020 University of Minnesota: Twin

Jeglum, Sara Razia, Adjunct Assistant Professor, Pediatrics, 2023 (2023); BA 2013 University of Iowa; PSYD 2020 University of WIS-Madison

Jenigiri, Sreedevi, Instructor, Internal Medicine, 2015 (2025); MBBS 2004 Gandhi Medical College, Secund

Jenkins, Nathaniel David Moyer, Associate Professor, Health Sport and Human Physiology, 2020 (2024); PHD 2016 University of Nebraska-Lincoln

Jennett, Brian Paul, Adjunct Assistant Professor, Emergency Medicine, 2022 (2022); BS 2010 Iowa State University; MD 2014 University of Iowa

Jennings, Mary-Jo Anne, Adjunct Instructor, Teaching and Learning, 2018 (2023); BA 1988 Iowa Wesleyan College; MED 2004 Olivet Nazarene University

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Jensen, Anna Rose, Assistant Professor, Health Sport and Human Physiology/University College Courses, 2015 (2024); BA 1994 Central College; MA 2014 Ohio University

Jensen, Brittany D., Adjunct Assistant Professor, Emergency Medicine, (2018); BS 2008 North Carolina State University; MD 2013 University of North Carolina

Jensen, Chris S., Clinical Professor, Pathology, 1999 (2010); BS 1985 Iowa State; MD 1989 University of Iowa

Jensen, John N., Clinical Professor, Surgery, (2022); MD 1994 Wash U SOM

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Jensen, Nicholas Dean, Adjunct Assistant Professor, Physician Assistant, 2023 (2023); BSC 2016 Iowa State University; MPAS 2020 University of Iowa

Jensen, Paul Jonathan, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1989 Dana College, Blair, NE; PHARMD 1993 UNMC Coll of Pharmacy, NE; MD 1997 UNMC Col of Med,Omaha,NE

Jeon, Eun Kyung, Clinical Associate Professor, Communication Sciences and Disorders, (2025); MA 2007 University of Iowa; DAUD 2008 University of Iowa; PHD 2016 University of Iowa

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Jessop, Julie L. P., Adjunct Associate Professor, Chemical Biochemical Engineering, 2000 (2009); BS 1994 Michigan State University; PHD 1999 Michigan State University

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Jew, Jean Y., Emeritus Professor, Anatomy Cell Biology, 1973 (1984); BS 1969 Newcomb; MD 1973 Tulane

Jewell, Brianna, Adjunct Assistant Professor, Family Medicine, 2017 (2017); BS 2008 Iowa State Univ, Ames, IA; DO 2012 Des Moines Univ, IA

Jha, Kishlay, Assistant Professor, Electrical-Computer Engineering, (2022); MS 2018 North Dakota State University; PHD 2022 University of Virginia

Jia, Sharon, Clinical Assistant Professor, Internal Medicine, (2025); BA 2013 Washington University; MD 2018 Penn State College of Medicine

Jiang, Jiefeng, Associate Professor, Psychological and Brain Sciences, (2025); BE 2003 Zhejiang University; ME 2009 Chinese Academy of Sciences; PHD 2014 Duke University

Jiang, Jing, Assistant Professor, Pediatrics/Psychiatry, (2022); BS 2010 Capital Normal University; MS 2013 Beijing Normal University; PHD 2017 Humboldt University of Berlin

Jiang, Peng, Assistant Professor, Computer Science, (2019); BS 2011 Xidian University; MS 2014 Chinese Academy of Science; PHD 2019 Ohio State University

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Jochimsen, Peter R., Emeritus Professor, Surgery, 1974 (1983); BA 1961 Ripon; MD 1965 Marquette

Joens, Alicia Mae, Adjunct Instructor, University College Courses, 2008 (2014); BS 1999 Evansville; MA 2006 University of Iowa

Joens, Angela Marie, Adjunct Instructor, Journalism Mass Communication, 2023 (2023); BA 1987 University of Iowa; MPA 2008 Iowa State University

Jogerst, Gerald John, Emeritus Professor, Family Medicine, 1993 (2005); BA 1969 Loras; MD 1976 University of Iowa

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Johnson, Bradley W., Adjunct Assistant Professor, Family Medicine, 2017 (2017); BA 1997 Cornell College, Mt Vernon,IA; DO 2004 Des Moines Univ, Iowa

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Johnson, Dorothy, Professor, School of Art, Art History, and Design, 1987 (1997); BA 1972 Cincinnati; MA 1979 Cincinnati; PHD 1986 University of California-Berkeley

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Johnson, Erin, Professor, Management and Entrepreneurship, 2006 (2024); BBA 2000 University of Iowa; PHD 2006 University of Iowa

Johnson, Esmeralda Neomi Amy, Assistant Professor, Nursing, (2024); BSN 2014 Western Illinois University; MSN 2020 Walden University

Johnson, George F., Emeritus Professor, Pathology, 1976 (1988); BA 1963 Park; PHD 1969 Iowa State; MS 1976 Johns Hopkins

Johnson, Georgia Kay Tonn, Emeritus Professor, Periodontics, 1991 (1996); BS 1975 Luther; SCB 1975 University of Iowa; DDS 1981 University of Iowa; MS 1983 University of Iowa

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Johnson, Jarod William, Adjunct Assistant Professor, Preventive Community Dentistry, 2016 (2016); BS 2009 University of Iowa; DDS 2013 University of Iowa; CER 2015 UNLV (Pediatric Dentistry)

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Johnson, Jessica Lea, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHAR 2017 Southern Illinois University; PHARMD 2017 Southern Illinois University

Johnson, Joseph, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); DO 2019 Des Moines University

Johnson, Kathleen Marie, Adjunct Instructor, Teaching and Learning, 2019 (2023); BA 2009 University of Notre Dame; MAT 2011 Iowa

Johnson, Krista Marie, Clinical Professor, Internal Medicine, 2012 (2019); MD 1995 Washington SOM

Johnson, Lisa, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1996 Univ of Iowa, Iowa City, IA; MD 2001 Univ of IA CCOM, Iowa City

Johnson, Marion Rae Biron, Emeritus Professor, Nursing, 1973 (1999); BSN 1958 St. Teresa; MSN 1961 Case Western Reserve; PHD 1986 University of Iowa

Johnson, Melinda Jane, Clinical Professor, Internal Medicine, 2000 (2016); BS 1992 South Dakota; MD 1996 Brown-Dartmouth Medical

Johnson, Michael J., Adjunct Professor, Nursing, 2022 (2022); MSN 2012 Allen College; DNP 2021 Clarke University

Johnson, Misti, Adjunct Lecturer, Social Work, (2022); BA 1999 Northwestern College; MSW 2004 Rutgers State University

Johnson, Nicholas, Adjunct Instructor, Law-Faculty, 1981 (1993); BA 1956 The University of Texas at Austin; BSL 1958 The University of Texas at Austin; LHD 1971 Windham

Johnson, Norman L., Emeritus Professor, Mathematics, 1969 (1978); BA 1964 Portland State; MA 1966 Washington State; PHD 1968 Washington State

Johnson, Reed Andrew, Clinical Assistant Professor, Internal Medicine, (2024); MD 2020 University of Iowa

Johnson, Shella Ranae, Adjunct Assistant Professor, Pharmacy Practice and Science, 2004 (2004); PHARMD 2002 University of Iowa

Johnson, Susan Rae, Emeritus Professor, Epidemiology/ Obstetrics Gynecology, 1980 (1994); BA 1973 University of Iowa; MD 1976 University of Iowa; MS 1985 University of Iowa

Johnson, Tessa Jean, Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); BA 1998 University of Iowa; DDS 2004 University of Iowa

Johnson, Travis B., Adjunct Assistant Professor, Family Medicine, 2020 (2020); BA 2011 Brigham Young Univ.; MD 2016 Medical University of Lublin

Johnson, Truman Christopher, Adjunct Assistant Professor, Periodontics, 2012 (2012); DDS 1992 University of California-Los Angeles; MS 1996 University of Nebraska-Lincoln

Johnson, W. Bruce, Emeritus Professor, Accounting, 1988 (1993); BS 1970 Oregon; MS 1973 The Ohio State University; PHD 1975 The Ohio State University

Johnson, Wayne A., Emeritus Professor, Molecular Physiology Biophysics, 1989 (2002); BS 1980 Wyoming; PHD 1985 Washington

Johnson, William, Emeritus Professor, Microbiology and Immunology, 1970 (1980); BS 1963 Marietta; MS 1965 Miami; PHD 1968 Rutgers University-New Brunswick

Johnson, William T., Emeritus Professor, Endodontics, 1980 (1999); BA 1971 Drake; DDS 1975 University of Iowa; MS 1981 University of Iowa

Johnson Greiman, Julianne Marie, Adjunct Instructor, Teaching and Learning, (2023); BA 1979 Buena Vista University; MS 1999 University of Wisconsin

Johnston, Amanda Rose, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2018 University of Iowa

Johnston, Cole James, Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); BA 2018 University of Northern Iowa; DDS 2022 University of Iowa

Johnston, Maya Krista, Adjunct Assistant Professor, Internal Medicine, 2013 (2013); MD 1999 University of Iowa

Johnston, Miriam Rebecca, Adjunct Assistant Professor, Geographical and Sustainability Sciences, 2022 (2022); PHD 2021 Harvard

Johnston, Patrick Lee, Adjunct Instructor, Physical Therapy Rehab Science, 2015 (2024); MPT 2000 University of Iowa

Johnston, Richard C., Emeritus Professor, Orthopaedics and Rehabilitation, 1967 (1982); MD 1958 University of Iowa

Johnston, Samuel L., Clinical Associate Professor, Internal Medicine, 2016 (2025); MD 2002 Loyola University SOM

Joiner, Mei-Ling Anne, Adjunct Assistant Professor, Biology, 2009 (2009); PHD 1999 Brandeis

Joliet, Kimberly Cunningham, Adjunct Assistant Professor, Pediatrics, 2017 (2017); DO 2012 Des Moines University

Jones, Adam M., Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); MBA 2018 Roseman University; PHARMD 2019 Roseman University

Jones, Amy Lynn, Adjunct Instructor, Teaching and Learning, 2025 (2025); BA 1999 Mt Mercy College; MAT 2004 Univ of Iowa; PHD 2012 Univ of Iowa

Jones, Bradley D., Emeritus Professor, Microbiology and Immunology, 1994 (2011); BS 1985 THE UNIVERSITY OF MARYLAND-COLLEGE PARK; PHD 1989 THE UNIVERSITY OF MARYLAND-COLLEGE PARK

Jones, Brian D., Adjunct Instructor, Pharmacy Practice and Science, 2023 (2023); BSPH 1990 University of Iowa

Jones, Carolyn C., Emeritus Professor, Law-Faculty, 2004 (2004); BA 1976 University of Iowa; JD 1979 University of Iowa

Jones, Dakota, Assistant Professor, Anatomy Cell Biology, 2025 (2025); BS 2014 Syracuse University; PHD 2020 Mayo Clinic Graduate School

Jones, David A., Emeritus Assistant Professor, Orthodontics, 2011 (2011); AB 1973 Southern Methodist; DDS 1977 UMKC; MSD 1990 The University of Texas at Houston

Jones, Diana L., Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DDS 2016 University of Iowa

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Jones, Ellen Louise, Adjunct Instructor, Law-Faculty, 2016 (2022); BA 1990 University of Iowa; JD 1993 University of Iowa; MA 1994 University of Iowa

Jones, Julia Marie, Adjunct Assistant Professor, Internal Medicine, 2015 (2015); MD 2009 University of Iowa

Jones, Kenneth Allen, Adjunct Instructor, Preventive Community Dentistry, 2014 (2014); DDS 2006 University of Iowa

Jones, Michael P., Emeritus Professor, Biostatistics/Statistics Actuarial Science, 1986 (2000); BA 1972 Southern California; MA 1975 University of California-Los Angeles; PHD 1986 Washington

Jones, Patricia Camille, Emeritus Associate Professor, Theatre Arts, 2001 (2001); BA 1977 The University of Minnesota-Twin Cities; MA 1985 University of Iowa; MFA 1991 University of Iowa

Jones, Philip C., Emeritus Professor, Business Analytics, 1994 (1994); BIE 1973 Georgia Inst of Technology; MS 1974 Stanford; MA 1977 University of California-Berkeley; PHD 1977 University of California-Berkeley

Jones, Robert Dallas, Clinical Professor, Neurology, 1997 (2013); BA 1979 University of Wisconsin-Madison; MA 1984 University of Iowa; PHD 1986 University of Iowa

Jones, Samuel Wayne, Clinical Professor, Surgery, (2024); MD 1995 University Of North Carolina

Jones, Sarah L., Clinical Assistant Professor, Obstetrics Gynecology, (2022); MSN 2008 Missouri State University

Jones, Steven, Assistant Professor, Languages, Literatures, Linguistics, and Cultures/World Languages, Literatures, and Cultures, 2025 (2025); BA 1995 Gallaudet University

Jones, Susan Sondrol, Emeritus Lecturer, Music, 1998 (2001); BM 1967 University of Iowa; MA 1968 University of Iowa; MFA 1970 University of Iowa

Jones, Taylor Nicole, Adjunct Assistant Professor, Internal Medicine, 2025 (2025); DO 2020 Kansas City Univ.

Jones, Todd, Adjunct Instructor, Management and Entrepreneurship, 2025 (2025); AA 2010 Scott Community College; BA 2016 University of Iowa; MA 2023 University of Iowa

Jones, William Larue, Emeritus Professor, Music, 1997 (1997); BS 1960 Kansas State; MA 1962 Kansas State; MFA 1970 University of Iowa; DMA 1972 University of Wisconsin-Madison

Jons, Leon, Clinical Associate Professor, Internal Medicine, (2020); MD 1987 University of Nebraska

Jordan, Andrew Theodore, Associate Professor, Law-Faculty, (2022); MA 2005 University of Washington; PHD 2010 University of Washington; JD 2016 University of Michigan

Jordan, Clayton W., Adjunct Assistant Professor, Internal Medicine, 2024 (2024); DO 2013 Des Moines University

Jordan, Dennis Everett, Adjunct Instructor, Management and Entrepreneurship, 2010 (2024); AA 1989 Kirkwood Community; BA 1991 Northern Iowa; MBA 1998 University of Iowa

Jordan, Erin, Associate Professor, Journalism Mass Communication, (2024); BA 1997 Iowa State University

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Jorgensen, Palle E., Professor, Mathematics, 1983 (1983); BA 1968 AARHUS-Denmark; MS 1970 AARHUS; PHD 1973 AARHUS

Jorgensen, Sarah K., Clinical Associate Professor, Family Medicine, (2021); BA 1997 Saint Mary's Univ of Minnesota; DO 2002 Kansas City Univ, Missouri

Jorgensen, Shea, Instructor, Psychiatry, 2021 (2025); MD 2016 University of Iowa

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Joseph, Hyman, Emeritus Professor, Economics, 1966 (1982); BS 1957 Illinois Inst of Technology; MS 1959 Illinois Inst of Technology; MA 1966 Northwestern Univeristy; PHD 1969 Northwestern Univeristy

Joseph, Maria Lindell, Clinical Professor, Nursing, 2011 (2018); BS 1993 Southern Adventist University; PHD 2007 Capella University

Joseph, Soumya, Instructor, Molecular Physiology Biophysics, (2024); PHD 2014 The University of Sydney

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Julian, Nashae Yvonne, Adjunct Assistant Professor, Counselor Education, 2008 (2013); BS 2002 Presentation College; MS 2004 Northern State; PHD 2012 University of Iowa

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Jung, Michael J., Clinical Associate Professor, Family Medicine, 1985 (1994); MD 1980 South Dakota

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Justice, Nathaniel Allen, Clinical Associate Professor, Pediatrics, (2022); BS 2001 Purdue University; MD 2007 Indiana University

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Kahn, Daniel, Emeritus Professor, Radiology, 1988 (2005); BS 1977 University of Illinois at Urbana Champaign; MD 1981 Hahnemann

Kahnke, Susanna A., Clinical Assistant Professor, Psychiatry, (2025); PHD 2024 University of Iowa

Kai Chi, Chang, Clinical Assistant Professor, Radiology, (2024); MD 2000 Universidade de Sao Paulo

Kain, Kelli Lynn, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); BS 2007 Simpson College, Indianola IA; PHARMD 2012 University of Colorado

Kain, Travis Earnest, Adjunct Assistant Professor, Emergency Medicine, 2022 (2022); BA 1999 University of Iowa; BA 2003 Drake University; DO 2008 Des Moines University

Kajimoto, Hidemi, Clinical Assistant Professor, Pediatrics, 2025 (2025); MD 1999 MIE University

Kalaiah, Mudappa Karineravanda, Adjunct Assistant Professor, Internal Medicine, 2018 (2018); MBBS 2007 Mysore Medical College

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Kaldjian, Lauris Christopher, Professor, Internal Medicine, 2000 (2012); BS 1984 University of Michigan-Ann Arbor; BA 1986 Oxford; MD 1989 University of Michigan-Ann Arbor; MDIV 1994 Yale; PHD 2004 Yale

Kalina, Courtney Converse, Adjunct Assistant Professor, Pharmacy Practice and Science, 2020 (2020); PHARMD 2017 University of Iowa

Kalina, Paul R., Associate Professor, Theatre Arts, 2009 (2015); BS 1991 Illinois State; MFA 2007 Idaho

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Kallemeyn, Nicole Ann, Associate Professor, Biomedical Engineering, 2011 (2017); BSE 2003 Dordt College; MS 2005 University of Iowa; PHD 2009 University of Iowa

Kalnins, Arturs, Professor, Economics/Management and Entrepreneurship, 2017 (2021); BA 1988 Swarthmore College; MBA 1991 Lehigh University; PHD 1998 University of Michigan

Kalyanam, Rama Sai Raghu Teja, Clinical Assistant Professor, Internal Medicine, (2025); BS 2016 University of North Florida; MD 2022 St. George's University

Kamberger, John, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHAR 1985 University of Maryland

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Kamerick, Kathleen Clare, Emeritus Lecturer, History, 2015 (1999); BA 1975 University of Iowa; MA 1984 University of Iowa; PHD 1991 University of Iowa

Kammer-Hodge, Heidi, Adjunct Instructor, Social Work, 2020 (2020); BSW 1997 Augsburg College; MSW 2000 University of South Dakota

Kamps, Haley Abboud, Adjunct Instructor, Social Work/ University College Courses, 2018 (2018); BS 2008 University of Iowa; MSW 2013 University of Iowa

Kan, Zhen, Adjunct Assistant Professor, Mechanical Engineering, 2016 (2016); PHD 2011 University of Florida

Kanagasabapathy, D. Anand Rajan, Clinical Associate Professor, Pathology, 2016 (2021); MBBS 2001 Bangalore Medical College; MD 2006 All India Institute of Med Sci

Kane, Francis Leo, Adjunct Assistant Professor, Family Medicine, 2010 (2010); BS 1982 Missouri; MD 1986 Missouri

Kane, Mackenzie Renee, Assistant Professor, Nursing, 2014 (2024); BS 2004 University of Iowa; MSN 2010 University of Iowa

Kane, Sarah Lynn, Adjunct Assistant Professor, Nursing, 2025 (2025); BSN 2000 Allen College; MSN 2013 Allen College; DNP 2025 University of Iowa

Kanellis, Michael James, Professor, Pediatric Dentistry, 1984 (2005); DDS 1979 University of Iowa; MS 1981 University of Iowa

Kang, Jiyeon, Associate Professor, Communication Studies, 2010 (2017); BA 1999 Seoul National; MA 2001 Seoul National; PHD 2009 University of Illinois at Urbana Champaign

Kang, Zizhen, Assistant Professor, Pathology, 2020 (2020); PHD 2000 Peking University

Kanner, Lauren Amanda, Clinical Associate Professor, Pediatrics, (2023); BA 2008 Carleton College; MD 2012 Rush Medical College

Kao, Simon Ching-Shun, Professor, Pediatrics/Radiology, 1987 (1997); MBBS 1976 Hong Kong

Kao-Reasoner, Tina Ming, Adjunct Assistant Professor, Family Dentistry, 2021 (2021); DDS 2009 University of Iowa

Kapatsila, Bogdan, Assistant Professor, Center for Soc Sci Innovation/Industrial Engineering/School of Planning and Public Affairs, (2024); MS 2019 University of Iowa; DPHIL 2024 University of Alberta; PHD 2024 University of Alberta

Kapler, Lisa Ann, Adjunct Instructor, Family Medicine, 2018 (2018); MD 1989 Univ of IA CCOM, IowaCity,IA

Kar, Kumari Saswati, Adjunct Instructor, Preventive Community Dentistry, 2025 (2025); BDS 2004 Utkal Univ, Orissa India; MS 2024 Eastman Inst, Univ of Rocheste

Karabulut, Nevzat, Clinical Assistant Professor, Radiology, 2024 (2024); MD 1992 Hacettepe University School of

Karacay, Bahri, Adjunct Associate Professor, Pediatrics, 2005 (2011); MS 1987 Ataturk ,Turkey; MS 1992 The Ohio State University; PHD 1996 The Ohio State University

Karacay, Kate C., Adjunct Instructor, University College Courses, 2011 (2024); BA 1997 Iowa; MA 2008 Iowa

Karam, Matthew, Professor, Orthopaedics and Rehabilitation, 2011 (2022); BS 2001 University of Iowa; MD 2005 Chicago Medical

Karandikar, Nitin Jayant, Professor, Pathology, 2012 (2012); MBBS 1988 University of Poona; MD 1993 BJ Med, Poona; PHD 1997 Northwestern Univeristy

Kardon, Randy Herbert, Professor, Ophthalmology Visual Science, 1989 (2004); BS 1975 University of Iowa; MD 1982 University of Iowa; PHD 1982 University of Iowa

Karduck, Jeffrey David, Clinical Assistant Professor, Neurology, (2022); MD 2016 The Pennsylvania State Uni

Karimi, Mohsen, Clinical Professor, Cardiothoracic Surgery/ Pediatrics, (2019); MD 1996 Indiana Univ. School of Medicine

Karloff, Kelly Jean, Adjunct Instructor, Nursing, 2023 (2023); BSN 2009 Lewis University; MSN 2022 Mount Mercy University

Karnell, Michael Peter, Emeritus Associate Professor, Communication Sciences and Disorders/Otolaryngology-Head Neck Surgery, 1993 (1993); BA 1978 Western Michigan; MA 1979 Western Michigan; PHD 1983 University of Iowa

Karniski, Lawrence P., Emeritus Professor, Internal Medicine, 1985 (2000); BS 1974 Kansas; MD 1977 Kansas

Karvar, Serhan, Clinical Associate Professor, Internal Medicine, (2023); MD 1991 Anadolu University

Karwal, Mark William, Clinical Professor, Internal Medicine, 1994 (2020); BA 1980 Drake; MD 1984 University of Iowa

Karwan, Kirk, Adjunct Professor, Business Analytics, 2008 (2011); PHD 1979 Carnegie Mellon

Kashef, Raud, Adjunct Instructor, University College Courses, 2018 (2018); BA 2017 The University of Iowa

Kasimow, Johanna Marsha, Assistant Professor, Theatre Arts, (2021); BA 2008 Colorado College; MFA 2016 University of Arts/Pig Iron School, PA

Kaskie, Brian, Professor, Health Management Policy, 2000 (2022); BA 1987 Indiana University-Bloomington; MA 1993 Washington; PHD 1998 Southern California

Kasodekar, Shilpa Vaibhav, Clinical Assistant Professor, Anesthesia, 2025 (2025); MD 2003 Seth G.S. Medical College

Kasper, Stacie A., Clinical Assistant Professor, Family Medicine, (2020); BA 2008 Wartburg College, Waverly, IA; DO 2012 Des Moines, University

Kasson, Barry G., Emeritus Associate Professor, Neuroscience and Pharmacology, 1986 (1996); BA 1974 Univ of California-San Diego; MS 1977 Univ of California-Los Angeles; PHD 1982 Univ of California-Los Angeles

Kastens, L. Kevin, Emeritus Professor, Music, 1998 (2011); BS 1977 University of Illinois at Urbana Champaign; MS 1978 University of Illinois at Urbana Champaign; MFA 2011 University of Illinois at Chicago

Katpally, Ram Reddy, Clinical Assistant Professor, Internal Medicine, (2024); MBBS 2003 Kasturba Medical College

Katz, Daniel A., Associate Professor, Surgery, 2000 (2007); BS 1986 Fairleigh Dickinson; MD 1990 Johnson

Katz, David A., Emeritus Associate Professor, Internal Medicine, 2003 (2003); BA 1982 Oberlin College; MD 1987 Jefferson Med College; MS 1995 Harvard - Public Health

Katz, Louis Mayer, Adjunct Professor, Internal Medicine, 2011 (2011); MD 1976 University of Iowa

Kauer, Aaron John, Clinical Associate Professor, Psychiatry, 2014 (2022); BS 2004 University of South Dakota; MD 2009 The University of South Dakota

Kauer, Jill Fowler, Clinical Assistant Professor, Pharmacy Practice and Science, 2008 (2008); BS 2002 University of North Carolina at Chapel Hill; PHARMD 2006 University of North Carolina at Chapel Hill; MPHAR 2009 The University of Texas at Austin

Kaufman, Mark A., Adjunct Instructor, Physical Therapy Rehab Science, 2023 (2023); BS 1986 The University of Iowa; MS 1988 The University of Arizona; BSPT 1989 Northwestern University

Kaur, Rominder, Adjunct Instructor, Preventive Community Dentistry, 2022 (2022); DDS 2008 University of Colorado

Kaus, Margaret Rose, Instructor, University College, 2022 (2022); BA 2016 Centre College; MED 2020 Iowa State University

Kaushik, Ashlesha, Adjunct Associate Professor, Pediatrics, 2018 (2024); MBBS 2002 Sawai Man Singh Medical Colleg; MD 2006 PostGrad Inst of Med Edu Res

Kauth, Laura Suzanne Tirnaeth, Adjunct Instructor, Communication Sciences and Disorders, 2014 (2011); MA 2000 University of Iowa

Kawai, Masataka, Professor, Anatomy Cell Biology/Internal Medicine, 1987 (1995); BA 1966 Tokyo; PHD 1971 Princeton

Kawamura, Takeshi, Assistant Professor, Anesthesia, 2025 (2025); MD 2000 Sapporo medical university

Kawamuro, Keiko, Professor, Mathematics, 2009 (2020); BS 1997 Tokyo; MA 1998 Tokyo; PHD 2006 Columbia

Kawasaki, Hiroto, Professor, Neurosurgery, 2002 (2021); MD 1995 Tokyo Women's Medical

Kay, Alan R., Professor, Biology, 1990 (2008); BS 1974 Cape Town-South Africa; BSC 1976 Cape Town-South Africa; BSC 1977 Stellerbosch, South Africa; PHD 1984 Cambridge-United Kingdom

Kay-Decker, Courtney Maria, Adjunct Instructor, Law-Faculty, 2020 (2023); BA 1994 Northwestern University; JD 1997 University of Iowa

Kayed, Alaa Abdoul, Adjunct Instructor, University College Courses, 2023 (2023); BA 2021 University of Toledo; MED 2023 Iowa State University

Kayle, Jennifer, Professor, Dance, 2004 (2022); BA 1992 Middlebury,Vermont; MFA 1999 Smith College, Mass.

Kayser, Nicholas, Adjunct Assistant Professor, Pharmacy Practice and Science, 2020 (2020); BBA 2009 University of Iowa; PHARMD 2018 University of Iowa

Kazma, Leo Jacob, Adjunct Assistant Professor, Family Dentistry, (2025); DDS 2024 The University of Iowa

Kazmi, Syed Hurmat Ali Shah, Adjunct Assistant Professor, English, (2021); MFA 2021 University of Iowa; MFA 2024 The University of Iowa

Kazwell, John Bryan, Adjunct Assistant Professor, Oral Maxillofacial Surgery, 2006 (2011); BA 1988 University of Wisconsin-Madison; BS 1988 University of Wisconsin-Madison; DDS 1996 University of Illinois at Urbana Champaign

Ke, Chuanren, Emeritus Professor, Asian Slavic Languages Literature, 1993 (2007); BA 1982 Beijing Normal University; MA 1985 Indiana University-Bloomington; PHD 1992 Indiana University-Bloomington

Kealey, Gerald P., Emeritus Professor, Surgery, 1985 (1993); BA 1966 University of Iowa; MD 1969 University of Iowa; MS 1975 University of Iowa

Kearney, Joseph K., Emeritus Professor, Computer Science, 1983 (2001); BA 1975 The University of Minnesota-Twin Cities; MA 1979 The University of Texas at Austin; MS 1981 The University of Minnesota-Twin Cities; PHD 1983 The University of Minnesota-Twin Cities

Kearns, David L., Emeritus Associate Professor, Family Medicine, 2016 (1995); BS 1973 Fort Hays State; MA 1979 Wichita State; PHD 1990 Georgia State

Keating, Patrick Boyd, Adjunct Assistant Professor, Psychiatry, 2020 (2020); MD 2014 University of South Carolina

Keck, Kendall, Clinical Assistant Professor, Orthopaedics and Rehabilitation/Surgery, (2024); HS 2004 Carlisle HS; BSE 2008 University of Iowa; MD 2013 University of Iowa

Kedley, Kate, Adjunct Instructor, Teaching and Learning, 2024 (2024); BA 2000 University of Northern Iowa; MA 2005 Northern Arizona University; PHD 2017 University of Iowa

Kee, Vicki R., Emeritus Assistant Professor, Pharmacy Practice and Science, 2003 (2003); PHARMD 1999 Samford University McWhorter S

Keech, John Charles, Clinical Professor, Cardiothoracic Surgery, 2013 (2025); MD 2004 Loyola University

Keech, Katherine Govier Cashman, Clinical Associate Professor, Anesthesia/Pediatrics, 2013 (2023); MD 2005 Medical College of Wisconsin

Keefe, Dennis Allen, Adjunct Instructor, Physical Therapy Rehab Science, (2025); BS 1994 University of Northernn Iowa; MPT 1997 Des Moines University

Keegan, Thomas, Adjunct Assistant Professor, English/ University College Courses, 2010 (2010); BA 2002 Virginia; PHD 2010 University of Iowa

Keen, William Andrew, Adjunct Instructor, University College Courses, 2025 (2025); MED 2019 Grand Valley State University

Keene, Charles Wayne, Professor, Business Administration-Undergraduate/Marketing, (2021); BBA 2001 Fontbonne University; MBA 2002 Fontbonne University; EDD 2017 University of Missouri

Kees, Jing Huang, Clinical Associate Professor, Internal Medicine, (2023); MD 2013 University of Texas

Keffala, Valerie Judith, Clinical Associate Professor, Orthopaedics and Rehabilitation/Psych Quant Foundations, 2003 (2024); BA 1989 University of California; PHD 1996 University of Iowa

Kehe, Kara L., Associate Professor, Health Sport and Human Physiology/Health Sport and Human Physiology/College of Liberal Arts Sciences, 2016 (2025); BA 1997 Wartburg College; MA 1999

Kehl-Fie, Thomas E., Associate Professor, Microbiology and Immunology, 2024 (2024); AA 1996 Seattle Central Community Col; BS 2001 University of Washington Seatt; PHD 2008 Washington University St Louis

Keith, Jensen Rae, Adjunct Assistant Professor, Preventive Community Dentistry, (2023); BS 2017 Marquette University; DDS 2022 University of Iowa; CER 2023 University of Iowa

Keith, Jerrod N., Clinical Professor, Surgery, 2012 (2023); MD 2004 University of Iowa

Keith, Kevin Scott, Emeritus Associate Professor, Management and Entrepreneurship, 2010 (2019); BA 1974 Luther; MBA 2004 University of Iowa

Keith, Thomas Haynes, Instructor, Hospital Dentistry, 2024 (2024); DDS 2017 Virginia Commonwealth Universi

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Kellems, Ruth Ann, Emeritus Assistant Professor, Pharmacy, 1984 (1984);

Keller, Gary John, Adjunct Professor, Psychiatry, 2023 (2023); DO 2004 University of Health Sciences

Keller, John C., Emeritus Professor, Oral Maxillofacial Surgery, 1988 (1991); BS 1974 University of Illinois at Urbana Champaign; MS 1978 Northwestern Univeristy; PHD 1982 Northwestern Univeristy

Keller-Wilson, Michael, Adjunct Instructor, Teaching and Learning, 2023 (2023); MFA 2020 University of Nebraska

Kelley, Molly Meagan, Adjunct Instructor, Rhetoric, 2009 (2009); BA 2007 University of Iowa; MA 2008 University of Iowa

Kelley, Patricia Lou, Emeritus Professor, Social Work, 1974 (1993); BA 1956 Carleton; MSW 1959 The University of Minnesota-Twin Cities; PHD 1981 University of Iowa

Kelley, Robert E., Emeritus Professor, English, 1966 (1975); BA 1960 Creighton; PHD 1968 Indiana University-Bloomington

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Kelly, Donika, Associate Professor, English, (2024); MFA 2008 University of Texas Austin; MA 2009 Vandebilt University; PHD 2013 Vanderbilt University

Kelly, Janine Marie Wolbers, Adjunct Instructor, Physical Therapy Rehab Science, 2015 (2023); BS 1986 University of Iowa; MPT 1988 University of Iowa

Kelly, Karen M., Adjunct Assistant Professor, Pharmacy Practice and Science, 2009 (2009); PHARMD 1998 Midwestern

Kelly, Kevin Michael, Adjunct Associate Professor, Anthropology, 1982 (1997); BA 1977 University of Iowa; AM 1980 University of Illinois at Urbana Champaign; PHD 1988 University of Illinois at Urbana Champaign

Kelly, Michael, Emeritus Professor, Pharmacy Practice and Science, 1994 (2010); BS 1973 University of Iowa; PHARMD 1988 University of Iowa; MS 1989 University of Iowa

Kelly, Mitchell Jay, Clinical Professor, Psych Quant Foundations, 1990 (2016); PHD 1995 University of Iowa

Kelsay, Danielle Marie Rubino, Emeritus Associate Professor, Communication Sciences and Disorders, 1993 (2006); BS 1984 University of Iowa; MA 1987 University of Iowa

Kemp, John D., Emeritus Professor, Pathology, 1982 (1990); BA 1971 Indiana University-Bloomington; MD 1975 Indiana University-Bloomington

Kemp, Kathleen Marie, Adjunct Instructor, Social Work, 2007 (2007); MSW 1990 University of Iowa

Kemp, Pavlina S., Clinical Associate Professor, Ophthalmology Visual Science/Pediatrics, 2015 (2021); BSE 2004 University of Iowa; MD 2010 University of Iowa

Kemp, Skylar Robert, Adjunct Instructor, Radiology, 2018 (2018); BS 2016 University of Iowa

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Kendra, Martin, Clinical Assistant Professor, Anesthesia, (2025); MD 2000 Pavol Jozef Safarik University

Kendrick, Douglas Edward, Clinical Associate Professor, Oral Maxillofacial Surgery, 2015 (2021); DDS 2010 University of Iowa

Kenne, Kimberly Ann, Clinical Associate Professor, Obstetrics Gynecology/Urology, 2018 (2024); BS 2005 University of Iowa; MD 2010 Univ. of IA Carver College Med

Kennedy, Danielle Renee, Adjunct Instructor, University College Courses, 2024 (2024); BA 2010 University of Maryland; MA 2016 University of Iowa

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Kent, Kelly Joann, Adjunct Assistant Professor, Pharmacy Practice and Science, 2008 (2005); PHARMD 2003 University of Iowa

Kepros, Christopher Michael, Clinical Assistant Professor, Oral Maxillofacial Surgery, (2022); DDS 2007 UI College of Dentistry

Kepros, Theodore John, Adjunct Instructor, Physical Therapy Rehab Science, 2014 (2024); MPT 1995 University of Iowa

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Kerkhove, Connie A., Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2015); PHARMD 2010 Ferris State University

Kerns, Ethan, Adjunct Instructor, Preventive Community Dentistry, 2008 (2008); DDS 2007 University of Iowa

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Kessler, Jacob Franklin, Assistant Professor, Cinematic Arts, (2024); MFA 2023 Northwestern University

Kessler, Melissa Nicole, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2017 University of Iowa College of Pharmacy

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Ketelsen, Tyson J., Adjunct Assistant Professor, Pharmacy Practice and Science, 2006 (2006); PHARMD 2003 University of Iowa

Ketterer, Robert C., Emeritus Professor, Classics, 1988 (2008); BA 1974 Lawrence; MA 1976 University of Michigan-Ann Arbor; PHD 1981 University of Michigan-Ann Arbor

Kettman, Matthew Jason, Adjunct Instructor, Family Medicine, 2017 (2017); MD 1999 Univ of IA CCOM, Iowa City, IA

Khachikyan, Tiffany Tevolina, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2020 University of Iowa

Khalastchi, Daniel Ely, Adjunct Assistant Professor, Interdisciplinary Programs/Magid Center for Writing, 2011 (2011); BA 2003 University of Wisconsin-Madison; MFA 2005 University of Iowa

Khan, Rabia S., Clinical Assistant Professor, Pediatrics, (2020); MD 2012 University of Miami

Khandelwal, Meena Rani, Professor, Anthropology/Gender, Women's and Sexuality Studies/International Programs, 2001 (2025); BA 1985 Virginia; MA 1988 Virginia; PHD 1995 Virginia

Khanolkar, Aaruni, Adjunct Associate Professor, Pathology, 2024 (2024); MD 1993 GR Medical College, India; PHD 2000 Univ of Arkansas

Khatri, Akshay, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MBBS 2014 Byramjee Jeejeehboy Medical Co

Khosravi, Sasha Farshid, Adjunct Professor, Psychiatry, 2024 (2024); DO 2001 Des Moines University

Khounlo, Brenden Tre, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DDS 2021 University of Iowa

Kidacki, Michal, Assistant Professor, Dermatology, (2025); BA 2009 Rutgers University; MD 2019 Penn State University; PHD 2019 Penn State University

Kidd, Lovar Davis, Adjunct Instructor, Dance, 2010 (2010); HS 1997 George Washington High School; BA 2001 University of Iowa; MFA 2023 The University of Iowa

Kienzle, Michael G., Emeritus Professor, Internal Medicine, 1984 (1997); BS 1973 University of Iowa; MD 1977 University of Iowa

Kijewski, Vicki J., Clinical Professor, Internal Medicine/ Psychiatry, 2003 (2015); MED 1990 Eastern Washington; MD 1998 Missouri

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Killoran, Annie, Clinical Associate Professor, Neurology/ Psychiatry, (2021); MD 2006 Univ. College Dublin

Killoran, Emma Ann, Clinical Assistant Professor, Dermatology, (2024); BA 2014 Pomona College; MD 2018 University of Iowa

Kim, Allison Kathleen, Adjunct Assistant Professor, Emergency Medicine, 2022 (2022); MD 2018 University of Iowa

Kim, Boeun, Assistant Professor, Nursing, 2024 (2024); PHD 2021 The University of Washington; MPH 2022 The University of Washington

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Kim, Hae Sun, Assistant Professor, Music, (2022); BM 2010 University of Iowa; MM 2014 Colorado State University; PHD 2022 The University of Iowa

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Kim, Jae-On, Emeritus Professor, Sociology and Criminology, 1970 (1981); BA 1961 Seoul-Korea; MS 1964 Southern Illinois; PHD 1976 University of California-Berkeley

Kim, Jong Sung, Associate Professor, Occupational Environmental Health, (2021); PHD 2011 University of Iowa

Kim, Kyung Soo, Assistant Professor, Nursing, 2021 (2024); BSN 2006 Eastern University; MSN 2014 Villanova University; PHD 2019 Univ of Wisconsin-Madison

Kim, Myung Jung, Assistant Professor, Political Science, 2025 (2025); BAS 2012 Purdue University; PHD 2025 University of Illinois at Urbana

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Kim Hsieh, Su Jin, Clinical Assistant Professor, Radiology, 2022 (2022); MD 1992 Faculdada de Medicina da Unive

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King, Seth Andrew, Associate Professor, Teaching and Learning, (2022); BA 2004 Univ North Carolina Greensboro; BS 2004 Univ. North Carolina Greensboro; MA 2009 Appalachian Stateersity; PHD 2013 University of Pittsburgh

King, Tyler Lee, Clinical Assistant Professor, Pediatrics, (2025); DO 2018 Marian University College of Osteopathic Medicine

Kingston, Heather Michele, Adjunct Instructor, Health Management Policy, 2023 (2023); BS 2000 Washington State University

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Kirkpatrick, Lauren, Clinical Assistant Professor, Internal Medicine, (2023); MD 2018 Carver College of Medicine

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Klein, Adam H., Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); BS 2001 Wartburg College; DDS 2005 University of Iowa

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Klein, Michael Wayne, Clinical Assistant Professor, Internal Medicine, (2019); BS 2012 Creighton U

Klein, Philip W., Emeritus Associate Professor, Spanish Portuguese, 1977 (1984); BA 1962 Grinnell; MA 1968 Washington; PHD 1974 Washington

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Kleinschmit, Julia, Emeritus Professor, Social Work, 1999 (2020); BS 1990 University of Nebraska-Lincoln; MSW 1997 University of Iowa

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Knake, Lindsey Ann, Clinical Assistant Professor, Pediatrics, (2021); BS 2011 University of Iowa; MD 2015 University of IA

Knight, Anthony Wayne, Emeritus Associate Professor, Radiology, 2010 (2019); BS 1978 University of Iowa; MBA 1987 University of Iowa

Knight, Megan Linnet, Professor, Rhetoric, 1998 (2023); MFA 1998 University of Iowa

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Knudson, Charles Michael, Clinical Professor, Pathology, 1998 (2017); BSE 1984 University of Iowa; MD 1992 University of Iowa; PHD 1992 University of Iowa

Knudtson, Linda M., Emeritus Instructor, Microbiology and Immunology, 2003 (2022); BS 1986 IOWA STATE; PHD 1992 IOWA STATE

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Koch, Kayla Ann, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BA 2010 Augustana College; DPT 2012 University of Iowa; PHD 2012 University of Iowa

Koch, Nathan Dale, Adjunct Instructor, Finance, 2022 (2022);

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Koele-Schmidt, Lindsey Jane, Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 2009 University of Iowa

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Koenig, Charlou, Adjunct Assistant Professor, Classics, 2016 (2013); BA 1979 Brigham Young; MA 1984 Brigham Young; PHD 2013 University of Iowa

Koepnick, Kevin E., Adjunct Instructor, Teaching and Learning, (2023); BS 1982 University of Iowa; MA 1989 University of Iowa; MS 1989 University of Iowa

Koerner, Theodore Alfred William, Emeritus Associate Professor, Pathology, 1986 (1988); BS 1970 Louisiana State; PHD 1975 Louisiana State; MD 1978 Tulane

Koestner, Bryan P., Clinical Associate Professor, Pediatrics, (2024); BS 2010 University of Iowa; MD 2016 University of Iowa

Kohen, Amnon, Emeritus Professor, Chemistry, 1999 (2010); BSC 1989 Hebrew; DSC 1994 Technion-Israel

Kohn, Daniel Jacob, Clinical Assistant Professor, Surgery, (2023); DO 2017 Touro Coll of Osteopathic Med

Kojadinovic, Arsenije, Clinical Assistant Professor, Internal Medicine, (2023); MD 2013 Univ of Nis, Nis, Serbic

Koland, John G., Emeritus Associate Professor, Neuroscience and Pharmacology, 1990 (1996); BS 1977 The University of Minnesota-Twin Cities; PHD 1983 University of Illinois at Urbana Champaign

Kolb, Gregory Allan, Adjunct Assistant Professor, Pediatrics, 2020 (2020); DO 2015 Des Moines University

Kolder, Veronika E., Emeritus Associate Professor, Obstetrics Gynecology, 1995 (2015); MD 1983 University of Iowa

Kolen, Michael J., Emeritus Professor, Psych Quant Foundations, 1984 (1997); BS 1973 University of Iowa; MA 1975 University of Arizona; PHD 1979 University of Iowa

Kolesar, Jill Marie, Professor, Obstetrics Gynecology/ Pharmaceutical Sciences and Experimental Therapeutics/ Pharmacy, 2024 (2024); PHARMD 1994 University of Texas at Austin; MS 2015 University of Wisconsin

Kolesnikova, Anna, Assistant Professor, Languages, Literatures, Linguistics, and Cultures, 2016 (2011); BA 2003 Moscow State; MA 2005 UNI; PHD 2011 University of Iowa

Koleva, Hristina K., Clinical Professor, Psychiatry, 2010 (2022); MD 2003 Sofia, Bulgaria

Kolker, Justine Lane, Professor, Operative Dentistry, 2005 (2019); DDS 1996 University of Iowa; MS 2000 University of Iowa; PHD 2003 University of Iowa

Kollmorgen, Daniel Robert, Adjunct Associate Professor, Surgery, 2004 (2012); MD 1990 University of Iowa

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Konz, Amanda Michelle, Adjunct Assistant Professor, Nursing, 2024 (2024); BSN 2008 University of Iowa; MSN 2011 University of Iowa; DNP 2013 University of Iowa

Koopmann, Amy Michelle, Adjunct Instructor, Law-Faculty, 2016 (2022); BA 2004 Univ of Northern IA; JD 2009 University of Iowa

Kopelman, Robin Cook, Adjunct Associate Professor, Psychiatry, 2003 (2014); BA 1995 Grinnell; MD 1999 University of Iowa

Kopelman, Todd G., Adjunct Professor, Communication Sciences and Disorders/Psych Quant Foundations/Psychiatry, 2010 (2022); BA 1996 Grinnell; MSW 1998 University of Iowa; PHD 2005 University of Iowa

Kopelson, Kevin R., Emeritus Professor, English, 1992 (2004); BA 1979 Yale; JD 1982 Columbia; MA 1988 Brown; PHD 1991 Brown

Kopp, Ulla C., Emeritus Professor, Internal Medicine, 1988 (2006); BSC 1970 Uppsala-Sweden; PHD 1980 Gothenburg-Sweden

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Koro, Sami Samir, Clinical Assistant Professor, Radiation Oncology, (2023); MD 2012 The Hashemite University

Kortanek, Kenneth O., Emeritus Professor, Business Analytics, 1986 (1986); BS 1958 Northwestern Univeristy; MS 1959 Northwestern Univeristy; PHD 1964 Northwestern Univeristy

Korte, Matthew Thomas, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2013 Drake University

Kosaian, Katherine, Assistant Professor, Computer Science, 2024 (2024); PHB 2023 Carnegie Mellon University; PHD 2023 Carnegie Mellon University

Koscik, Timothy Richard, Adjunct Assistant Professor, Psychiatry, 2017 (2017); BS 2005 Univ of Toronto; PHD 2010 University of Iowa

Kosovski, Megan, Adjunct Instructor, University College Courses, (2019); BA 2003 University of Illinois; MA 2005 University of Illinois

Kostelecky, Colin, Associate Professor, Rhetoric, 2016 (2025); MFA 2014 University of Iowa

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Kotev, Spas Venkov, Instructor, Internal Medicine, (2024); MD 2001 Medical University Sofia

Kotob, Hela, Clinical Assistant Professor, Emergency Medicine, (2023); BS 2008 University of Illinois; DO 2014 Lincoln Memorial University

Kotob, Mohammad A., Clinical Assistant Professor, Emergency Medicine/Orthopaedics and Rehabilitation, (2023); BS 2015 University of Illinois; MD 2015 Carver College of Medicine

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Kotze, Daniel, Instructor, Health Sport and Human Physiology, (2025); BS 2021 University of Cape Town; MS 2024 University of Cape Town; MSC 2024 University of Cape Town

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Kouri, Nadia, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); AASC 2015 Kirkwood Community College; BA 2016 Unversity of Iowa

Kourkoulou, Theodora, Clinical Assistant Professor, Teaching and Learning, (2024); MA 2003 University of Athens, Greece; MA 2004 University of Illinois Urbana; MED 2005 University of Illinois Urbana; DED 2023 University of Illinois; PHD 2023 University of Illinois Urbana

Kovach, Christopher K., Adjunct Assistant Professor, Neurosurgery, (2023); BA 1999 Univ. of Kansas; PHD 2008 University of Iowa

Koval, Olha Mikchailivna, Research Associate Professor, Internal Medicine, (2025); PHD 2000 Ukraine Bogomoletz Inst Physio

Kovi, Shivakrishna, Adjunct Assistant Professor, Neurology, 2020 (2020); MD 2008 Gandhi Medical College

Kowal, Rebekah J., Emeritus Professor, Dance, 2001 (2020); BA 1988 Barnard-Columbia; PHD 1999 New York

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Kowalski, Joseph T., Clinical Associate Professor, Obstetrics Gynecology/Urology, (2023); BS 2006 Loyola University; MD 2010 Rush Medical College

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Krasowski, Matthew David, Clinical Professor, Pathology, 2009 (2016); MD 2001 University of Illinois at Chicago

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Krause, Kevin William, Professor, Management and Entrepreneurship, 2011 (2025); BBA 1982 University of Iowa; JD 1985 University of Iowa

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Krause-Galoni, Rebecca Jane, Assistant Professor, Marketing, 2020 (2021); MS 2016 Northwestern University; PHD 2021 Northwestern University

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Kreiter, Clarence Dennis, Emeritus Professor, Family Medicine, 2000 (2008); BS 1977 University of Iowa; MA 1985 University of Iowa; PHD 1993 University of Iowa

Krell, Keith V., Adjunct Professor, , 1975 (2003); BA 1970 Washington-St. Louis; MA 1975 United States International; DDS 1981 University of Iowa; MS 1983 University of Iowa

Kremer, Kevin Michael, Adjunct Assistant Professor, Obstetrics Gynecology, 2025 (2025); HS 2005 Clinton High School; MD 2014 University of Iowa

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Kresowik, Timothy F., Emeritus Professor, Surgery, 1988 (2001); BS 1976 University of Michigan-Ann Arbor; MD 1980 University of Michigan-Ann Arbor; MS 1984 University of Michigan-Ann Arbor

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Kretkowski, Amy Beth, Adjunct Instructor, Law-Faculty, 2015 (2024); BFA 1988 NYU; JD 2008 University of Iowa

Kreutzer, Willow, Adjunct Assistant Professor, Political Science, 2023 (2023); BA 2017 University of Kentucky; MA 2020 The University of Iowa; PHD 2023 The University of Iowa

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Kriegel, Lisa Clover, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHAR 1999 University of Iowa

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Kroeger, Kaitlyn, Assistant Professor, Accounting, 2025 (2025); BBA 2010 University of Notre Dame; MSA 2022 University of Texas; PHD 2025 University of Texas, Austin

Krogh Duree, Brenda Lee, Professor, Nursing, 2018 (2024); MSN 2009 University of Iowa; PHD 2011 Iowa State University

Krohn, Erik Allyn, Professor, Computer Science, (2024); BS 2004 Wisconsin; PHD 2009 Iowa

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Krupp, Anna Eileen, Assistant Professor, Nursing, (2019); BSN 2002 University of Wisconsin-Eau Cl; MS 2006 University of Wisconsin-Madiso; PHD 2017 Univeristy of Wisconsin-Madiso

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Kruse, Kelly, Adjunct Assistant Professor, Pathology, 2019 (2019); MD 2013 St. George's University School

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Kruse, Ryan Christian, Clinical Assistant Professor, Orthopaedics and Rehabilitation, (2019); BS 2009 Washington University St. Louis; MD 2013 St. George's University

Kruse, Ted Henry, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BA 2002 Iowa State University; DPT 2004 University of Iowa

Kruse, Terese Nickol, Adjunct Assistant Professor, Pharmacy Practice and Science, 2011 (2011); PHARMD 2006 University of Iowa

Krusemark, Barry Michael, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2009 Creighton University

Kruthoff, Bret Alan, Adjunct Instructor, Physical Therapy Rehab Science, 2013 (2024); MPT 1990 University of Iowa; DPT 2007 Temple

Krutsinger, Catarina, Adjunct Instructor, Preventive Community Dentistry, 2018 (2018); DDS 2015 University of Iowa

Krysan, Damian Joseph, Professor, Molecular Physiology Biophysics/Pediatrics, (2017); PHD 1989 Northwestern University; MD 2000 University of Michigan

Ksobiech, Mary Margaret, Professor, Law-Faculty, (2020); BA 1997 Truman State University; JD 2000 University of Iowa

Ksobiech, Thomas Christopher, Adjunct Instructor, Law-Faculty, 2024 (2024); BA 1997 Loras College; JD 2000 The University of Iowa

Kubik, Sean Lynn, Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2016); PHARMD 2013 University of Iowa

Kucharski, Zachary J., Adjunct Assistant Professor, Journalism Mass Communication, 2023 (2023);

Kuebler, William Todd, Adjunct Professor, Military Science, 2023 (2023); BA 2006 University Northern Iowa; MS 2018 Central Michigan University

Kuehn, Carly Ann, Clinical Associate Professor, Internal Medicine, (2023); BS 2009 University of Wisconsin; MD 2013 University of Wisconsin

Kuehn, David Michael, Emeritus Professor, Radiology, 2002 (2023); BS 1987 University of Iowa; MD 1992 University of Iowa

Kuehn, Markus H., Professor, Ophthalmology Visual Science, 2007 (2018); PHD 2000 Saint Louis

Kuehner, Leon Gregory, Adjunct Instructor, Teaching and Learning, 2017 (2023); BME 1975 University of Northern Iowa; MM 1991 University of Northern Iowa

Kuenzli, Rudolf E., Emeritus Professor, Cinematic Arts/ English, 1970 (1982); LIC 1964 Zurich; MA 1968 University of Wisconsin-Madison; MA 1969 University of Wisconsin-Madison; PHD 1971 University of Wisconsin-Madison

Kuffel, Mary E., Adjunct Assistant Professor, Obstetrics Gynecology, 1999 (1999); MD 1993 University of Iowa

Kuhl, Amanda Aird, Assistant Professor, Nursing, 2015 (2024); BSN 2005 University of Iowa; MSN 2012 Mount Mercy University

Kuhl, Jon Gregory, Emeritus Professor, Electrical-Computer Engineering, 1980 (1992); BS 1975 University of Iowa; MS 1977 University of Iowa; PHD 1980 University of Iowa

Kuhle, Jennifer Lynn, Clinical Assistant Professor, Psych Quant Foundations/Psychiatry, 2020 (2022); BA 2007 Drake University; PHD 2016 University of Iowa

Kuhlmann, Kathryn Alaine, Adjunct Assistant Professor, Creative Writing, 2025 (2025); MFA 2025 The University of Iowa

Kulig, Carmen L., Adjunct Assistant Professor, Pharmacy Practice and Science, 2009 (2009); PHARMD 2002 Drake

Kumar, Anil, Professor, Economics, 2023 (2023); MA 2002 Syracuse University; MS 2004 Syracuse University; PHD 2004 Syracuse University

Kumar, Bharat, Clinical Associate Professor, Internal Medicine, (2023); BA 2006 University of Pennsylvania; MD 2011 Saba University School of Medicine

Kumar, Santosh, Assistant Professor, Internal Medicine, (2020); PHD 2010 All India Institute of Med Sci

Kumar, Sudhir, Adjunct Assistant Professor, Internal Medicine, 2010 (2010); MBBS 1992 Bangalore Medical

Kumar, Sukhbinder, Research Assistant Professor, Neurosurgery, 2021 (2021); PHD 2004 Newcastle University (UK)

Kumpf Baele, Kirsten Elisabeth, Associate Professor, Languages, Literatures, Linguistics, and Cultures, 2016 (2024); BA 2002 Luther; MA 2005 University of Iowa; PHD 2013 University of Iowa

Kunkel, Amanda Elizabeth, Adjunct Instructor, Teaching and Learning, 2024 (2024); BA 2008 University of Iowa; MAT 2014 Morningside College

Kunz, Aaron R., Clinical Associate Professor, Family Medicine, 2016 (2025); BS 2009 Briar Cliff Univ; SiouxCity,IA; DO 2013 Kansas City Univ; MO; MA 2013 Kansas City Univ; MO

Kuperman, Ethan Frank, Clinical Professor, Internal Medicine, 2013 (2023); MD 2008 Pennsylvania State University

Kuperman, Samuel, Emeritus Professor, Psychiatry, 1983 (2000); BA 1975 University of Iowa; MD 1978 University of Iowa

Kupersmith, William R., Emeritus Professor, English, 1972 (1981); BA 1963 Georgetown; PHD 1969 The University of Texas at Austin

Kuppachi, Sarat, Clinical Professor, Internal Medicine/ Pediatrics, 2011 (2022); MBBCH 1998 Christian Med, India

Kurahashi, Masaaki, Assistant Professor, Internal Medicine, 2020 (2020); MD 1998 Nagoya University SOM

Kurian, Philip, Adjunct Assistant Professor, Physics Astronomy, 2018 (2018); BA 2005 Duke University; MSED 2007 University of Pennsylvania; PHD 2013 Howard University

Kurjatko, Alexander, Clinical Assistant Professor, Surgery, (2023); MD 2011 St. George's University

Kurth, Joseph Adam, Adjunct Instructor, Family Medicine, 2019 (2019); BS 2003 Saint Ambrose University; MD 2007 University of Iowa

Kurtz, Sheldon F., Emeritus Professor, Law-Faculty, 1973 (1976); AB 1964 Syracuse; JD 1967 Syracuse; LLB 1967 Syracuse

Kuruvilla-Dugdale, Mili, Associate Professor, Communication Sciences and Disorders/Neurology, (2023); PHD 2007 University of Queensland

Kusiak, Andrew, Professor, Industrial Engineering/Nursing, 1988 (1988); BSC 1972 Warsaw Technical; MSC 1974 Warsaw Technical; PHD 1979 Polish Academy of Science

Kutcher, Andrew Martin, Adjunct Instructor, University College Courses, (2019); BA 2013 University of Iowa; MED 2015 Clemson University

Kuthy, Raymond A., Emeritus Professor, Preventive Community Dentistry, 1999 (1999); BS 1969 Mount St. Mary's; DDS 1973 Temple; MPH 1979 The University of Minnesota-Twin Cities

Kutilek, Max, Adjunct Instructor, University College Courses, 2024 (2024); BS 2014 Northwestern Missouri State Un; MA 2017 Fort Hays State University

Kutlu, Ethan, Assistant Professor, Center for Soc Sci Innovation/Communication Sciences and Disorders/ Psychological and Brain Sciences, 2021 (2021); MS 2015 Carleton University; PHD 2020 University of Florida

Kutzko, Philip C., Emeritus Professor, Biostatistics/ Mathematics, 1974 (1979); BA 1967 City College of New York; MS 1968 University of Wisconsin-Madison; PHD 1972 University of Wisconsin-Madison

Kuvetakis, Brooke Jordana, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2014 Creighton University; PHD 2014 Creighton University

Kuz, Elif, Adjunct Assistant Professor, Mathematics, (2017); BS 2005 Bogazigi University; MS 2008 Bogazigi University; PHD 2016 University of Maryland

Kwak, Emily Y., Adjunct Assistant Professor, Pharmacy Practice and Science, 2012 (2012); PHARMD 2008 University of Iowa

Kwak, Yoon Jee, Assistant Professor, School of Art, Art History, and Design, (2025); MFA 2015 Rochester Institute of Tech.

Kwakye Nuako, Godwin, Adjunct Assistant Professor, Internal Medicine, 2021 (2021); PHD 2016 Lancaster University, UK

Kwofie, Michael A., Clinical Assistant Professor, Radiology, 2011 (2013); BA 2000 Pomona, CA; MD 2008 New York@Stony Brook; PHD 2008 New York@Stony Brook

Kwok, Ming Yan, Assistant Professor, English, (2025); MA 2017 New York University; PHD 2024 University of Virginia

Kwon, Young H., Professor, Ophthalmology Visual Science, 1996 (2008); BS 1984 MIT; MD 1991 Yale; PHD 1991 MIT

Kyle, Madison Marie, Adjunct Instructor, Social Work, 2024 (2024); MSW 2020 University of Iowa

Kyle-Griffiths, La Mer, Adjunct Instructor, Law-Faculty, 2020 (2023); BA 1996 University of Kentucky; BA 1999 University of Kentucky; JD 1999 University of Dayton

Kyles, Barbara June, Emeritus Lecturer, Nursing, 2004 (2005); BSN 1981 The University of Minnesota-Twin Cities; MBA 1993 St. Thomas, MN

L

L'Estrange, John Michael, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHAR 1995 Drake University

Labrecque, Douglas R., Emeritus Professor, Internal Medicine, 1977 (1988); BS 1965 Boston College; MD 1970 Stanford

Lachenmaier, Rebecca L., Adjunct Assistant Professor, Internal Medicine, 2021 (2021); MD 2000 Univ of Washington SOM

Lacombe, Scott James, Adjunct Assistant Professor, Political Science, (2020); BA 2015 Missouri State University Spri; PHD 2020 University of Iowa

Lacore, Travis Owen, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2005 South Dakota State University

Lafleur, Shauna Lynn, Clinical Assistant Professor, Family Medicine, 2017 (2023); BS 2003 Univ of Nebraska-Lincoln, NE; MD 2007 Univ of IA CCOM, Iowa City

Lafond, Cynthia Marie, Adjunct Assistant Professor, Nursing, 2015 (2015); BSN 1997 University of Iowa; PHD 2013 University of Illinois at Urbana Champaign

Lafontant, David-Erick, Clinical Assistant Professor, Biostatistics, (2024); BA 2011 Kean University; MS 2013 University of Iowa

Lagneaux, Ashly Catherine, Adjunct Instructor, Accounting, 2025 (2025); BA 2006 University of Iowa; MBA 2015 Mount Mercy University

Lagos Lavenz, Susan Marie, Emeritus Professor, Educ Policy Leadership Studies, 2003 (2011); BA 1972 St Mary of the Woods; MA 1975 University of Iowa; PHD 1985 University of Iowa

Lagrange, Daniel Arthur, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2010 University of Iowa

Lai, Brian H., Associate Professor, International Programs/ Political Science/University College Courses, 2001 (2007); BA 1996 Northwestern Univeristy; PHD 2001 Emory

Lai, Lillian May, Clinical Assistant Professor, Pediatrics/ Radiology, (2021); MD 2010 University of California-SD

Lainson, Phillip Argles, Emeritus Professor, Periodontics, 1965 (1975); BA 1960 University of Iowa; DDS 1962 University of Iowa; MS 1968 University of Iowa

Lake, Megan Lee, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2022 University of Iowa

Lake, Sharon Marie Rose Killeen, Adjunct Assistant Professor, American Studies, 2011 (2011); BA 1981 Iowa; MA 2004 Iowa; PHD 2010 Iowa

Lakhany, Farhan, Adjunct Assistant Professor, Philosophy, 2023 (2023); HS 2008 South Point; BA 2012 UNC Chapel Hill; MA 2016 King's College London; PHD 2023 University of Iowa

Lal, Geeta, Professor, Pediatrics/Surgery, 2004 (2022); MD 1995 Toronto; MS 1999 Toronto

Lalumiere, Ryan T., Professor, Psychological and Brain Sciences, 2010 (2023); BA 2000 Mt. St Mary's; BS 2000 Mt. St. Mary's College; PHD 2005 University of California-Irvine

Lamasters, Teresa L., Adjunct Associate Professor, Surgery, 2014 (2021); MD 2001 South Dakota

Lamb, Angela, Adjunct Instructor, University College Courses, 2013 (2013); BBA 2005 University of Iowa

Lamb, Malinda, Adjunct Assistant Professor, Sociology and Criminology, 2017 (2017); BSW 1998 Univ. of Missouri - Columbia; MSW 2000 Univ of Missouri - Columbia; PHD 2005 University of Missouri - Columbia

Lamb, Nathan Ryan, Adjunct Instructor, Preventive Community Dentistry, 2017 (2017); DDS 2013 University of Iowa

Lambi, Lisa N., Adjunct Assistant Professor, Pharmacy Practice and Science, 2006 (2006); PHARMD 2002 University of Iowa

Lammers, Julie M., Adjunct Instructor, Management and Entrepreneurship, 2023 (2023);

Lampe, Samuel Larry, Adjunct Assistant Professor, Internal Medicine, 2022 (2022); DO 2018 Des Moines University

Lamping, Kathryn G., Emeritus Associate Professor, Internal Medicine, 1989 (2001); BS 1976 University of Illinois at Urbana Champaign; MS 1982 Milwaukee Medical; PHD 1983 Milwaukee Medical

Lamsal, Kamal, Adjunct Instructor, Business Analytics, 2020 (2022); BA 2009 Coe College; PHD 2014 University of Iowa; MAC 2017 Emporia State University

Lamuta, Caterina, Associate Professor, Biomedical Engineering/Mechanical Engineering, 2018 (2024); BSL 2011 University of Calabria; MS 2013 University of Calabria, Italy; PHD 2017 University of Calabria, Italy

Lancaster, Gabriel David Lee, Adjunct Assistant Professor, Emergency Medicine, 2023 (2023); BS 2012 University of Iowa; MD 2019 University of Iowa

Lance, George M., Emeritus Professor, Mechanical Engineering, 1961 (1970); BSME 1952 Case Institute of Technology; MS 1954 Cast Inst. Of Technology

Land, Charlotte, Assistant Professor, Teaching and Learning, 2025 (2025); BS 2007 University of Missouri - Colum; MED 2010 University of Missouri - Colum; PHD 2019 University of Texas at Austin

Landal De Almeida Lobo, Giovana, Clinical Assistant Professor, Emergency Medicine, (2026); MD 2020 Faculdade Evangelica Mackenzie do Parana

Lander, Joshua Ray, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BS 1999 University of Iowa; MPT 2002 University of Iowa

Landini, Gregory, Professor, Philosophy, 1989 (2001); AB 1978 Indiana University-Bloomington; MA 1981 Indiana University-Bloomington; PHD 1986 Indiana University-Bloomington

Landon, Matthew W., Adjunct Assistant Professor, Music, 2025 (2025); BM 2012 Western Michigan University; MM 2017 Univ. of Northern Colorado

Landon, Richard B., Emeritus Professor, English, 1978 (1991); BA 1970 Centre; MA 1973 The University of Texas at Austin; PHD 1978 The University of Texas at Austin

Landsee, Benjamin John, Adjunct Instructor, University College Courses, 2017 (2017); MA 2009 Northern Illinois University

Landsman, Miriam Joy, Associate Professor, Social Work, 1988 (2007); BA 1976 Delaware; MSW 1982 University of Iowa; PHD 2000 University of Iowa

Landy, Janice Anderson, Adjunct Assistant Professor, Psychiatry, 2017 (2017); MD 1990 University of Iowa

Lane, Dustin C., Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2015 University of Iowa

Lane, Erin Megan Davidson, Clinical Assistant Professor, Counselor Education, 2018 (2018); PHD 2018 University of Iowa

Lang, Cornelia, Professor, Clas Administration/Physics Astronomy, 2002 (2020); BA 1995 Vassar; MS 1997 University of California-Los Angeles; PHD 2000 University of California-Los Angeles

Lang, Joseph B., Professor, Biostatistics/Statistics Actuarial Science, 1992 (2006); BA 1986 St. Cloud State; MS 1988 Florida; PHD 1992 Florida

Langbehn, Douglas Robert, Professor, Psychiatry, 1994 (2009); BA 1983 Drake; MD 1987 University of Iowa; MS 1988 University of Iowa; PHD 1996 University of Iowa

Lange, Randolph W., Clinical Assistant Professor, Teaching and Learning, 2015 (2024); BS 1988 University of Illinois at Urbana Champaign; MA 1989 University of Iowa; PHD 2004 University of Iowa

Langel, Ryan Francis, Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); DDS 2022 Creighton Univ

Langguth, Nancy J., Emeritus Professor, Teaching and Learning, 2003 (2014); BS 1980 Iowa State; MS 1986 NW Missouri; PHD 1996 University of Iowa

Langmack, Lucy Paige, Adjunct Instructor, University College Courses, 2025 (2025); BA 2020 University of Iowa

Langworthy, Sara Ann, Associate Professor, Interdisciplinary Programs/Library Information Science, 2006 (2018); AB 1994 Grinnell; MFA 2013 The University of Iowa

Lansing, Tami Sue, Adjunct Instructor, Physical Therapy Rehab Science, 2013 (2024); MPT 2002 University of Wisconsin-Lacrosse; DPT 2013 College of Scholastica

Lansman, Ashley, Adjunct Instructor, Preventive Community Dentistry, 2014 (2014); AASC 2007 DMACC; BS 2014 Upper Iowa University

Lanternier, Matthew Lyman, Clinical Assistant Professor, Family Medicine, 2000 (2000); BS 1992 Indiana University-Bloomington; MD 1999 University of Iowa

Lanternier, Natalie Lynn, Clinical Assistant Professor, Family Medicine, 2007 (2014); BS 1993 Indiana University-Bloomington; MD 1999 University of Iowa

Lantz, Susan, Adjunct Instructor, Accounting, 2025 (2025); PHD 2014 West Virginia University

Lanzel, Emily Anne, Clinical Associate Professor, Oral Path,RadiologyMedicine, (2023); BS 2007 University of Wisconsin-Madison; DDS 2012 University of Iowa

Lapides, Rachel, Adjunct Assistant Professor, Creative Writing, 2025 (2025); MFA 2025 The University of Iowa

Larew, Mary Spalding, Emeritus Associate Professor, Pediatrics, 1985 (2004); BA 1974 University of Iowa; MD 1978 University of Iowa

Laroche, Helena Hillman, Adjunct Associate Professor, Internal Medicine, 2006 (2019); BA 1994 Brown; MD 1999 Missouri Medical Schoo

Laroia, Archana, Clinical Associate Professor, Internal Medicine/Radiology, 2009 (2015); MBBS 1989 Gov Med College - India

Laroia, Sandeep, Clinical Professor, Internal Medicine/Radiology, 2009 (2023); MBBCH 1987 Himachal State, India; MD 1987 Indira Gandhi Med College

Laronde, Michel S., Emeritus Professor, French Italian, 1982 (2009); LIC 1971 Clermont-Ferrand; MA 1976 Indiana University-Bloomington; PHD 1981 Indiana University-Bloomington

Larson, Brandy Leeann, Adjunct Assistant Professor, Preventive Community Dentistry, 2010 (2010); BS 1997 Iowa State; DDS 2003 University of Iowa

Larson, Cheryl Rae, Adjunct Instructor, Pharmacy Practice and Science, 2024 (2024); BSPH 1994 University of Iowa

Larson, Priya, Clinical Assistant Professor, Psychiatry, (2021); MD 2016 University of Minnesota

Larson, Scott Thomas, Clinical Associate Professor, Family Medicine, 2017 (2024); BS 2009 Creighton Univ, Omaha, NE; MD 2013 Univ of IA Carver Coll of Med

Larson Ode, Katie Marie Ulring, Clinical Professor, Pediatrics, 2011 (2022); MD 2005 University of Wisconsin-Madison; MS 2011 The University of Minnesota-Twin Cities

Lash, Michael, Assistant Professor, Business Analytics, (2019); BA 2014 University of Iowa; MS 2017 The University of Iowa; PHD 2018 The University of Iowa

Latella, Leah, Adjunct Instructor, Journalism Mass Communication, 2024 (2024); BA 2005 Univ of North Carolina, CH

Latta, Drew Eric, Adjunct Assistant Professor, Civil-Environmental Engineering, 2024 (2024); BSE 2005 University of Iowa; PHD 2010 University of Iowa

Laubscher, Katie M., Adjunct Instructor, Physical Therapy Rehab Science, 2016 (2023); BS 2006 Creighton University; DPT 2006 Creighton University

Lauer, Judith P., Instructor, Teaching and Learning, (2025); BA 1991 Coe University; MA 1994 Marycrest International Univer

Laures, Elyse Lydie, Adjunct Assistant Professor, Nursing, 2020 (2024); BSN 2014 Valparaiso University; MSN 2018 University of Iowa; PHDN 2021 University of Iowa (Nursing)

Lautner, Lucas J., Adjunct Assistant Professor, Internal Medicine, 2020 (2020); MD 2007 University of Iowa COM

Laux, Douglas Earl, Clinical Associate Professor, Internal Medicine, 2014 (2020); MD 2005 University of Missouri SOM

Lavadie-Gomez, Eleanor Lisa, Adjunct Associate Professor, Family Medicine/Psychiatry, 2016 (2022); BS 1999 Univ of New Mexico; MD 2007 Univ of IA Carver Coll of Med

Lavezzo, Kathryn Marie, Professor, English, 1999 (2018); BA 1988 University of California-Los Angeles; MA 1991 Virginia; PHD 1999 University of California-Santa Barbara

Law, Ian Harry, Clinical Professor, Pediatrics, 2000 (2010); BSE 1988 University of Iowa; MD 1993 University of Iowa

Lawhead, Carlin Cedric, Adjunct Assistant Professor, Family Dentistry, 2021 (2021); DDS 1981 University of Iowa

Lawrence, Walter Thomas, Emeritus Professor, Surgery, 2010 (2010); MD 1976 Virginia

Lawson, Jessica Lyn Kleen, Adjunct Assistant Professor, Family Dentistry, 2021 (2021); DDS 2007 University of Iowa

Lawson, Michelle, Clinical Assistant Professor, Orthopaedics and Rehabilitation, (2025); MD 2019 University of Rochester

Lawton, Emily J., Assistant Professor, Health Management Policy, (2023); BA 2009 Connecticut College; MS 2017 MPP Public Polic Univ Michigan; PHD 2023 University of Michigan

Le, Nancy, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2020 Belmont University

Leach, Iyana Nambia, Adjunct Assistant Professor, African-American Studies, 2023 (2023); BA 2008 University of Iowa; MA 2022 University of Iowa

Leal, Mackenzie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2022 (2022); PHARMD 2014 Western Illinois University

Leary, Daniel James, Instructor, Internal Medicine, (2024); MD 2007 University of Iowa

Leary, Kecia S., Clinical Professor, Dental Clinic Administration/Pediatric Dentistry, 2015 (2021); DDS 2004 University of Iowa; CER 2007 University of Iowa; MS 2007 University of Iowa

Lebeau, Brandon Christopher, Adjunct Associate Professor, Business Analytics/Psych Quant Foundations, 2014 (2021); PHD 2013 The University of Minnesota-Twin Cities

Leblond, Richard F., Emeritus Professor, Internal Medicine, 1996 (1996); AB 1969 Princeton; MD 1972 Washington-Seattle

Lechtenberg, Kate Dower, Adjunct Instructor, Educ Policy Leadership Studies/Teaching and Learning, 2015 (2015); BA 2002 University of Iowa; MA 2011 University of Iowa; PHD 2020 University of Iowa

Lechtenberg, Ryan, Clinical Assistant Professor, Neurology, (2023); MD 2019 Carver College of Medicine

Lecuona, Rene Joan, Professor, Music, 1990 (2007); BM 1985 Indiana University-Bloomington; MM 1987 Indiana University-Bloomington

Ledbetter, Kelly Danielle, Clinical Assistant Professor, Surgery, 2020 (2020); BA 2007 Wellesley College; DMS 2013 University of Chicago Pritzker

Leddy, Johna, Professor, Chemistry, 1991 (2024); BA 1978 RICE; PHD 1984 The University of Texas at Austin

Lee, Andrew G., Adjunct Professor, Ophthalmology Visual Science, 2000 (2004); BA 1985 Virginia; MD 1989 Virginia

Lee, Debra Shawn, Adjunct Instructor, Teaching and Learning, (2022); MA 1981 University of Northern Iowa; EDD 2005 University of Northern Iowa

Lee, Duhyeong, Professor, Prosthodontics, (2025); DDS 2006 Kyungpook National University

Lee, Gloria, Emeritus Professor, Internal Medicine, 1998 (2013); PHD 1981 Harvard

Lee, Hosin, Professor, Civil-Environmental Engineering/ International Programs, 1999 (2010); BS 1980 Seoul National; MS 1981 Stanford; PHD 1985 The University of Texas at Austin

Lee, Hyeong-Tak, Assistant Professor, Marketing, 2017 (2017); BBA 2007 Korea University; MS 2009 Ohio State University; PHD 2017 University of North Carolina

Lee, Jangbo, Assistant Professor, Neurosurgery, (2023); MD 1995 Korea University

Lee, Jason David, Associate Professor, Marketing, 2021 (2025); MBA 2011 Mount Mercy University

Lee, Jazmin Danielle, Adjunct Assistant Professor, Pharmacy Practice and Science, (2020); PHARMD 2019 University of Nebraska Medical

Lee, Jeongrim, Clinical Professor, Anesthesia, 2025 (2025); MD 2001 Seoul National University

Lee, Jodie Rae, Adjunct Assistant Professor, Nursing, 2022 (2025); BSN 2002 University of Iowa; MSN 2019 University of Iowa

Lee, Jung Hyun, Assistant Professor, Center for Soc Sci Innovation/Health Management Policy, (2025); BBA 2015 Seoul National University; MS 2017 Seoul National University

Lee, Justin, Adjunct Instructor, Biology, 2024 (2024); AS 2018 Snow College; BS 2021 Utah State University; PHD 2024 University of Iowa

Lee, Kenneth, Assistant Professor, Music, 2024 (2024); BM 2012 Eastman School of Music; MM 2014 New England Conservatory; DMA 2019 New England Conservatory

Lee, Linda Mary, Clinical Associate Professor, Internal Medicine, 2015 (2015); MD 1986 University of Michigan-Ann Arbor

Lee, Michael, Adjunct Instructor, Accounting, 2025 (2025); BA 1994 University of Puget Sound; JD 1998 Creighton University; MBA 2002 Thunderbird

Lee, Molly Jean, Adjunct Instructor, Occupational Environmental Health, 2022 (2025); MPH 2017 University of Iowa

Lee, Phillip C., Adjunct Assistant Professor, Otolaryngology-Head Neck Surgery, 2015 (2001); MD 1981 University of Iowa

Lee, Rosemary Soeun, Adjunct Assistant Professor, Biology, 2024 (2024); BS 2018 Univ. of Ill. Champaign

Lee, Samantha, Assistant Professor, Nursing, 2021 (2024); MSN 2009 Rush University; DNP 2022 University of Iowa

Lee, Sangil, Clinical Professor, Emergency Medicine, 2016 (2025); MD 2005 Nagoya City University; MS 2015 Mayo Graduate School

Lee, Shelly Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2015); PHARMD 2005 University of Iowa

Lee, Stephanie Si-Tang, Clinical Associate Professor, Pediatrics, (2025); MD 2012 The Ohio State University

Lee, Won-Chan, Professor, Psych Quant Foundations, 2008 (2016); BA 1991 Kyungpook National; MS 1994 Oklahoma; PHD 1998 University of Iowa

Lee, Yongki, Clinical Assistant Professor, Anesthesia, (2025); MD 2005 Seoul National University

Lee Son, Kang Yu Kathy, Clinical Professor, Pediatrics, 2013 (2025); MD 2006 British Columbia

Lees, Mackenzie Catherine, Adjunct Assistant Professor, Surgery/Carver College of Medicine, 2024 (2024); MD 2013 University of Alberta

Lefevre, Gregory Hallett, Associate Professor, Civil-Environmental Engineering, 2016 (2022); BS 2006 Michigan Technological Univers; MS 2009 The University of Minnesota-Twin Cities; PHD 2012 The University of Minnesota-Twin Cities

Lefevre, Tania, Adjunct Instructor, Educ Policy Leadership Studies/University College Courses, 2025 (2025); BA 2010 Univ of Puerto Rico, Mayaguez; JD 2012 Pontificia Universidad Catolic; MA 2017 Univ of Puerto Rico, Mayaguez; EDD 2024 The University of Iowa

Lefler, Amanda Sue, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2012 University of Iowa

Leger, Pierre-Majorique, Adjunct Professor, Business Analytics, 2010 (2010); PHD 2002 Ecole Polytech de Montrea

Legg, Ryan C., Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BS 2005 University of Nebraska Omaha; DPT 2008 Des Moines University

Legge, Kevin L., Professor, Microbiology and Immunology/ Pathology, 2004 (2018); BS 1994 Knoxville, Tenn; PHD 2000 Tenn., Knoxville

Lehman, Nicholas P., Adjunct Assistant Professor, Internal Medicine, 2004 (2004); PHARMD 2003 Iowa

Lehmann, Ryan K., Clinical Associate Professor, Surgery, (2023); DO 2005 Kirksville College of Osteopathy

Lehmann, Susan P., Emeritus Assistant Professor, Nursing, 1978 (2005); BSN 1975 Loyola; MSN 1979 Loyola

Lehmler, Hans-Joachim, Professor, Occupational Environmental Health/Public Health Administration, 2003 (2017); BS 1990 Bonn, Germany; MS 1993 Bonn, Germany; PHD 1995 Bonn, Germany

Lehnert, Dawn, Adjunct Instructor, Preventive Community Dentistry, 2006 (2006); BA 1993 Drake; AASC 1999 Hawkeye Comm College

Leighton, Claire, Adjunct Instructor, University College Courses, (2021); BS 2015 University of IOwa

Leinen, Katherine Sue, Adjunct Assistant Professor, Internal Medicine, 2011 (2011); DO 2007 Des Moines

Leira, Enrique Carlos, Professor, Epidemiology/Neurology/Neurosurgery, 2004 (2019); MD 1988 Universidad de Santiago; MS 2007 University of Iowa

Leisure, Mary Jill, Adjunct Assistant Professor, Pharmacy Practice and Science, 1997 (2006); BSPH 1991 South Dakota State; PHARMD 2003 University of Iowa

Lemasters, Kyle, Adjunct Assistant Professor, Psychiatry, 2022 (2022); BS 2013 University of Iowa; DO 2018 Kansas City University

Lemburg, Lucas Anthony, Adjunct Instructor, Preventive Community Dentistry, 2011 (2011); AA 2002 Scott Community College; DDS 2008 University of Iowa

Leme Kraus, Ariene Arcas, Assistant Professor, Operative Dentistry, (2020); DDS 2007 Federal Uni of Mato Grosso do; MS 2011 State University of Compinas; PHD 2013 State University of Campinas

Lemke, Amy Lynn, Adjunct Instructor, Social Work, 2020 (2020); BA 1991 Illinois State University; MSW 1994 University of Illinois - Urban

Lemke, Julie Marie, Adjunct Assistant Professor, Internal Medicine, 2010 (2010); DO 2006 Des Moines

Lemus, Rachel Michelle, Adjunct Instructor, Preventive Community Dentistry, 2025 (2025); DDS 2021 University of Iowa

Lenert, Aleksander, Clinical Associate Professor, Internal Medicine, (2019); MD 2009 University of Ottawa

Lenert, Petar, Clinical Professor, Internal Medicine, 2002 (2017); MD 1979 Novi Sad; MSC 1981 Belgrade; PHD 1991 Novi Sad

Lens, Jill Wieber, Professor, Law-Faculty, 2024 (2024); BA 2002 University of Wisconsin; JD 2005 The University of Iowa

Lens, Joshua, Associate Professor, Health Sport and Human Physiology, 2024 (2024); BA 2002 University of Northern Iowa; JD 2005 Univ of Iowa College of Law

Lensink, Stephen C., Adjunct Assistant Professor, Anthropology, 1983 (1988); BS 1968 Iowa State; MA 1976 University of Iowa; PHD 1984 University of Iowa

Lenth, Larry Eugene, Instructor, Oral Maxillofacial Surgery, 2006 (2025); DDS 1985 University of Iowa; CER 1989 The University of Minnesota-Twin Cities

Lenth, Russell V., Emeritus Professor, Statistics Actuarial Science, 1975 (2005); BS 1970 New Mexico; MA 1972 New Mexico; PHD 1975 New Mexico

Lentz, Steven, Professor, Internal Medicine, 1992 (2003); BS 1979 Iowa State; MD 1985 Washington

Leo, Ken Charles, Adjunct Instructor, Physical Therapy Rehab Science, 1980 (2024); MA 1980 University of Iowa

Leonard, Julia Alexander, Professor, Interdisciplinary Programs, 2001 (2023); MFA 2001 University of Iowa

Leonard, Paul Arthur, Clinical Associate Professor, Anesthesia, 1995 (2006); MD 1991 University of Iowa

Leone, Leah Elizabeth, Adjunct Instructor, Languages, Literatures, Linguistics, and Cultures, 2024 (2024); BA 2001 Central College; MA 2005 University of Wisconsin - Milw

Leslie, Kimberly Kay, Emeritus Professor, Obstetrics Gynecology, 2009 (2009); BS 1975 Baylor; BS 1977 Texas Christian; MD 1981 Southwestern Medical

Lessa, Flavia Soares, Clinical Assistant Professor, Obstetrics Gynecology, 2024 (2024); MD 2001 Federal Univ of Rio de Janeiro

Leste, James T., Adjunct Assistant Professor, Health Management Policy, 2025 (2025); BA 1997 University of Minnesota Duluth; MS 1998 University of Minnesota Duluth

Lester, Patrick Alan, Adjunct Assistant Professor, Pharmacy Practice and Science, 2008 (2008); PHARMD 2007 Illinois-Chicago

Letendre, Donald E., Professor, Pharmacy Practice and Science, 2007 (2007); BS 1976 Massachusets College of Pharma; PHAR 1979 Kentucky

Letney, Todd Leroy, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1987 Luther College, Decorah, IA; MD 1991 Univ of IA CCOM, Iowa City

Leusink, Jill Nicole, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2003 Drake University

Leutner, Robert W., Emeritus Associate Professor, Asian Slavic Languages Literature, 1982 (1985); BA 1968 Harvard; MA 1970 University of Michigan-Ann Arbor; MA 1973 University of Michigan-Ann Arbor; PHD 1976 University of Michigan-Ann Arbor

Levin, Avraham Dimitry, Clinical Associate Professor, Internal Medicine, 2017 (2023); MD 1999 The Hebrew University-Hadassah

Levin, Irwin P., Emeritus Professor, Marketing/Psychological and Brain Sciences, 1965 (1977); BA 1960 University of California-Los Angeles; MA 1963 University of California-Los Angeles; PHD 1965 University of California-Los Angeles

Levine, Allison, Assistant Professor, Center for Soc Sci Innovation/Counselor Education, (2021); PHD 2018 Michigan State University

Levine, Mark Avri, Professor, Creative Writing/English, 1999 (2018); BA 1987 Brown; MFA 1990 University of Iowa

Levy, Barcey Thurston, Professor, Epidemiology/Family Medicine, 1993 (2006); AB 1978 Princeton; PHD 1984 University of North Carolina at Chapel Hill; MD 1990 University of Iowa

Levy, Steven M., Professor, Epidemiology/Preventive Community Dentistry, 1984 (1994); BA 1978 Princeton; DDS 1982 University of North Carolina at Chapel Hill; MPH 1984 University of North Carolina at Chapel Hill

Lew, Daniel, Emeritus Professor, Oral Maxillofacial Surgery, 1992 (1992); BS 1958 Tufts; DDS 1962 Fairleigh Dickinson

Lewey, Megan Michelle, Assistant Professor, Health Sport and Human Physiology, 2015 (2024); BS 2013 Iowa State University; MPH 2015 University of Iowa

Lewin, Ellen, Emeritus Professor, Anthropology/Gender, Women's and Sexuality Studies, 1997 (1999); AB 1967 University of Chicago; AM 1968 Stanford; PHD 1975 Stanford

Lewis, Andrew, Adjunct Instructor, Languages, Literatures, Linguistics, and Cultures, 2015 (2024); BS 2009 Truman State University; MA 2011 University of Iowa

Lewis, Crystal Lee, Adjunct Instructor, University College Courses, 2018 (2018); BA 1995 Wesleyan University; MA 1999 University of Iowa

Lewis, Dale Patrick, Adjunct Assistant Professor, Pharmacy Practice and Science, 1998 (1998); PHARMD 1994 University of Iowa

Lewis, James Marlin, Adjunct Instructor, Finance, 2016 (2024); BBA 1983 University of Iowa

Lewis, Paige, Assistant Professor, English, (2022); MFA 2016 Florida STate University; PHD 2019 Florida State University

Lewis, Roshan, Adjunct Assistant Professor, Internal Medicine, 2010 (2010); MBBCH 1999 Thiruvananthapuram

Lewis Jr., John H., Assistant Professor, Finance, 2021 (2025); BA 1996 University of Georgia; MS 1997 Boston University; PHD 2020 Universite Paris Dauphine-PSL

Lewis-Beck, Michael S., Emeritus Professor, Political Science, 1974 (1982); BA 1965 Ball State; MA 1966 University of Michigan-Ann Arbor; PHD 1973 University of Michigan-Ann Arbor

Li, Bing, Professor, Pathology/Surgery, 2021 (2021); PHD 2004 Peking University

Li, Erning, Associate Professor, Statistics Actuarial Science, 2011 (2023); MS 2001 North Carolina State; PHD 2004 North Carolina State

Li, Guanpeng, Assistant Professor, , (2019); PHD 2019 University of British Columbia

Li, Hongshuai, Associate Professor, Orthopaedics and Rehabilitation/Radiation Oncology, (2025); PHD 2007 Shanghai Jiaotong University

Li, Li, Adjunct Associate Professor, Nursing, 2006 (2023); BSN 1997 Peking Union Medical College; MSN 2003 First Military Medical

Li, Linhan, Adjunct Assistant Professor, Earth and Environmental Sciences, 2023 (2023); MS 2018 University of Houston; PHD 2022 University of Houston

Li, Tong, Professor, Mathematics, 1993 (2008); BA 1983 Peking; MS 1986 Peking; PHD 1992 New York

Li, Wei, Associate Professor, Finance, 2010 (2016); BA 1993 Xian Jiaotong; PHD 2001 University of Iowa; PHD 2006 University of Iowa

Li, Yanjie, Assistant Professor, Languages, Literatures, Linguistics, and Cultures, (2025); MA 2016 Webster University; PHD 2023 Washington Uni in St. Louis

Liao, Junlin, Adjunct Associate Professor, Surgery, 2009 (2013); MBA 2001 University of Iowa; MHA 2002 University of Iowa; PHD 2007 University of Iowa

Liao, Yuan, Professor, Economics, 2025 (2025); BS 2005 Tsinghua University, Beijing C; PHD 2010 Northwestern University

Liddell, Debora L., Emeritus Professor, Educ Policy Leadership Studies, 1991 (2015); BA 1978 Georgia State; MA 1980 Iowa State; EDD 1990 Auburn

Lie, Erik, Professor, Finance, 2004 (2008); BS 1990 Oregon; MBA 1991 Oregon; PHD 1996 Purdue University Main Campus

Lieberman, Scott Matthew, Professor, Pediatrics, 2013 (2025); MD 2005 Albert Einstein College of Med; PHD 2005 Albert Einstein College of Med

Liebig, Christopher John, Professor, Law-Faculty, 1998 (1998); JD 1990 Harvard

Liebrecht, Alexander, Assistant Professor, Statistics Actuarial Science, (2024); MS 2020 The University of Iowa; PHD 2023 The University of Iowa

Liebzeit, Daniel John, Assistant Professor, Nursing, 2020 (2020); BSN 2014 University of Wisconsin; PHD 2018 University of Wisconsin

Liesveld, Jill Lynette, Clinical Associate Professor, Psychiatry, 1997 (2001); BS 1981 University of Iowa; MD 1986 University of Iowa

Lightfoot, Justin Aaron, Adjunct Lecturer, Law-Faculty, 2022 (2022); BA 2003 Iowa State University; JD 2006 The University of Iowa

Liimatta, Katja Merja, Emeritus Assistant Professor, Languages, Literatures, Linguistics, and Cultures, 2000 (2024); PHD 2000 Pennsylvania

Lilien, Jack, Emeritus Professor, Biology, 2000 (2000); BA 1962 Southern California; PHD 1967 University of Illinois at Chicago

Lilienthal, Anthony John, Adjunct Assistant Professor, Biology, (2024); BS 2013 Drake University; PHD 2023 The University of Iowa

Lill, Jeremy Brandon, Adjunct Assistant Professor, Accounting, 2017 (2017); PHD 2015 University of Illinois at Urba

Lillie, Helen, Assistant Professor, Communication Studies, (2022); BA 2010 Michigan Tech University; MA 2015 Purdue University; PHD 2019 Purdue University

Lillios, Katina, Professor, Anthropology/International Programs, 2003 (2015); BA 1982 Boston; MA 1984 Yale; PHD 1991 Yale

Lillis, Kevin M., Adjunct Professor, Computer Science, 2016 (2014); BSE 1985 Steubenville; MS 1998 Marycrest International; PHD 2008 University of Iowa

Lim, Ramon, Emeritus Professor, Neurology, 1981 (1984); MD 1958 Santo Tomas; PHD 1966 Pennsylvania

Lim, Tae-Hong, Professor, Biomedical Engineering, 2003 (2003); BS 1982 Seoul National UNI; MS 1984 Seoul National UNI; PHD 1990 University of Iowa

Lin, Ching-Long, Professor, Biomedical Engineering/ Mechanical Engineering/Radiology, 1997 (2007); BS 1986 National Taiwan; MS 1989 Stanford; PHD 1994 Stanford

Lin, Fang, Associate Professor, Anatomy Cell Biology, 2008 (2015); MD 1994 Peking Union Med.; PHD 2002 South Wales

Lin, Jim Jung-Ching, Emeritus Professor, Biology, 1984 (1992); BS 1969 National Taiwan; PHD 1979 Connecticut

Lin, Qihang, Professor, Business Analytics, 2013 (2025); BS 2008 Tsinghua, China; MS 2010 Carnegie Mellon University; PHD 2013 Carnegie Mellon

Lin, Tom Wentao, Assistant Professor, English, (2024); PHD 2024 UC Davis

Lin, Yung-Wei, Associate Professor, Counselor Education, (2023); PHD 2011 University of North Texas

Lin-Dyken, Deborah C., Clinical Professor, Pediatrics, 1991 (2019); BS 1981 Purdue University Main Campus; MD 1985 Indiana University-Bloomington

Linahon, Lauren Elizabeth Frances, Adjunct Instructor, Teaching and Learning, (2023); BFA 2014 University of Iowa; MA 2021 University of Iowa

Lindaman, Caitlin, Instructor, Pediatrics, (2024); MD 2019 University of Iowa

Linden, Harmony, Clinical Assistant Professor, Social Work, 2018 (2024); BA 2004 William Jewell University; CER 2005 State of Iowa; MSW 2012 Univeristy of Iowa

Linden, Todd C., Adjunct Professor, Health Management Policy, 1994 (2014); MA 1987 University of Iowa

Linder, Donald J., Adjunct Assistant Professor, Emergency Medicine, 2004 (2004); BA 1993 Iowa; DO 1993 Univ of Osteopathic Med

Linder, Jonathan Rand, Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2017); PHARMD 2016 University of Iowa

Linder, Marc, Professor, Law-Faculty, 1990 (1990); BA 1966 University of Illinois at Chicago; MA 1971 Princeton; PHD 1973 Princeton; JD 1983 Harvard

Linderman, Marc Alan, Associate Professor, School of Earth, Environment, and Sustainability, 2005 (2011); PHD 2002 Michigan State University

Lindgren, Marcia Harvey, Emeritus Associate Professor, Classics, 2000 (2021); PHD 1983 University of Iowa

Lindgren, Scott D., Emeritus Professor, Pediatrics, 1980 (1997); BA 1972 Yale; MA 1975 University of Iowa; PHD 1977 University of Iowa

Lindow, Cassidy, Adjunct Instructor, Civil-Environmental Engineering, 2023 (2024); BE 2019 The University of Iowa

Lindower, Julie Beattie, Clinical Professor, Pediatrics, 2008 (2024); MD 1991 University of Iowa; MPH 2005 University of Iowa

Lindower, Paul D., Emeritus Professor, Internal Medicine, 2002 (2012); BS 1983 Earlham; MD 1987 The Ohio State University

Lindquist, Terry Jean, Emeritus Associate Professor, Prosthodontics, 1994 (2002); BS 1990 The University of Minnesota-Twin Cities; DDS 1990 University of Iowa; MS 1994 SUNY

Line, Madeline, Assistant Professor, Anthropology, 2024 (2025); BA 2014 University of Western Ontario; MA 2015 Durham University; PHD 2020 Durham University, UK

Ling, Sarah Beisser, Adjunct Assistant Professor, Family Medicine, 2018 (2018); BA 2006 St. Olaf College;Northfield, M; MPH 2009 Colorado School of Public Heal; DO 2014 Des Moines Univ, Des Moines,IA

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Linge, Zach Austin, Adjunct Assistant Professor, Management and Entrepreneurship, 2024 (2024); BA 2015 The Univ of Texas at Austin; MA 2017 The Univ of Texas at San Anton; PHD 2021 Florida State University

Lingle, Abby, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2021 South Dakota State

Link, Brian Krall, Emeritus Professor, Internal Medicine, 1993 (2008); BA 1982 Northwestern Univeristy; MD 1986 University of Iowa

Link, Ellen Adair, Emeritus Professor, Pediatrics, 1991 (2010); MD 1986 University of Iowa

Link, Patrick, Assistant Professor, Biomedical Engineering, 2025 (2025); BS 2014 Western Carolina University; MS 2017 Virginia Commonwealth Universi; PHD 2019 Virginia Commonwealth Universi

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Linton, Edward Fort, Assistant Professor, Ophthalmology Visual Science, 2023 (2023); MD 2017 University of Pennsylvania

Lira, Matthew, Assistant Professor, Psych Quant Foundations, (2018); PHD 2016 University of Illinois

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Liu, Christopher, Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); DDS 2011 University of Iowa

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Liu, Haiying, Adjunct Assistant Professor, Anesthesia, 2025 (2025); MD 2017 Texas Tech University Health S

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Liu, Jamie J., Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); DDS 2023 University of Iowa

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Logan, Nelson S., Emeritus Professor, Preventive Community Dentistry, 1970 (1978); PHD 1969 Utah

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Logsdon, John, Associate Professor, Biology, 2003 (2007); BS 1988 Iowa State; PHD 1995 Indiana University-Bloomington

Lohafer, Susan, Emeritus Professor, English, 1973 (1982); BA 1964 Radcliffe; MA 1966 Stanford; PHD 1970 New York

London, Barry, Professor, Internal Medicine/Molecular Physiology Biophysics, 2012 (2012); MD 1984 Albert Einstein COM

Long, Jeffrey D., Professor, Biostatistics/Psychiatry, 2010 (2010); MA 1992 California State; PHD 1996 Southern CA

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Longo, Frank J., Emeritus Professor, Anatomy Cell Biology, 1976 (1979); BS 1962 Loyola; MS 1965 Oregon State; PHD 1967 Oregon State

Longobardi, Joseph M., Adjunct Assistant Professor, Emergency Medicine, 2022 (2022); DO 2017 Des Moines University

Lonngren, Karl E., Emeritus Professor, Electrical-Computer Engineering/Physics Astronomy, 1965 (1972); BS 1960 University of Wisconsin-Madison; MS 1962 University of Wisconsin-Madison; PHD 1964 University of Wisconsin-Madison

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Lopes Abath Neto, Osorio, Clinical Assistant Professor, Pathology, (2022); MD 2014 Universidade de sao Paulo

Lopez, Karen Dunn, Professor, Nursing, (2024); PHD 2008 University of Iowa

Lorenzen, Allison Welte, Clinical Assistant Professor, Surgery, (2022); MD 2012 University of Iowa

Losch, Mary E., Clinical Adjunct Associate Professor, Community Behavioral Health, 2004 (2004); BS 1981 Murray State; MA 1985 University of Iowa; PHD 1988 University of Iowa

Lose, Daniel T., Adjunct Instructor, Nursing, 2020 (2023); BSN 2012 University of Iowa; DNP 2016 University of Iowa

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Lovaglia, Michael J., Professor, Sociology and Criminology, 1992 (2003); BA 1987 San Jose State; MA 1989 Stanford; PHD 1992 Stanford

Love, Jean C., Emeritus Professor, Law-Faculty, 1991 (1991); BA 1965 University of Wisconsin-Madison; JD 1968 University of Wisconsin-Madison

Lowe, Timothy J., Emeritus Professor, Business Analytics, 1989 (1989); BSIE 1965 Iowa State; ME 1967 Iowa State; PHD 1973 Northwestern Univeristy

Lowry, Luke, Adjunct Assistant Professor, Emergency Medicine, 2024 (2024); MD 2013 Washington University

Lowry, Timothy C., Adjunct Instructor, Family Medicine, 1991 (2017); BS 1976 Emory Univ; Atlanta, GA; MD 1981 VIRGINIA MED.

Loy, Alisha, Adjunct Assistant Professor, Health Management Policy, 2021 (2023); BS 1999 Iowa State University

Loyd, William, Adjunct Instructor, Teaching and Learning, 2023 (2023); BS 1984 University of South Carolina

Lozano, Sheila Adele, Adjunct Instructor, Educ Policy Leadership Studies, 2005 (2024); BLS 1994 NORTHERN IOWA; MA 1997 NORTHERN IOWA; PHD 2014 Iowa State University

Lu, Jia, Professor, Mechanical Engineering, 2001 (2013); BS 1985 Beijing Aeronautics; MENG 1988 Tsinghua; PHD 1999 University of California-Berkeley

Luangrath, Andrea Webb, Associate Professor, Marketing, 2017 (2022); BBA 2010 University of Wisconsin; PHD 2016 University of Wisconsin

Luangrath, Mitchell Anthony, Clinical Assistant Professor, Pediatrics, (2020); MD 2014 Univ. of Wisconsin School Med

Lubaroff, David M., Emeritus Professor, Urology, 1973 (1982); BS 1961 Philadelphia-Pharmacy and Sci; MS 1964 Georgetown; PHD 1967 Yale

Lubrica, Pena Lynn Vizconde, Adjunct Assistant Professor, Communication Sciences and Disorders, 2023 (2023); BS 1991 University of Iowa; MA 1993 University of Iowa

Lucena, Amalia De Fatima, Adjunct Associate Professor, Nursing, 2021 (2021); DSC 2007 Universidade Fed De Sao Pualo; PHS 2007 Universidade Fed. De Sao Paulo

Ludewig, Gabriele, Emeritus Professor, Occupational Environmental Health, 2003 (2012); BS 1977 Mainz; MS 1982 Mainz; PHD 1991 Mainz

Ludgate, Melissa Brenda, Clinical Assistant Professor, Internal Medicine/Psychiatry, 2021 (2021); MD 2016 University of Arizona

Luedtke, Carolyn Anne, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2020 University of Iowa

Lumetta, Justin J., Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); GED 1996 State of Iowa; AA 2005 Southeastern Community College; BS 2008 University of Iowa

Lund, Brian Christopher, Adjunct Assistant Professor, Epidemiology, 2001 (2001); PHARMD 1999 University of Iowa; MS 2002 University of Iowa

Lund, Peter Scott, Emeritus Associate Professor, Prosthodontics, 2007 (2007); BFA 1976 The University of Minnesota-Twin Cities; DDS 1980 The University of Minnesota-Twin Cities; MS 1987 The University of Minnesota-Twin Cities

Lundberg, Jerilyn Sue, Clinical Assistant Professor, Internal Medicine, 2014 (2014); MD 1995 University of Iowa

Lundquist, April Rose, Adjunct Assistant Professor, Pharmacy Practice and Science, 2008 (2008); PHARMD 2004 Drake

Lundquist, Kathryn Elizabeth, Adjunct Instructor, Physical Therapy Rehab Science, 2023 (2023); BA 2011 University of Iowa; MOT 2015 St. Ambrose University

Lundquist, Rebecca S., Adjunct Professor, Psychiatry, 2019 (2025); MD 1994 Wright State

Lundstrom, John Robert, Adjunct Assistant Professor, Endodontics, 2015 (2015); DDS 2003 University of North Carolina at Chapel Hill; CER 2009 University of Iowa

Lundstrom, Megan Jane, Clinical Associate Professor, Health Sport and Human Physiology/Orthopaedics and Rehabilitation, 2016 (2018); BS 1999 University of Wisconsin-Madison; MS 2001 University of Wisconsin-Madison; DED 2013 The University of Minnesota-Twin Cities

Lundstrom, Nathan Gary, Adjunct Instructor, Accounting, 2024 (2024); BS 2010 University of Arizona; PHD 2019 Univ of Missouri-Columbia

Lundy, Todd Emery, Adjunct Instructor, Preventive Community Dentistry, 2015 (2015); DDS 2006 University of Iowa

Luo, Jia, Professor, Pathology, (2020); PHD 1995 University of Iowa

Luo, Qi, Assistant Professor, Business Analytics, 2023 (2023); BSE 2013 Xi'an Jiaotong University; MSE 2015 University of Michigan; PHD 2020 University of Michigan

Luo, Yi, Professor, Urology, 2002 (2018); MD 1978 Nanjing Medical

Luo, Yunjie, Instructor, Health Sport and Human Physiology, (2025); HS 2014 Yinchuan No. 1 High School; BS 2020 Oregon State Univesity; MS 2025 University of Iowa; MSC 2025 University of Iowa

Luschei, Erich S., Emeritus Professor, Communication Sciences and Disorders, 1983 (1983); BS 1964 Washington; PHD 1968 Washington

Lutgendorf, Philip A., Emeritus Professor, Asian Slavic Languages Literature, 1985 (2006); BA 1971 University of Illinois at Chicago; MA 1982 University of Illinois at Chicago; PHD 1986 University of Illinois at Chicago

Lutgendorf, Susan Kerri, Professor, Obstetrics Gynecology/ Psychological and Brain Sciences/Urology, 1988 (2006); BA 1971 University of Illinois at Chicago; MSW 1976 University of Illinois at Urbana Champaign; PHD 1994 Miami

Lutz, Erica Lynn, Adjunct Instructor, Counselor Education, 2007 (2023); BA 2001 Iowa; BSN 2001 Iowa; MA 2007 University of Iowa

Lutz, Katie Lynn, Clinical Assistant Professor, Pediatrics, (2019); BS 2008 Iowa State University; MD 2014 University of Iowa

Luzuriaga, Sara Jane, Adjunct Assistant Professor, Creative Writing, 2024 (2024); HS 2016 Phillips Academy; BA 2021 Yale University; MFA 2024 The University of Iowa

Lyle, David, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); BS 2015 University of Iowa; DDS 2019 University of Iowa

Lyman, Richard Alan, Adjunct Instructor, Preventive Community Dentistry, 2021 (2021); DDS 1994 University of Iowa

Lynch, Alison Cornelia, Clinical Professor, Family Medicine/ Psychiatry, 2003 (2017); BS 1990 Massachusetts; MD 1998 University of Iowa

Lynch, Charles Francis, Emeritus Professor, Epidemiology, 1982 (1998); BS 1974 Loras; MD 1979 University of Iowa; MS 1979 University of Iowa; PHD 1984 University of Iowa

Lynch, Zachary Ronald, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2019 University of Iowa

Lyness, Janet Mabel, Adjunct Instructor, Law-Faculty, 2020 (2024); BS 1982 The University of Iowa; JD 1989 The University of Iowa

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Lyon, Andrea D., Adjunct Instructor, Law-Faculty, 2013 (2024); BA 1973 RUTGERS UNIVERSITY-NEW BRUNSWICK; JD 1976 Antioch School of Law

Lyon, James Michael, Adjunct Assistant Professor, Pharmacy Practice and Science, 2022 (2022); PHARMD 2012 UMKC School of Pharmacy

Lyons, Dean Philip, Adjunct Instructor, Otolaryngology-Head Neck Surgery, 2015 (2024); MD 1975 University of Iowa

Lyons, Nathan, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 Roseman University of Health S

Lyu, Yujia, Adjunct Assistant Professor, Sociology and Criminology, 2024 (2024); BA 2015 Central China Normal Universit

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Ma, Deqin, Clinical Professor, Pathology, 2011 (2023); MD 1988 Shandong Medical Univ.-China; PHD 1998 Kentucky

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Maas, Kari E., Clinical Assistant Professor, Dental Clinic Administration/Oral Path,RadiologyMedicine, 2015 (2000); DDS 1998 University of Iowa

Maassen, Rachel Anna, Clinical Professor, Obstetrics Gynecology, 2006 (2022); BS 1998 University of Iowa; MD 2002 University of Iowa

Mabb, Nicolette M., Adjunct Professor, Nursing, 2023 (2023); BA 1998 Business Management; ADN 2008 NICC; DNP 2014 University of Iowa

Mabry, Tad R., Emeritus Professor, Pediatric Dentistry, 2009 (2017); BA 1983 Westminster College; DDS 1987 Oklahoma Col of Dentistry; MS 1994 University of Nebraska-Lincoln

Maccourt, Michael Joseph, Professor, Finance, 2023 (2023); BBA 2000 Drake University

Macfarlane, Donald E., Emeritus Professor, Internal Medicine, 1979 (1995); MBBS 1967 London; PHD 1975 London

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Machetta, Gregg R., Adjunct Instructor, Business Analytics, 2021 (2024); BSE 1988 University of Iowa; MS 1990 University of Iowa; SCM 1990 University of Iowa; MBA 2000 University of Iowa

Machir, Morton, Clinical Assistant Professor, Internal Medicine, (2023); MD 2019 University of Iowa

Maciel Barbosa, Fernando, Clinical Associate Professor, Internal Medicine, (2025); MD 2006 Federal Univ. of Uberlandia

Mackey, Michael Austin, Emeritus Associate Professor, Biomedical Engineering, 2000 (2000); PHD 1998 University of California-Berkeley

Mackinney, A. Clinton, Clinical Associate Professor, Health Management Policy, 2010 (2014); BA 1978 Miami; MD 1982 Ohio; MS 1998 University of Wisconsin-Madison

Macvey, Alan M., Emeritus Professor, Theatre Arts, 1991 (1998); BA 1968 Stanford; MA 1970 Stanford; MFA 1977 Yale

Madathil, Sujana, Clinical Assistant Professor, Neurology/ Pediatrics, (2023); MBBS 2009 Calicut Medical College

Madhoo Reynolds, Natasha Lara, Clinical Assistant Professor, Pediatrics, (2018); BA 2008 Luther College; MA 2009 Loyola University; MD 2014 University of Iowa

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Madison, Kathi C., Emeritus Professor, Dermatology, 1984 (1999); SCB 1975 Brown; MD 1978 Brown

Madlock-Brown, Charisse Renee, Associate Professor, Nursing, 2023 (2023); BA 2002 Simon's Rock College of Bard; MA 2008 University of Iowa; PHD 2014 University of Iowa

Madsen, Mark T., Emeritus Professor, Radiology, 1988 (2003); BS 1973 University of Wisconsin-Kenosha; MS 1975 University of Wisconsin-Madison; MS 1976 University of Wisconsin-Madison; PHD 1979 University of Wisconsin-Madison

Maeyaert, Micaela M., Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHAR 2014 North Dakota State University

Magalski, Kimberley D., Adjunct Assistant Professor, Emergency Medicine, 2022 (2022); MD 1995 University of Missouri

Magnotta, Vincent Alfonso, Professor, Biomedical Engineering/Psychiatry/Radiology, 2003 (2017); BA 1991 Albion; MS 1994 University of Iowa; PHD 1997 University of Iowa

Magnuson, Lori Anne, Adjunct Assistant Professor, Counselor Education, 2013 (2013); BA 1981 Northwest College; MA 1998 Seattle

Magsamen-Conrad, Katie C., Professor, Communication Studies, 2018 (2023); BS 2002 Mansfield University; MA 2005 Illinois State University; PHD 2012 Rutgers University

Maharishi, Anvita, Assistant Professor, Family Dentistry, (2022); BDS 2009 DAVV University; MS 2019 UAB School of Dentistry, Birm; MS 2022 Harvard, School of Dental Med

Maharry, Michael Karl, Clinical Associate Professor, Family Medicine, 1999 (2008); BA 1992 Washington-St. Louis; MD 1996 University of Iowa

Mahatmya, Duhita, Assistant Professor, Psych Quant Foundations, (2025); MS 2009 Iowa State University; PHD 2011 Iowa State University

Maher, James W., Emeritus Professor, Surgery, 1985 (1989); BS 1970 Randolph-Macon; MD 1974 Florida

Maher, Kimberly A., Adjunct Assistant Professor, English, 2016 (2016); BA 2010 St. Ambrose University; MA 2014 Univ of Iowa; MFA 2014 University of Iowa

Mahoney, Larry T., Emeritus Professor, Pediatrics, 1976 (1992); BS 1969 Loras; MD 1973 University of Iowa

Mahoney, Mark Alan, Adjunct Assistant Professor, Family Medicine, 1999 (2002); BA 1980 Bethel; MD 1984 University of Iowa

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Mailloux, Adam W., Assistant Professor, Microbiology and Immunology, (2020); PHD 2009 Medical Univ. of South Carolina

Majeed, Yasmin Adele, Adjunct Assistant Professor, Creative Writing, 2023 (2023); MFA 2023 University of Iowa

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Makhdum, Hiba, Clinical Assistant Professor, Family Medicine, (2024); MBBS 2020 Royal Coll Surg; Dublin, Ireland

Maktabi, Omar Mazen, Adjunct Assistant Professor, Endodontics, 2017 (2017); BS 2008 University of Michigan; DDS 2012 University of Iowa; MSD 2016 Loma Linda University

Maley, Joan Elizabeth, Clinical Professor, Otolaryngology-Head Neck Surgery/Radiology, 1997 (2013); BS 1988 University of Iowa; MD 1992 University of Iowa

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Malik, Norbert R., Emeritus Professor, Electrical-Computer Engineering, 1967 (1980); BS 1959 University of Iowa; MSEE 1960 University of Iowa; PHD 1964 Iowa State

Malik, Samira, Clinical Assistant Professor, Internal Medicine, (2021); MD 2010 University of Khartoum

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Mallen, James Christopher, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); DO 2011 Des Moines University

Maller, Jerome Joseph, Research Professor, Radiology, (2025); PHD 2005 Australian National University

Mallik, Bhagaban, Adjunct Assistant Professor, Biology, 2023 (2023); MS 2009 Utkal Univ, India; MS 2012 Indian Inst of Tech, Guwahati; PHD 2018 Indian Inst of Sci Ed Res

Mallory, Samantha, Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 2009 University of Oklahoma

Malmberg, Kristee Kay, Adjunct Instructor, Dental Clinic Administration, 2024 (2024); BS 2008 Bellevue University

Malone, Robert E., Emeritus Professor, Biology, 1985 (1993); BS 1970 University of California-Los Angeles; PHD 1976 Oregon

Maloof, Vyhyahn, Adjunct Assistant Professor, Health Sport and Human Physiology, 2023 (2023); MD 2002 Belize Medical School

Manak, John R., Professor, Biology/Pediatrics, 2008 (2021); BS 1984 Trinity, Hartford CT; MS 1987 New York; PHD 1992 Columbia

Manchala, Uday, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); BDS 2007 S. B. Patil Dental College; DDS 2015 New York University

Mancuso, Abigail C., Clinical Assistant Professor, Obstetrics Gynecology, (2020); MD 2013 Creighton Univ. School of Med

Mancuso, Nicholas John, Adjunct Assistant Professor, Internal Medicine, 2021 (2021); MD 2014 Creighton University

Mandala, Venkata Shiva, Assistant Professor, Biochemistry and Molecular Biology, 2025 (2025); PHD 2021 Massachusetts Inst of Technolo

Manderscheid, Megan, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHAR 2008 University of Iowa

Mangalam, Ashutosh, Professor, Pathology, 2015 (2025); BS 1993 Lucknow University; BSC 1994 Lucknow Univeristy; MS 1995 University of Indore; PHD 2002 Sanjay Gandhi Post Grad Inst

Mangan, Ashley Diane, Adjunct Instructor, Teaching and Learning, 2025 (2025); BA 2005 The University of Iowa; MA 2022 The University of Iowa

Mangold, Margaret Karr, Adjunct Instructor, Family Medicine, 2017 (2017); BA 2003 Cornell College, MtVernon,IA; MD 2007 Univ of IA CCOM, Iowa City,IA

Mangrich-Hickman, Elizabeth, Instructor, Family Medicine, (2024); BS 1998 Creighton Univ,Omaha,NE; MD 2002 University of Iowa

Mangum, Teresa L., Emeritus Professor, Gender, Women's and Sexuality Studies, 1990 (2014); BA 1976 Appalachian State; MA 1979 North Carolina State; PHD 1990 University of Illinois at Urbana Champaign

Mani, Arul Murugan, Research Assistant Professor, Internal Medicine, (2022); PHD 2009 NATIONAL DAIRY RESEARCH INSTIT

Mani, Geethalakshmi, Adjunct Instructor, Family Medicine, 2017 (2017); MD 1994 Stanley Medical College

Manicassamy, Balaji, Professor, Microbiology and Immunology, (2024); PHD 2005 University of Illinois-Chicago

Mann, Riley Lynne, Adjunct Assistant Professor, Dental Clinic Administration, 2024 (2024); DDS 2024 University of Iowa

Manning, John, Associate Professor, Music, 2004 (2010); BM 1991 Boston; MM 2002 MA Amherst

Manoylov, Kalina, Adjunct Associate Professor, University College Courses, 2013 (2013); PHD 2005 Michigan State University

Mansfield, Marisa L., Adjunct Instructor, Social Work, 2025 (2025); MSW 2016 University of Iowa

Manternach, Jeremy N., Associate Professor, Music/ Teaching and Learning, 2014 (2021); BA 2000 St. Johns; MM 2009 Kansas; PHD 2012 Kansas

Manternach, Rebecca Lyn, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 University of Iowa

Manteufel, Kris Marie, Adjunct Instructor, Social Work, 2016 (2016); BA 1994 University of Iowa; MSW 2011 University of Iowa

Maples, Sara Elizabeth, Adjunct Instructor, Business Administration-College, 2018 (2023); BS 2006 University of Kansas; MS 2011 UNIVERSITY OF MICHIGAN-ANN ARBOR

Mapuskar, Kranti Ashok, Adjunct Assistant Professor, Radiation Oncology, 2023 (2023); PHD 2013 University of Iowa

Marberry, Constance Sue, Adjunct Assistant Professor, Mathematics, 2025 (2025); BA 1982 Bowdoin College; MA 1990 Trenton State College; PHD 1995 The University of Iowa

Marce, Pilar, Associate Professor, Spanish Portuguese, 2006 (2020); BA 1998 Pompeu Fabra; MA 2003 Purdue University Main Campus; MA 2005 Monterey Institute of Int'l St

Marchetti, Kathryn, Assistant Professor, Urology, 2025 (2025); MD 2018 University of Michigan

Marchik, Mary Anne Marie, Emeritus Assistant Professor, Social Work, 1990 (2000); BA 1977 University of Iowa; MSW 1984 University of Iowa

Marchini, Leonardo, Professor, Preventive Community Dentistry, 2013 (2023); DDS 1996 ICT-UNESP

Marchman, James Nathan, Emeritus Professor, Psychological and Brain Sciences, 1977 (2000); BA 1966 Eastern New Mexico; MA 1968 University of Iowa; PHD 1973 University of Iowa

Marcussen, Britt Lee, Clinical Professor, Family Medicine, 1999 (2022); BS 1988 University of Iowa; MD 1994 University of Iowa

Mareau, Jacquelyn Lee, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2022); PHARMD 2021 UICOP

Marek, Cindy Lou, Emeritus Professor, Oral Path,RadiologyMedicine, 1990 (2020); BS 1986 University of Iowa; PHARMD 1996 University of Iowa

Maretzky, Thorsten, Assistant Professor, Internal Medicine, 2016 (2016); PHD 2005 ChristianAlbrechts Univ

Margeas, Robert C., Adjunct Professor, Operative Dentistry, 1990 (2000); DDS 1986 University of Iowa

Margolin, Benjamin Paul, Assistant Professor, Business Analytics, 2016 (2025); BS 2006 Univ of Michigan-Ann Arbor; MS 2013 University of Iowa; PHD 2016 University of Iowa

Margolin, Leslie H., Professor, Counselor Education, 1987 (1998); BA 1967 Bard; MSW 1970 Hunter; PHD 1985 University of Nebraska-Lincoln

Margulis, Claudio Javier, Professor, Chemistry, 2003 (2015); PHD 2001 Boston

Marian, Anil, Clinical Professor, Anesthesia, 2008 (2020); MBBS 1999 Trivandrum, India; MD 2002 Mumbai, India

Marin, Michela, Adjunct Instructor, Marketing, 2008 (2023); BA 1990 Venice

Marino, Frank Sam, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1986 Univ of Texas, Arlington, TX; DO 1991 TX college of Osteopathic Med

Markfort, Corey Dean, Associate Professor, Civil-Environmental Engineering/Mechanical Engineering, 2014 (2022); PHD 2013 The University of Minnesota-Twin Cities

Markovetz, Nicollet Ann, Emeritus Assistant Professor, Nursing, 1983 (2005); BS 1971 University of Iowa; MSN 1984 University of Iowa

Marks, Jessie Elizabeth, Clinical Associate Professor, Pediatrics, 2013 (2020); BS 2004 Valparaiso; MD 2009 Loyola

Marlar, Priscilla Anne, Adjunct Assistant Professor, Health Management Policy, 2022 (2022); BA 2010 Iowa Wesleyan University; MHA 2021 University of Iowa

Marmaduke, Andrew, Adjunct Assistant Professor, Computer Science, 2025 (2025); BS 2015 Univ of Akron; MS 2015 Univ of Akron-combined program; PHD 2024 University of Iowa

Marques, Fernanda, Clinical Assistant Professor, Pediatrics, 2025 (2025); MD 2003 Federal Univ of Rio De Janeiro

Marques, Francisco, Associate Professor, Center for Soc Sci Innovation/Journalism Mass Communication, 2024 (2024); BA 2001 Federal Univ of Bahia, Brazil; MA 2004 Federal Univ of Bahia, Brazil; PHD 2008 Federal Univ of Bahia, Brazil

Marques Ferraz Savoia, Fernanda, Clinical Assistant Professor, Anesthesia, (2024); MD 2008 Federal University Pernambuco

Marra, Kimberley Bell, Emeritus Professor, Theatre Arts, 1990 (2007); BA 1981 Dartmouth; MA 1983 Brown; PHD 1990 University of Wisconsin-Madison

Marrs, Kristin Elizabeth, Associate Professor, Dance, 2013 (2021); BA 2005 St. Ambrose; MFA 2012 University of Iowa

Marschall, Jeffrey Scott, Clinical Assistant Professor, Oral Maxillofacial Surgery, (2023); DMD 2016 University of Louisville; MD 2016 University of Louisville; MD 2019 University of Louisville; CER 2022 University of Louisville

Marschall, Meredith, Adjunct Assistant Professor, Family Dentistry, 2023 (2023); DMD 2016 University of Loiuisville

Marsh, J. Lawrence, Professor, Orthopaedics and Rehabilitation, 1987 (1995); BA 1975 Colgate; MD 1979 State Univ of NY-Upstate Med

Marsh, Kristin Elizabeth Buroker, Instructor, Pediatrics/ Psychiatry, 2007 (2024); MD 2002 University of Iowa

Marshall, Keith M., Emeritus Professor, Anthropology, 1972 (1980); BA 1965 Grinnell; MA 1967 Washington; PHD 1972 Washington

Marshall, Leslie B., Emeritus Associate Professor, Nursing, 1974 (1985); BA 1965 Grinnell; PHD 1973 Washington; BSN 1990 Mt. Mercy

Marshall, Steven, Clinical Professor, Orthodontics, 2004 (2014); BA 1974 Knox; DDS 1984 Northwestern Univeristy; MS 1986 Northwestern Univeristy

Marshall, Teresa A., Professor, Preventive Community Dentistry, 1992 (2015); PHD 1987 University of Iowa

Martell, Lillian Zier, Associate Professor, Journalism Mass Communication, 2016 (2025); BS 1986 Kansas State University; MA 1999 University of Oklahoma

Martens, Misty L., Assistant Professor, Nursing, (2024); BSN 2022 Mount Mercy University; MSN 2023 Mount Mercy University

Martin, David B., Associate Professor, Chemistry, 2019 (2022); BS 2005 University of British Columbia; DPHIL 2011 University of California Irvin; PHD 2011 University of California irvin

Martin, Elizabeth Anne, Assistant Professor, Biology, 2024 (2025); BFA 2007 University of Georgia; PHD 2018 University of Utah

Martin, Emily, Adjunct Assistant Professor, Interdisciplinary Programs, 1999 (1999); BFA 1975 University of Iowa; MA 1977 University of Iowa; MFA 1979 University of Iowa

Martin, James A., Emeritus Associate Professor, Orthopaedics and Rehabilitation, 2008 (2009); BS 1983 University of California-Los Angeles; PHD 1992 North Carolina State

Martin, Juan Ezequiel, Adjunct Assistant Professor, Mechanical Engineering, 2011 (2011); BS 2001 Nacional de Cuyo; MS 2004 University of Illinois at Urbana Champaign; PHD 2009 University of Illinois at Urbana Champaign

Martin, Katrina, Adjunct Assistant Professor, Nursing, 2020 (2024); BS 2016 Brigham Young University; MSN 2020 University of Oklahoma Health

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Martinez, Sabrina Marie, Adjunct Assistant Professor, Family Medicine, 2021 (2021); BA 2008 Columbia Univ., New York, NY; MD 2017 Univ. of Wisconsin School of Medicine

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Martini, Nicholas Fred, Assistant Professor, Political Science/University College Courses, 2015 (2015); BA 2001 California State University; MA 2004 California State University; PHD 2012 University of Iowa

Martirosyan, Nikolay, Adjunct Assistant Professor, Neurosurgery, (2019); MD 2005 First Moscow State Medical; PHD 2016 Arizona State University

Marvin, Roberta M., Adjunct Professor, International Programs, 1997 (2019); BM 1975 Boston Conservatory; MA 1986 Tufts; PHD 1992 Brandeis

Marx, Anastasia M., Adjunct Assistant Professor, Emergency Medicine, 2023 (2023); BS 2006 University of Alaska; DO 2012 Des Moines University

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Mascardo, Lisa, Adjunct Associate Professor, Pharmacy Practice and Science, 2002 (2018); BS 1995 University of Iowa; BSPH 1995 University of Iowa; PHARMD 1997 University of Iowa

Mashiat, Tasfia, Assistant Professor, Computer Science, (2025); PHD 2024 George Mason University

Mason, Benjamin James, Adjunct Assistant Professor, Creative Writing, 2024 (2024); MFA 2024 University of Iowa

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Mason, Sally K., Emeritus Professor, Biology/President, 2007 (2007); BA 1972 Kentucky; MS 1974 Purdue University Main Campus; PHD 1978 University of Arizona

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Massner, Kody Joseph, Adjunct Assistant Professor, Anesthesia, 2025 (2025); DO 2019 Des Moines Univ. College of Os

Mastascusa, Nicolo J., Clinical Assistant Professor, Pharmacy Practice and Science/Radiology, 2011 (2011); PHARMD 2008 University of Iowa

Mathahs, Shana Alyssa, Adjunct Assistant Professor, Pharmacy Practice and Science, 2009 (2009); PHARMD 2007 University of Iowa

Matharu, Kanwal Singh, Assistant Professor, Ophthalmology Visual Science, (2023); MD 2017 University of Texas

Mather, Amanda Renee, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); BS 2009 University of Iowa; PHARMD 2013 University of Iowa

Mather, Betty B., Emeritus Professor, Music, 1952 (1973); BA 1949 Oberlin; MA 1951 Columbia

Matheson, Daniel Richard, Professor, Health Sport and Human Physiology/Law-Faculty, 2011 (2022); BS 1993 University of Iowa; JD 1996 The University of Minnesota-Twin Cities

Matheson, Lloyd E., Emeritus Associate Professor, Pharmacy, 1975 (1980); BS 1964 University of Wisconsin-Madison; PHD 1970 University of Wisconsin-Madison

Mathews, Katherine Dianne, Professor, Neurology/ Pediatrics, 1989 (2008); BS 1976 University of Iowa; MD 1981 University of Iowa

Mathews, Michael, Adjunct Assistant Professor, Pediatric Dentistry, 2002 (2002); BA 1991 Central; DDS 2000 University of Iowa

Matsumoto, Eiyu, Clinical Associate Professor, Internal Medicine, 2015 (2021); MD 2003 Univ Miyazaki,Japan

Matsumoto, Satsuki, Clinical Associate Professor, Neurology/Pediatrics, 2013 (2023); MD 2003 Tsukuba, Japan

Mattes, Timothy Edward, Professor, Civil-Environmental Engineering, 2004 (2017); BSE 1994 John Hopkins; MSE 1995 John Hopkins; PHD 2004 Cornell University

Matthews, Megan Sue, Adjunct Instructor, Social Work, 2024 (2024); BLS 2000 University of Iowa; MSW 2009 University of Iowa

Matveeva, Yulia N., Clinical Associate Professor, Family Medicine, 2011 (2023); MD 2000 Russian People's Friendship U.

Mauck, Hyun Bi Han, Adjunct Instructor, English as Second Language, 2024 (2024); BA 2016 University of Iowa

Maurice, Thomas J., Adjunct Assistant Professor, Pediatric Dentistry, 2003 (2003); BS 1988 Illinois Wesleyan; DDS 1992 University of Iowa; MS 1995 University of North Carolina at Chapel Hill

Mauro, Geovanne P., Clinical Assistant Professor, Radiation Oncology, (2025); MD 2012 Univ of San Paulo, Brazil; PHD 2020 Univ of San Paulo, Brazil

Maury, Wendy, Professor, Microbiology and Immunology, 1999 (2012); BA 1976 Duke; MS 1980 North Carolina State; PHD 1988 Virginia

Maxson, Linda, Emeritus Professor, Biology, 1997 (1997); BS 1964 San Diego State; MA 1966 San Diego State; PHD 1973 University of California-Berkeley

Maxted, James C., Emeritus Associate Professor, Electrical-Computer Engineering, 2001 (2017); BSEE 1974 University of Iowa; MSEE 1984 University of Iowa

Maxwell, Briana, Adjunct Assistant Professor, Theatre Arts, 2008 (2008); BS 2005 Austin Pray St.; MFA 2008 University of Iowa

Maxwell Leckband, Sarah Susan, Adjunct Instructor, Law-Faculty, 2024 (2024); BA 1999 Luther College; JD 2008 Drake University; MA 2023 University of Iowa

May, Dustin Morgan, Adjunct Assistant Professor, Occupational Environmental Health, 2021 (2021); BS 2006 University of Iowa; DPHIL 2020 University of Iowa

May, Nikolas S., Adjunct Assistant Professor, Family Medicine, 2017 (2017); BS 2006 Univ of Iowa, Iowa City, IA; MD 2011 Univ of IA CCOM, Iowa City

Maybanks, Nicholas George, Adjunct Instructor, Law-Faculty, 2022 (2022); BA 1997 Loras College; JD 2000 Drake University

Mayer, Jacob Matthew, Adjunct Instructor, Journalism Mass Communication, 2023 (2023); BA 2019 University of Iowa

Mayor Romero, Luis Carlos, Clinical Associate Professor, Neurology, (2025); MD 1981 Colegio Mayor de Nuestra Senior

Mayrhofer, Sonja Nicole, Associate Professor, Accounting, 2016 (2022); PHD 2015 THE UNIVERSITY OF IOWA

Maze, Daniel Wallace, Adjunct Associate Professor, School of Art, Art History, and Design, (2023); BA 1992 Williams College; MA 2007 University of California; PHD 2013 University of California

Mazur, Alexander, Emeritus Professor, Internal Medicine, 2007 (2016); MD 1983 Perm, Russia

Mazur, Eugenia, Clinical Associate Professor, Obstetrics Gynecology, 2011 (2024); MD 1983 Perm State

Mcallister, Bryant F., Emeritus Associate Professor, Biology, 2002 (2008); BS 1989 Texas A M; MS 1992 Texas A M; PHD 1997 Rochester

Mcbride, William, Adjunct Assistant Professor, Dental Clinic Administration, 2024 (2024); DDS 2010 University of Iowa

Mcbrien, Dianne M., Clinical Professor, Pediatrics, 1997 (2020); MD 1991 Mayo Medical

Mccabe, Daniel Joseph, Clinical Associate Professor, Emergency Medicine/Pharmacy Practice and Science, 2019 (2023); BS 2007 University of Iowa; MD 2013 University of Iowa

Mccambridge, Chad, Adjunct Associate Professor, Family Medicine, 2011 (2011); BS 1997 University of Iowa; MD 2001 University of Iowa

Mccann, Dustin Anthony, Adjunct Assistant Professor, Internal Medicine, 2017 (2017); DO 2010 Des Moines University

Mccarter, Linda, Emeritus Professor, Microbiology and Immunology, 1996 (2009); BA 1974 Hawaii; PHD 1983 University of California-Davis

Mccarthy, Ann Marie, Emeritus Professor, Nursing, 1984 (2005); BA 1972 Simmons; MSN 1976 Boston College; PHD 1990 University of Iowa

Mccarthy, Christine, Emeritus Associate Professor, Educ Policy Leadership Studies, 1995 (2001); BA 1976 Quinnipiac; MA 1980 Colorado; MA 1990 The Ohio State University; PHD 1992 The Ohio State University

Mccarthy, Laura C., Adjunct Assistant Professor, Pediatrics, (2021); DO 2013 Kansas City University of Medicine

Mccarthy-Clifford, Letitia, Adjunct Instructor, Preventive Community Dentistry, 2017 (2017); BS 1977 Creighton University; DDS 1984 Creighton University

Mccarville, Katherine, Adjunct Professor, University College Courses, 2018 (2018); PHD 2004 South Dakota School of Mines a

Mccauley, Stewart, Assistant Professor, Communication Sciences and Disorders, 2019 (2019); BA 2007 University of Texas-Austin; MA 2010 University of Delaware; PHD 2017 Cornell University

Mccaulley, Grant David, Adjunct Assistant Professor, Endodontics, 2025 (2025); BA 2014 University of Iowa; DDS 2019 University of Iowa; CER 2025 University of Iowa

Mccaw, Patricia Jane, Adjunct Assistant Professor, Family Medicine, 2024 (2024); BS 1994 Univ of Iowa; Iowa City,IA; MD 1998 Univ of Iowa COM, Iowa City

Mccleery, Amanda, Adjunct Assistant Professor, Psychological and Brain Sciences, 2020 (2020); BSC 2004

University of Toronto; MA 2009 Kent State University; PHD 2012 Kent State University

Mcclellan, Courtney, Adjunct Instructor, University College Courses, 2020 (2020); BA 2015 University of Iowa; MED 2017 University of South Florida

Mcclelland, William C., Emeritus Professor, School of Earth, Environment, and Sustainability, 2008 (2008); PHD 1990 University of Arizona

Mccollum, Trey Roy, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 Saint Joseph's University

Mccormick, George R., Emeritus Professor, Earth and Environmental Sciences, 1968 (1976); BA 1958 Ohio Wesleyan; PHD 1964 The Ohio State University

Mccoy, James Grant, Instructor, Urology, (2024); MD 1986 University of Iowa

Mccoy-Hess, Meghan, Adjunct Professor, Psychiatry, 2023 (2023); PHD 2011 Palo Alto University

Mccracken, Ryan Doyle, Adjunct Assistant Professor, Emergency Medicine, 2018 (2018); MD 2006 University of Iowa

Mccray, Paul B., Professor, Internal Medicine/Microbiology and Immunology/Pediatrics, 1991 (2001); BA 1976 St. Olaf; MD 1981 University of Iowa

Mccrory, Kellee Thorburn, Adjunct Instructor, Social Work, 2014 (2014); BS 1998 California State University; MPH 2003 University of Iowa; MSW 2014 University of Iowa

Mccue, James F., Emeritus Professor, Religion, 1965 (1973); BA 1955 Xavier; MA 1958 Loyola University of Chicago; PHD 1961 University of Wisconsin-Madison

Mccue, Patrick, Clinical Assistant Professor, Physical Therapy Rehab Science, (2025); BS 2010 Montana State University; DPT 2013 University of Iowa

Mccunniff, Michael David, Adjunct Instructor, Preventive Community Dentistry, 1999 (1999); DDS 1983 Missouri-Kansas City

Mcdanel, Deanna L., Clinical Associate Professor, Pharmacy Practice and Science, 2002 (2011); PHARMD 2001 University of Iowa

Mcdanel, Jennifer Sue, Adjunct Assistant Professor, Epidemiology/Health Management Policy, 2014 (2023); BS 2005 University of Iowa; MS 2008 University of Iowa; PHD 2013 University of Iowa

Mcdermott, Mark Andrew, Clinical Professor, Education Administration/Teaching and Learning, 2012 (2018); BS 1995 Cornell; MS 2002 Iowa State; PHD 2009 University of Iowa

Mcdonald, Amy L., Assistant Professor, Accounting, (2025); BA 1995 University of St. Thomas; MBT 2001 University of Minnesota

Mcdonald, Brooklyn L., Adjunct Instructor, Teaching and Learning, 2025 (2025); BFA 2008 The University of Iowa

Mcdonald, Conner T., Clinical Assistant Professor, Emergency Medicine, 2025 (2025); MD 2020 Med Univ of South Carolina

Mcdonald, Megan Elaine, Clinical Associate Professor, Obstetrics Gynecology, (2024); BS 2007 Loyola University; MD 2011 University of Kansas School of Medicine

Mcdonnell, Jennifer Lenor, Assistant Professor, Health Management Policy, (2025); MPH 2025 Rolins School of Public Health; PHD 2025 Emory University

Mcdonough, Randy Patrick, Adjunct Professor, Pharmacy Practice and Science, 1988 (2003); BSPH 1987 University of Iowa; MS 1997 University of Iowa

Mcdougall, Dana Jeffrey, Adjunct Assistant Professor, Pharmacy Practice and Science, 2011 (2013); PHARMD 2011 University of Iowa

Mcdowell, Bradley D., Adjunct Associate Professor, Epidemiology, 2000 (2025); AA 1988 Des Moines Area Community; BA 1990 Northern Iowa; MA 1993 Iowa; PHD 1996 Iowa

Mcdowell, Taylor, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHAR 2018 Drake University

Mcelroy, Steven J., Adjunct Professor, Pediatrics, 2011 (2021); BS 1995 Juniata; MD 1999 Hahnemann

Mcelroy-Heltzel, Stacey Elizabeth, Associate Professor, Psych Quant Foundations, 2019 (2025); MS 2012 Georgia State University; PHD 2017 Georgia State University

Mcfadden, Amanda, Adjunct Instructor, University College Courses/World Languages, Literatures, and Cultures, 2011 (2014); BA 2009 Northern Iowa; MS 2011 Miami

Mcfarland, Daniel, Adjunct Associate Professor, Internal Medicine, 2025 (2025); DO 2007 New York College; MS 2023 Creighton University

Mcgarvey, Clinton Johnathon, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DDS 2014 Loma Linda University

Mcgee, Betsy, Adjunct Instructor, Psychiatry, 2013 (2013); MD 2008 University of Illinois at Urbana Champaign

Mcgehee, Daniel Victor, Professor, Center for Soc Sci Innovation/Emergency Medicine/Industrial Engineering/ Occupational Environmental Health, 1999 (2024); BA 1986 Central Washington; MS 1995 Idaho; PHD 2009 Leeds (UK)

Mcgill, Matthew James, Professor, Chemical Biochemical Engineering/Physics Astronomy, (2022); PHD 1996 Univ of Michigan, Ann Arbor

Mcginn, Jennifer Jo, Adjunct Instructor, Health Sport and Human Physiology, 2024 (2024); BA 2002 University of Iowa

Mcginty, Kyle C., Adjunct Assistant Professor, Psychiatry, (2021); MD 2017 Tulane University; MPH 2017 Tulane School of Public Health

Mcgivern, Sean, Adjunct Assistant Professor, Pediatric Dentistry, (2025); BA 2009 University of Iowa; DDS 2017 University of Iowa; CER 2021 University of California, LA

Mcgonagill, Patrick William, Clinical Associate Professor, Surgery, 2016 (2022); BA 2005 University of Iowa; MD 2010 University of Iowa

Mcgowan, Stephen Edward, Emeritus Professor, Internal Medicine, 1986 (1998); AB 1972 Washington; MD 1976 Rochester

Mcgrane, Regina Sue, Instructor, Microbiology and Immunology, (2022); BA 2009 University of Northern Iowa; PHD 2015 Iowa State University

Mcgregor, Karla K., Emeritus Professor, Communication Sciences and Disorders, 2005 (2008); BA 1984 University of

North Carolina at Chapel Hill; MS 1987 Purdue University Main Campus; PHD 1992 Purdue University Main Campus

Mcguire, Steve, Professor, School of Art, Art History, and Design, 1988 (2005); BS 1981 Northwest Missouri State; MA 1983 University of Iowa; PHD 1990 University of Iowa

Mchose, Ronald R., Adjunct Instructor, Family Medicine, (2019); BA 1978 Drake University; DO 1981 Des Moines - Osteopathic Med

Mcintire, Chelsea Jo, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2021); PHAR 2018 University of Iowa

Mckay, Mckayle Lynn, Instructor, Teaching and Learning, 2018 (2025); BA 1993 University of Northern Iowa

Mckay, Sherry Lea, Emeritus Assistant Professor, Nursing, 1998 (2004); BSN 1993 Iowa Wesleyan; BSN 1998 University of Iowa; MSN 1998 University of Iowa

Mckay Casto, Heidi, Assistant Professor, School of Art, Art History, and Design, 2019 (2019); BFA 2002 Ohio State Univ; MFA 2011 University of Iowa

Mckee, Austin, Instructor, Chemical Biochemical Engineering, (2024); BSE 2017 University of Iowa; MS 2021 University of Iowa; DPHIL 2022 University of Iowa

Mckeever, Kevin, Adjunct Instructor, Law-Faculty, 2020 (2023); BA 1991 Northwestern University; JD 2001 University of Iowa

Mckenna, Ann Frances, Professor, Engineering Administration/Mechanical Engineering, (2023); PHD 2001 University of CA, Berkeley

Mckenzie, Jacalyn M., Associate Professor, Nursing, (2028); BSN 1994 Allen College of Nursing; MSN 2008 Allen College; DNP 2015 Concordia University - WI

Mckerley, John William, Adjunct Assistant Professor, History/Law-Faculty, 2015 (2014); BA 1998 Alabama-Huntsvil; MA 2001 University of Iowa; PHD 2008 University of Iowa

Mckirgan, Lisa Joann, Adjunct Instructor, University College Courses, 2018 (2018); BA 1980 University of Iowa

Mcknight, Carrie Beth, Clinical Associate Professor, Dental Clinic Administration/Oral Path,RadiologyMedicine, 1999 (2020); DDS 1998 University of Iowa

Mclaren, Rachel Maree, Associate Professor, Communication Studies, 2008 (2016); BA 2003 LaSalle; MA 2005 Pennsylvania State University; PHD 2008 Pennsylvania State University

Mclaughlin, Christa Suzann, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1995 ; MD 1999 Univ of IA coll of Med, Iowa

Mcleese, Donald George, Emeritus Associate Professor, Journalism Mass Communication, 2003 (2006); BA 1973 North Central; MA 1975 University of Illinois at Chicago

Mclendon, Jared Milligan, Assistant Professor, Internal Medicine/Pharmaceutical Sciences and Experimental Therapeutics, (2023); PHD 2015 University of South Alabama

Mcleod, Kembrew, Professor, Communication Studies, 2000 (2013); BS 1993 James Madison; MA 1995 Virginia; PHD 1999 Massachusetts-Amherst

Mcleod, Laura, Adjunct Assistant Professor, Marketing, 2024 (2024); BA 1992 Emory University; MBA 1999 Duke University

Mcloughlin, Andrea Marie, Adjunct Assistant Professor, Family Medicine, 2021 (2021); MD 2013 University of Iowa

Mcloughlin, Michael Joseph, Adjunct Assistant Professor, Internal Medicine, 2018 (2018); MD 2013 Carver College of Medicine

Mcloughlin, Ryan, Clinical Assistant Professor, Orthopaedics and Rehabilitation, (2023); MD 2019 SUNY Downstate Health Sciences

Mcmahon, Emily M., Adjunct Instructor, Journalism Mass Communication, 2016 (2016); BA 2008 University of Iowa

Mcmillan, Christopher-Rasheem, Associate Professor, Dance/Gender, Women's and Sexuality Studies, 2016 (2024); BS 2007 Hampshire College; MFA 2011 Laban Conservatory; PHD 2016 Kings College London

Mcmullen, Ronald Keith, Associate Professor, Political Science, 2012 (2012); BA 1978 Drake; MA 1982 University of Iowa; PHD 1985 University of Iowa

Mcmurray, Robert M., Professor, Communication Sciences and Disorders/Linguistics/Otolaryngology-Head Neck Surgery/ Psychological and Brain Sciences, 2004 (2015); BA 1998 Cornell University; MS 2003 Rochester, NY; PHD 2004 Rochester, NY

Mcnabb, Scott F., Emeritus Associate Professor, Educ Policy Leadership Studies, 1979 (1984); BA 1968 Earlham; MED 1972 Harvard; PHD 1978 Virginia

Mcnally, Theodore, Adjunct Assistant Professor, Creative Writing, 2025 (2025); MFA 2025 The University of Iowa

Mcnamara, Patrick Joseph, Professor, Pediatrics, 2018 (2018); MBBCH 1993 Queen's University, Belfast; MS 1999 University of London

Mcneely, Parren Scott, Clinical Associate Professor, Radiology, 2011 (2024); MD 2005 University of Illinois-Chicago

Mcneil, Robin M., Clinical Assistant Professor, Preventive Community Dentistry, 2005 (2022); AS 2001 Kirkwood; BS 2004 Missouri-KC; MS 2022 Missouri-KC; MSC 2022 Missouri-KC

Mcnulty, Michael L., Emeritus Professor, Geographical and Sustainability Sciences, 1969 (1976); BS 1962 California State/ Pennsylvania; MA 1964 Northwestern Univeristy; PHD 1966 Northwestern Univeristy

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Mcveigh, Sarah, Associate Professor, Nursing, 2018 (2023); BS 2006 Pennsylvania State Unive; MS 2008 Pennsylvania State Univ; DNP 2018 Pennsylvania State Univ

Mcwhorter, Brian Carl, Adjunct Instructor, Chemical Biochemical Engineering, 2016 (2018); BS 2001 University of Iowa

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Means, Steven Baxter, Instructor, Family Dentistry, 2013 (2024); BA 1971 Gustavus Adolphus; DDS 1977 The University of Minnesota-Twin Cities

Medd, Richard, Adjunct Instructor, Music, 2025 (2025); BM 1987 The University of Iowa

Medd, Stacey, Adjunct Instructor, Teaching and Learning, 2020 (2023); BA 1988 University of Iowa; MA 2002 University of Iowa

Meeker, Adam, Adjunct Instructor, Accounting/Business Analytics, 2018 (2022); BBA 2007 University of Iowa; MBA 2014 University of Iowa; MS 2016 University of Iowa

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Mehdi, Haider, Research Associate Professor, Internal Medicine, 2012 (2021); PHD 1986 AM C.D.R.I.

Mehrl-Kilian, Lori, Instructor, Internal Medicine, 2021 (2023); DO 2003 Des Moines University

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Meier, Jeffery Linn, Professor, Epidemiology/Internal Medicine, 1993 (2022); BS 1981 University of Iowa; MD 1986 University of Iowa

Meierding, Karl Kristian, Adjunct Assistant Professor, Obstetrics Gynecology, 2024 (2024); MD 2020 University of Louisville

Meintsma, Kameron, Adjunct Assistant Professor, Military Science, 2025 (2025); BS 2017 Western Michigan University

Meis, Steven Joseph, Adjunct Instructor, Family Medicine, 2019 (2019); BSEE 1983 Iowa State; MD 1989 University of Iowa

Meisterheim, Melissa, Associate Professor, Languages, Literatures, Linguistics, and Cultures, 2009 (2020); BA 1998 Truman State; MA 2001 University of Iowa; PHD 2007 University of Iowa

Mejia, Rachel, Adjunct Associate Professor, Obstetrics Gynecology, 2013 (2023); BS 2005 Drake University; DO 2009 Des Moines

Melchert, Haley Ella, Adjunct Instructor, University College Courses, 2025 (2025); BA 2015 University of Iowa

Melchert, Thomas E., Emeritus Associate Professor, Biology, 1963 (1968); BA 1958 Lawrence; MS 1960 University of Wisconsin-Madison; PHD 1963 The University of Texas at Austin

Melgarejo, Ivy Reyes, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MD 2011 University of Santo Tomas

Mellecker, Lisa Kathleen, Adjunct Instructor, Teaching and Learning, (2023); BS 2011 University of Iowa; MED 2017 Vanderbilt University

Mellen, Katherine Rose, Professor, Health Sport and Human Physiology/University College Courses, 2000 (2024); MA 1997 University of Iowa; PHD 2007 University of Iowa

Mellentine, Samuel Quincy, Adjunct Instructor, Biology, 2023 (2023); BA 2017 Colorado State University

Mello-Thoms, Claudia Regina, Associate Professor, Biomedical Engineering/Radiology, 2018 (2018); PHD 2001 Rutgers University

Melloy, Michael Joseph, Adjunct Instructor, Law-Faculty, 2012 (2012); BA 1970 Loras; JD 1974

Menda, Yusuf, Professor, Radiation Oncology/Radiology, 2001 (2019); MD 1994 Istanbul

Mendez, Adriana, Emeritus Professor, Spanish Portuguese, 1985 (1998); BA 1972 Cincinnati; MA 1974 Duke; PHD 1979 Cornell

Menefield, William, Assistant Professor, Music, (2020); BM 2005 University of Cincinnati; DMA 2011 University of Texas - Austin

Meneses, Raul Antonio, Assistant Professor, Theatre Arts, 2025 (2025); BA 2007 Univ of Texas at Austin; MFA 2010 The University of Iowa

Menezes, Arnold H., Professor, Neurosurgery/ Otolaryngology-Head Neck Surgery/Pediatrics, 1974 (1985); ISC 1961 Bombay; MBBS 1966 Bombay

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Meng, Xiangbing, Research Associate Professor, Pathology, 2009 (2015); BA 1990 Beijing Normal; MS 1995 Beijing Normal; PHD 1998 Beijing Inst Rad Medicine

Mengeling, Michelle A., Associate Professor, Internal Medicine, 2004 (2024); BA 1986 Iowa; MS 1988 Iowa; PHD 2002 Iowa

Menke, Randy John, Adjunct Instructor, Accounting, 2021 (2023); BA 1995 Saint Ambrose University; MBA 2005 University of Iowa

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Menninger, John R., Emeritus Professor, Biology, 1972 (1978); BA 1957 Harvard; PHD 1964 Harvard

Mentink, Meghan Elizabeth, Adjunct Assistant Professor, Pharmacy Practice and Science, 2019 (2019); PHARMD 2015 Butler University

Mentzer, Raymond A., Emeritus Professor, Religion, 2001 (2001); AB 1967 Fordham; MA 1970 University of Wisconsin-Madison; PHD 1973 University of Wisconsin-Madison

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Merideth, Donna Rae, Adjunct Instructor, Pharmacy Practice and Science, (2024); BSPH 1992 Creighton University

Merideth, Jeff, Adjunct Instructor, Pharmacy Practice and Science, 2005 (2005); BSPH Creighton

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Merlino, Robert L., Emeritus Professor, Physics Astronomy, 1981 (1992); BS 1973 St Joseph's; PHD 1980 THE UNIVERSITY OF MARYLAND-COLLEGE PARK

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Merrill, Anna E., Clinical Associate Professor, Pathology, 2017 (2023); PHD 2014 University of Wisconsin-Madiso

Merrill, Christopher, Professor, English/International Programs/International Writing, 2000 (2000); MA 1982 Washington

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Merritt, Megan Rett, Adjunct Instructor, Law-Faculty, 2017 (2023); BA 2006 Grinnell College; JD 2010 University of Iowa

Mersch, Alex Ronald, Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2019); PHARMD 2015 Roosevelt University; MBA 2016 Upper Iowa University

Mertens, Ryan Robert, Adjunct Assistant Professor, Internal Medicine, 2017 (2017); DO 2010 Des Moines University

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Messingham, Kelly A. Nordyke, Research Professor, Dermatology, 2009 (2022); BS 1993 Iowa State; MS 1995 Iowa State; PHD 2001 Loyola

Metcalf, Hope Richardson, Clinical Associate Professor, Law-Faculty, 2024 (2024); BA 1996 Yale University; JD 2001 New York University

Metts, Grace Elizabeth, Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); BS 2019 The University of Iowa; DDS 2023 University of Iowa

Metz, Catherine Melissa, Clinical Associate Professor, Radiology, 2015 (2022); DMS 2008 University of Iowa

Metzger, Scott D., Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2016); PHARMD 1998 Drake University

Metzger Iii, Robert J., Adjunct Instructor, Counselor Education, 2010 (2023); BGS 2001 Cornell College; MA 2004 Forest Institute; PSYD 2006 Forest Institute

Meurice, Yannick, Professor, Physics Astronomy, 1990 (2003); BS 1981 Universite Catholique de Louva; PHD 1985 Universite Catholique de Louva

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Meyer, Frederick Paul, Adjunct Instructor, University College Courses, 2017 (2017); AA 1990 Indian Hills Community College

Meyer, Jessica Rae, Assistant Professor, School of Earth, Environment, and Sustainability, (2018); MS 2005 University of Waterloo; PHD 2013 University of Guelph

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Meyer, Nathaniel Amiel, Adjunct Assistant Professor, Family Medicine, 2014 (2014); MD 1996 University of Iowa

Meyer, Paul, Clinical Associate Professor, Pathology, (2025); BA 1997 Washington University; MD 2004 Pennsylvania State University; PHD 2004 Pennsylvania State University

Meyer, Samantha Kay, Adjunct Instructor, Pharmacy Practice and Science, 2020 (2021); PHARMD 2020 University of Iowa

Meyerholz, David Kyle, Professor, Pathology, 2006 (2017); DVM 1994 Iowa State; MS 2001 Iowa State; PHD 2004 Iowa State

Meyers, Erin Elizabeth, Clinical Assistant Professor, Internal Medicine, (2025); BS 2014 University of Iowa; MS 2016 University of Iowa; MD 2020 University of Iowa

Meyers, Katherine Irene, Adjunct Instructor, Family Medicine, (2019); BA 2007 Simpson College; DO 2012 Des Moines University

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Michalopulos, Madeline M., Clinical Assistant Professor, Internal Medicine/Pediatrics, (2024); MD 2017 University of Oklahoma

Michalopulos, Michael, Clinical Assistant Professor, Pediatrics, (2024); MD 2017 University of Oklahoma

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Miller, Benjamin James, Professor, Orthopaedics and Rehabilitation, 2010 (2022); BS 1999 Cornell; MD 2003 University of Iowa

Miller, Bruce A., Adjunct Instructor, Physical Therapy Rehab Science, 1986 (2023); BS 1974 University of Iowa; MA 1984 University of Iowa

Miller, Chandra, Adjunct Professor, Nursing, 2023 (2024); BS 2010 South Dakota State University; DNP 2022 University of Iowa

Miller, Daniel Gillett, Clinical Professor, Emergency Medicine/Internal Medicine, 2011 (2021); BA 2001 University of Wisconsin-Madison; BS 2001 University of Wisconsin-Madison; MD 2005 University of Illinois at Urbana Champaign

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Miller, Matthew T., Adjunct Instructor, University College Courses, 2019 (2019); BA 1999 University of Northern Iowa; MA 2017 University of Northern Iowa

Miller, Michael P., Clinical Associate Professor, Emergency Medicine, 2010 (2014); BS 1990 Manchester; MD 1995 University of Iowa

Miller, Michelle, Adjunct Assistant Professor, Internal Medicine/Pharmacy Practice and Science, 2010 (2018); PHARMD 2010 University of Nebraska-Lincoln

Miller, Michelle Dawn, Instructor, Pediatrics, 2014 (2024); MD 1999 University of Iowa

Miller, Sarah Louise, Clinical Associate Professor, Emergency Medicine/Pediatrics, 2012 (2019); BLS 1999 Luther College; MD 2007 University of Iowa

Miller, Steven Frederick, Adjunct Assistant Professor, Orthodontics, 2016 (2015); BA 2000 Pennsylvania State University; MA 2002 University of Iowa; PHD 2010 University of Iowa

Miller, Steven, Adjunct Instructor, Finance, 2021 (2022); BBA 1994 University of Wisconsin; PHD 2010 University of Georgia

Miller, Thomas R., Adjunct Assistant Professor, Health Management Policy, 2021 (2021); PHD 2007 University of Iowa

Miller, William A., Emeritus Professor, Pharmacy, 1997 (1997); BS 1965 The Ohio State University; MS 1969 The Ohio State University; PHAR 1971 Kentucky

Millice, Nancy Jane, Adjunct Instructor, University College Courses, 2009 (2015); BA 1976 Carleton; MAT 1978 St Thomas

Millner, Patricia R., Clinical Associate Professor, Family Medicine, 2022 (2025); BS 2008 Wedley College, Dover, Delawar; MD 2012 Howard Univ, COM,Wash D.C.

Mills, Margaret Hill, Emeritus Professor, Asian Slavic Languages Literature, 1989 (2000); BA 1976 University of Iowa; MA 1979 University of Iowa; PHD 1985 University of Michigan-Ann Arbor; MPH 2005 University of Iowa

Miltaha, Hamzah, Adjunct Assistant Professor, Pediatrics, 2018 (2018); MBBS 2005 Jordan University

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Min, James, Clinical Assistant Professor, Psychiatry, (2021); MD 2016 The University of Iowa

Mineart, Stephen Mark, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1975 Iowa Wesleyan College; MD 1979 Univ of IA COM, Iowa CityIA

Miner, Jade Walker, Adjunct Instructor, Finance, 2023 (2023);

Minor, Sarah Margaret, Assistant Professor, English, (2021); PHD 2019 Ohio University

Mir, Tahreem Aman, Assistant Professor, Ophthalmology Visual Science, (2024); MBBS 2013 Aga Khan University

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Miracle, Stephanie Danielle, Assistant Professor, Dance, (2019); BA 2004 Belhaven University; MFA 2014 University of Maryland

Miro Ramirez, Pere, Associate Professor, Chemistry, 2024 (2024); MS 2007 Universitat Rovira i Virgili; PHD 2010 Universitat Rovira i Virgili

Mirr, Ronald Kurt, Adjunct Instructor, School of Planning and Public Affairs, 1997 (1997); BA 1981 Purdue University Main Campus; MSW 1987 University of Iowa

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Miskle, Benjamin A., Clinical Assistant Professor, Pharmacy Practice and Science/Psychiatry, (2020); BS 2013 Northwest Missouri State; PHARMD 2018 University of Missouri

Misurac, Jason, Clinical Associate Professor, Pediatrics, 2015 (2020); BA 2004 Taylor; MD 2009 Indiana University-Bloomington; MS 2015 Indiana Purdue University

Mitchell, Colleen Catharine, Associate Professor, Mathematics, 2005 (2012); BS 1998 Duke; MA 2001 Duke; PHD 2003 Duke

Mitchell, Katie D., Adjunct Assistant Professor, Pharmacy Practice and Science, 2008 (2008); PHARMD 2006 Drake

Mitchell, Sara Beth, Professor, Center for Soc Sci Innovation/Law-Faculty/Political Science, 2004 (2011); BS 1991 Iowa State; MA 1993 Michigan State University; PHD 1997 Michigan State University

Mitchell, Teresa Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2009 (2009); PHARMD 2008 University of Iowa

Mitros, Christopher Luke, Adjunct Assistant Professor, Emergency Medicine, 2017 (2017); BA 2005 Grinnell College; MD 2010 University of Iowa

Mitros, Frank A., Emeritus Professor, Pathology, 1976 (1988); BS 1965 Seton Hall; MD 1969 New Jersey College of Medicine

Mittal, Anubha, Clinical Associate Professor, Pediatrics, 2024 (2024); MD 2005 University of Iowa

Mitten, Courtney Ann, Adjunct Assistant Professor, Nursing, 2025 (2025); BA 2011 Augustana College; BSN 2019 Mercy College of Health Scienc; DNP 2024 University of Iowa

Mixdorf, Tracy Michele, Adjunct Assistant Professor, Family Medicine, 2006 (2006); BS 1992 University of Iowa; DO 1998 Osteopathic Medicine; MHA 1998 Osteopathic Medicine

Mkenda, Beatrice, Associate Professor, Languages, Literatures, Linguistics, and Cultures/University College Courses, 2014 (2021); MA 2010 University of Wisconsin-Madison; PHD 2015 University of Wisconsin

Moberg, Amy C., Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 2009 Saba University

Mobily, Paula Renay, Emeritus Associate Professor, Nursing, 1976 (1994); BSN 1971 The Ohio State University; MSN 1976 Cincinnati; PHD 1987 University of Iowa

Mockler, Shelley Renee Hautekeete, Adjunct Instructor, Physical Therapy Rehab Science, 2015 (2025); MPT 1998 University of Iowa

Modena Heming, Carolina Augusta, Clinical Assistant Professor, Radiology, (2023); MD 2009 Universidade Federal Do Rio

Modrick, Joseph M., Clinical Assistant Professor, Radiation Oncology, 2002 (2002); BS 1989 Northern Iowa; MS 1994 University of Iowa; MS 1998 University of Wisconsin-Madison; PHD 2000 University of Wisconsin-Madison

Moel, Joy Elizabeth, Clinical Associate Professor, Obstetrics Gynecology/Psychiatry, (2023); BA 1999 University of Iowa; PHD 2007 University of Iowa

Moeller, Deborah Lee Carstensen, Adjunct Instructor, Social Work, 2016 (2016); BSW 1990 University of Northern Iowa; MSW 2007 University of Iowa

Moeller, Laura Elizabeth, Adjunct Instructor, Family Medicine, 2018 (2018); BS 1999 Iowa State Univ; Ames, IA; MS 2000 Iowa State Univ; Ames, IA; MD 2004 Univ of IA CCOM; Iowa City,IA

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Mohamad, Moayad Abdelrauf, Clinical Assistant Professor, Anesthesia, (2025); MBBCH 2012 Misr Univ of Sci Tech MUST

Mohamed, Abdel-Rhman, Clinical Assistant Professor, Internal Medicine, 2025 (2025); BHS 2018 Benedictine University; MD 2022 Wayne State University

Mohan, Mandakini, Clinical Associate Professor, Prosthodontics, (2024); BDS 2003 Manipal University; MDS 2007 Manipal University

Moharrami, Mehrdad, Assistant Professor, Computer Science, (2023); MEE 2017 University of Michigan; MS 2019 University of Michigan; PHD 2020 University of Michigan

Mohr, Nicholas Matthew, Professor, Anesthesia/Emergency Medicine/Epidemiology, 2011 (2020); MD 2006 University of Iowa; MSCI 2014 University of Iowa

Mohr, William J., Clinical Professor, Surgery, 2022 (2022); MD 1991 Univ of Nebraska Med Ctr

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Molano De Pena, Ilonka Denisse, Clinical Associate Professor, Internal Medicine, 2015 (2021); MD 2002 Instituto Tech. De Santo

Moler, Sherri Ann, Adjunct Instructor, Teaching and Learning, 2024 (2024); BA 1984 Cornell College, Mount Vernon; MA 1994 Drake University

Molis, Marc Alan, Adjunct Assistant Professor, Family Medicine, 2008 (2008); BS 1996 Illinois Wesleyan; MD 2000 Northwestern Univeristy

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Molony, Patrick T., Adjunct Instructor, Accounting, 2020 (2023); BBA 1984 University of Iowa; MBA 1999 University of Iowa

Molsberry, Robert Frank, Adjunct Instructor, Physical Therapy Rehab Science, 2017 (2023); BA 1975 University of Iowa; MDIV 1982 Yale Divinity School

Momany, Allison, Assistant Professor, Pediatrics, (2024); BS 2011 University of Iowa; MS 2016 University of Iowa; PHD 2021 University of Iowa

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Monsod-Borromeo, Teresa, Adjunct Assistant Professor, Pediatrics, 2021 (2021); MD 1993 University of Phillipines

Monson, Kyra Ward, Adjunct Instructor, Preventive Community Dentistry, 2015 (2015); DDS 2009 University of Iowa

Montgomery, David, Adjunct Assistant Professor, Health Management Policy, 2020 (2020); MA 1985 University of Iowa

Montgomery, Ian, Emeritus Associate Professor, Health Management Policy, 2007 (2010); BA 1975 University of Iowa; MHA 1979 University of Iowa

Montgomery, Lou Ann, Adjunct Associate Professor, Nursing, 2000 (2012); BSN 1978 Montana State - Bozeman; MAN 1988 University of Iowa; PHD 2000 U of IA College of Education

Montilla, Christina Anna, Adjunct Assistant Professor, Magid Center for Writing, 2024 (2024); BA 2011 Pacific Lutheran University; MFA 2024 The University of Iowa

Montilla Moreno, Jorge Andres, Associate Professor, Music, 2016 (2024); BM 1998 Instituto Universitano de Estu; MM 2002 Indiana University-Bloomington

Montross, Brianna Kay, Adjunct Instructor, Health Sport and Human Physiology, 2025 (2025); BS 2020 Northwest Missouri State Univ; MS 2023 Oklahoma State University

Moon, Chooza, Associate Professor, Nursing, 2017 (2024); MSN 2010 Univ of Pennsylvania; PHD 2016 Univ of Wisconsin-Madison

Moon, Jerald B., Emeritus Professor, Communication Sciences and Disorders, 1985 (2009); BS 1978 Western Ontario-Canada; MS 1980 Western Ontario-Canada; PHD 1985 Purdue University Main Campus

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Mooney, Barbara B., Emeritus Associate Professor, School of Art, Art History, and Design, 2002 (2006); BA 1975 Missouri-St. Louis; MA 1980 University of Illinois at Urbana Champaign; PHD 1991 University of Illinois at Urbana Champaign

Moonjely, Anita J., Clinical Associate Professor, Pediatrics, 2007 (2015); MBBS 1993 Coimbatore, India; MD 1995 Coimbatore,India

Moonjely, Joe, Instructor, Internal Medicine, 2003 (2024); BA 1984 Unif of Calicut, India; MD 1991 Trichur Medical College

Moore, Alexander D., Adjunct Assistant Professor, Anesthesia, 2025 (2025); MD 2011 Tulane Univ. School of Medicin

Moore, Betty Marguerite, Emeritus Instructor, Psychiatry, 1999 (1999); BA 1980 University of Illinois at Urbana Champaign; MSW 1983 University of Illinois at Urbana Champaign

Moore, Cathleen M., Professor, Psychological and Brain Sciences, 2007 (2007); BA 1988 Hamilton; PHD 1994 University of California-San Diego

Moore, Daniel, Professor, Music/University College Courses, 1996 (2006); BME 1981 East Texas State; MM 1985 Wichita State; DMA 2000 Kentucky

Moore, Dennis M., Emeritus Associate Professor, Rhetoric, 1980 (1988); BA 1974 University of Chicago; MA 1976 Princeton; PHD 1978 Princeton

Moore, Jeffrey, Adjunct Instructor, University College Courses, 2011 (2014); BA 1990 Missouri

Moore, Joseph P., Adjunct Assistant Professor, Pharmacy Practice and Science, 2002 (2002); PHARMD 1994 Creighton

Moore, Joyce L., Emeritus Associate Professor, Psych Quant Foundations, 1994 (2000); BS 1985 Pittsburgh; PHD 1993 Stanford

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Moore, Pamela Sue, Adjunct Instructor, Social Work, 2000 (2000); BA 1982 University of Iowa; BBA 1983 University of Iowa; MSW 1987 University of Iowa

Moore, Pamela Dianne, Clinical Assistant Professor, Emergency Medicine, 2025 (2025); MD 2020 University of Virginia

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Moore, W. Douglas, Adjunct Instructor, Civil-Environmental Engineering, 2023 (2024); BS 1991 Iowa State University

Moores, Kevin Gene, Emeritus Associate Professor, Pharmacy Practice and Science, 1987 (2005); PHARMD 1979 University of Nebraska-Lincoln

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Moran, Patrick, Assistant Professor, Health Sport and Human Physiology, 2014 (2024); BS 2006 York College of Pennsylvania; MA 2007 Ohio University, Athens

Moran, Victoria F., Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DDS 2015 University of Iowa

Morarend, Chad Michael, Adjunct Assistant Professor, Orthodontics, (2020); DDS 2000 University of Iowa; MS 2007 University of Iowa

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Mordkoff, Jonathan Toby, Emeritus Associate Professor, Psychological and Brain Sciences, 2007 (2007); MA 1988 Johns Hopkins; PHD 1992 Johns Hopkins

Moreau, Christopher Eric, Clinical Assistant Professor, Psychiatry, (2023); MD 2018 University of Colorado

Moreira Bello, Rodrigo, Clinical Assistant Professor, Radiology, (2022); MD 1999 Federal University of Rio Gran

Moreland, Kathryn Elwood, Adjunct Instructor, University College Courses, 2007 (2025); BA 1994 Creighton; JD 1997 Iowa

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Morelli, Brian, Adjunct Instructor, University College Courses, 2009 (2011); AA 2002 Des Monies; BA 2005 University of Iowa

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Morris, Adalaide, Emeritus Professor, English, 1974 (1985); BA 1964 Wells; MA 1966 The University of Minnesota-Twin Cities; PHD 1972 The University of Minnesota-Twin Cities

Morris, Chayla, Adjunct Assistant Professor, Pharmacy Practice and Science, 2022 (2022); PHARMD 2016 University of Iowa

Morris, Jennifer Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2011 (2011); PHARMD 2004 University of Iowa

Morris, John Garrett, Assistant Professor, Computer Science, (2020); PHD 2013 Portland State University

Morris, Kiel, Adjunct Assistant Professor, Family Medicine, (2021); DO 2017 Des Moines University

Morris, Tracie, Professor, Creative Writing, (2019); MFA 2001 New York University; MA 2006 New York University; PHD 2006 Univeristy of New York

Morrison, Julia Anna, Associate Professor, Cinematic Arts, 2015 (2025); BA 2010 The University of Georgia; MFA 2013 University of Iowa

Morrison, Nina, Instructor, University College Courses, 2019 (2023); MFA 2018 The University of Iowa

Morriss, Mary J., Emeritus Professor, Pediatrics, 1987 (2003); BS 1965 Bucknell; MD 1969 Duke

Morriss Jr., Frank H., Emeritus Professor, Pediatrics, 1987 (1987); BA 1962 Virginia; MD 1966 Duke

Morrissey, William Joseph, Adjunct Assistant Professor, English, 2022 (2022); BA 2012 Washington Uni- St. Louis; MFA 2022 University of Iowa

Morse, Emily Elizabeth, Clinical Associate Professor, Psychiatry, (2024); DO 2014 Des Moines University

Mortensen, Brent, Adjunct Assistant Professor, University College Courses, 2019 (2019); PHD 2017 Iowa State University

Morton, Nathan Eric, Adjunct Instructor, University College Courses, (2019); BFA 2005 Oregon State Univ; MA 2008 University of Iowa; MFA 2009 University of Iowa

Moser, David John, Professor, Medicine Administration/ Psychiatry, 1999 (2011); BA 1989 Colby; MS 1995 Florida; PHD 1997 Florida

Moser, Mark G., Adjunct Associate Professor, Surgery, 1994 (2014); BS 1986 University of Iowa; MA 1988 University of Iowa

Mosher, Hilary Jean, Adjunct Professor, Internal Medicine, 2011 (2022); BA 1994 Dartmouth; MFA 1998 Warren Wilson; MD 2008 University of Iowa

Mostek, Amanda Michelle Benavides, Assistant Professor, Psychiatry, 2024 (2025); BS 2009 St. Mary's U - San Antonio; MD 2017 University of Iowa; PHD 2017 University of Iowa

Motwani, Bharat, Adjunct Assistant Professor, Internal Medicine, 2010 (2010); MBBCH 1998 Punjabrao Deshmukh

Motz, David Charles, Adjunct Instructor, Preventive Community Dentistry, 2021 (2021); DDS 2001 University of Iowa

Mou, Eric, Clinical Assistant Professor, Internal Medicine, (2021); MD 2014 University of Iowa

Moulder, Kathleen, Assistant Professor, Nursing, (2024); BN 2015 Grand Canyon University; BSN 2015 Grand Canyon University; MNM 2017 Arizona State University; DNP 2020 University of Arizona

Mount, Michael K., Emeritus Professor, Management and Entrepreneurship, 1981 (1993); BS 1973 University of Iowa; MS 1975 Iowa State; PHD 1977 Iowa State

Mountford Corson, Elizabeth B., Clinical Assistant Professor, Teaching and Learning, (2023); PHD 2022 Temple University

Moy, Eric, Adjunct Instructor, University College Courses, 2017 (2017); BS 2011 Univ of California-Davis; MS 2013 Kansas State University

Moye-Rowley, William, Professor, Molecular Physiology Biophysics, 1989 (2002); BS 1981 University of Illinois at Urbana Champaign; PHD 1986 Purdue University Main Campus

Moyers, John R., Emeritus Professor, Anesthesia, 1979 (1990); BS 1969 University of Iowa; MD 1973 University of Iowa

Mozena, Emily Nicole Ratzel, Professor, Health Sport and Human Physiology/University College Courses, 2003 (2024); BFA 2001 University of Iowa; MA 2003 University of Iowa

Mraz, Royann Christine, Emeritus Associate Professor, Pediatrics, 1999 (2008); BS 1973 Purdue University Main Campus; MD 1978 THE UNIVERSITY OF MARYLAND-COLLEGE PARK

Mraz, Veronica Anne, Adjunct Assistant Professor, Anthropology, 2022 (2022); HS 2006 Urbandale High School; BA 2010 University of Iowa; MA 2013 University of Tulsa; PHD 2019 University of Tulsa

Mu, Xuan, Assistant Professor, Biomedical Engineering, 2022 (2022); DPHIL 2010 East China Univ of Sci Tech

Mudumbai, Raghuraman, Associate Professor, Electrical-Computer Engineering, 2009 (2015); BT 1998 Indian Inst of Tech Madras; MS 2000 Brooklyn Polytechnic; PHD 2007 University of California-Santa Barbara

Mueldener, Emma, Clinical Assistant Professor, Orthodontics, (2023); HS 2012 Valley High School; DDS 2021 University of Iowa; MS 2023 University of Iowa

Mueller, Ellise Marie, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 University of Iowa

Mueller, Keith, Professor, Health Management Policy, 2010 (2010); BA 1973 University of Wisconsin-Milwaukee; MA 1975 University of Wisconsin-Milwaukee; PHD 1979 University of Arizona

Mueller, Martin, Clinical Associate Professor, Anesthesia/ Pediatrics, 2008 (2016); MD 1998 Rostock, Germany

Mueller, Nathan Michael, Adjunct Professor, School of Planning and Public Affairs, (2023); BA 2007 Univ of Iowa; MS 2013 University of Iowa

Mueller, Nicholas James-Kumpik, Adjunct Instructor, English as Second Language, 2024 (2024); BA 2023 Linguistics; MA 2024 Linguistics

Mueller, Rashmi, Clinical Professor, Anesthesia/ Neurosurgery, 2008 (2024); MD 1990 Bombay

Muellerleile, Michael Robert, Clinical Assistant Professor, Internal Medicine, 2014 (2014); MD 1987 The University of Minnesota-Twin Cities

Mueting, Katie Marie, Adjunct Instructor, Law-Faculty, 2019 (2019); BA 2002 Univ. of NE- Lincoln; JD 2007 University of Iowa

Muhly, Paul S., Emeritus Professor, Mathematics, 1969 (1976); BA 1965 University of Iowa; MA 1966 University of Michigan-Ann Arbor; PHD 1969 University of Michigan-Ann Arbor

Mukherjee, Nandini, Adjunct Assistant Professor, Nursing, 2024 (2024); PHD 2018 University of Memphis, Tenness

Mukundan, Chaitra, Clinical Assistant Professor, Anesthesia/ Pediatrics, 2018 (2020); MBBS 2001 Bangalore Medical College

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Mulfaul, Kelly, Assistant Professor, Neuroscience and Pharmacology, (2025); PHD 2018 Trinity College Dublin

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Mulhausen, Paul L., Adjunct Professor, Internal Medicine, 1994 (2013); BA 1982 St. Olaf; MD 1987 The University of Minnesota-Twin Cities

Muller, Merle Henry, Instructor, Family Medicine, 1994 (2023); MD 1982 Southern Illinois

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Mulrooney, Thomas P., Adjunct Instructor, Health Management Policy, 2012 (2015); MHA 2005 University of Iowa

Multani, Maneet S., Clinical Assistant Professor, Internal Medicine, (2025); MD 2019 Windsor University

Munns, Suzanne, Adjunct Assistant Professor, Family Medicine, 2017 (2017); BS 1980 Arizona St Univ, Tempe, AZ; MD 1985 Univ of AZ COM, Tucson, AZ

Munoz, Kristine L., Professor, Anthropology/Spanish Portuguese, 1995 (2005); BA 1980 The University of Texas at Austin; BS 1980 The University of Texas at Austin; MA 1982 The University of Texas at Austin; PHD 1989 Washington

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Munro, Charles S., Associate Professor, Journalism Mass Communication, 2003 (2025); BA 1966 London School of Economics; MA 1972 SOUTHERN CALIFORNIA

Munroe, Spencer Michael, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2022 Univeristy of Iowa

Murhammer, David W., Professor, Chemical Biochemical Engineering, 1989 (2003); BS 1979 Oregon State; MS 1982 Oregon-State; PHD 1989 Houston

Murhammer, Joan Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 1997 (2003); BSPH 1990 University of Iowa

Murley, Stephen, Adjunct Instructor, Educ Policy Leadership Studies, 2017 (2022); MS 1997 University of Wisconsin-Madison

Murph, Jody Reed, Emeritus Associate Professor, Pediatrics, 1985 (1992); BS 1975 Francis Marion; MD 1979 Medical Univ of South Carolina; MS 1985 University of Iowa

Murphy, Jaime P., Clinical Associate Professor, Internal Medicine, (2022); MD 2000 Albert Einstein College of Med

Murphy, Mary M., Associate Professor, Accounting, 2001 (2022); BA 1983 Marquette Univ, Milwaukee, WI; MBA 1985 Marquette Univ, Milwaukee, WI; JD 1988 University of Iowa

Murphy, Pamela N., Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DMD 2011 Arizona School of Dent OH; MPH 2023 AT Still University

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Murray, Jeffrey Clark, Emeritus Professor, Anatomy Cell Biology/Dental Research/Epidemiology/Pediatric Dentistry/ Pediatrics, 1984 (1993); BS 1972 Massachusetts Inst of Technolo; MD 1978 Tufts

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Murray, Margaret, Emeritus Associate Professor, Rhetoric, 2005 (2018); SCB 1979 University of Chicago; MS 1981 Yale; PHD 1983 Yale; MFA 2005 University of Iowa

Murray, Miriam Esther, Clinical Associate Professor, Obstetrics Gynecology, (2025); BA 2010 Univeristy of Iowa; MD 2015 University of Iowa

Murray, Susan Marie, Adjunct Instructor, Counselor Education, 2021 (2023); PHD 2020 University of Iowa

Murry, John P. Jr., Emeritus Associate Professor, Marketing, 1999 (1999); BS 1979 Kansas State; MBA 1987 Kansas; PHD 1988 Kansas

Murty, Susan, Emeritus Associate Professor, Social Work, 1994 (2000); BA 1968 Harvard; MSW 1973 University of California-Berkeley; PHD 1993 Washington

Muscadin, Farah Christina, Adjunct Instructor, Law-Faculty, 2024 (2024); BBA 1999 The University of Iowa; JD 2002 The University of Iowa

Muste, Marian Valer-Ioan, Adjunct Professor, Mechanical Engineering, 1996 (2008); MS 1990 Polytech-Cluj-Napoca; MS 1993 University of Iowa; PHD 1995 University of Iowa

Muston, Ray A., Emeritus Associate Professor, Educ Policy Leadership Studies, 1970 (1975); BS 1961 Indiana University-Bloomington; MBA 1963 Indiana University-Bloomington; EDD 1970 Indiana University-Bloomington

Mutel, Robert L., Emeritus Professor, Physics Astronomy, 1975 (1986); AB 1968 Cornell; PHD 1975 Colorado

Mutnick, Rachel Angela, Adjunct Assistant Professor, Emergency Medicine, 2017 (2017); BS 2009 James Madison University; DO 2013 Ohio University

Muzahim, Yasameen Emad, Clinical Assistant Professor, Internal Medicine, (2023); MD 2017 St. George's University

Muzzio, Isabel, Professor, Psychological and Brain Sciences, (2022); PHD 1999 Rutgers University

Myers, Amanda, Assistant Professor, Urology, 2025 (2025); MD 2018 Zucker School of Medicine

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Myers, Brett A., Adjunct Assistant Professor, Anesthesia, 2025 (2025); MD 2013 Univ. of South Dakota

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Myers, Melinda Jean, Assistant Professor, Dance, 2016 (2016); BFA 2005 NYU; MFA 2012 University of Iowa

Myers, Mitchell, Adjunct Assistant Professor, Pharmacy Practice and Science, 2020 (2023); PHARMD 2019 Univeristy of Iowa College of Pharmacy

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Nachtman, Jane Marie, Professor, Physics Astronomy, 2007 (2019); BS 1991 University of Iowa; MS 1993 University of Wisconsin-Madison; PHD 1997 University of Wisconsin-Madison

Nagarajan, Nagalakshmi, Clinical Assistant Professor, Internal Medicine, (2023); MD 2017 University of Houston

Nagel, Alan F., Emeritus Professor, Cinematic Arts/English, 1968 (1980); AB 1963 Harvard; MA 1965 Cornell; PHD 1969 Cornell

Nagy, Jaime Marie Williams, Clinical Associate Professor, Pediatrics, 2017 (2024); PHD 2014 Baylor College of Medicine

Naimimohasses, Sara, Clinical Assistant Professor, Internal Medicine, (2024); MBBCH 2011 Trinity College Dublin; MBBS 2011 Trinity College; PHD 2023 Trinity College Dublin

Nain, Amrita, Associate Professor, Finance, 2011 (2017); BA 1996 Delhi; MS 1997 Warwick; DPHIL 2005 University of Michigan-Ann Arbor

Nair, Rohit Unni, Clinical Associate Professor, Preventive Community Dentistry, (2025); BDS 2010 YMT Dent College Hospital; MDS 2014 Bapuji Dental College Hosp

Nair, Vasu, Emeritus Professor, Chemistry, 1969 (1980); BSC 1963 Otago-New Zealand; PHD 1966 Adelaide-Australia; ARACI 1967 Royal Australian Chemical Inst

Najeeb, Najeeb Waleed, Assistant Professor, Electrical-Computer Engineering, (2025); PHD 2019 University of Nebraska-Lincoln

Nakagawa, Francisco, Adjunct Assistant Professor, Internal Medicine, 2020 (2020); MD 2005 University of Buenos Aires

Nakamura, Yuki, Clinical Associate Professor, Cardiothoracic Surgery, 2017 (2024); MD 2001 University of Tokyo

Naleway, Allison Louise, Adjunct Assistant Professor, Epidemiology, 2014 (2014); BS 1996 University of Iowa; MS 1997 University of Iowa; PHD 2000 University of Iowa

Nambiar, Murugan, Adjunct Instructor, Business Analytics, 2020 (2022); MBA 2019 University of Iowa; MS 2019 University of Iowa

Nanavati, Arani, Adjunct Assistant Professor, Internal Medicine, (2019); MBBCH 2011 BJ Medical College; MBBS 2011 BJ Medical College

Nance, Christopher S., Clinical Associate Professor, Neurology, 2016 (2016); MD 1999 Wake Forest University School

Naraine, Nicole Gail, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BS 2006 Truman State University; MS 2008 University of Iowa; DPT 2010 University of Iowa

Narawong, Duangechai, Adjunct Assistant Professor, Pediatrics, 2001 (2001); MD 1974 Mahidol

Narayanan, Nandakumar, Professor, Neurology, 2012 (2024); MD 2008 Yale

Nardy, Kalyca Johan, Adjunct Assistant Professor, Pharmacy Practice and Science, 2022 (2024); PHARMD 2022 UICOP

Narvaez-Guerra, Offdan, Clinical Assistant Professor, Internal Medicine, (2025); MD 2014 UCSM Catholic University

Nash, Amira S., Adjunct Instructor, Teaching and Learning, 2022 (2023); BA 2017 University of Iowa; MA 2019 University of Iowa

Nash, Sarah Heather, Adjunct Assistant Professor, Community Behavioral Health/Epidemiology, 2021 (2021); PHD 2013 University of Alaska; MPH 2014 John Hopkins University

Nashleanas, Benjamin, Adjunct Assistant Professor, Endodontics, 2017 (2017); BS 2010 Morningside College; DDS 2015 University of Iowa

Nasr, Ali Saleh, Clinical Assistant Professor, Cardiothoracic Surgery, 2014 (2020); MBCHB 1987 Al fatah University

Nasrollahian Mojarad, Sara, Adjunct Instructor, Psych Quant Foundations, 2021 (2024); MA 2007 Allameh Tabatabai University; PHD 2019 University of Tennessee

Nassar, Boulos, Clinical Professor, Internal Medicine, 2011 (2022); BS 1999 Beirut, Lebanon; MD 2003 Beirut, Lebanon; MPH 2004 Beirut Lebanon

Nataf, David Moise, Assistant Professor, Physics Astronomy, (2024); PHD 2012 Ohio State University

Nathan, Christopher James, Adjunct Instructor, Law-Faculty, 2022 (2025); BA 2001 Northwestern University; JD 2004 University of Chicago

Nau, Peter Nealey, Clinical Professor, Surgery, 2013 (2023); MD 2006 University of Iowa

Nau, Scott K., Adjunct Associate Professor, Pediatrics, 1989 (2009); MD 1978 University of Iowa

Nauman, Tyler William, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2016 Drake University

Nauseef, William, Emeritus Professor, Internal Medicine, 1983 (1992); BA 1972 Hamilton; MD 1976 State U of NY-Upstate Med Ctr

Nayak, Manasa Kumar, Research Assistant Professor, Internal Medicine, (2021); PHD 2013 Banaras Hindu University

Nayakankuppam, Dhananjay, Professor, Marketing, 2001 (2017); BS 1988 Shivaji; MBA 1990 Madras; MS 2000 University of Michigan-Ann Arbor

Nayima, Vuong Anh, Adjunct Assistant Professor, Internal Medicine, 2017 (2017); DO 2011 Des Moines University

Naylor, Kenneth L., Adjunct Lecturer, Obstetrics Gynecology, 1991 (1991); MD 1986 Utah

Naz, Nadia, Clinical Assistant Professor, Pediatrics, (2021); MBBCH 2008 American University

Neal, Ted, Clinical Professor, Teaching and Learning, 2009 (2020); MS 2002 Drake; PHD 2017 University of Iowa

Neath, Andrew Arthur, Adjunct Professor, Biostatistics, 2017 (2017); MS 1990 University of California, Davi; PHD 1994 University of California, Davi

Neenan, Daniel Paul, Adjunct Assistant Professor, Occupational Environmental Health, 2019 (2019); MBA 2012 University of Dubuque

Neff, Sara Goslin, Adjunct Assistant Professor, Nursing, 2017 (2025); BA 1998 University of Northern Iowa; ADN 2005 Kirkwood Community College; MSN 2013 University of Iowa

Negbenebor, Nicole, Clinical Assistant Professor, Dermatology, (2023); BS 2012 Yale University; MD 2018 Brown University

Neil, Matthew Lee, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1996 Wartburg College; MD 2000 Univ of IA CCOM, Iowa City

Neiman, Maurine, Professor, Biology/Gender, Women's and Sexuality Studies, 2007 (2021); BA 1999 Carleton College; PHD 2004 Indiana University-Bloomington

Nejad Nik, Mohammad Reza, Associate Professor, Biomedical Engineering/Pharmaceutical Sciences and Experimental Therapeutics, 2020 (2020); PHD 2009 University of Groningen

Nelson, Brian James, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1995 Iowa State Univ, Ames, IA; MD 2000 Univ of Iowa COM, Iowa City,IA

Nelson, Eric Douglas, Adjunct Instructor, Journalism Mass Communication, 2016 (2013); AA 2001 Iowa Central; BA 2004 Buena Vista; MA 2009 University of Iowa

Nelson, Erin Lorraine, Associate Professor, Business Administration-Graduate Programs, (2021); BA 1999 University of Iowa; MBA 2010 DePaul University

Nelson, George C., Emeritus Professor, Mathematics, 1968 (1982); BA 1964 Oberlin; MS 1965 Case Institute of Technology; PHD 1968 Case Institute of Technology

Nelson, Heather Ruth, Adjunct Instructor, Marketing, 2023 (2023); BS 1994 University of Arkansas; MBA 2005 University of Arkansas

Nelson, Jacob Michael, Adjunct Assistant Professor, Internal Medicine, 2018 (2018); MD 2014 Univ of Minnesota

Nelson, Jeremy L., Clinical Assistant Professor, Emergency Medicine/Physician Assistant, 2021 (2021); BS 2006 Colorado Mesa College; MPAS 2009 University of Iowa

Nelson, John S., Emeritus Professor, Political Science, 1975 (1987); BA 1971 Kentucky; PHD 1977 University of North Carolina at Chapel Hill

Nelson, Joseph Charles, Adjunct Instructor, Physical Therapy Rehab Science, 2013 (2024); DPT 2011 University of Iowa

Nelson, Kirby Mae, Adjunct Assistant Professor, Nursing, 2020 (2025); BA 2010 St. Olad College; DNP 2015 Univ. of Minnisota

Nelson, Kirsten Elizabeth, Assistant Professor, Music, (2024); BM 1988 University of Iowa

Nelson, Lane D., Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2014 North Dakota State University

Nelson, Lori J., Adjunct Professor, Psychological and Brain Sciences, 2002 (2002); BS 1986 University of Iowa; MA 1988 Princeton; PHD 1990 Princeton

Nelson, Patricia A., Emeritus Lecturer, Nursing, 1980 (1992); BSN 1980 University of Iowa; MA 1984 University of Iowa

Nelson, Stacie Lynn, Adjunct Instructor, Teaching and Learning, 2025 (2025); BA 1992 St. Ambrose University

Nelson, Timothy Walter, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); BA 2003 Augustana College; MD 2009 University of Iowa

Nelson-Norman, Kendra, Adjunct Assistant Professor, Pharmacy Practice and Science, 2007 (2007); PHARMD 2006 University of Iowa

Nembhard, David A., Adjunct Professor, Business Analytics, (2020); MS 1993 University of Michigan Ann Arbor; PHD 1994 University of Michigan, Ann Arbor

Nemmers, Joseph Michael, Adjunct Instructor, Social Work, 2023 (2023); MSW 1992 University of Iowa

Nepola, James V., Professor, Orthopaedics and Rehabilitation, 1984 (1993); BS 1974 Yale; MD 1978 Columbia

Neppl, Kelly M., Adjunct Instructor, Languages, Literatures, Linguistics, and Cultures, 2005 (2005); AB 1993 CORNELL

Nepple, Kenneth Gerard, Clinical Professor, Urology, 2010 (2022); BS 2000 Iowa State; MD 2004 University of Iowa

Nessler, Randy Alan, Adjunct Instructor, Anatomy Cell Biology, 2009 (2009); BGS 1988 University of Iowa; MBA 2003 St. Ambrose

Nester, Carla Marie, Professor, Internal Medicine/ Pediatrics, 2007 (2024); BS 1987 Austin Peay State; MD 1998 Pennsylvania State University

Nettasinghe, Don Buddhika Wijay, Assistant Professor, Business Analytics, (2022); PHD 2022 Cornell University

Netten, John Yung, Adjunct Assistant Professor, Emergency Medicine, 2022 (2022); BA 2002 Luther College; DO 2011 Kansas City University of Med

Neu, Stacey Kirsten, Adjunct Assistant Professor, Family Medicine, 2006 (2006); BA 1992 Central, Pella IA; MD 1996 University of Iowa

Neuhauser, Paul M., Emeritus Professor, Law-Faculty, 1963 (1969); BA 1955 Harvard; LLB 1958 Harvard; LLM 1963 Harvard

Neumann, William John, Adjunct Instructor, School of Earth, Environment, and Sustainability, 2024 (2024); BS 2005 University of Iowa

Neupane, Dhruba Jyoti, Associate Professor, Rhetoric, (2025); PHD 2018 University of Waterloo

Neville, Steven Alan, Adjunct Instructor, Preventive Community Dentistry, 2014 (2014); AB 2007 Grandview College; DDS 2011 University of Iowa

Newcomb, Mary A., Adjunct Instructor, Social Work, 1994 (1994); BS 1981 University of Illinois at Urbana Champaign; MS 1985 University of Iowa

Newell, Elizabeth Ann, Associate Professor, Pediatrics, 2008 (2024); MD 2000 University of Iowa

Newhouse, Joan E., Adjunct Instructor, Theatre Arts, 2019 (2019); BA 1997 University of Wisconsin-Eau Cl

Newman, Bobbi, Associate Professor, Library Information Science, (2025); BA 1998 University of Northern Iowa; MA 2002 University of Arizona; MA 2014 Iowa State Univeristy

Newman, Kathleen E., Associate Professor, Cinematic Arts/ Spanish Portuguese, 1988 (1993); BA 1975 University of California-Santa Cruz; MA 1980 Stanford; PHD 1983 Stanford

Newman, Larry, Emeritus Assistant Professor, Nursing, 2015 (2016); ADN 2006 Scott Comm College; BSN 2010 University of Iowa; DNP 2013 University of Iowa

Newsom, Charles R., Emeritus Associate Professor, Physics Astronomy, 1985 (1989); BS 1974 The University of Texas at Austin; PHD 1980 The University of Texas at Austin

Newton, Chase, Adjunct Instructor, Family Medicine, 2018 (2018); BS 2005 Iowa State Univ, Ames, IA; DO 2009 Des Moines Univ, Des Moines,IA

Newton, Daniel, Associate Professor, Management and Entrepreneurship, 2019 (2024); MA 2008 Brigham Young University; MBA 2010 Indiana University; PHD 2018 Arizona State University

Newton, Sara Jo, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2009 Drake University

Neyland, Breyan Nichole, Adjunct Instructor, Teaching and Learning, 2015 (2025); BA 1997 Seattle Pacific University; MA 1999 Pennsylvania State University; PHD 2004 Pennsylvania State University

Ng, Zee Kuan Grace, Clinical Assistant Professor, Internal Medicine, (2025); BSN 2015 University of Ottawa; MD 2020 Saint James School of Medicine

Ngo, Anh Thu, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2019 University of Iowa

Nguyen, Cambrey Bao-Phuong, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHAR 2012 Universit of Kansas

Nguyen, Phuong Hoang, Professor, School of Planning and Public Affairs, 2011 (2024); BS 1999 International Economics; MS 2006 Duke; DR 2010 Syracuse

Nguyen-Ba, Khanh-Tung, Adjunct Instructor, Statistics Actuarial Science, 2024 (2024); BBA 2013 The University of Iowa; BS 2013 The University of Iowa; MA 2021 Columbia University

Ni, Jun, Adjunct Associate Professor, Mechanical Engineering, 1998 (2003); BS 1982 Harbin Shipbuilding Engineerin; MS 1984 Shanghai Jan; PHD 1991 Iowa

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Nica, Alexandra, Professor, Economics, 2014 (2025); BA 1999 U. Transilvania (Romania); MA 2002 University of Iowa; PHD 2013 University of Iowa

Nice, Dylan Thomas, Associate Professor, Rhetoric, 2016 (2025); BA 2008 University of Pittsburgh; MFA 2011 University of Iowa

Nichols, Carly E., Adjunct Assistant Professor, Geographical and Sustainability Sciences, 2019 (2019); PHD 2019 University of Arizona

Nichols, Elizabeth A., Adjunct Assistant Professor, Pharmacy Practice and Science, 2007 (2007); BS 2001 Northern Iowa; PHARMD 2005 University of Iowa

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Nicholson, Anita Christine, Clinical Professor, International Programs/Nursing, 2016 (2016); BSN 1987 University of Iowa; MA 1991 University of Iowa; PHD 2010 University of Iowa

Nicholson, Kyle, Adjunct Instructor, Preventive Community Dentistry, 2020 (2020); BS 2015 University of Iowa; DDS 2019 University of Iowa

Nicholson, Rachael, Clinical Professor, Surgery, 2009 (2023); MD 2002 Southern Illinois

Niciu, Mark, Assistant Professor, Psychiatry, (2018); PHD 2008 University of Connecticut

Nickelsburg, George W., Emeritus Professor, Religion, 1969 (1977); BA 1955 Valparaiso; BD 1960 Concordia Seminary; MA 1962 Concordia Seminary; PHD 1968 Harvard

Nickl-Jockschat, Thomas K., Adjunct Associate Professor, Psychiatry, 2017 (2017); MD 2004 University of Regensburg; PHD 2007 University of Regensburg

Nidey, Nichole Lynn, Assistant Professor, Epidemiology/ Psychiatry, (2023); BA 2005 University of Iowa; PHD 2019 University of Iowa

Niebling, Bradley C., Adjunct Instructor, Psych Quant Foundations, 2023 (2023); PHD 2004 University of Wisconsin

Niebuhr, Diane Patrice, Emeritus Associate Professor, Communication Sciences and Disorders, 1983 (1992); BS 1980 University of Iowa; MA 1982 University of Iowa

Niebyl, Jennifer R., Emeritus Professor, Obstetrics Gynecology, 1988 (1988); BS 1963 McGill; MD 1967 Yale

Nielsen, David H., Emeritus Professor, Physical Therapy Rehab Science, 1975 (1994); BS 1965 University of Maryland-College Park; MA 1967 University of Maryland-College Park; PHD 1974 Pennsylvania State University

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Nierman, Larvin Craig, Adjunct Instructor, Law-Faculty, 2007 (2025); JD 1999 Iowa

Niggemeyer, Erik T., Adjunct Instructor, Physical Therapy Rehab Science, 2025 (2025); MPT 2003 The University of Iowa

Nijjar, Upneet Kaur, Clinical Assistant Professor, Family Medicine, (2021); BS 2001 Univ of Kansas, Lawrence, KS; MD 2006 UniformedSrvcsUniv,Bethesda,MD

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Nisly, Nicole L., Emeritus Professor, Internal Medicine, 1993 (2001); MD 1982 Universidade Federal de Permbu

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Niwas, Ram, Clinical Professor, Pediatrics, 2009 (2022); MD 1985 Sn Medical, Agra India

Nixon, Earl, Instructor, Radiation Oncology, 2008 (2023); BE 2003 Applied Sciences; MS 2006 University of Iowa

Nixon, Wilfrid A., Emeritus Professor, Civil-Environmental Engineering, 1987 (1998); BA 1981 Cambridge; PHD 1984 Cambridge; MA 1985 Cambridge

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Nnuro, Derek Kwadwo, Adjunct Assistant Professor, English, 2016 (2016); BA 2009 John Hopkins University; MFA 2016 University of Iowa

Noble, Nathan Ross, Adjunct Assistant Professor, Pediatrics, 2012 (2012); DO 2004 Des Moines

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Noblett-Feld, Reta, Emeritus Professor, Law-Faculty, 1991 (2006); BA 1980 University of Iowa; JD 1983 University of Iowa

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Noldner, Lara Kristen, Adjunct Associate Professor, Anthropology/University College Courses, 2015 (2023); MS 2008 University of New Mexico; PHD 2013 University of New Mexico

Nolta, Brian Eugene, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BS 1998 St. Ambrose University; MPT 2000 University of Iowa; DPT 2017 Arcadia University

Non, Lemuel Benedict Robleza, Clinical Associate Professor, Internal Medicine, 2019 (2024); MD 2008 University of the Philippines

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Noonan, Mary Christine, Associate Professor, Sociology and Criminology, 2001 (2007); BA 1992 Boston; PHD 2001 University of Michigan

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Norby, Sandra Lee, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BS 1986 University of Iowa; MPT 1989 University of Iowa; DPT 2016 University of Montana

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Norman, Melissa, Adjunct Instructor, Law-Faculty/University College Courses, 2024 (2024); BA 2012 Appalachian State University; JD 2015 University of Missouri

Norquest, Christine Ingrid, Adjunct Assistant Professor, English/Gender, Women's and Sexuality Studies, 2016 (2023); MA 2007 Univ of TX, Pan American

Norris, Andrew William, Professor, Biochemistry and Molecular Biology/Pediatrics, 2005 (2018); BS 1989 Mass, Inst of Tech Cambri; MD 1997 Wash @ St. Louis; PHD 1997 Wash St. Louis

Norris, Kristi Linn, Adjunct Instructor, University College Courses, 2023 (2023); BA 2014 University of Tulsa; MA 2021 University of Iowa

North, Claire, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2018 University of Iowa

Nosikova, Ksenia, Professor, Music, 1998 (2010); BA 1985 Moscow State Tchaikovsky Conse; MA 1989 Moscow State Tchaeikovsky Cons; DMA 1997 Colorado-Boulder

Nothwehr, Faryle, Emeritus Associate Professor, Community Behavioral Health, 2001 (2007); BS 1981 Winona State; MA 1987 St Thomas; MPH 1993 The University of Minnesota-Twin Cities; PHD 1997 University of Michigan-Ann Arbor

Nott, Jeniece M., Adjunct Assistant Professor, Psychiatry, 2017 (2017); PHD 0200 Indiana University Sch. of Med; BA 1993 DePauw University; MD 2012 Indiana Unicersity Sch. of Med

Nottingham-Spencer, Bruce H., Associate Professor, Languages, Literatures, Linguistics, and Cultures, 2000 (2020); BA 1993 Virginia; MA 1995 University of Michigan-Ann Arbor; PHD 2000 University of Michigan-Ann Arbor

Noureddine, Lama, Clinical Associate Professor, Internal Medicine, 2014 (2021); MD 2006 American University of Beirut

Nourian, Kimiya, Clinical Assistant Professor, Internal Medicine, (2025); MD 2022 University of Utah

Nourski, Kirill Vadimovich, Associate Professor, Neurosurgery, 2009 (2016); MD 2001 St. Petersburg State; PHD 2006 University of Iowa

Novak, Alexander, Clinical Assistant Professor, Anesthesia, 2024 (2024); MD 2020 University of Iowa

Novak, Katie, Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); BA 2010 University of Iowa; AASC 2016 Kirkwood Community College

Novak, Nicole L., Research Assistant Professor, Community Behavioral Health, (2021); PHD 2016 University of Michigan Rackham

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Nowak, Arthur J., Emeritus Professor, Pediatric Dentistry, 1973 (1977); DMD 1961 Pittburgh; MA 1967 Columbia

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Nunez, Katharyn J., Associate Professor, Nursing, (2024); BSN 2008 Mercy College of Health Scienc; MSN 2019 Purdue University Global WestL; DNP 2020 Purdue University Global

Nuxoll, Eric Edward, Associate Professor, Chemical Biochemical Engineering, 2008 (2016); BS 1998 Idaho; PHD 2003 The University of Minnesota-Twin Cities

Nuxoll, Kimberly Nollenberger, Adjunct Assistant Professor, International Programs/Nursing, 2018 (2024); MSN 2003 University of Minnesota

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O'Donnell, Madeline A., Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); AASC 2018 Kirkwood Community College; BS 2020 Minnesota State Mankato

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O'Neill, Andrew, Instructor, University College Courses, (2024); BA 2021 University of Iowa

O'Neill, Brian Timothy, Associate Professor, Internal Medicine, 2016 (2023); MD 2008 University of Utah

O'Neill, Katherine K., Assistant Professor, Sociology and Criminology, 2024 (2024); MSC 2010 London School of Economics; MA 2016 University of Washington; PHD 2021 University of Washington

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O'Neill, Susan, Clinical Associate Professor, Psychological and Brain Sciences, 2023 (2023); BA 1994 Colorado College; PHD 2004 University of Missouri, Columb

O'Reilly, Kelley E., Adjunct Assistant Professor, Internal Medicine, 2022 (2022); DO 2012 Kansas City University of Medi

O'Rorke, Michael Anthony, Assistant Professor, Epidemiology/Pathology, 2018 (2018); BSC 2007 University of Ulster; PHD 2011 Queen's University Belfast

O'Rourke, Howard John, Clinical Associate Professor, Radiology, 2012 (2023); MD 2006 Rochester

O'Shaughnessy, Patrick T., Professor, Civil-Environmental Engineering/Occupational Environmental Health, 1997 (2010); BS 1980 Vermont; MS 1993 Vermont; PHD 1996 Vermont

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O'Shea, Thomas Michael, Adjunct Instructor, University College Courses, 2015 (2015); BA 1999 University of Northern Iowa; MED 2001 University of Northern Iowa; PHD 2013 Iowa State University

O. Rourke, Barbara Lea Wolf, Adjunct Assistant Professor, Counselor Education, 1985 (1996); BSN 1975 University of Iowa; MA 1985 University of Iowa; PHD 1996 University of Iowa

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Ogren, Christine A., Professor, Educ Policy Leadership Studies, 1999 (2022); BA 1987 Carleton College; MA 1993 University of Wisconsin-Madison; PHD 1996 University of Wisconsin-Madison

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Olsen, Christopher Kai, Professor, Cinematic Arts, (2024); MFA 2022 University of Illinios

Olshansky, Brian, Emeritus Professor, Internal Medicine, 2000 (2000); AB 1974 Carleton; MD 1978 University of Arizona

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Olson, Brett Joel, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1983 Luther College, Decorah, IA; MD 1987 Univ of IA COM Iowa City,IA

Olson, Eric, Adjunct Associate Professor, Economics, 2014 (2014); BA 2004 Alabama; MA 2005 Alabama; PHD 2010 Alabama

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Olson, Richard John, Emeritus Professor, Ophthalmology Visual Science, 2002 (2017); BA 1984 Brigham Young; MD 1991 Utah

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Olson, Taylor Lee, Assistant Professor, Computer Science, (2025); BS 2018 University of Northern Iowa; PHD 2025 Northwestern University

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Olufs, Erin Lynn, Clinical Associate Professor, Pediatrics/ Psychiatry, 2016 (2022); PHD 2014 University of North Dakota

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Orgren, Carl F., Emeritus Associate Professor, Library Information Science, 1970 (1976); PHB 1959 Detroit; AMLS 1962 University of Michigan-Ann Arbor; MA 1966 Detroit; PHD 1971 University of Michigan-Ann Arbor

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Ortega Gutierrez, Santiago, Clinical Professor, Neurology/ Neurosurgery/Radiology, 2014 (2025); MD 2002 Universidad de Alcala, Alcala

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Orvis, Samuel, Clinical Assistant Professor, Family Medicine, (2024); BA 2015 Coe College; Cedar Rapids,IA; MD 2020 Univ of Iowa

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Oshaughnessy, Katlyn Earl, Associate Professor, Rhetoric, (2024); PHD 2018 University of Iowa

Osiel, Mark J., Emeritus Professor, Law-Faculty, 1992 (1992); BA 1977 University of California-Berkeley; JD 1987 Harvard; PHD 1987 Harvard

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Ostedgaard, Lynda Spencer, Emeritus Associate Professor, Internal Medicine, 2012 (2012); BA 1970 University of Iowa; MS 1973 University of Iowa; PHD 1989 University of Iowa

Osterberg, David, Emeritus Professor, Occupational Environmental Health, 1985 (1992); BA 1966 Washington State; MA 1969 University of Wisconsin-Madison; MS 1972 University of Wisconsin-Madison; MS 1975 University of Wisconsin-Madison

Osterhaus, Matthew Charles, Adjunct Assistant Professor, Pharmacy Practice and Science, 1997 (2020); BSPH 1980 University of Iowa

Osullivan, Cormac Thomas, Clinical Professor, Nursing, 1989 (2023); BSN 1987 University of Iowa; MSN 1997 DePaul; PHD 2008 University of Iowa

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Otting, Michaela Ann, Adjunct Assistant Professor, Pharmacy Practice and Science, 2008 (2008); PHARMD 1998 University of Iowa

Otting, Rachel Ichiko, Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2015); PHARMD 2013 University of Iowa

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Ourada, Michael James, Adjunct Instructor, Family Medicine, 2019 (2019); BS 1994 University of Nebraska; MD 1999 St. Geroge University School of Medicine

Ouranos, Hossein Bozorgmehr, Instructor, Internal Medicine, (2024); MD 2013 Indiana University

Ouyang, Michelle, Clinical Assistant Professor, Radiology, (2022); BS 2011 University of Michigan; MD 2015 Wayne State University

Overbey, Keegan Tucker, Adjunct Instructor, Nursing, 2024 (2024); BSN 2015 Allen College; MSN 2018 Allen College

Overton, Rachel Anne, Adjunct Instructor, Family Medicine, (2020); BA 2007 Wartburg College, Waverly IA; MD 2011 University of Iowa

Oweidat, Adeeb, Clinical Assistant Professor, Anesthesia, (2022); MD 2013 University of Balamand

Oweis, Reem, Adjunct Assistant Professor, Pediatric Dentistry/Preventive Community Dentistry, 2021 (2022); BDS 2007 Jordan University; PHD 2017 University of Iowa

Owen, Brent David, Adjunct Instructor, Family Medicine, 2017 (2017); MD 2008 Univ of IA CCOM, Iowa City,IA

Owen, Scott Russell, Clinical Associate Professor, Otolaryngology-Head Neck Surgery, 2017 (2024); BS 2006 Schreyers Honor College; MD 2011 University of Virginia

Owens, Andrew, Associate Professor, Cinematic Arts, (2023); BA 2008 Swarthmore College; MA 2010 Villanova University; PHD 2015 Northwestern University

Owens, Caitlin Burns, Adjunct Instructor, Social Work, 2024 (2024); BSW 2007 Indiana University; MSW 2014 University of Iowa

Owens, James Wyche Manier, Clinical Professor, Pediatrics, (2023); MD 1989 Univ Of Washington

Owusu-Ababio, Kumankum Osagyefo Kwame Nkrumah, Adjunct Assistant Professor, Radiation Oncology, 2025 (2025); PHS 2021 Universite Paris-Saclay

Oxley, Dana, Adjunct Instructor, Law-Faculty, 2007 (2023); BA 1990 Northern Iowa; JD 1998 University of Iowa

Oya, Hiroyuki, Emeritus Professor, Neurosurgery, 2003 (2022); MD 1981 Tottori, Japan; PHD 2004 Kanagawa,Japan

Ozen, Gulsen, Clinical Assistant Professor, Internal Medicine, (2024); MD 2006 Marmara University

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Pacheco, Julianna, Professor, Center for Soc Sci Innovation/ Political Science, 2012 (2023); BA 2004 Pennsylvania State University; MA 2006 Pennsylvania State University; PHD 2010 Pennsylvania State University

Packer, Aaron Grant, Adjunct Instructor, Communication Sciences and Disorders, 2003 (2003); BA 1996 University of Iowa; MA 2000 University of Iowa

Padgett, Jill, Adjunct Instructor, Social Work, 2015 (2015); MSW 2012 University of Iowa

Padhy, Biswajit, Instructor, Internal Medicine, (2024); PHD 2018 NISER Homi Bhabha National Ins

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Pai, Albert Chun-Jen, Clinical Assistant Professor, Cardiothoracic Surgery, (2025); BS 2011 University of Texas at Austin; MD 2016 Paul L. Foster School of Medic

Palmer, Benjamin Anthony, Clinical Assistant Professor, Pediatrics, (2025); DO 2019 Des Moines University

Palmer, Geoffrey, Adjunct Instructor, Law-Faculty, 2015 (2025); LLM 1965 Victoria University//Wellingto; JD 1967 Chicago

Palo, Pierre Yves, Clinical Assistant Professor, Internal Medicine, 2022 (2023); MD 2012 University of Virginia

Paltrineri, Kathleen Maris, Adjunct Assistant Professor, English, (2022); BA 1998 Iowa State University; MFA 2013 University of New Hampshire

Pan, Jin, Assistant Professor, Occupational Environmental Health, (2024); MS 2018 Univ of CA- Berkeley; PHD 2022 Virginia Polytechnic Inst

Panda, Ananya, Clinical Assistant Professor, Radiology, (2023); MBBS 2010 Seth GS Medical College; MD 2013 All India Institute of Medical

Panos, Anthony, Professor, Cardiothoracic Surgery, (2019); MD 1980 University of Toronto

Pantazis, Nicholas J., Emeritus Professor, Anatomy Cell Biology, 1979 (2000); BS 1970 Lehigh; PHD 1977 Harvard

Papari, Cristina Maria, Instructor, Family Medicine, (2025); BA 2018 Washington Univ St Louis; MD 2022 St. Louis Univ Sch of Med

Papworth, David P., Clinical Associate Professor, Anesthesia, 2000 (2000); MD 1974 Kings College Medical

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Parikh, Rajesh, Adjunct Professor, Psychiatry, 2016 (2016); MD 1979 Seth G.S. Medical College

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Park, Alyssa, Associate Professor, History, 2011 (2019); BA 1998 Princeton; MA 2004 Columbia; PHD 2009 Columbia

Park, Joon B., Emeritus Professor, Biomedical Engineering, 1983 (1983); BS 1967 Boston University; MS 1969 Massachusetts Inst of Technolo; PHD 1972 Utah

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Parker, Edith A., Professor, Community Behavioral Health, 2010 (2010); BA 1983 Davidson; MPH 1989 University of North Carolina at Chapel Hill; PHD 1995 University of North Carolina at Chapel Hill

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Parker, Krystal, Associate Professor, Psychiatry/ Psychological and Brain Sciences, 2015 (2023); BS 2003 Iowa State University; PHD 2009 Iowa State University

Parker, Molly Mcpartland, Adjunct Instructor, Law-Faculty, 2023 (2023); AB 2011 The University of Iowa; JD 2014 The University of Iowa

Parker, Wesley Alan, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1980 Cornell College, MtVernon, IA; MD 1986 Univ of IA CCOM, Iowa City

Parkes, Ford B., Emeritus Associate Professor, German, 1969 (1976); BA 1964 Kent State; MA 1966 Kent State; PHD 1971 Michigan State University

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Parkinson, Joshua P., Adjunct Instructor, Magid Center for Writing, 2023 (2023); DIP 1993 Needville High School; BA 1998 University of Texas at Austin; MA 2003 Johns Hopkins University

Parks, Clayton Thomas, Instructor, Orthodontics, 2007 (2025); DDS 1998 University of Iowa; MS 2000 University of Iowa

Parks, Kyle, Adjunct Assistant Professor, Physician Assistant, 2018 (2021); BSN 1994 Baker University School of Nur; MS 2008 Nova Southeastern University

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Parolia, Abhishek, Associate Professor, Endodontics, (2023); BDS 2003 Manipal University; MDS 2006 Manipal University; PHD 2020 International Medical Universi

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Parratt, Catriona, Emeritus Associate Professor, American Studies, 1989 (2001); BA 1977 Birmingham; MHK 1984 Windsor; PHD 1994 The Ohio State University

Parris, Caroline A., Adjunct Assistant Professor, Anthropology, 2022 (2022); MA 2011 Tulane University; PHD 2022 TULANE UNIVERSITY

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Parrish, Jeremy, Assistant Professor, Health Sport and Human Physiology, (2024); BBA 2015 University of Iowa; MA 2017 University of Iowa; MBA 2017 Upper Iowa University; MSL 2018 University of Iowa

Parrott, Catherine Ann, Assistant Professor, Theatre Arts, (2018); BA 2001 University of Iowa; MFA 2005 University of Georgia

Parrott, Debra Sue, Adjunct Instructor, Physical Therapy Rehab Science, 2018 (2024); BA 1984 Luther College

Parrott, Ray J., Emeritus Professor, Asian Slavic Languages Literature, 1971 (1985); BA 1963 Cornell-Iowa; MA 1967 University of Michigan-Ann Arbor; PHD 1974 University of Michigan-Ann Arbor

Parsons, Meredith G., Clinical Assistant Professor, Pathology, (2023); BS 2011 University of Iowa; MD 2018 University of Iowa

Partyka, Lauren Marie, Clinical Associate Professor, Anesthesia/Pediatrics, 2015 (2023); MD 2010 Medical College of Wisconsin

Pastore Bassitt, Rogerio, Clinical Assistant Professor, Internal Medicine, (2025); MD 1992 University of Sa?o Paulo

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Patel, Purvi Vipinchandra, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2022 Texas Tech University Health S

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Patterson, Brendan M., Assistant Professor, Orthopaedics and Rehabilitation, (2017); BS 2003 University of Washington;

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Paudel, Hem, Associate Professor, Rhetoric, 2015 (2025); PHD 2015 University of Louisville

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Pawlak, Maria A., Clinical Associate Professor, Obstetrics Gynecology/Psych Quant Foundations/Psychiatry, 2014 (2023); BA 1990 University of Michigan-Ann Arbor; MS 1995 Memphis; PHD 1998 Memphis

Payne, Gerald L., Emeritus Professor, Physics Astronomy, 1969 (1980); BS 1961 The Ohio State University; MS 1961 The Ohio State University; PHD 1967 California San Diego

Paynter, Donald E., Adjunct Assistant Professor, Internal Medicine, 2000 (2000); MD 1980 University of Iowa

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Pazour, Erin E'Lyn, Adjunct Instructor, Physical Therapy Rehab Science, 2003 (2024); BA 1993 CENTRAL COLLEGE, PELLA; MPT 1995 University of Iowa

Peacock, John, Adjunct Assistant Professor, Emergency Medicine, 2025 (2025); MD 2020 University of Texas - Houston

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Pedersen, Douglas Ray, Emeritus Associate Professor, Orthopaedics and Rehabilitation, 2001 (2001); BSE 1979 University of Iowa; MS 1983 University of Iowa; PHD 1998 University of Iowa

Pedersen, Mark Reeve, Clinical Assistant Professor, Anesthesia, (2020); BA 2006 Coe College; MPH 2008 University of Iowa; MD 2014 University of Iowa

Pedley, Anthony Mark, Assistant Professor, Biochemistry and Molecular Biology, 2024 (2024); PHD 2013 Purdue University

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Pelaez, Carlos Andres, Adjunct Associate Professor, Surgery, 2011 (2019); MD 2003 Universidad de Iberoamerica

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Pelzel, Kelly E., Adjunct Assistant Professor, Psych Quant Foundations/Psychiatry, (2018); BA 1998 University of Northern Iowa; MS 2002 University of Utah; PHD 2006 University of Utah

Pelzer, Daniel Edward, Adjunct Assistant Professor, Pediatrics, 2018 (2018); MD 2012 University of Iowa

Pelzer, Diana Michelle, Adjunct Assistant Professor, Pediatric Dentistry, 2017 (2017); BA 2010 University of Iowa; DDS 2014 University of Iowa; CER 2016 Universtiy of Iowa

Pemmaraju, Sriram V., Professor, Computer Science, 2000 (2013); MSC 1987 Birla; MS 1989 Virginia Polytechnic; PHD 1992 Virginia Polytechnic

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Pendry, Mckenzie Catherine, Adjunct Instructor, University College Courses, 2021 (2021); BA 2017 Millikin University; MA 2020 Ball State University

Peng, Aimin, Adjunct Professor, Dental Research, 2023 (2023); PHD 2005 University of Texas Health Sci

Peng, Xi, Assistant Professor, Biomedical Engineering/ Mechanical Engineering/Radiology, (2023); BED 2002 School of Electronic Informati; PHD 2012 Wuhan University

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Perez, Charlotte Elizabeth, Adjunct Instructor, Law-Faculty, 2025 (2025); BA 2013 Carleton College; JD 2019 The University of Iowa; LLM 2022 Leiden University

Perkins, Sam, Assistant Professor, Accounting, 2022 (2025); BA 2009 University of Iowa; MS 2011 Western Illinois University; MBA 2021 University of Iowa

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Perovic, Katarina, Associate Professor, Philosophy, 2011 (2019); BA 2002 Bologna, Italy; MPHIL 2003 King's; PHD 2008 King's

Perry, Andre F., Adjunct Instructor, Theatre Arts/University College Courses, (2018); BA 2000 Princeton University; MFA 2008 University of Iowa

Perry, Grant, Adjunct Assistant Professor, Pediatrics, 2023 (2023); BS 2012 University of Georgia; MD 2016 University of Louisville

Perry, Paul J., Emeritus Professor, Pharmacy, 1973 (1987); BS 1969 Univ of the Pacific; MS 1971 Univ of the Pacific; PHD 1973 Univ of the Pacific

Persaud, Peter Krishen, Adjunct Instructor, Law-Faculty, 2014 (2024); BA 1983 University of Iowa; JD 1986 Drake University

Persons, Rachael, Clinical Assistant Professor, Obstetrics Gynecology, (2025); MD 2015 Medical College of Wisconsin

Pesce, Liuska Maria, Clinical Professor, Pediatrics, 2008 (2021); MD 1998 Central Univ of Venezuela

Peter, Richard, Professor, Economics/Finance, 2015 (2025); MBA 2012 MBR, LMU, Munich, Germany; PHD 2013 LMU, Munich, Germany

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Peters, Bobby Xavier, Clinical Assistant Professor, Emergency Medicine, 2001 (2001); BS 1990 Houston Baptist; MD 1996 Texas Medical

Peters, Douglas William, Adjunct Assistant Professor, Family Medicine, 2011 (2011); BA 1993 Wartburg; MD 1997 University of Iowa

Peters, Emmanuel Rajasekhar, Adjunct Instructor, Business Analytics, 2021 (2023); BS 1989 Sri Venkateswara University; MS 1993 Texas Tech; PHD 2021 University of Iowa

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Petersen, Christine A., Adjunct Professor, Epidemiology, 2006 (2020); BA 1994 Johns Hopkins; DVM 1998 Cornell; PHD 2004 Harvard

Petersen, Christopher, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2018 University of Iowa

Petersen, Ericka Jane Meanor, Adjunct Instructor, Law-Faculty, 2023 (2023); BA 2008 The University of Iowa; JD 2014 University of California-Berke; LLM 2020 Georgetown University Law

Petersen, Isaac T., Associate Professor, Center for Soc Sci Innovation/Psychological and Brain Sciences, (2024); BA 2008 Univeristy of Texas @ Austin; PHD 2016 Indiana University @ Bloomington

Petersen, Joshua Douglas, Adjunct Assistant Professor, Nursing, 2010 (2025); BSN 2004 Mt Mercy; MSN 2008 University of Iowa

Petersen, Julie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2010 Univeristy of Iowa

Petersen, Tomeka Jo, Adjunct Instructor, Social Work, 2019 (2019); BA 1995 University of Massachusetts; MSW 1997 Simmons College

Peterson, Andrew Robert, Clinical Professor, Orthopaedics and Rehabilitation/Pediatrics, 2010 (2020); BA 2000 Lawrence; MD 2004 University of Wisconsin-Madison

Peterson, Brandon Keith, Adjunct Assistant Professor, Periodontics, 2025 (2025); DDS 2004 U. of Iowa; CER 2012 Medical U. of S. Carolina; MSD 2012 Medical U. of S. Carolina

Peterson, Brian Edward, Assistant Professor, Communication Sciences and Disorders, 2022 (2022); MA 2013 Universityy of Iowa; SLPD 2025 MGH INSTITUTE OF HEALTH PROFES

Peterson, Brian K., Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BS 1983 Morthwest Missouri State; MA 1988 University of Iowa; MPT 1998 Samuel Merritt College

Peterson, Clayton Robert, Associate Professor, Health Sport and Human Physiology, 2008 (2017); BA 1995 Luther College; PHD 2009 University of Iowa

Peterson, Emily Ann, Adjunct Assistant Professor, Family Medicine/Pharmacy Practice and Science, 2015 (2022); PHARMD 2015 University of Nebraska-Lincoln

Peterson, Grant Eugene, Adjunct Assistant Professor, Internal Medicine, 2015 (2015); MD 2010 University of Iowa

Peterson, Harold L., Adjunct Instructor, Social Work, 2016 (2016); BS 1979 University of Iowa; MSW 2013 University of Iowa

Peterson, Jacob John, Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2024); PHARMD 2016 University of Iowa

Peterson, Jordan Dane, Adjunct Assistant Professor, Internal Medicine, 2020 (2020); MD 2015 University of Iowa Carver College of Medicine

Peterson, Nathan Daniel, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHAR 2014 The University of Iowa

Peterson, Nicole Elizabeth, Emeritus Associate Professor, Nursing, 2004 (2019); BSN 2003 University of Iowa; MSN 2008 University of Iowa; DNP 2013 University of Iowa

Peterson, Ryan Andrew, Associate Professor, Internal Medicine, (2025); BA 2014 St. Olaf College; MS 2016 The University of Iowa; PHD 2019 University of Iowa

Peterson, Stewart Norman, Adjunct Associate Professor, Pharmacy Practice and Science, 2002 (2024); PHARMD 2001 University of Iowa

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Pfohl, Bruce Michael, Emeritus Professor, Psychiatry, 1981 (1993); BA 1973 Graceland; MD 1977 University of Iowa

Pfohl, Chad Michael, Clinical Instructor, Hospital Dentistry/ Oral Maxillofacial Surgery, 2010 (2023); BA 1997 University of Iowa; DDS 2003 University of Iowa

Pfohl, Elizabeth, Adjunct Assistant Professor, Pediatric Dentistry, 2021 (2021); BSE 2000 University of Iowa; MSE 2006 University of Tenn; DDS 2019 University of Iowa

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Pham, Chau Minh, Clinical Assistant Professor, Ophthalmology Visual Science/Otolaryngology-Head Neck Surgery, (2020); MD 2013 Case Western Reserve University

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Phillips, Andrew James, Adjunct Instructor, Physical Therapy Rehab Science, 2013 (2024); BA 2006 Coe College; DPT 2008 University of Iowa

Phillips, Bryan T., Professor, Biology, 2009 (2023); BS 1998 University of Illinois at Urbana Champaign; DPHIL 2004 Texas AM

Phillips, Damani Cabral, Professor, African-American Studies/Music, 2013 (2024); BM 1997 DePaul; MMUS 1999 Kentucky; MM 2003 Wayne State University Detroit; DMA 2009 Colorado/Boulder

Phillips, Daniel J., Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DMD 2014 Temple University

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Picconi, Jason Lewis, Adjunct Associate Professor, Obstetrics Gynecology, 2021 (2021); BS 1998 Creighton Univ., Omaha, NE; MD 2006 Creighton Univ. School of Med; PHD 2006 Creighton Univ. School of Med

Pickar, Joel, Emeritus Professor, Biomedical Engineering, 1999 (2008); PHD 1990 University of California-Davis

Pienta, Norbert J., Emeritus Professor, Chemistry, 1999 (2009); BS 1974 Rochester; PHD 1978 University of North Carolina at Chapel Hill

Pierce, Gary L., Professor, Health Sport and Human Physiology/Internal Medicine, 2011 (2021); PHD 2005 Florida

Pierce, Leighton, Emeritus Professor, Cinematic Arts, 1985 (1997); BA 1981 University of Iowa; MFA 1984 Syracuse

Pierce, Martha, Adjunct Instructor, University College Courses, 2023 (2023); BA 2007 Austin College; MA 2010 Indiana University

Pierson, Paul Christopher, Instructor, Surgery, (2024); DO 2014 Des Moines University

Pietrzyk, Donald J., Emeritus Professor, Chemistry, 1961 (1971); BS 1956 Wayne State; PHD 1960 Iowa State

Pigge, Fred Christopher, Associate Professor, Chemistry/ Radiology, 2005 (2005); BA 1989 Wooster; PHD 1993 University of North Carolina at Chapel Hill

Pike, Susan, Emeritus Assistant Professor, Psychiatry, 2009 (2009); MD 2003 Southern Illinois

Pilet, Elim Campbell, Adjunct Assistant Professor, Creative Writing, 2025 (2025); MFA 2025 The University of Iowa

Pilkington, Wesley Charles, Adjunct Assistant Professor, Pharmacy Practice and Science, 2013 (2013); PHARMD 2011 University of Iowa

Pille, Marianka Overschie, Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 1996 Baylor College of Medicine

Pilon Capella, Mariana, Clinical Assistant Professor, Internal Medicine, (2025); MD 2015 University of Taubate

Pinckney, Thomas Watkins, Adjunct Assistant Professor, Preventive Community Dentistry, 1985 (1985); DDS 1977 University of Iowa

Pinheiro Feitosa, Victor, Clinical Assistant Professor, Operative Dentistry, (2023); DDS 2009 State Univ of Campinas, Brazil; MSC 2011 State Univ of Campinas, Brazil; PHD 2013 State Univ of Campinas, Brazil

Pinkerton, Amy Louise, Clinical Assistant Professor, Communication Sciences and Disorders/Otolaryngology-Head Neck Surgery, (2021); BM 2001 Indiana University; MM 2003 University of North Dakota; MA 2016 University of Iowa

Pinnaro, Catherina, Assistant Professor, Pediatrics, (2020); BS 2008 University of Notre Dame; MD 2013 New York Medical College

Pinto-Tomas, Maricelle, Assistant Professor, Spanish Portuguese, 2015 (2013); BA 1991 Kenyon College, OH; MA 1996 U of da?? Ottawa, Canada; PHD 2012 University of Iowa

Piotrowicz, Anna, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2024 University of Washington

Piper, Robert C., Professor, Anatomy Cell Biology/ Internal Medicine/Medicine Administration/Molecular Physiology Biophysics, 1997 (2009); BS 1986 Reed; PHD 1992 Washington University

Pisney, Francis L., Adjunct Assistant Professor, Family Medicine, 1976 (2002); BS 1967 Iowa State; MD 1971 University of Iowa

Pitcher, Graeme, Clinical Professor, Pediatrics/Surgery, 2009 (2018); MBBCH 1984 Witwatersrand; FSC 1993 Med of South Africa

Pitlick, Matthew Kenneth, Adjunct Associate Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2008 Drake University

Pitman, Stuart Keith, Clinical Assistant Professor, Pharmacy Practice and Science, 2009 (2011); PHARMD 2009 University of Iowa

Pittman, Cory, Adjunct Associate Professor, Internal Medicine, 2008 (2020); BS 1997 Missouri; MD 2002 Illinois, Wesleyan

Pitton, Michael J., Adjunct Instructor, Law-Faculty, 2002 (2023); BA 1974 CREIGHTON; JD 1977 University of Iowa

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Pizzi, Elise, Associate Professor, Center for Soc Sci Innovation/Political Science, 2016 (2023); BA 2004 Grinnell College; MA 2010 University of Colorado; PHD 2015 University of Colorado

Pizzimenti, Marc Anthony, Associate Professor, Anatomy Cell Biology/Health Sport and Human Physiology, 1999 (2019); BED 1987 Western Ontario; MA 1989 Western Ontario; PHD 1999 University of Iowa

Pizzini, Edward L., Emeritus Professor, Teaching and Learning, 1973 (1990); BS 1963 Montana State; MS 1968 Houston; PHD 1973 University of Iowa

Pizzini, Nicole, Adjunct Instructor, Counselor Education, 2013 (2023); PHD 2008 University of Iowa

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Plapp, Bryce V., Emeritus Professor, Biochemistry and Molecular Biology, 1970 (1979); BS 1961 Michigan State University; PHD 1966 University of California-Berkeley

Plathe, Jennifer Lee, Adjunct Instructor, Social Work, 2024 (2024); MSW 2020 University of Iowa

Platt, Jonathan Manion, Assistant Professor, Epidemiology, (2021); BA 2006 University of Wisconsin; MPH 2013 Columbia University; PHD 2019 Columbia University

Platte, Nathan Richard, Associate Professor, Cinematic Arts/Music, 2011 (2017); BA 2004 University of Michigan-Ann Arbor; BM 2004 University of Michigan-Ann Arbor; PHD 2010 University of Michigan-Ann Arbor

Platz, Charles E., Emeritus Professor, Pathology, 1975 (1980); BA 1959 Kansas; MD 1963 University of Illinois at Chicago

Plichta, Kristin A., Clinical Associate Professor, Radiation Oncology, 2018 (2025); BS 2004 College of William Mary; PHD 2010 Penn State University; MD 2012 Penn State University

Ploehn, Lisa C., Adjunct Assistant Professor, Pharmacy Practice and Science, 1997 (2019); PHARMD 1980 University of Nebraska-Lincoln

Pluim, Jason, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BA 2013 Northwestern College; DPT 2016 University of Iowa

Plumert, Jodie M., Professor, Psychological and Brain Sciences, 1990 (2004); BA 1985 Kalamazoo; PHD 1990 The University of Minnesota-Twin Cities

Poggemiller, Andrew M., Adjunct Instructor, Dermatology, 2025 (2025); BS 2017 University of Iowa; MD 2021 University of Iowa

Polacco, Marc, Adjunct Assistant Professor, Otolaryngology-Head Neck Surgery, 2022 (2022); BA 2010 Gustavus Adolphus College; MD 2014 university of Iowa

Polaschek, Karla A., Adjunct Lecturer, Obstetrics Gynecology, 1998 (1998); MD 1993 Southern Illinois

Polgreen, Linnea Ann, Professor, Pharmacy Practice and Science, 2005 (2022); BS 1991 Wheaton, IL; MA 2000 University of Iowa; PHD 2004 University of Iowa

Polgreen, Philip Matthew, Professor, Epidemiology/Internal Medicine, 2004 (2018); BS 1992 Beloit; MD 1997 Cincinnati; MPH 2006 University of Iowa

Policeni, Bruno Adum, Clinical Professor, Oral Path,RadiologyMedicine/Otolaryngology-Head Neck Surgery/ Radiology, 2006 (2017); MD 2001 Faculdade de Medicina de Valen

Policeni, Fabiana Chacur, Clinical Associate Professor, Radiology, 2015 (2023); MD 2001 Severino Sombra, Brazil

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Pollard, James W., Adjunct Assistant Professor, Preventive Community Dentistry, 1883 (1998); DDS 1977 University of Iowa

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Polyak, Steven, Clinical Associate Professor, Internal Medicine, 2009 (2017); BA 1993 Clark; MD 1998 Mount Sinai

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Pomales, Tony Orlando, Adjunct Assistant Professor, Anthropology/Community Behavioral Health, (2021); BA 2006 University of Notre Dame; MA 2010 University of Iowa; PHD 2015 University of Iowa

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Pomrehn, Paul Rudolph, Emeritus Professor, Epidemiology, 1980 (1999); BA 1971 University of Iowa; MD 1975 University of Iowa; MS 1980 University of Iowa

Ponto, Catherine, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2023 University of Iowa

Ponto, James Allen, Emeritus Professor, Pharmacy Practice and Science, 1978 (1992); BS 1977 University of Iowa; MS 1978 Southern-California-Los Angele

Ponto, Laura L., Emeritus Professor, Radiology, 2000 (2019); BSPH 1977 University of Iowa; MS 1981 University of Iowa; PHD 1988 University of Iowa

Poock, James Joseph, Adjunct Assistant Professor, Family Medicine, 2009 (2009); BS 1995 Upper Iowa Univ, Fayette, IA; BS 1999 Upper Iowa; MD 1999 University of Iowa

Poonsombudlert, Kittika, Clinical Assistant Professor, Internal Medicine, (2023); MD 2016 Navamindradhiraj University

Porayette, Prashob, Clinical Associate Professor, Internal Medicine/Pediatrics, 2019 (2024); MBBS 2005 BJ Medical College, Gujarat Un; MSC 2007 Univ of Wisconsin; MD 2012 Univ Indiana

Porter, Andrea Leigh, Emeritus Associate Professor, Pediatrics, 1994 (2019); BS 1984 University of Iowa; MD 1988 University of Iowa

Porter, Cindra Kay, Adjunct Instructor, Teaching and Learning, 2012 (2024); BA 2004 Central College; MSW 2008 Iowa; PHD 2018 University of Iowa

Porter, Horace A., Emeritus Professor, African-American Studies/American Studies/English, 1999 (1999); BA 1972 Amherst; MA 1975 Yale; PHD 1981 Yale

Porter, Jeffrey L., Emeritus Professor, English, 1993 (2017); BA 1974 State Univ of NY-Buffalo; MA 1975 Oregon; PHD 1983 Oregon

Porter, Samuel D., Emeritus Associate Professor, Surgery, 1974 (1985); BA 1956 Grinnell; MD 1960 Creighton

Portman, Tarrell Aweagahe, Emeritus Associate Professor, Counselor Education, 1999 (2005); BS 1981 Southeast Missouri State; MA 1988 Southeast Missouri State; PHD 1999 Arkansas

Poss, Jordan Lee, Adjunct Assistant Professor, Orthodontics, (2022); BA 2007 Creighton University; DDS 2011 University of Iowa; MS 2013 University of Iowa

Post, Erin Walker, Adjunct Assistant Professor, Statistics Actuarial Science, 2025 (2025); PHD 2024 University of Iowa

Postler, Cynthia Anne Doyle, Adjunct Instructor, Teaching and Learning, 2005 (2024); BA 1981 Northern Iowa; MA 2009 University of Iowa

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Pottebaum, Claire Elizabeth, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2021 University of Iowa

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Poulakos, P. Takis, Associate Professor, Rhetoric, 1990 (1995); BA 1974 San Jose State; MA 1976 San Jose State; PHD 1988 Miami-Ohio

Poulos, Mark B., Adjunct Instructor, University College Courses, 2016 (2016); BA 1988 Marycrest College

Poulton, Jonathan E., Emeritus Professor, Biology, 1979 (1992); BA 1971 Oxford-England; DPHIL 1974 Oxford-England; MA 1974 Oxford-England

Pound, Crystal R., Adjunct Instructor, Law-Faculty, 2021 (2025); BA 2011 Minnesota State University; JD 2016 The University of Iowa

Poust, Rolland I., Emeritus Professor, Pharmacy, 1991 (1991); BS 1966 Pittsburgh; MS 1968 Pittsburgh; PHD 1971 Purdue University Main Campus

Pouw, Andrew Ewen, Clinical Assistant Professor, Ophthalmology Visual Science, (2020); MD 2015 University of Southern Califorina

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Powell, Daniel B., Adjunct Instructor, Military Science, 2025 (2025); BS 2009 Kennesaw State University

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Powers, Amanda Anita, Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2016); PHARMD 2002 University of Iowa

Powers, Inna, Clinical Assistant Professor, Pediatrics, 2024 (2024); MD 2018 Mercer University

Powers, Jason, Clinical Associate Professor, Family Medicine, 2003 (2024); BS 1995 University of Iowa; MD 1999 University of Iowa

Powers, Jennifer Gloeckner, Adjunct Associate Professor, Dermatology, 2017 (2018); AB 2004 Harvard University; MD 2008 Vanderbilt University

Powers, John Sherman, Adjunct Assistant Professor, Pharmacy Practice and Science, 2014 (2014); PHARMD 2012 University of Iowa

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Prakasam, Sivaraman, Associate Professor, Periodontics, 2023 (2023); PHD 2009 SUNY Stony Brook; MSD 2011 Indiana University

Prasidthrathsint, Kunatum, Clinical Associate Professor, Internal Medicine/Pathology, (2024); DMS 2004 Mahidol University; MD 2004 Sirraj Hospital Thailand

Prendergast, Lindsay J., Adjunct Assistant Professor, Nursing, 2025 (2025); BSN 2004 Grand View University; MSN 2012 Creighton University; DNP 2021 Creighton University

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Prescott, William Crego, Adjunct Assistant Professor, Mechanical Engineering, 2008 (2008); PHD 1993 University of Iowa

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Preuninger, Kelly, Adjunct Instructor, Nursing, 2024 (2024); BSN 2010 University of Iowa; DNP 2015 University of Iowa

Priaulx, Ashley Burlage, Adjunct Assistant Professor, Internal Medicine, (2019); DO 2015 Des Moines University

Price, David H., Emeritus Professor, Biochemistry and Molecular Biology, 1989 (1998); BS 1975 North Carolina State; PHD 1980 Florida State

Price, Paul Scott, Adjunct Professor, Occupational Environmental Health, (2022); MS 1979 University of Maryland

Priest, Jacob Bird, Clinical Associate Professor, Internal Medicine/Psych Quant Foundations/Psychiatry, 2013 (2020); MS 2010 Purdue University Main Campus; PHD 2013 Florida State

Priest, Richard Tyler, Associate Professor, History, 2012 (2012); BA 1986 Carleton; MA 1990 University of Wisconsin-Madison; PHD 1996 University of Wisconsin-Madison

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Pritchard, Brent Thomas, Assistant Professor, Finance, (2024); BBA 2000 University of Iowa; MBA 2011 University of Iowa

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Pritchard, Tracey E., Adjunct Instructor, University College Courses, 2016 (2016); BA 2010 University of Wisconsin-Madison; MS 2013 University of Kansas

Procaci Kestelman, Fabiola, Clinical Assistant Professor, Radiology, 2021 (2021); MD 1992 Faculdada de Medicina de volta

Proud, Nicholas, Adjunct Instructor, Teaching and Learning, 2023 (2023); MED 2007 University of Northern Iowa

Proud, Sherri Lyn Curtis, Adjunct Instructor, Health Sport and Human Physiology, 2015 (2012); BS 1991 University of Iowa

Pruitt, Joshua A., Adjunct Assistant Professor, Emergency Medicine, 2010 (2017); BA 2003 Tennessee; MD 2007 Tennessee State

Prull, Michelle Ann, Adjunct Assistant Professor, Pharmacy Practice and Science, 1997 (1997); BS 1993 University of Iowa

Prussing, Erica, Associate Professor, Anthropology/ Community Behavioral Health, 2002 (2011); BA 1988 Wellesley; MA 1992 University of California-San Diego; PHD 1999 University of California-San Diego; MPH 2000 University of California-Berkeley

Prybil, Lawrence Dewey, Emeritus Professor, Health Management Policy, 1999 (1999); BA 1962 University of Iowa; MA 1964 University of Iowa; PHD 1970 University of Iowa

Pryor, Craig Earl, Associate Professor, Physics Astronomy, 2005 (2011); PHD 1990 University of California-Santa Barbara

Ptacek, Lucas E., Adjunct Instructor, Educ Policy Leadership Studies, 2022 (2023); BA 2005 Coe College; MA 2008 University of Northern Iowa

Ptacek, Shanda H., Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHAR 2015 The University of Iowa

Ptak, April Celeste, Adjunct Assistant Professor, Molecular Physiology Biophysics, 2023 (2023); PHD 2005 University of Virginia

Ptak, Christopher P., Adjunct Assistant Professor, Molecular Physiology Biophysics, 2025 (2025); BS 1997 Pensylvania State University; PHD 2005 University of Virginia

Puderbaugh, David, Professor, Music, 2006 (2021); BME 1994 Drake; MM 1996 University of Missouri-Columbia; DMA 2006 University of Iowa

Pufall, Miles A., Associate Professor, Biochemistry and Molecular Biology/Chemical Biochemical Engineering, 2010 (2018); PHD 2004 Utah

Punia, Sangini, Clinical Assistant Professor, Anesthesia, (2020); MBBS 2013 Kasturba Medicial, India

Purgianto, Anthony, Clinical Assistant Professor, Psychiatry, (2021); PHD 2015 Rosalind Franklin University; MD 2017 Rosalind Franklin University

Purpura, Jasmine C., Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024);

Purtle, Mark William, Adjunct Associate Professor, Internal Medicine, 1990 (2005); MD 1981 University of Iowa

Putnam, Rebecca L., Adjunct Instructor, Social Work, 2022 (2022); MSW 2006 University of Iowa

Putz, Jason John, Adjunct Instructor, Physical Therapy Rehab Science, 2021 (2024); BS 1996 Iowa State University; MPT 1999 University of Iowa

Putzier, Priscilla M., Adjunct Assistant Professor, Pediatrics, 2017 (2017); DO 2009 Kansas City University

Pyevich, Vickie Diamandakis, Clinical Professor, Pediatrics, 1997 (2012); BS 1987 University of Iowa; MD 1991 University of Iowa

Pyfferoen, Matthew T., Adjunct Assistant Professor, Pediatric Dentistry, 2012 (2011); BS 1999 Iowa State; DDS 2008 University of Iowa

Q

Qasim, Noor Meloy, Adjunct Assistant Professor, Creative Writing, 2023 (2023); BA 2018 Amherst College; MFA 2023 University of Iowa

Qian, Fang, Adjunct Assistant Professor, Preventive Community Dentistry, 2001 (2001); BA 1984 Renmin Univ of China, P.R.C.; MA 1989 CUNY, Hunter College; MPHIL 1990 CUNY, Graduate Center; PHD 1994 CUNY, Graduate Center

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Qian, Qingwen, Research Assistant Professor, Anatomy Cell Biology, (2023); MD 1992 Henan Medical Univ, China; MSC 1997 Henan Medical Univ, China; PHD 2000 Chongqing Univ, China

Qiao, Leon Liang, Adjunct Assistant Professor, Internal Medicine, 2015 (2015); MD 1983 Sun Yat-Sen University

Qin, Jin, Assistant Professor, Economics, (2025); BS 2013 Shanghai Normal University; PHD 2019 North Carolina State Univ

Quann, James Thomas, Adjunct Assistant Professor, Surgery, 2018 (2018); MD 2008 University of Iowa

Quelle, Dawn E., Professor, Neuroscience and Pharmacology/ Pathology, 1997 (2019); BS 1987 Maine; PHD 1992 Pennsylvania

Quelle, Frederick W., Emeritus Associate Professor, Neuroscience and Pharmacology, 1997 (2005); BA 1986 Middlebury; MA 1990 Pennsylvania State University; PHD 1992 Pennsylvania State University

Quick, Heather Rae, Adjunct Instructor, Law-Faculty, 2025 (2025); BA 2009 Iowa State University; JD 2012 The University of Iowa

Quinlan, Jeffrey Duane, Professor, Family Medicine, (2020); BS 1988 Univ of Pittsburgh, PA; MD 1992 Univ of Pittsburgh, PA

Quinlisk, Patricia, Adjunct Professor, Epidemiology, 1996 (2002); BS 1977 University of Wisconsin-Madison; MPH 1984 Johns Hopkins; MD 1988 University of Wisconsin-Madison

Quinn, Daniel M., Emeritus Professor, Chemistry, 1982 (1992); BS 1972 Quincy; PHD 1977 Kansas

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Rachow, John W., Emeritus Assistant Professor, Internal Medicine, 1988 (1988); BS 1967 University of Nebraska-

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Radke, Joshua Bruce, Clinical Professor, Emergency Medicine/Pharmacy Practice and Science, 2016 (2025); BS 2004 University of Iowa; MD 2009 University of Iowa

Radke, Stephanie, Clinical Associate Professor, Obstetrics Gynecology, 2016 (2022); BA 2005 Luther College; MD 2009 University of Iowa

Radley, Jason J., Professor, Psychological and Brain Sciences, 2011 (2023); BA 1995 Miami; MA 1997 Princeton; PHD 2001 Princeton

Radoshevich, Lilliana, Adjunct Assistant Professor, Molecular Physiology Biophysics, 2017 (2017); PHD 2011 University of California-SF

Raeburn, John H., Emeritus Professor, American Studies/ English, 1974 (1983); BA 1963 Indiana University-Bloomington; PHD 1969 Pennsylvania

Raghavan, Madhavan Lakshmi, Professor, Biomedical Engineering/Engineering Administration, 2000 (2012); BE 1992 Coimbatore; PHD 1998 Pittsburgh

Ragsdale, Ronald Loren, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BS 1988 Briar Cliff; MPT 1990 University of Iowa; DPT 2008 St. Ambrose University

Rahde Bischoff, Adrianne, Clinical Associate Professor, Pediatrics, (2025); MD 2013 Federal Univ Rio Grande do Sol

Raheim, Salome, Emeritus Associate Professor, Social Work, 1986 (1997); BSW 1974 Bowie State; MSW 1976 Catholic University of America; PHD 1990 University of Iowa

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Rahman, Sharif, Professor, Mechanical Engineering, 1995 (2005); BS 1984 Bangladesh; MS 1986 Purdue University Main Campus; PHD 1991 Cornell

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Rajagopal, Rangaswamy, Emeritus Professor, Geographical and Sustainability Sciences, 1979 (1987); BS 1964 Bombay-India; ME 1969 Florida; PHD 1973 University of Michigan-Ann Arbor

Rajagopal, Srinivasan, Clinical Associate Professor, Anesthesia, 2005 (2017); MD 2000 Wayne State

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Rajesh, Mercy, Adjunct Assistant Professor, Pediatrics, 2019 (2019); MBBS 2000 JJM Medical College; MD 2014 Driscoll Children's Hospital

Rajput, Maheen, Clinical Associate Professor, Radiology, 2008 (2015); MD 2000 University of Illinois at Urbana Champaign

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Ramey, Sandra L., Emeritus Associate Professor, Nursing, 2006 (2017); BS 1992 St Francis; MSN 1995 University of Iowa; PHD 2002 Iowa State

Ramos, Jorge, Assistant Professor, Spanish Portuguese, (2025); HS 2013 Valley HS; BA 2017 UI; PHD 2025 Georgetown University

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Randak, Christoph Oskar, Associate Professor, Pediatrics, 2009 (2017); MD 1992 Wurzburg, Germany; MSC 1996 Hagen, Germany

Randall, Joseph Hogan, Clinical Assistant Professor, Urology, 2025 (2025); MD 2018 Northwestern University Feinberg SOM

Randel, Kelsey Marie, Adjunct Assistant Professor, Family Medicine, 2021 (2021); DO 2016 Des Moines Univ; Iowa

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Rangarajan Murali, Arvind, Adjunct Assistant Professor, Internal Medicine, (2017); MBBS 2014 Bangalore, India

Ranguelov, Rostislav D., Clinical Assistant Professor, Pathology, (2022); MD 1995 Med Univ Sofia Bulgaria

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Rankin, Lynn Marie, Adjunct Associate Professor, Neurology, 2015 (2019); MD 1988 University of Iowa

Rantanen, Jason, Professor, Law-Central Admin,Facilities/ Law-Faculty, 2011 (2016); AB 1999 Brown; MA 2000 University of Illinois at Chicago; JD 2003 University of Illinois at Chicago

Rao, Mahil, Instructor, Pediatrics, 2022 (2023); BA 2001 John Hopkin's University; PHD 2013 Washington University; MD 2014 Washington University

Rapert, Molly I., Adjunct Associate Professor, Marketing, 2009 (2009); PHD 1992 Memphis

Rappaport, Charles A., Clinical Associate Professor, Internal Medicine, (2025); MD 2012 University of Arizona

Rashid, George Jacob, Adjunct Instructor, Counselor Education, (2023); BS 1984 Creighton University; MBA 1987 St. Louis University; MED 2004 Loyola University - Chicago; PHD 2016 The University of Iowa

Rashid, Waseem, Adjunct Assistant Professor, Creative Writing, 2024 (2024); MA 2024 University of Iowa

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Rastogi, Rahul, Clinical Professor, Anesthesia, 2014 (2017); MD 1992 Rajasthan

Ratliff, Timothy L., Emeritus Professor, Urology, 1997 (1997); BS 1971 Texas-Arlington; MS 1974 East Texas State; PHD 1977 Arkansas-Fayetteville

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Ray, Victor Erik, Associate Professor, African-American Studies/Sociology and Criminology, (2021); BA 2007 Vassar College; MA 2010 Duke University; PHD 2014 Duke University

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Raygoza Garay, Juan Antonio, Adjunct Instructor, Internal Medicine, 2024 (2024); PHD 2016 Pennsylvania State University

Reagan, Mark K., Emeritus Professor, Earth and Environmental Sciences, 1987 (2007); BA 1978 University of California-Santa Barbara; MS 1982 University of Arizona; PHD 1987 University of California-Santa Cruz

Reams, Angela Aileen, Adjunct Instructor, University College Courses, 2007 (2009); BA 2002 Northern Iowa; MA 2005 Iowa; PHD 2016 University of Iowa

Rebouche, Charles J., Emeritus Associate Professor, Pediatrics, 1984 (1988); BS 1970 Tulane; PHD 1974 Vanderbilt

Rechkemmer, Molly Renee, Adjunct Instructor, Counselor Education, 2004 (2023); BS 1997 Iowa State; MS 2002 Tennessee

Recker, Caleb Michael, Adjunct Instructor, Health Sport and Human Physiology, 2013 (2013); BA 2007 University of Iowa; MA 2010 University of Iowa

Recker, Megan Anne, Adjunct Instructor, University College Courses, 2023 (2023); BA 2003 Central College; MSW 2008 University of Iowa

Reddick, Carolyn Stone, Associate Professor, Accounting, 2024 (2024); BA 2015 Wake Forest University; MA 2016 Wake Forest University

Reddy, Gautam Kumar, Adjunct Assistant Professor, Anesthesia, 2025 (2025); MD 2014 University of Iowa CCOM

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Redlinger, M. Jeanine Dickel, Adjunct Instructor, Teaching and Learning, 2024 (2024); MED 1998 University of Iowa

Redmond, Cecilia M., Adjunct Assistant Professor, Family Medicine, 2023 (2023); BA 1989 Univ of Iowa; Iowa City,IA; MD 1993 Wash Univ Sch of Med, Missouri

Redmond, Michael Anthony, Assistant Professor, Business Analytics, 2023 (2025); MED 2013 Creighton University; MBA 2015 University of Iowa; PHD 2020 University of Iowa

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Reed, Melanie Ann, Adjunct Instructor, Social Work, 2025 (2025); BSW 1995 Western Illinois University; MSW 2022 University of Iowa

Reed, Michael, Adjunct Assistant Professor, Otolaryngology-Head Neck Surgery, 2021 (2021); MD 2009 Lousiana State

Reed, Nanette, Clinical Associate Professor, Surgery, (2024); MD 2004 Baylor College of Medicine

Regan, Susan Michelle, Adjunct Instructor, University College Courses, 2017 (2017); BA 2002 University of Iowa; MA 2005 University of Iowa

Rehmann, Joshua John, Adjunct Assistant Professor, Family Medicine, 2010 (2010); BS 2000 Grinnel; DO 2006 Des Moines, IA

Reid, Vincent Junior, Adjunct Associate Professor, Surgery, 2012 (2017); MD 1999 Cincinnati

Reid-Stanhewicz, Anna, Associate Professor, Health Sport and Human Physiology/Internal Medicine, 2019 (2025); PHD 2014 Penn State University

Reider, Ronald, Adjunct Assistant Professor, Internal Medicine, 2000 (2000); MD 1971 Virginia

Reighard, Amber Lynn, Adjunct Assistant Professor, Internal Medicine, 2020 (2020); MD 2011 Carver College of Medicine

Reinert, Margarite H., Adjunct Instructor, Social Work, 2019 (2019); BS 1999 University of South Dakota; MSW 2005 University of Iowa

Reinhardt, Joseph M., Professor, Biomedical Engineering/ Radiology, 1995 (2009); BS 1985 Carnegie Mellon; MS 1988 Northeastern; PHD 1994 Pennsylvania State University

Reinking, Benjamin Evers, Clinical Professor, Pediatrics, 2006 (2017); BA 1996 UNI; MD 2000 University of Iowa

Reinking, Caitlin Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2014 (2014); PHARMD 2013 University of Iowa

Reins-Schweer, Lorie Elaine, Professor, Law-Faculty, 2007 (2017); BA 1985 Northern Iowa; JD 2003 University of Iowa

Reinsvold, Rachel Elizabeth, Adjunct Assistant Professor, Pharmacy Practice and Science, (2020); PHARMD 2017 University of Iowa

Reiser, Samantha Ann, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHAR 2013 The University of Iowa

Reisinger, Heather Schacht, Professor, Center for Soc Sci Innovation/Internal Medicine, 2008 (2022); BA 1998 Luther College; PHD 2004 American Univ

Reisinger, William M., Emeritus Professor, Political Science, 1985 (1996); BA 1979 Oregon; MA 1981 University of Michigan-Ann Arbor; PHD 1986 University of Michigan-Ann Arbor

Reist, Diane Kay Buresh, Adjunct Assistant Professor, Pharmacy Practice and Science, 2014 (2014); BS 1981 University of Iowa; PHARMD 2007 University of Florida

Reist, Jeffrey Clark, Emeritus Associate Professor, Pharmacy Practice and Science, 1993 (2014); BS 1982 University of Iowa; PHARMD 2007 Florida

Reist, Lauren, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2025); BS 2013 University of Iowa; MS 2016 University of Iowa; MPH 2022 University of Iowa; PHARMD 2022 University of Iowa

Reitsma, Jenifer Dee, Adjunct Assistant Professor, Nursing, 2021 (2024); MSN 2008 University of Nebraska Medical

Reitz, John C., Emeritus Professor, Law-Faculty, 1983 (1988); BA 1970 Harvard; JD 1975 University of Michigan-Ann Arbor

Rembold, Elizabeth Marie Stanage, Adjunct Instructor, Social Work, 2006 (2006); MSW 2005 University of Iowa

Remmers, Juliet Inez, Adjunct Assistant Professor, Dance, 2023 (2023); BA 2013 University of Kansas; MFA 2022 The University of Iowa

Rengasamy Venugopalan, Shankar, Adjunct Associate Professor, Orthodontics, 2019 (2019); PHD 2010 Texas AM University; DDS 2017 UMKC School of Dentistry

Renninger, Kelley Anne, Adjunct Instructor, Biology, 2024 (2024); BS 2018 Purdue University; PHD 2024 University of Iowa

Reno, Mary Hall, Professor, Physics Astronomy, 1990 (2002); BA 1980 Reed; PHD 1985 Stanford

Rens, Scott Alan, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1988 Dordt College, Sioux CenterIA; MD 1992 Univ of Iowa COM, IowaCity,IA

Resch, Jon Michael, Assistant Professor, Neuroscience and Pharmacology, (2020); BS 2005 University of Minnesota; PHD 2014 Marquette University

Resler, Katherine Jean, Adjunct Instructor, University College Courses, 2015 (2015); BA 2003 Northern State University; MA 2005 Murray State University

Restrepo-Kennedy, Natalia, Clinical Associate Professor, Operative Dentistry, 2012 (2019); DDS 1988 CES-Columbia; MS 2012 University of Iowa

Rethwisch, David Gerard, Professor, Chemical Biochemical Engineering, 1985 (1995); BS 1979 University of Iowa; PHD 1985 University of Wisconsin-Madison

Retish, Paul M., Emeritus Professor, Teaching and Learning, 1967 (1976); BS 1960 New York State-Geneseo; MS 1965 Indiana University-Bloomington; EDD 1967 Indiana University-Bloomington

Rettenmaier, Lawrence Joseph, Adjunct Instructor, Internal Medicine, 2005 (2005); MD 1984 University of Iowa

Rettenmaier, Leigh Anne, Clinical Assistant Professor, Ophthalmology Visual Science, (2025); BS 2015 University of Missouri, Columb; MD 2020 University of Iowa

Reyes, Jimmy A., Adjunct Assistant Professor, Community Behavioral Health, 2008 (2014); BSN 2004 University of Iowa; MSN 2007 University of Iowa

Reyes, Ramon, Adjunct Assistant Professor, Internal Medicine, 2008 (2008); MD 1991 Santo Thomas

Reynolds, Joel Steven, Adjunct Instructor, Preventive Community Dentistry, 2025 (2025); BA 2005 Wartburg College; DDS 2009 University of Iowa

Reynolds, Julie Christine, Associate Professor, Preventive Community Dentistry, 2014 (2025); DDS 2011 University of Iowa

Reynolds, Lauren, Adjunct Assistant Professor, Internal Medicine, 2025 (2025); MD 2013 University of Iowa

Reynolds, Rebecca Anne, Assistant Professor, Neurosurgery, (2023); MD 2015 Vanderbilt University

Rezaei, Leyla, Adjunct Assistant Professor, Pharmaceutical Sciences and Experimental Therapeutics, (2024); PHD 2023 University of Iowa

Rhinehart, Sherry, Adjunct Instructor, University College Courses, 2014 (2014); BA 1996 University of Iowa

Rhodes, Adrienne, Assistant Professor, Accounting, (2020); BA 2005 New Mexico State University; BS 2005 New Mexico State University; MAC 2007 New Mexico State University; PHD 2013 Penn State University

Rhodes, Ann Marie, Emeritus Professor, Nursing, 1983 (2015); BSN 1975 St Teresa; MA 1976 University of Iowa; JD 1982 University of Iowa

Rhodes, William, Assistant Professor, English, (2019); PHD 2015 University of Virginia

Rhone, Bryce, Adjunct Instructor, University College Courses, 2023 (2023); BS 2023 University of Iowa

Ribeiro De Barros Da Cunha, Sandra, Clinical Assistant Professor, Operative Dentistry, (2024); DDS 2012 University

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Rice, James G., Emeritus Associate Professor, Library Information Science, 2004 (1984);

Rice, Kevin G., Professor, Pharmaceutical Sciences and Experimental Therapeutics, 2001 (2001); BS 1983 Marycrest; PHD 1987 University of Iowa

Rice, Kristin Alanna, Adjunct Assistant Professor, Pediatrics, 2015 (2015); BA 2003 University of Richmond; MD 2007 University of Virgina

Rice, Okpara Anak, Adjunct Instructor, Social Work, (2019); BSW 1995 Loyola University in Chicago; MSW 1997 Washington University St. Louis

Rice, Tom W., Emeritus Professor, Political Science, 1999 (1999); BA 1979 Iowa State; PHD 1983 University of Iowa

Rich-Chappell, Meredith Lee, Adjunct Instructor, Law-Faculty, 2010 (2024); JD

Richards-Passini, Kim Styba, Adjunct Instructor, Physical Therapy Rehab Science, 2021 (2024); BS 2015 Iowa State University; DPT 2017 University of Iowa

Richardson, Amanda Sue, Assistant Professor, Nursing, 2018 (2024); BSN 2012 University of Iowa; MSN 2017 Mount Mercy University

Richardson, Brad B., Adjunct Associate Professor, Social Work, 1997 (1997); BA 1976 Mt. Mercy; MA 1978 University of Nebraska-Lincoln; PHD 1984 The University of Minnesota-Twin Cities

Richardson, Erin, Adjunct Assistant Professor, Pediatrics, 2019 (2019); MD 2012 University of Kansas

Richardson, Georgette, Clinical Assistant Professor, Pediatrics, 2023 (2023); PHD 2022 University of Houston

Richardson, Kristen Paige, Adjunct Assistant Professor, Nursing, 2021 (2024); BSN 1999 University of Iowa; MSN 2001 University of Iowa

Richardson, Raeden Leonard, Adjunct Assistant Professor, Creative Writing, 2023 (2023); MFA 2022 University of Iowa

Richenbacher, Wayne E., Emeritus Professor, Cardiothoracic Surgery, 1993 (1999); BS 1976 Case Western Reserve; MD 1980 Cincinnati

Richerson, George B., Professor, Molecular Physiology Biophysics/Neurology, 2010 (2010); BSE 1980 ISU; MD 1987 University of Iowa; PHD 1987 University of Iowa

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Richman, Brian D., Professor, Finance, 2003 (2019); BS 1987 PENNSYLVANIA; MFA 2003 University of Iowa

Richman, Lynn Charles, Emeritus Professor, Pediatrics, 1973 (1984); BA 1967 Grinnell; MA 1970 University of Iowa; PHD 1973 University of Iowa

Richter, Andrew, Adjunct Assistant Professor, Orthodontics, (2020); BS 2014 University of Iowa; DDS 2018 University of Iowa

Rickels, Emma S., Instructor, Radiation Oncology, (2023); AS 2015 Indian Hills Community College; BS 2018 West Virginia Wesleyan College; DPHIL 2022 UNLV; PHD 2022 UNLV

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Ricks, Phillip James, Adjunct Assistant Professor, Philosophy/University College Courses, (2018); MA 2015 University of Iowa; PHD 2017 University of Iowa

Riddle, Joshua Thomas, Adjunct Instructor, Marketing, 2024 (2024); BS 2004 Greensboro College; MA 2005 Universitat De Valencia

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Rieck, Terry R., Adjunct Instructor, Preventive Community Dentistry, 1999 (1999); DDS 1997 University of Iowa

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Ries, Pamela, Clinical Professor, Teaching and Learning, 2000 (2013); BA 1977 Northern Iowa; MA 1979 Northern Iowa; EDD 2000 Drake

Riesen, William, Adjunct Assistant Professor, Internal Medicine, 2017 (2017); MD 1993 University of Pennsylvania

Riesz, Peter C., Emeritus Professor, Marketing, 1968 (1980); BS 1958 Rutgers University-New Brunswick; MBA 1963 Columbia; PHD 1971 Columbia

Rieth, John Markus, Clinical Assistant Professor, Internal Medicine, (2023); MD 2018 Indiana University

Rietz, Thomas A., Professor, Economics/Finance, 1993 (2011); BA 1983 Northern Iowa; PHD 1988 University of Iowa

Riezman, Raymond G., Emeritus Professor, Economics, 1976 (1990); BA 1969 Washington-Missouri; PHD 1977 The University of Minnesota-Twin Cities

Rigal, Laura, Emeritus Associate Professor, English, 1997 (1997); BA 1982 Oberlin; PHD 1989 Stanford

Rijhsinghani, Asha, Emeritus Professor, Obstetrics Gynecology, 1992 (2012); ISC 1973 Jaihind College; MBBS 1979 Grand Medical College; MD 1979 ECFMG

Rila, Ashley, Clinical Assistant Professor, Teaching and Learning, 2020 (2024); BS 2006 Mount Mercy College; MA 2013 University of Iowa; PHD 2020 University of Iowa

Riley, Bradley, Adjunct Assistant Professor, Pediatrics, 2017 (2017); MD 1989 Ohio State Universikty

Rinehart, Judith, Emeritus Associate Professor, Social Work, 1978 (2005); BA 1966 Central; MSW 1970 University of Iowa

Ringel-Ensley, Meredith Fay, Adjunct Instructor, Accounting, 2023 (2023); BA 2007 Brown University; PHD 2019 University of North Carolina

Ringen, Catherine, Emeritus Professor, Linguistics, 1975 (1988); BA 1970 Indiana University-Bloomington; MA 1972 Indiana University-Bloomington; PHD 1975 Indiana University-Bloomington

Ringen, Jon, Emeritus Professor, Health Sport and Human Physiology, 1993 (1993); BA 1965 North Dakoa; MA 1969 Indiana University-Bloomington; PHD 1971 Indiana University-Bloomington

Ringgold, Charles, Emeritus Professor, Oral Maxillofacial Surgery, 2007 (2007); BS 1973 Duke; DDS 1977 University of Maryland-College Park

Ringleb, Jayme, Adjunct Assistant Professor, Management and Entrepreneurship, 2024 (2024); MBA 2011 University of Iowa; MFA 2015 University of Oregon; PHD 2020 Florida State University

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Rios, Danielle Rae, Clinical Professor, Pediatrics, (2024); MD 2006 University of Arizona COM; MS 2014 Baylor College of Medicine

Ripka, Kevin, Associate Professor, Journalism Mass Communication, 2015 (2025); BA 2002 King's College

Rippe, Julia, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2019); PHARMD 2017 University of Iowa

Rippentrop, Steven James, Adjunct Assistant Professor, Health Management Policy, (2016); MD 2008 University of Iowa; MPH 2008 University of Iowa; MHA 2016 University of Iowa

Rivera, Kevin John, Adjunct Assistant Professor, Psychiatry, 2023 (2023);

Rivero, Giovanna Santa Cruz De Antune, Assistant Professor, Spanish Portuguese, 2025 (2025); PHD 2015 University of Florida

Rizk, Marwan, Clinical Associate Professor, Anesthesia, (2024); MD 1997 Saint Joseph University

Rizzo, Matthew, Emeritus Professor, Neurology, 1985 (1996); BA 1975 Columbia; MD 1979 Johns Hopkins

Robb, Katharine Anne, Clinical Associate Professor, Pediatrics, 2019 (2025); MD 2012 University of Iowa

Roberts, Emerson, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 University of Nebraska

Roberts, Emily, Assistant Professor, Biostatistics, (2022); BA 2016 Coe College; MS 2018 Univ of Michigan; PHD 2022 University of Michigan

Roberts, Mary Ann, Emeritus Professor, Pediatrics, 1991 (2006); BA 1973 Oberlin; MS 1976 University of Wisconsin-Madison; PHD 1980 University of Wisconsin-Madison

Roberts, Shane Eugene, Adjunct Instructor, Military Science, 2024 (2024);

Roberts, Tori Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, (2019); PHARMD 2017 Drake University

Robertson, Larry, Emeritus Professor, Occupational Environmental Health, 2003 (2003); BA 1969 Stetson; MS 1971 Florida; MPH 1972 University of Michigan-Ann Arbor; PHD 1981 University of Michigan-Ann Arbor

Robillard, Jean E., Emeritus Professor, Pediatrics, 2003 (2003); BA 1964 Montreal; MD 1968 Montreal

Robinson, Arlyn K., Adjunct Associate Professor, Family Dentistry, 1978 (1989); BS 1973 Upper Iowa; DDS 1977 University of Iowa

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Robinson, Jennifer G., Emeritus Professor, Epidemiology, 1998 (2010); BA 1982 Northwestern Univeristy; MD 1987 The University of Minnesota-Twin Cities; MPH 1995 The University of Minnesota-Twin Cities

Robinson, John P., Emeritus Professor, Electrical-Computer Engineering, 1965 (1972); BS 1960 Iowa State; MS 1962 Princeton; PHD 1966 Princeton

Robinson, Kathleen Marie, Assistant Professor, Internal Medicine, (2024); MD 2016 Univ of Wisconsin, Madison

Robinson, Marilynne, Emeritus Professor, Creative Writing, 1983 (1993); BA 1966 Brown; PHD 1975 Washington

Robinson, Robert G., Emeritus Professor, Psychiatry, 1990 (1990); BS 1967 Cornell-Ithaca; MD 1971 Cornell-Ithaca

Robinson, Robert A., Emeritus Professor, Pathology, 1982 (1993); BA 1976 Missouri; MD 1976 Missouri; PHD 1982 The University of Minnesota-Twin Cities

Robus, Richard, Adjunct Associate Professor, Pediatrics, 2003 (2006); BS 1994 Texas Christian; MD 1998 University of Iowa

Rocha, Rene Rolando, Professor, American Studies/Political Science, 2006 (2019); BA 2002 Texas-Pan American; PHD 2006 Texas A M Univ

Rockafellow, Jessica Mary, Clinical Assistant Professor, Family Medicine, (2019); BS 2011 University of Nebraska-Lincoln; MD 2016 University of Iowa

Rockey, William Matthew, Clinical Associate Professor, Radiation Oncology, 2012 (2018); BS 2000 Iowa State; MD 2007 University of Iowa; PHD 2007 University of Iowa

Rocklin, Thomas R., Emeritus Professor, Psych Quant Foundations, 1986 (1995); AB 1977 University of California-Berkeley; MS 1980 Northwestern Univeristy; PHD 1981 Northwestern Univeristy

Rodeffer, Sara Anne, Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); BS 2012 Univ of Missouri-Columbia; DMD 2016 Southern Illinois Univ

Rodgers, Derek Bradley, Assistant Professor, Teaching and Learning, (2022); BA 2011 University of Iowa; MA 2015 University of Iowa; PHD 2019 University of Iowa

Rodgers, Mwansa, Assistant Professor, Nursing, (2024); BSN 2014 Upper Iowa University; MSN 2016 Mount Mercy

Rodgers, Naomi Hertsberg, Assistant Professor, Communication Sciences and Disorders, (2022); BA 2010 University of Vermont; MA 2012 University of Iowa; PHD 2019 The University of Iowa

Rodgers, Tracy A., Adjunct Instructor, Preventive Community Dentistry, 2004 (2004); BS 1986 University of Iowa

Rodgers, Vincent G., Professor, Physics Astronomy, 1989 (2004); BS 1980 Dayton; MS 1982 Syracuse; PHD 1985 Syracuse

Rodnitzky, Robert L., Emeritus Professor, Neurology, 1972 (1982); BS 1963 University of Illinois at Chicago; MD 1966 University of Illinois at Chicago

Rodrigues, Hannah, Assistant Professor, Languages, Literatures, Linguistics, and Cultures, (2025); MS 2017 Rochester Institute of Techn.

Rodriguez, Crystal, Clinical Assistant Professor, Surgery, (2023); MD 2018 University of Arizona

Rodriguez, Katarina Angelique, Adjunct Assistant Professor, Pharmacy Practice and Science, 2020 (2020); PHARMD 2019 University of Iowa

Rodriguez Rodriguez, Ana M., Associate Professor, Graduate College Administration/Spanish Portuguese, 2008 (2014); BA 1995 Univ de Santiago de Compostela; MA 1997 Colorado-Boulder; PHD 2007 University of Wisconsin-Madison

Rodriguez-Barrath, Adriana, Clinical Assistant Professor, Neurology/Ophthalmology Visual Science, (2023); MD 2012 Universidad Central de Venezue

Roe, Constance Renae, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 1999 University of Iowa

Roe, Shawn Curtis, Adjunct Assistant Professor, Pharmacy Practice and Science, 2005 (2005); BS 1997 Northern Iowa; PHARMD 2002 University of Iowa

Roeder, Hannah Jo Tabor, Clinical Assistant Professor, Neurology, (2021); MD 2016 University of Wisconsin

Roeder, Susan L., Clinical Associate Professor, Internal Medicine, 2002 (2009); BS 1984 Iowa State; MS 1989 Iowa State; DO 1993 Osteopathic-Des Moines

Roenfanz, Kelli Ann, Adjunct Assistant Professor, Family Medicine, 2020 (2020); BS 2005 Minnesota State University; DO 2009 Des Moines University

Roesler, Shannon Mary, Professor, Law-Faculty, (2021); JD 2000 University Kansas; LLM 2004 Georgetown University; AM 2006 University of Wisconsin

Rogers, Collin Francis, Assistant Professor, Nursing, 2021 (2024); BSN 2018 University of Iowa; MSN 2021 Mount Mercy University

Rogers, Emily Jane, Adjunct Assistant Professor, Philosophy, 2025 (2025); BA 2010 Univ Texas at Arlington; MA 2013 Univ Texas at Arlington; MA 2016 Univ of Iowa

Rogers, Ethan Michael, Adjunct Assistant Professor, Sociology and Criminology, 2020 (2020); BS 2011 University of Wisc-La Crosse; PHD 2019 University of Iowa

Rogers, Jeffrey David, Clinical Assistant Professor, Periodontics, (2024); DDS 1993 VCU; CER 1998 SUNY - Buffalo; PHD 2000 SUNY - Buffalo

Rogers, Jennifer Jo, Clinical Assistant Professor, Health Sport and Human Physiology/Orthopaedics and Rehabilitation, (2018); BA 1996 Briar Cliff College; MED 2000 University of Kansas; PHD 2014 Rocky Mountain University

Rogers, Jonathan Ashmore, Adjunct Instructor, Teaching and Learning, 2022 (2023); BS 2000 MO State; MAT 2004 U of Iowa

Rogers, Meghan, Assistant Professor, Center for Soc Sci Innovation/Sociology and Criminology, (2020); BA 2007 University of Illinois; MS 2015 Indiana University; PHD 2015 Indiana University

Roghair, Robert Dean, Professor, Pediatrics, 2005 (2018); BS 1995 University of Iowa; MD 1999 University of Iowa

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Rohlman, Diane, Professor, International Programs/ Occupational Environmental Health/Public Health Administration, 2012 (2019); PHD 1992 Bowling Green State

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Rojas, Edward, Clinical Assistant Professor, Orthopaedics and Rehabilitation, (2026); MD 2020 University of Iowa

Rojas, Edward Raul, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MD 2010 Universidad Del Zulia Facultad

Rokes, Christopher Alan, Adjunct Assistant Professor, Pediatrics, 2011 (2011); MD 2001 Peruana Cayetano

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Roller, Richard John, Professor, Microbiology and Immunology, 1994 (2007); BA 1980 Lawrence; PHD 1987 Harvard

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Roman, David L., Professor, Pharmaceutical Sciences and Experimental Therapeutics/Pharmacy, 2008 (2020); PHD 2004 Purdue University Main Campus

Roman, Jaclyn Renae, Clinical Assistant Professor, Obstetrics Gynecology, 2016 (2016); BSN 2003 University of Iowa; MS 2010 The University of Minnesota-Twin Cities

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Ronkar, Christopher J., Adjunct Assistant Professor, Internal Medicine, 2005 (2005); BS 1992 University of Nebraska-Lincoln; MD 1997 University of Nebraska-Lincoln

Ronnenberg, Megan Mae, Assistant Professor, Social Work, 2024 (2025); BA 2011 University of Northern Iowa; MSW 2018 University of Iowa; PHD 2024 University of Iowa

Rook, Brandon Wesley, Adjunct Instructor, Preventive Community Dentistry, 2018 (2018); DDS 2012 University of Iowa

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Rose, Gerald L., Emeritus Professor, Management and Entrepreneurship, 1967 (1982); BA 1960 The University of Minnesota-Twin Cities; MBA 1962 Cornell; PHD 1969 University of California-Berkeley

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Roushdy, Sally M., Clinical Assistant Professor, Prosthodontics, (2017); BDS 1986 Cairo University; MSD 1996 Indiana University

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Runde, Daniel Patrick, Clinical Professor, Emergency Medicine, 2014 (2022); MD 2009 University of Iowa

Runde, Mark P., Adjunct Instructor, Internal Medicine, 1995 (1995); MD 1983 University of Illinois at Urbana Champaign

Rundlett, Beth Ann, Professor, Chemical Biochemical Engineering, 2018 (2023); BS 2003 University of Iowa; PHD 2008 University of Iowa

Runge, Michael Wayne, Adjunct Instructor, Pharmacy Practice and Science, 2011 (2011); BSPH 1986 University of Iowa

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Rupe, Kerri Lynn Arter, Emeritus Professor, Nursing, 2000 (2015); BSN 1984 Northeast Missouri; MSN 1994 Clarkson; DNP 2008 University of Iowa

Ruppert, Michaela Siobhan, Associate Professor, Sociology and Criminology, 2014 (2020); BA 2007 The University of Minnesota-Twin Cities; MA 2010 University of Iowa; PHD 2014 University of Iowa

Ruprecht, Axel, Emeritus Professor, Anatomy Cell Biology/ Oral Path,RadiologyMedicine/Radiology, 1987 (1987); DDS 1968 Toronto; MSCD 1972 Toronto

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Russell, Bobby, Adjunct Assistant Professor, Preventive Community Dentistry, 2005 (2005); DDS 1988 Loyola - Chicago

Russell, Gary J., Emeritus Professor, Marketing, 1996 (1999); BA 1976 Virginia; PHD 1985 University of Illinois at Chicago

Russell, Jonathan Foster, Assistant Professor, Ophthalmology Visual Science, (2021); PHD 2013 University of California; MD 2015 University of California

Russell, Stephen R., Professor, Ophthalmology Visual Science, 1996 (2005); BS 1978 Stanford; MD 1982 University of California-Los Angeles

Russillo, Richard William, Instructor, Anesthesia, (2024); BS 2009 Stony Brook University; MD 2016 University of Wisconsin

Russo, Andrew F., Professor, Molecular Physiology Biophysics/Neurology, 1988 (2000); BA 1979 University of California-San Diego; PHD 1984 University of California-Berkeley

Russo, Mary D., Emeritus Lecturer, Statistics Actuarial Science, 1983 (2006); MAT 1976 SUNY AT Binghamton

Russo, Ralph P., Emeritus Professor, Statistics Actuarial Science, 1983 (1995); BA 1974 State Univ of NY-Binghamton; PHD 1980 State Univ-NY-Binghamton

Rusu, Samuel, Instructor, Radiation Oncology, (2023); MS 2017 Wayne State University

Rutkowski, David, Associate Professor, Anatomy Cell Biology, 2008 (2014); BS 1997 Delaware; PHD 2002 University of California-San Francisco

Rutledge-Russell, Christine Marion, Professor, Music, 1998 (2010); BA 1984 Curtis Institute of Music; MA 1988 University of Iowa

Ryan, Amy Leanne, Associate Professor, Anatomy Cell Biology, (2021); MSC 2003 University of Bath, UK; PHD 2007 University of Bath, UK

Ryan, Mary Therese, Instructor, Family Dentistry, 1997 (1998); DDS 1994 Iowa

Ryan, Meghan E., Adjunct Assistant Professor, Pediatrics, 2023 (2023); DO 2016 Des Moines University

Ryan, Nicholas Mitchell, Adjunct Assistant Professor, Pediatrics, 2023 (2023); DO 2014 Des Moines University

Ryckman, Kelli, Adjunct Professor, Epidemiology, 2012 (2021); BS 2003 Iowa State; MS 2008 Vanderbilt; PHD 2009 Vanderbilt

Rydstrom, Ryan Michael, Adjunct Instructor, Educ Policy Leadership Studies, 2023 (2023); MA 2013 Univ of Northern Iowa

Ryken, Timothy Charles, Adjunct Professor, Neurosurgery, 1998 (2022); MD 1988 University of Iowa; MS 2007 University of Iowa

Rynes-Weller, Sara L., Emeritus Professor, Management and Entrepreneurship, 1990 (1990); BA 1974 University of Wisconsin-Madison; MS 1977 University of Wisconsin-Madison; PHD 1981 University of Wisconsin-Madison

Rysavy, Mary Becker, Adjunct Assistant Professor, Obstetrics Gynecology, 2017 (2017); BA 2007 Saint Louis University; MD 2013 University of Iowa

Rysavy, Matthew Albert, Adjunct Assistant Professor, Pediatrics, 2021 (2021); BS 2006 Saint Louis University

Rzonca, Chester S., Emeritus Associate Professor, Educ Policy Leadership Studies, 1972 (1977); BS 1965 Central Connecticut; MA 1967 Morehead State; EDD 1972 University of Illinois at Urbana Champaign

S

Saade, Dimah Nayef, Clinical Assistant Professor, Pediatrics, (2021); MD 2010 American University of Beirut

Saathoff, Elizabeth, Adjunct Instructor, University College Courses, 2025 (2025); MPH 2022 University of Iowa

Saba, Osama Ibrahim, Associate Professor, Biomedical Engineering/Radiology, 2015 (2022); BSC 1992 Cairo University, Cairo, Egypt; MS 2001 University of Iowa; PHD 2005 University of Iowa

Sabawi, Mohammed, Clinical Assistant Professor, Radiology, (2025); MBCHB 2012 University of Mosul COM, Mosul, Iraq

Sabbagh Steinberg, Nadia G., Clinical Assistant Professor, Social Work, 2013 (2018); BA 2003 University of Iowa; MSW 2011 University of Iowa; PHD 2018 University of Iowa

Sabharwal, Rasnapreet, Assistant Professor, Internal Medicine, 2016 (2016); BSC 1994 Calcutta Univesity, India; MSC 1996 Calcutta University, India; PHD 2003 Birmingham University, UK

Saboe, Beverly J., Emeritus Assistant Professor, Nursing, 1968 (1973); BSN 1965 University of Iowa; MN 1971 Washington

Sadd, Corey Jonathon, Adjunct Assistant Professor, Internal Medicine, 2025 (2025); MD 2018 McGovern Medical School

Sadecki, Emily Jones, Clinical Assistant Professor, Family Medicine, (2025); MBE 2021 University of Pennsylvania; MD 2022 Mayo Clinic Alix School of Medicine

Sadek, Nada, Clinical Assistant Professor, Anesthesia, (2024); MD 2016 University of Balamand

Sadig, Haydar Badawi, Adjunct Associate Professor, Communication Studies, 2024 (2024); PHD 1992 Ohio University

Sadler, Anne, Professor, Psychiatry, 2003 (2019); BN 1978 Old Dominion; MS 1980 Virginia Commonwealth; DPHIL 1990 University of Iowa

Safina, Nicole P., Clinical Associate Professor, Pediatrics, (2024); MD 1998 Med College of Pennsylvania

Saftlas, Audrey, Emeritus Professor, Epidemiology, 1998 (2004); BA 1977 Clark; MPH 1979 University of Michigan-Ann Arbor; PHD 1986 Johns Hopkins

Sagar, Parshant, Adjunct Assistant Professor, Internal Medicine, 2016 (2016); MD 2012 Ross University SOM

Sagen, H. Bradley, Emeritus Professor, Educ Policy Leadership Studies, 1964 (1973); BA 1957 Grinnell; PHD 1962 The University of Minnesota-Twin Cities

Saginak, Kelli, Professor, Health Sport and Human Physiology, (2024); EDD 1997 Idaho State University

Saha, Punam Kumar, Professor, Electrical-Computer Engineering, 2006 (2013); BE 1987 Jadavpur; ME 1989 Jadavpur; PHD 1997 Indian Statistical Institute; PHE 1997 Indian Statistical Institute

Sahai, Subhash C., Adjunct Assistant Professor, Family Medicine, 1979 (2002); BS 1967 Pantab; MS 1970 Northern Iowa; MD 1973 University of Iowa

Sahu, Geetanjali, Adjunct Professor, Psychiatry, 2023 (2023); MD 2010 Chhattisgarh Institute of Med

Said, Daga Abdulle, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2011 Washington State University

Sainju, Rup K., Clinical Associate Professor, Neurology, 2014 (2021); MBBS 2005 Nepal Medical College

Saisho Luya, Pamela Hiromi, Clinical Assistant Professor, Family Dentistry, (2022); BDS 2019 San Martin de porres Universit; MDS 2019 Pontifical Catholic University

Sajadian, Amir, Adjunct Assistant Professor, Internal Medicine, 2018 (2018); MD 1996 Spartan Health Sciences Univ

Saka, Rasheeda, Adjunct Assistant Professor, Creative Writing, 2023 (2023); MFA 2023 The University of Iowa

Salcedo, David A., Adjunct Assistant Professor, Internal Medicine, 2020 (2020); MD 2010 Universidad Autonoma de

Saleh, Yehia, Clinical Assistant Professor, Internal Medicine, (2024); MBBCH 2012 Alexandria University; MBBS 2012 Alexandria University

Salem, Aliasger K., Professor, Biomedical Engineering/ Chemical Biochemical Engineering/Dental Research/ Pharmaceutical Sciences and Experimental Therapeutics/ Research Administration, 2004 (2014); BS 1994 Birmingham UK; PHD 2002 Nottingham, England

Sales, Christopher S., Associate Professor, Ophthalmology Visual Science, (2020); MD 2010 Tufts University

Salib, Mina A., Adjunct Assistant Professor, Pediatrics, 2017 (2017); MBCHB 2006 University of Alexandria, Egyp

Salib, Samuel A., Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2017 CW Post Campus of Long Island

Salim, Ahmed Mustafa Ahmed, Clinical Assistant Professor, Anesthesia, (2025); MBBS 2003 Faculty of Medicine University of Khartoum, Sudan; MD 2003 Faculty of Medicine University

Salinas, Brayan, Adjunct Assistant Professor, Magid Center for Writing, 2023 (2023); BA 2021 Hampshire College; MFA 2023 The University of Iowa

Salinas, Duane Ross, Adjunct Assistant Professor, English, 2023 (2023); MA 2020 Univ of Texas-Pan American

Salomon, Frank Loewen, Adjunct Professor, Anthropology, 2011 (2011); BA 1968 Columbia; MA 1974 Cornell; PHD 1978 Cornell

Samani, Kamran, Associate Professor, Mechanical Engineering, 2014 (2019); PHD 2013 Iowa State

Samaniego, Edgar Andres, Clinical Professor, Neurology/ Neurosurgery/Radiology, 2015 (2024); MD 2000 Universidad Cent del Ecuado

Samec, Matthew James, Adjunct Assistant Professor, , 2024 (2024); MD 2017 Creighton University

Sampson, Max, Adjunct Assistant Professor, Statistics Actuarial Science, 2025 (2025); PHD 2024 University of Iowa

Samuel, Isaac, Professor, Surgery, 1999 (2015); MD 1981 Bangalore Medical; FRACS 1989 Royal Coll of Phys. Surgery

Samuelson, Megan, Clinical Professor, Pathology, 2012 (2025); MD 2010 University of Iowa

San Roman, Irene P., Adjunct Assistant Professor, Family Medicine, 2021 (2021); BS 1988 University of Miami; MD 1993 Ponce School Med/Puerto Rico

Sanchez, Antonio Jaime, Clinical Professor, Internal Medicine, 2006 (2018); MD 2000 Guayaquil SOM

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Sanchez, Kevin, Instructor, Internal Medicine, 2020 (2023); MD 2017 University of Nevada

Sanchez, Rolando, Clinical Professor, Internal Medicine, 2014 (2024); MD 2004 Universidad Peruana Cayetano H

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Sand, Anne Marie, Associate Professor, Rhetoric, (2023); BA 2014 Ohio Univ; MFA 2017 University of Iowa

Sander, Edward, Professor, Biomedical Engineering/ Chemical Biochemical Engineering/Orthopaedics and Rehabilitation, 2011 (2023); BS 2000 The University of Texas at Austin; MENG 2004 Tulane; PHD 2006 Tulane

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Sanders, Anna Awm, Instructor, Biochemistry and Molecular Biology, (2024); PHD 2014 University College Dublin

Sanders, Katrina Marie, Professor, Educ Policy Leadership Studies, 1999 (2022); BA 1987 Louisiana Tech; MA 1989 Louisiana Tech; PHD 1997 University of Illinois at Urbana Champaign

Sanders, Marion Lee, Clinical Associate Professor, Internal Medicine, 2015 (2021); MD 2007 University of Tennessee

Sanders, Robert D., Adjunct Professor, Neurosurgery, 2023 (2023); PHD 2012 Imperial College London

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Sandgren, Jeremy Anton, Instructor, Pediatrics, (2025); BS 2012 University of Iowa; MD 2019 University of Iowa ? Carver College of Medicine

Sandgren, Kristen Elizabeth, Clinical Associate Professor, Pediatrics, (2024); BS 2011 University of Iowa; MD 2015 University of Iowa

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Sandstrom, Jared, Adjunct Professor, Aerospace Studies, 2025 (2025); BS 2006 University of St. Thomas; MA 2019 Southern New Hampshire Univers

Sanoski, Cynthia A., Professor, Pharmacy Practice and Science, (2024); PHARMD 1996 The Ohio State University

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Santos, Ann Marie Garcia, Clinical Associate Professor, Psych Quant Foundations, 2008 (2020); BA 1991 Texas AM; MA 1996 University of Iowa; PHD 2005 University of Iowa

Santos, Jarren Lorenz, Adjunct Instructor, Business Analytics, 2021 (2023); BA 2017 Grinnell College; MPH 2018 University of Iowa

Santos, Josue David, Adjunct Assistant Professor, Family Medicine, 2025 (2025); BS 2012 Adventist University; MD 2017 Univ Connecticut Sch Med

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Schaefer, Malinda Ruth, Clinical Assistant Professor, Obstetrics Gynecology, (2023); PHD 2008 University of Michigan; MD 2016 Augusta University

Schaefer, Matthew, Adjunct Instructor, Health Sport and Human Physiology, 2022 (2022); MS 2016 Western Illinois University

Schaeffer, Michelle Ann, Adjunct Assistant Professor, Endodontics, 2018 (2018); DDS 1992 University of Iowa; MPH 2001 Harvard

Schaffner, Meredith Caroline, Clinical Assistant Professor, Internal Medicine, (2025); DO 2012 Des Moines University

Schantz, Mark E., Emeritus Professor, Law-Faculty, 2010 (2012); BA 1963 University of Iowa; MA 1965 Oxford; LLM 1968 Yale

Schatteman, Gina C., Emeritus Associate Professor, Health Sport and Human Physiology, 2001 (2005); BA 1975 New College; PHD 1985 Johns Hopkins

Schechinger, Tina Flores, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1997 Univ of NE at Omaha; MD 2001 Univ of NE Medical Center

Schedler, Kristine, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DDS 2015 Marquette University

Scheetz, Todd Edward, Professor, Biomedical Engineering/ Ophthalmology Visual Science, 2002 (2016); BS 1993 University of Iowa; MS 1995 University of Iowa; PHD 2001 University of Iowa

Scheffert, Aynsley, Assistant Professor, Center for Soc Sci Innovation/Psychiatry/Social Work, 2024 (2024); BA 2007 Northwestern College; MSW 2015 University of Saint Thomas; PHD 2022 Baylor University

Scheibe, Michelle Kay, Adjunct Assistant Professor, Pharmacy Practice and Science, 2010 (2010); DAUD 2008 University of Iowa

Scherer, Aaron, Associate Professor, Internal Medicine, 2016 (2025); PHD 2014 University of Iowa

Scherer, Michelle M., Emeritus Professor, Civil-Environmental Engineering, 1998 (2010); BS 1989 Virginia; MS 1994 Connecticut; PHD 1998 Oregon

Scherer, Steven, Adjunct Professor, Neurology, 2013 (2013); MD 1985 University of Michigan-Ann Arbor

Schettler, Jonathan, Adjunct Assistant Professor, Nursing, 2024 (2024); BSN 2007 University of Iowa

Schickling, Brandon, Research Assistant Professor, Obstetrics Gynecology, (2025); BS 2011 University of Iowa; PHD 2018 University of Iowa

Schieltz, Kelly Michele, Assistant Professor, Pediatrics, 2018 (2018); MA 2006 University of Iowa; PHD 2013 University of Iowa

Schifsky, Kelly D., Adjunct Assistant Professor, Pediatrics, 2023 (2023); MA 2008 Trinity International Universi; DO 2013 Des Moines University

Schiller, Luke Matthew, Clinical Assistant Professor, Internal Medicine, (2025); MD 2021 University of Iowa

Schilling, Keith Edwin, Adjunct Professor, School of Earth, Environment, and Sustainability, 2010 (2023); PHD 2009 University of Iowa

Schilling, Margo Lin, Clinical Professor, Family Medicine/ Internal Medicine, 1998 (2010); BA 1981 Wartburg; MD 1985 University of Iowa

Schissel, Dawn, Adjunct Instructor, Family Medicine, 1993 (2017); BS 1983 Univ of Minnesota, Duluth, MN; MD 1988 MINNESOTA

Schladetzky, Zachary John, Adjunct Instructor, Marketing, 2024 (2024); BBA 2010 The University of Iowa

Schlawin, Blaine, Adjunct Assistant Professor, Anesthesia, 2025 (2025); DO 2018 Des Moines University

Schlechte, Janet A., Emeritus Professor, Internal Medicine, 1981 (1993); BS 1967 University of Nebraska-Lincoln; MA 1969 University of California-Santa Barbara; MD 1975 University of Nebraska-Lincoln

Schleich, Kevin Thomas, Adjunct Associate Professor, Family Medicine/Pharmacy Practice and Science, 2011 (2022); PHARMD 2011 University of Iowa

Schlesinger, Lisa Rachel, Professor, Cinematic Arts/Theatre Arts, 2002 (2023); BA 1985 HAMPSHIRE; MFA 1989 University of Iowa

Schlievert, Patrick Michael, Emeritus Professor, Microbiology and Immunology, 2011 (2011); BA 1971 University of Iowa; PHD 1976 University of Iowa

Schlueter, Annette, Clinical Professor, Pathology, 1998 (2016); BS 1984 Valparaiso; MS 1989 University of Illinois at Urbana Champaign; PHD 1991 University of Illinois at Urbana Champaign; MD 1993 University of Illinois at Urbana Champaign

Schlutter, Morten, Associate Professor, International Programs/Religion, 2003 (2008); BA 1982 Copenhagen; MA 1985 Copenhagen; PHD 1998 Yale

Schmid, Catherine Elizabeth, Adjunct Assistant Professor, Dance, 2025 (2025); BFA 2009 East Carolina Univ; MFA 2013 University of Iowa

Schmidt, Gregory Alan, Emeritus Professor, Internal Medicine, 2006 (2006); BA 1977 St. Louis; MD 1981 University of Illinois at Chicago

Schmidt, Michelle Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, (2022); BS 2010 Drake University; PHAR 2014 University of Iowa; PHARMD 2014 The University of Iowa

Schmidt, Renita, Emeritus Associate Professor, Teaching and Learning, 2011 (2011); PHD 2005 University of Iowa

Schmidt, Thomas J., Emeritus Professor, Molecular Physiology Biophysics, 1983 (1999); BA 1969 Delaware; MS 1973 Cornell; PHD 1976 Cornell

Schmidt, Thomas William, Adjunct Assistant Professor, Internal Medicine, 2019 (2019); BA 2002 University of Colorado at Boul; MD 2009 Carver College of Medicine

Schmidt, Tyler Michael, Clinical Assistant Professor, Neurology, (2025); MD 2020 Dell Medical School at the University of Texas at

Schmidt, Warren, Emeritus Professor, Internal Medicine, 1992 (2007); BA 1973 Augustana; MS 1974 University of Illinois at Urbana Champaign; PHD 1978 University of Illinois at Urbana Champaign; MD 1989 Tennessee

Schmidt Clay, Kelly M., Associate Professor, Communication Sciences and Disorders, 2016 (2023); BA 1992 North Dakota; MA 1994 N Colorado; PHD 2003 University of Iowa

Schminke, Patricia Lynn, Adjunct Assistant Professor, Family Dentistry/Preventive Community Dentistry, (2020); AASC 2002 Kirkwood Community College; BS 2015 Mt Mercy University; DDS 2020 University of Iowa

Schmit, Jason Lee, Adjunct Assistant Professor, Orthodontics, (2021); DDS 2000 University of Iowa; MS 2000 University of Iowa

Schmitt, Laura Lee Bardsley, Clinical Assistant Professor, Communication Sciences and Disorders, (2023); BS 2011 University of Northern Iowa; MSC 2011 University of Nebraska-Lincoln; MS 2013 University of Nebraska-Lincoln

Schmitz, Anna Helen, Clinical Associate Professor, Pediatrics, (2023); MD 2014 University of Iowa

Schmolck, Johann, Adjunct Assistant Professor, Internal Medicine, 2007 (2007); MD 1999 Albert Ludwigs Unv. Germany

Schneider, Aaron, Assistant Professor, Health Sport and Human Physiology/University College Courses, (2024); BA 2014 University of Iowa; MS 2017 University of Iowa

Schneider, Galen Belmont, Professor, Dentistry Administration/Prosthodontics, 1999 (2009); BS 1987 University of Iowa; DDS 1991 University of Iowa; PHD 1996 University of North Carolina at Chapel Hill

Schneider, Kathleen Marie, Adjunct Assistant Professor, Epidemiology, 2009 (2009); MA 1992 University of Illinois at Chicago; PHD 1995 University of Illinois at Chicago

Schneider, Robert L., Emeritus Professor, Oral Maxillofacial Surgery, 1984 (1999); DDS 1976 Southern California; MS 1983 University of Iowa

Schneiderman, Gabrielle Renee, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2015 University of Wisconsin

Schnell, Scott R., Emeritus Associate Professor, Anthropology, 1993 (1999); BS 1976 The Ohio State University; MS 1979 The Ohio State University; MA 1987 The Ohio State University; PHD 1993 The Ohio State University

Schnell, Thomas, Professor, Electrical-Computer Engineering/Industrial Engineering/Mechanical Engineering/ Neurology/Occupational Environmental Health, 1998 (2016); BS 1992 Tech-Bern-Switzerland; MS 1994 Ohio; PHD 1998 Ohio

Schnelle, Teri, Adjunct Instructor, University College Courses, 2025 (2025); DIP 2007 East Marshall High School; BS 2011 Iowa State University; MA 2025 University of Iowa

Schnicker, Nicholas Jay, Adjunct Assistant Professor, Molecular Physiology Biophysics, 2023 (2023); BA 2011 Central College; PHD 2017 University of Iowa

Schnieders, Michael John, Professor, Biochemistry and Molecular Biology/Biomedical Engineering/Chemical Biochemical Engineering, 2012 (2024); BSE 1999 University of Iowa; PHD 2007 Washington

Schnoor, Jerald L., Emeritus Professor, Civil-Environmental Engineering/Occupational Environmental Health, 1977 (1983); BS 1972 Iowa State; MS 1974 The University of Texas at Austin; PHD 1975 The University of Texas at Austin

Schoen, Eva Gisela, Clinical Associate Professor, Psych Quant Foundations/Psychiatry, 2006 (2020); MA 1996 Northern Iowa; MA 1999 Northern Iowa; PHD 2003 Ball State

Schoen, Harold L., Emeritus Professor, Mathematics/ Teaching and Learning, 1974 (1978); BS 1963 Dayton; MS 1966 Indiana University-Bloomington; MS 1969 Dayton; PHD 1971 The Ohio State University

Schoenbaum, David L., Emeritus Professor, History, 1967 (1971); BA 1955 University of Wisconsin-Madison; MA 1958 University of Wisconsin-Madison; DPHIL 1965 Oxford-England

Schoenfelder, Deborah Perry, Emeritus Associate Professor, Nursing, 1983 (2001); BSN 1975 University of Iowa; MA 1982 University of Iowa; PHD 1990 University of Iowa

Schoepke, Stacy Ann, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2001 University of Minnesota

Schollmeyer, Allison Marie, Adjunct Instructor, Preventive Community Dentistry, 2025 (2025); BS 2019 University of Iowa; DDS 2023 University of Iowa

Scholtz, Michelle Renae, Adjunct Instructor, Preventive Community Dentistry, (2019); DDS 2012 University of Minnesota

Scholz, Jill H., Instructor, Orthopaedics and Rehabilitation, (2025); UNKNOWN 1995 Des Moines University

Scholz, Thomas Dean, Professor, Pediatrics, 1993 (2004); BS 1981 Swathmore College; MD 1985 Washington

Schott, Kathy, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); DPHIL 2019 Drake University

Schreier, Barry A., Clinical Professor, Psych Quant Foundations, 2015 (2015); BA 1987 University of Michigan-Ann Arbor; PHD 1994 Univ. of Missouri-Kansas City

Schreier, Megan Robin, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); DO 2019 A.T. Still Kirksville College

Schrier, Leslie Lisbeth, Emeritus Associate Professor, Teaching and Learning, 1989 (1995); BA 1973 California State; MA 1979 Drake; PHD 1989 The Ohio State University

Schrimper, George David, Emeritus Professor, Interdisciplinary Programs, 1966 (2000); BS 1964 University of Iowa; MA 1965 University of Iowa

Schroeder, Andrew, Adjunct Assistant Professor, Creative Writing, 2024 (2024); HS 2004 Bethel Park Senior High School; BA 2008 Washington Jefferson College; MFA 2024 The University of Iowa

Schroeder, Kathryn, Associate Professor, Counselor Education, (2025); BA 2006 University of Delaware; MS 2013 Oregon State Univerity; PHD 2016 Oregon State University

Schroeder, Kristin Renee, Adjunct Assistant Professor, Emergency Medicine, 2022 (2022); DO 2010 Des Moines University

Schroeder, Mary Chen, Associate Professor, Pharmacy Practice and Science, 2011 (2018); BS 2002 Texas AM; MA 2010 Emory; PHD 2011 Emory

Schroeder, Nathan Douglas, Clinical Instructor, Hospital Dentistry, 2009 (2023); BS 1999 Idaho; DMD 2004 Florida

Schroeder, Rachel M., Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2013 Creighton University

Schroedl, Rose, Clinical Associate Professor, Pediatrics, 2024 (2024); PHD 2012 Marquette University

Schrott, Helmut Gunther, Emeritus Professor, Epidemiology/Internal Medicine, 1973 (1998); BA 1962 Western Reserve; MD 1966 State Univ of NY-Buffalo

Schueller, Carol Marie, Adjunct Instructor, Physical Therapy Rehab Science, 2014 (2024); BSPT 1986 Marquette University; DPT 2007 St. Ambrose University

Schuettpelz, Carrie, Associate Professor, School of Planning and Public Affairs, (2021); HS 2002 CR Washington; BA 2006 University of Iowa; MFA 2018 University of Wisconsin-Madiso

Schug, Casey, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2018 University of Iowa

Schuh, Kathy L., Professor, International Programs/Psych Quant Foundations, 2000 (2021); AA 1979 Bismarck State; BS 1981 North Dakota State; BS 1995 North Dakota State; MS 1996 North Dakota State

Schulein, Thomas Michael, Emeritus Associate Professor, Operative Dentistry, 1979 (1988); BS 1968 University of Illinois at Urbana Champaign; DDS 1970 University of Illinois at Urbana Champaign; MS 1982 University of Illinois at Urbana Champaign

Schulte, Kelly Ann, Adjunct Instructor, Social Work, (2018); BS 2002 Iowa State University; MSW 2009 University of Iowa

Schulte, Madison Jean, Adjunct Instructor, University College Courses, 2023 (2023); BA 2021 University of Iowa; MA 2023 University of Iowa

Schulte, Melissa Jean, Adjunct Assistant Professor, Pharmacy Practice and Science, 2022 (2022); PHARMD 2008 South Dakota State University

Schultes, Danielle Paige, Assistant Professor, Nursing, 2024 (2024); BSN 2020 Allen College; MSN 2024 University of Iowa

Schultz, Jordan Leigh, Adjunct Assistant Professor, Psychiatry, 2016 (2018); PHARMD 2013 University of Iowa

Schultz, Mark, Assistant Professor, Pediatrics, 2022 (2022); BA 2008 Wartburg College; PHD 2013 University of Iowa

Schultz, Michael King, Emeritus Associate Professor, Radiology, 2006 (2014); BA 1990 South Florida; MS 1996 Florida State; PHD 2002 Florida State

Schultz, Randall L., Emeritus Professor, Marketing, 1988 (1988); BSC 1965 The Ohio State University; MBA 1967 Wayne State; PHD 1970 Northwestern Univeristy

Schultz, Susan Kay, Adjunct Professor, Psychiatry, 1995 (2007); BS 1986 Nebraska Wesleyan; MD 1990 University of Nebraska-Lincoln

Schulz, Leah, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DDS 2014 University of Colorado

Schulze, Konrad S., Emeritus Professor, Internal Medicine, 1975 (1991); BS 1965 Munich; MD 1968 Heidelberg

Schuster, Christopher, Instructor, Family Medicine, 2017 (2017); BS 2005 Univ of Notre Dame, IN; MD 2010 Univ of IA CCOM, Iowa City

Schwab, James C., Adjunct Lecturer, School of Planning and Public Affairs, 2008 (2008); MA 1985 University of Iowa

Schwabbauer, Marian Histand, Emeritus Professor, Pathology, 1971 (1997); BA 1961 Goshen; MA 1975 University of Iowa; PHD 1990 University of Iowa

Schwalm, Leslie A., Emeritus Professor, History, 1991 (2010); BA 1979 Massachusetts; MA 1984 University of Wisconsin-Madison; PHD 1991 University of Wisconsin-Madison

Schwartz, Barbara A., Emeritus Professor, Law-Faculty, 1977 (1985); BA 1967 University of Michigan-Ann Arbor; MA 1968 University of Michigan-Ann Arbor; JD 1975 Wayne State

Schwarz, Brianne Nicole, Adjunct Instructor, University College Courses, 2015 (2015); BA 2012 University of Wisconsin-Madison; MA 2014 University of Iowa

Schwebel, David Charles, Professor, Research Administration, (2025); BA 1994 Yale University; MA 1996 University of Iowa; PHD 2000 University of Iowa

Schweizer, Marin Leigh, Adjunct Associate Professor, Epidemiology/Internal Medicine, 2010 (2018); PHD 2009 THE UNIVERSITY OF MARYLAND-COLLEGE PARK

Schwenker, Robbie L., Adjunct Assistant Professor, Pharmacy Practice and Science, 2013 (2013); PHARMD 2012 University of Iowa

Schweser, G. Carl, Emeritus Associate Professor, Finance, 1976 (1982); BS 1966 Missouri School of Mines; MBA 1968 Missouri; PHD 1976 Georgia

Schwiesow, Tyler Michael, Adjunct Associate Professor, Internal Medicine, 2007 (2020); BS 1999 Drake; MD 2003 University of Iowa

Schwinn, Debra Anne, Emeritus Professor, Anesthesia, 2012 (2012); MD 1983 Stanford

Scott, Alexander, Assistant Professor, Journalism Mass Communication, (2022); BA 2011 University of North Texas; MA 2015 University of Missouri-Columbi; PHD 2022 University of Texas Austin

Scott, David Jeffrey, Adjunct Assistant Professor, Pharmacy Practice and Science, 2010 (2010); PHARMD 2007 Iowa

Scott, Eric Christopher, Adjunct Assistant Professor, Surgery, 2009 (2009); BA 1996 Lurther College; MD 2000 University of Iowa

Scott, Gerald Lee, Emeritus Assistant Professor, Dental Clinic Administration, 1979 (1979); DDS 1967 University of the Pacific

Scott, John Harwood, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MD 2015 Virginia Commonwealth Univ.

Scott, John Beldon, Emeritus Professor, School of Art, Art History, and Design, 1982 (1998); BA 1968 Indiana University-Bloomington; MA 1975 Rutgers University-New Brunswick; PHD 1982 Rutgers University-New Brunswick

Scott, William Edwin, Emeritus Professor, Ophthalmology Visual Science, 1971 (1979); BA 1959 University of Iowa; MS 1962 University of Iowa; MD 1964 University of Iowa

Scott-Conner, Carol, Emeritus Professor, Surgery, 1995 (1995); MD 1976 New York University; PHD 1988 Kentucky; BS 1990 Massachusetts Institute of Tec

Scranton, Alec B., Professor, Chemical Biochemical Engineering, 2000 (2000); BS 1984 University of Iowa; PHD 1990 Purdue University Main Campus

Scruggs, Thomas M., Emeritus Associate Professor, Music, 1991 (2003); BA 1981 Chicago State; MM 1985 The University of Texas at Austin; PHD 1994 The University of Texas at Austin

Scudder, Jack D., Emeritus Professor, Physics Astronomy, 1993 (1993); BA 1969 Williams; MS 1971 THE UNIVERSITY OF MARYLAND-COLLEGE PARK; PHD 1975 THE UNIVERSITY OF MARYLAND-COLLEGE PARK

Scullion, Rosemarie, Associate Professor, Cinematic Arts/Gender, Women's and Sexuality Studies/International Programs/Languages, Literatures, Linguistics, and Cultures, 1987 (1994); BA 1978 University of Wisconsin-Madison; MA 1982 University of Wisconsin-Madison; PHD 1987 University of Wisconsin-Madison

Seaba, Hazel H., Emeritus Professor, Pharmacy, 1971 (1995); BSPH 1967 Ferris State; MS 1971 University of Iowa

Seaberg, Nathanael, Adjunct Instructor, Physical Therapy Rehab Science, 2024 (2024); BS 2020 Drake University; DPT 2022 University of Iowa

Seabold, James E., Emeritus Professor, Radiology, 1982 (1996); BS 1964 Michigan State University; MD 1968 University of Michigan-Ann Arbor

Seaman, Aaron, Assistant Professor, Center for Soc Sci Innovation/Community Behavioral Health/Internal Medicine, (2020); PHD 2016 University of Chicago

Seaman, Walter I., Emeritus Associate Professor, Mathematics, 1983 (1991); BA 1976 Beloit; PHD 1982 Massachusetts

Seamster, Louise, Associate Professor, African-American Studies/Law-Faculty/Sociology and Criminology, 2019 (2025); MA 2008 New School for Social Research; MA 2013 Duke University; PHD 2016 Duke University

Sears, Michael Alexander, Adjunct Assistant Professor, Creative Writing, 2025 (2025); BA 2011 DePauw University; MFA 2016 University of Virginia

Sebaaly, Mikhael, Clinical Assistant Professor, Radiology, (2021); MD 2013 American University Beirut

Secchi, Silvia, Professor, School of Earth, Environment, and Sustainability, 2017 (2021); MA 1995 University of Reading; PHD 2000 Iowa State University

Seering, Melinda, Clinical Professor, Anesthesia, 2011 (2025); MD 2002 University of Iowa

Segal, Neil A., Adjunct Professor, Epidemiology, 2004 (2014); BA 1994 Brown; MD 2000 Vanderbilt; MS 2008 University of Iowa

Segaloff, Deborah L., Emeritus Professor, Molecular Physiology Biophysics, 1990 (1997); BS 1976 Pennsylvania State University; PHD 1980 Vanderbilt

Segar, Jeffrey L., Emeritus Professor, Pediatrics, 1992 (2004); BS 1982 University of Wisconsin-Madison; MD 1986 University of Wisconsin-Madison

Segre, Alberto M., Professor, Computer Science/Nursing, 1994 (2001); AB 1980 University of Illinois at Urbana Champaign; BS 1980 University of Illinois at Urbana Champaign; MS 1983 University of Illinois at Urbana Champaign; PHD 1987 University of Illinois at Urbana Champaign

Segre, Lisa Sharon, Professor, Nursing, 1998 (2021); BA 1979 Mount Holyoke; MA 1981 THE UNIVERSITY OF MARYLAND-COLLEGE PARK; PHD 1993 University of Illinois at Urbana Champaign

Segura, Mei-Mey, Adjunct Instructor, University College Courses, 2024 (2024); BM 2011 University of Missouri - SL; MM 2014 Northern Illinois University; DMA 2017 University of Colorado Boulder

Sekar, Poorani, Clinical Associate Professor, Internal Medicine, (2022); MD 2008 University of Nebraska

Selby, John C., Clinical Associate Professor, Dermatology, 2014 (2022); BS 1999 University of Illinois at Urbana Champaign; MS 2001 University of Illinois at Urbana Champaign; PHD 2007 University of Illinois at Urbana Champaign; MD 2010 University of Illinois at Urbana Champaign

Semelroth, Timothy Samuel, Adjunct Instructor, Law-Faculty, 2005 (2022); BA 1994 Drake; JD 1997 IOWA

Semprini, Jason, Adjunct Assistant Professor, Health Management Policy, 2023 (2023); PHD 2023 The University of Iowa

Sen Gupta, Ananya, Associate Professor, Electrical-Computer Engineering, 2012 (2022); BE 1998 Jadavpur; MS 2001 University of Illinois at Urbana Champaign; PHD 2006 University of Illinois at Urbana Champaign

Senkler, Jonathan G., Adjunct Assistant Professor, Internal Medicine, (2019); DO 2015 Des Moines University

Seo, Hyeongmin, Assistant Professor, Chemical Biochemical Engineering, 2024 (2024); BS 2014 Konkuk University Seoul Korea; PHE 2021 University of TN, Knoxville, T

Seo, Seongjin, Associate Professor, Ophthalmology Visual Science, 2011 (2017); PHD 2005 Washington St Louis

Seol, Dong Rim, Research Assistant Professor, Orthodontics/ Orthopaedics and Rehabilitation, (2021); BE 2003 Inje University, Korea; ME 2005 Inje University, Korea; PHD 2011 University of Iowa

Serra Azevedo Silva, Thiago, Assistant Professor, Business Analytics, 2023 (2023); BS 2008 University of Campinas; MS 2015 Carnegie Mellon University; PHD 2018 Carnegie Mellon University

Sether, Lacey M., Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2013 Creighton University

Severidt, Larry A., Adjunct Associate Professor, Family Medicine, 1987 (2001); MD 1977 University of Iowa

Severino, Carol, Professor, International Programs/Rhetoric, 1990 (2012); BA 1971 Valparaiso; MA 1976 University of Illinois at Chicago; PHD 1989 University of Illinois at Chicago

Sewell, Daniel K., Professor, Biostatistics, 2015 (2025); BA 2008 Harding University; MS 2010 University of Arkansas; PHD 2015 University of Illinois at Urbana Champaign

Sexton, Todd M., Adjunct Assistant Professor, Emergency Medicine, 2022 (2022); DO 2016 A.T. Still University

Seyedin, Steven Neema, Adjunct Assistant Professor, Radiation Oncology, (2020); MD 2014 UCLA

Seyfer, James William, Adjunct Instructor, University College Courses, 2016 (2016); BA 1974 University of Iowa; MPA 1975 The American University; MA 1986 University of Iowa

Shaban, Amir, Clinical Assistant Professor, Neurology, (2019); MD 2012 University of Damascus

Shadur, Craig A., Adjunct Professor, Internal Medicine, 1981 (2021); MD 1974 University of Iowa

Shaeffer, Patrick John, Adjunct Assistant Professor, Internal Medicine, 2022 (2022); MD 2017 Creighton University SOM

Shaffer, Joseph James, Adjunct Assistant Professor, Psychiatry, 2020 (2020); BS 2009 Allegheny College; PHD 2015 UNC-Chapel Hill

Shaffer, Sarah Ann, Clinical Associate Professor, Obstetrics Gynecology, 2015 (2020); DO 2008 At Still Univ. Kirksville

Shah, Lisa Lynn, Adjunct Instructor, Nursing, 2017 (2023); BSN 2005 Creighton University; MSN 2013 The University of Iowa; PHD 2017 The University of Iowa

Shah, Yogesh, Adjunct Assistant Professor, Family Medicine, 2017 (2017); MD 1981 Grant Med Col, Univ of Bombay

Shahid, Khadija S., Clinical Associate Professor, Ophthalmology Visual Science, 2011 (2021); BS 1999 Pennsylvania; OD 2002 Pennsylvania

Shahin, Weam Shahin Abdelmaboud, Research Assistant Professor, Cardiothoracic Surgery, (2025); MD 1998 Minoufia University, Egypt; MSC 2004 Minoufia University, Egypt; PHD 2015 University of Iowa

Shaik, Likhita, Clinical Assistant Professor, Neurology, (2025); MBBS 2018 Ashwini Rural Medical College

Shaikh, Hira, Clinical Assistant Professor, Internal Medicine, (2022); MBBS 2014 Dow University

Shaikh, Soorih, Clinical Assistant Professor, Internal Medicine, (2023); MBBS 2013 Dow University Karachi

Shammas, Nicolas W., Adjunct Professor, Internal Medicine, 2000 (2023); MD 1987 American

Shan, Xiaoyan, Adjunct Assistant Professor, Ophthalmology Visual Science, 2025 (2025); MD 1996 Tongji Medical School; PHD 2002 Tianjin Medical University

Shane, Daniel M., Associate Professor, Economics/Health Management Policy, 2012 (2018); MA 2010 Indiana University-Bloomington; PHD 2012 Indiana University-Bloomington

Shao, Chong, Adjunct Assistant Professor, Family Dentistry, 2022 (2022); BS 2010 University of Iowa; DDS 2014 University of Iowa

Shao, Yiduo, Assistant Professor, Management and Entrepreneurship, 2022 (2022); PHD 2022 University of Florida

Sharathkumar, Anjali Alatkar, Clinical Professor, Pediatrics, 2015 (2020); MBBS 1985 Dr. VM College; MD 1991 Dr. VM Medical College; MS 2007 University of Michigan-Ann Arbor

Sharif, Saima, Clinical Professor, Internal Medicine, 2016 (2023); MBBS 1994 Dow Medical College Pakistan

Sharif-Sidi, Zakariyah, Adjunct Instructor, Dermatology, 2025 (2025); BA 2014 University of Chicago; MD 2021 Medical College of Wisconsin

Shariftabrizi, Ahmad, Clinical Assistant Professor, Radiology, 2020 (2020); MD 2001 Tehran University School of Medicine

Sharma, Archit, Clinical Associate Professor, Anesthesia, 2016 (2021); MD 2007 Government Medical College

Sharma, Hari Prasad, Associate Professor, Health Management Policy, 2018 (2025); BS 2008 Trinity College; PHD 2018 UNIVERSITY OF CHICAGO

Sharma, Rajat, Clinical Assistant Professor, Pediatrics, 2021 (2021); MBBS 2001 Univ of Rajasthan; MD 2008 Rajasthan Univ of Health Sci

Sharma, Suchitra, Adjunct Assistant Professor, Family Dentistry, (2020); DDS 2020 University of Iowa

Sharma, Surangama, Clinical Associate Professor, Anesthesia, 2014 (2022); MD 2006 BJ Medical College

Sharma, Tejasvi, Adjunct Instructor, Mechanical Engineering, 2023 (2023); MME 2015 University of Iowa; MBA 2019 University of Iowa; PHD 2019 University of Iowa

Sharma, Vikram, Clinical Assistant Professor, Internal Medicine, (2025); MBBS 2003 Seth G.S. Medical College

Sharp, Jamie Dee, Emeritus Associate Professor, Dentistry Administration, 1995 (1994); BA 1976 San Francisco State; MS 1978 University of Iowa

Sharp, Larisa, Instructor, Family Medicine, (2024); MD 1997 Odessa Medical Institute

Sharp, Victoria Jean Allen, Emeritus Professor, Urology, 2002 (2010); BS 1983 George Mason; MD 1993 University of Arizona; MBA 2003 University of Iowa

Sharp, William J., Emeritus Professor, Surgery, 1989 (2007); BS 1978 Michigan State University; MD 1982 University of Michigan-Ann Arbor

Shasby, Douglas Michael, Emeritus Professor, Internal Medicine, 1982 (1989); BA 1967 Duke; MD 1973 Duke

Shaw, Clarissa Anne, Assistant Professor, Nursing, (2021); BSN 2013 University of Iowa; MSN 2017 The University of Iowa; PHD 2021 The University of Iowa

Shaw, Nathan Alan, Clinical Associate Professor, Family Medicine, 2017 (2025); BS 2007 Univ of Iowa, Iowa City,IA; MD 2011 Univ of Iowa Col of Med, IA

Shaw, Rebecca D., Adjunct Associate Professor, Obstetrics Gynecology, 1999 (1999); MD 1975 University of Iowa

Shaw, Scott K., Professor, Chemistry, 2012 (2024); PHD 2008 University of Illinois at Urbana Champaign

Shaw, Tracy, Instructor, Pediatrics, 2014 (2025); MD 2001 University of Iowa

Shea, Christine Elizabeth, Associate Professor, Spanish Portuguese, 2010 (2018); BA 1996 Concordia, Canada; MA 2003 CEIE-UNAMJ, Mexico; PHD 2010 Calgary, Canada

Shea, Madeline A., Emeritus Professor, Biochemistry and Molecular Biology, 1989 (2002); BS 1977 California Inst of Technology; PHD 1984 Johns Hopkins

Shedek, Brian K., Adjunct Assistant Professor, Emergency Medicine, 2010 (2023); BA 2003 University of Iowa; DO 2007 Des Moines University; MD 2010 University of Iowa

Shedenhelm, Heidi Jo, Adjunct Assistant Professor, Nursing, 2023 (2024); BSN 2001 University of Iowa; MSN 2008 University of Iowa; DNP 2014 University of Iowa

Sheerin, Caroline, Professor, Law-Faculty/University College Courses, 2006 (2017); BA 1993 Barnard, Columbia; MA 1996 Washington; JD 1999 University of Michigan-Ann Arbor

Sheets, Scott J., Clinical Associate Professor, Pediatrics, 2004 (2021); DO 1993 Univ of Osteo Med, Des Moines

Sheets, Timothy W., Assistant Professor, Languages, Literatures, Linguistics, and Cultures, 2000 (2024);

Sheff, David Roland, Instructor, Family Medicine, 2003 (2024); BA 1984 Bowdoin College, Maine; MD 1992 Iowa; PHD 1992 Iowa

Sheffield, Val C., Professor, Ophthalmology Visual Science/ Pediatrics, 1990 (1998); BS 1974 Brigham Young; MS 1977 Brigham Young; PHD 1983 University of Chicago; MD 1985 University of Chicago

Shekem, Nathaniel Murat, Clinical Associate Professor, Emergency Medicine, (2022); BS 2010 University of Wisconsin; MPAS 2014 University of Iowa

Shekhrajka, Nitesh, Clinical Assistant Professor, Radiology, (2023); MBBS 2006 Guwahati Medical College; MD 2017 Aalborg University Hospital

Sheldon, Daniel S., Emeritus Associate Professor, Teaching and Learning, 1973 (1980); BS 1960 Northern State; MS 1961 Northern State; PHD 1973 University of Iowa

Shelton, Zachary Ross, Adjunct Instructor, Preventive Community Dentistry, 2015 (2015); DDS 2014 University of Colorado

Shelton-Hauck, Hannah Lorene, Adjunct Instructor, University College Courses, 2025 (2025); BA 2022 University of Iowa; MA 2024 University of Iowa

Shen, Helen, Emeritus Professor, Asian Slavic Languages Literature, 2002 (2014); BA 1981 Ningbo, China; MA 1990 Zhejiang, China; PHD 1997 Nevada-Reno

Shen, Susan Qi, Assistant Professor, Psychiatry, 2024 (2024); MD 2018 Washington University; PHD 2018 Washington University

Shen, Wendy, Clinical Professor, Family Medicine, 2005 (2023); MD 1992 Beijing Medical

Shenefelt, Ryan, Adjunct Instructor, Marketing, 2023 (2023); BBA 2012 The University of Iowa

Shepard, Jami Lyn, Clinical Assistant Professor, Obstetrics Gynecology, (2024); MD 2007 University of Iowa

Shepard, Nicholas, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHAR 2022 Univeristy of Iowa

Shepardson, Richard D., Emeritus Professor, Teaching and Learning, 1972 (1981); BA 1960 Chico State; MA 1968 San Jose State; PHD 1972 The University of Texas at Austin

Shepherd, James, Adjunct Associate Professor, Chemistry, 2017 (2023); BA 2009 University of Cambridge; PHD 2013 University of Cambridge

Shepherd, Lisa Ann, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1998 Buena Vista Univ, Storm Lake; MD 2002 Univ of Nebraska Med Ctr

Shepherd, Mary Lohse, Adjunct Instructor, Physical Therapy Rehab Science, 2009 (2024); BS 1984 University of Illinois at Urbana Champaign; BS 1986 Washington

Sheppard, Kevin Neil, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1982 Memorial Univ of Newfoundland; MD 1984 Memorial Univ of Newfoundland

Sheppard, Maia, Assistant Professor, Teaching and Learning, (2020); BA 1995 Drake University; MA 2001 New York University; PHD 2010 University of Minnesota

Sherman, Scott Kevin, Clinical Associate Professor, Surgery, (2025); MD 2010 U Chicago Pritzker School Med

Sherock, Tiffany Lee, Adjunct Assistant Professor, Family Dentistry, 2024 (2024); DDS 2023 Universty of Iowa

Sherping, Sonja Tess, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2020 University of Iowa

Sherry, Erin, Assistant Professor, Magid Center for Writing, 2022 (2022); MFA 2022 The University of Iowa

Shi, Andy, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2024 Texas Tech University

Shi, Qian, Adjunct Professor, Biostatistics, 2014 (2020); PHD 2007 University of Iowa

Shi, Qian, Research Assistant Professor, Internal Medicine, (2021); PHD 2011 Nankai University

Shi, Yongren, Adjunct Assistant Professor, Sociology and Criminology, 2018 (2018); BS 2001 Huazhong University of Science; MENG 2005 Huazhong University of Science; PHD 2016 Cornell University

Shibata, Erwin F., Emeritus Associate Professor, Molecular Physiology Biophysics, 1986 (1994); BSEE 1974 Washington; MSE 1980 Washington; PHD 1984 Texas Medical Branch-Galveston

Shibbani, Kamel, Clinical Assistant Professor, Pediatrics, (2024); MD 2012 American University of Beirut

Shibli-Rahhal, Amal, Clinical Professor, Internal Medicine/ Medicine Administration, 2007 (2017); BS 1996 American Univ of Beirut; MD 2000 American Univ of Beirut

Shields, Dennis John, Adjunct Instructor, Law-Faculty, 2021 (2025); BA 1977 Graceland University; JD 1982 The University of Iowa

Shields, Kolleen C., Adjunct Instructor, Physical Therapy Rehab Science, 2015 (2024); MA 1995 University of Iowa

Shields, Richard Kemp, Professor, Orthopaedics and Rehabilitation/Physical Therapy Rehab Science, 1986 (2004); BA 1976 Cabawba; MA 1985 University of Iowa; PHD 1992 University of Iowa

Shih, Ming-Che, Emeritus Professor, Biology, 1988 (2003); BS 1976 Tunghai-Taiwan; PHD 1983 University of Iowa

Shilyansky, Joel, Professor, Pediatrics/Surgery, (2013); MD 1988 University of California-Los Angeles

Shim, Hyungsub, Clinical Associate Professor, Neurology/ Psychiatry, 2012 (2025); MD 2006 Medical College of Wisconsin

Shin, Kyungsup, Professor, Biomedical Engineering/ Orthodontics, 2015 (2024); PHD 2008 University of Michigan-Ann Arbor; DMD 2013 Harvard School of Dental Med; MS 2015 University of Iowa

Shinozaki, Eri, Clinical Associate Professor, Internal Medicine, 2013 (2024); MD 2004 Yamanashi Medical

Shinozaki, Gen, Adjunct Associate Professor, Psychiatry, 2013 (2013); MD 2002 Yamanashi

Shirazi, Siroos S., Emeritus Professor, Surgery, 1972 (1981); PCB 1959 Shiraz; MD 1965 Shiraz-Iran

Shiu, Elias S., Professor, Statistics Actuarial Science, 1992 (1992); BS 1971 Manitoba-Canada; MS 1971 Manitoba-Canada; PHD 1975 Calif Inst of Technology

Shoplik, Ann Lupkowski, Adjunct Professor, Psych Quant Foundations, 2014 (2014); BS 1983 Scranton; MS 1984 Texas A M; PHD 1986 Texas A M

Shorey-Smith, Anya Elizabeth, Assistant Professor, Psychological and Brain Sciences, 2025 (2025); PHD 2025 University of Louisville

Short, Andrea, Assistant Professor, Health Sport and Human Physiology, 2014 (2025); MS 2011 The Citadel Graduate College

Short, Sarah, Assistant Professor, Internal Medicine, (2023); PHD 2015 Vanderbilt University

Shoukih, Tameem, Clinical Assistant Professor, Emergency Medicine, 2002 (2002); MD 1985 Damascus

Shoultz, Amy Kathleen Engelbert, Emeritus Professor, Teaching and Learning, 2002 (2015); BA 1985 Coe; MAT 1990 University of Iowa; PHD 2002 University of Iowa

Shrestha, Prabin, Clinical Assistant Professor, Neurosurgery, 2023 (2025); PHD 2008 Hiroshima University

Shriver, Amy E., Adjunct Assistant Professor, Pediatrics, 2012 (2012); MD 2004 University of Iowa

Shriver, Erin, Clinical Professor, Ophthalmology Visual Science/Otolaryngology-Head Neck Surgery, 2012 (2020); MD 2002 Stanford

Shultz, Hannah Morrison, Adjunct Assistant Professor, Community Behavioral Health, 2023 (2023); AB 2011 University of Iowa; MA 2015 American University

Shultz, Lindsay Renee, Adjunct Instructor, Teaching and Learning, 2023 (2023); MA 2022 Mount St. Joseph University

Shultz, Samuel Keith, Clinical Assistant Professor, Psychiatry, (2020); MD 2015 University of Iowa

Shusterman, Vladimir, Research Professor, Internal Medicine, 2013 (2025); PHD 1997 Institute of Med and Bio Cyber

Shutters, Christina Marie, Clinical Associate Professor, Obstetrics Gynecology, 2013 (2024); BSN 2008 Culver-Stockton/Blessing Riema; MSN 2013 Frontier Nursing

Shy, Michael E., Professor, Molecular Physiology Biophysics/ Neurology, 2012 (2012); MD 1979 Albany Medical

Shy, Rosemary Rudolph, Instructor, Neurology, 2012 (2023); MD 1980 Albany Medical College

Shyam, Rajalekshmy, Assistant Professor, Anatomy Cell Biology, (2025); BS 2009 Roosevelt University; PHD 2017 University of Utah

Shyamalkumar, Nariankadu Datatreya, Associate Professor, Statistics Actuarial Science, 2004 (2012); BS 1989 Loyola, India; MS 1991 Indian Stat Inst, India; PHD 1996 Purdue University Main Campus

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Sidey, Kirk, Clinical Assistant Professor, Dermatology, (2022); BA 2012 Wartburg College; MBA 2017 University of Iowa; MD 2017 University of Iowa

Sidhu, Alpa, Clinical Professor, Pediatrics, 2017 (2025); MBBS 2003 Grant Medical College; PHD 2009 LSU New Orleans

Sidwell, Richard Allen, Adjunct Professor, Surgery, 2004 (2014); BS 1988 University of Iowa; MD 1993 University of Iowa

Siegel, Gabriel, Assistant Professor, Philosophy, (2025); BA 2014 Univ. of Washington; MA 2019 Tufts University; PHD 2025 Washington University - St. Lo

Sieren, Jessica Corinne, Associate Professor, Biomedical Engineering/Radiology, 2009 (2020); BS 2002 Flinders Univ; PHD 2008 University of Iowa

Sifford, Jason E., Adjunct Assistant Professor, Music, 2012 (2012); DMA 2001 UNIVERSITY OF MICHIGAN-ANN ARBOR

Sigmund, Curt D., Emeritus Professor, Neuroscience and Pharmacology, 1991 (2000); BA 1982 State Univ of NY-Buffalo; MA 1984 State Univ of NY-Buffalo; PHD 1987 State Univ of NY-Buffalo

Sihler, Kristen Caviness, Clinical Assistant Professor, Epidemiology/Surgery, 2021 (2021); MD 1998 Wake Forest University School

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Sillman, Michelle Ann Tibodeau, Adjunct Instructor, Journalism Mass Communication, 2023 (2023); BA 1987 University of Iowa

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Silverman, Margarida Magalhaes, Clinical Professor, Internal Medicine, 1997 (2003); MD 1978 University of Porto

Silverman, Pearl Nicole, Adjunct Assistant Professor, Creative Writing, 2025 (2025); MFA 2025 The University of Iowa

Silverman, William B., Emeritus Professor, Internal Medicine, 1997 (2003); BA 1976 Colby College; MD 1984 University of Brussels-Belgium

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Simione, Carmela Rose, Adjunct Assistant Professor, Creative Writing, 2025 (2025); MFA 2025 The University of Iowa

Simison, Anita Tsai, Clinical Assistant Professor, Family Medicine, 2008 (2008); BS 2000 Wellesley College; MD 2004 Drexel Univ School of Med

Simmering, Jacob Edward, Assistant Professor, Health Management Policy/Internal Medicine, (2019); BA 2009 Grinnell College; MS 2013 University of Iowa; PHD 2016 University of Iowa

Simmons, Donald L., Adjunct Assistant Professor, Occupational Environmental Health, 2000 (2000); BS 1985 Oklahoma; MS 1989 Oklahoma; PHD 1994 Oklahoma

Simmons, Jonathan S., Clinical Professor, Anesthesia/ Emergency Medicine, 2004 (2020); SCB 1994 Truman State MO; DO 1999 Kirksville/ Osteopathic Med

Simmons, Shawn T., Clinical Associate Professor, Anesthesia, 1999 (2007); BA 1990 Kansas; MD 1994 Kansas

Simms, Jason, Assistant Professor, Theatre Arts, (2024); BFA 2005 Cornish College of the Arts; MFA 2009 New York University

Simon, Giselle A., Adjunct Instructor, Interdisciplinary Programs, 2014 (2014); BFA 1990 KANSAS CITY ART INSTITUTE

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Simpson, Thomas Allen, Adjunct Assistant Professor, Otolaryngology-Head Neck Surgery, 2021 (2021); BS 1984 university of Iowa; MD 1990 University of Iowa

Simpson Nedved, Ashley Marie, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); DO 2015 Des Moines University

Simpson-Wade, Bailey, Adjunct Instructor, University College Courses, 2023 (2023); AA 2017 Iowa Central Community College; BLS 2022 University of Northern Iowa

Sims, Andrew Daniel, Adjunct Assistant Professor, Pediatrics, 2019 (2019); DO 2015 Des Moines University

Sims, Chelsea Yates, Adjunct Instructor, Library Information Science, 2022 (2022);

Sims, Frank Bennett, Associate Professor, English, 2015 (2024); MFA 2012 University of Iowa

Sims, Leslie B., Emeritus Professor, Chemistry, 1991 (1991); BA 1958 Southern Illinois; MS 1961 University of Illinois at Urbana Champaign; PHD 1967 University of Illinois at Urbana Champaign

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Sinagl, Petra, Assistant Professor, Finance, 2019 (2019); BA 2010 Charles University, Prague; MS 2011 Maastricht University; PHD 2019 Univ. of Sydney, Australia

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Sinclair, Noelle, Adjunct Instructor, Law-Faculty, 2016 (2023); BA 1989 University of Iowa; MA 1993 The Univerity of Iowa; JD 2003 University of Iowa

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Singh, Ramandeep, Clinical Assistant Professor, Radiology, (2023); MBBS 2006 Government Medical College; MD 2013 Government Medical College, Pa

Singh, Upinder, Professor, Internal Medicine, 2024 (2024); MD 1992 Ohio State University

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Sinnwell, Emily Marie, Clinical Assistant Professor, Nursing, 2018 (2018); BSN 2009 The University of Iowa; MSN 2012 The University of Iowa; DNP 2014 The University of Iowa

Sinnwell, Michael Alan, Assistant Professor, Chemistry, (2021); BS 2011 Luther College; PHD 2017 University of Iowa

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Skiff, Frederick N., Professor, Physics Astronomy, 1998 (2000); BS 1979 Cornell; MA 1981 Princeton; PHD 1985 Princeton

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Skinner, Jenee, Adjunct Assistant Professor, Creative Writing, 2023 (2023); MFA 2023 The University of Iowa

Skinstad, Anne H., Emeritus Professor, Community Behavioral Health, 1993 (2016); BA 1971 Bergen; PSYD 1977 Bergen

Skoff, Rachel Ann, Adjunct Assistant Professor, Pharmacy Practice and Science, 2010 (2013); PHARMD 2010 University of Iowa

Skogsbergh, James H., Adjunct Professor, Health Management Policy, 1990 (2014); MA 1982 University of Iowa

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Skopec, Kathryn Mary, Instructor, Pediatrics, (2024); MD 1993 University of Iowa

Skopec, Mary P., Adjunct Assistant Professor, School of Earth, Environment, and Sustainability/University College Courses, 2001 (2001); PHD 1999 University of Iowa

Skotowski, Mary Catherine, Emeritus Associate Professor, Pediatric Dentistry, 1995 (2018); AS 1978 Southeastern Comm College; BS 1981 University of Iowa; MS 1991 University of Iowa

Slabakova, Roumyana, Emeritus Professor, Linguistics, 1998 (2010); BA 1981 Sofia; MA 1981 Sofia; PHD 1998 McGill

Slade, Stephen James, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MD 2017 University of Iowa

Slagle, Brooke N., Adjunct Assistant Professor, Pharmacy Practice and Science, 2020 (2020); PHAR 2018 Creighton University

Slattery, Michael John, Adjunct Assistant Professor, Family Medicine, 2017 (2017); BS 1989 Creighton Univ, Omaha, NE; MD 1993 Univ of IA CCOM, Iowa City

Slaughter, Wendi Sue, Adjunct Assistant Professor, Pharmacy Practice and Science, 2007 (2007); BS 1991 Iowa State; PHARMD 2001 University of Iowa

Slavin, Michael J., Adjunct Assistant Professor, Internal Medicine, 2000 (2000); MBA 1997 Widener

Slayman, Tyler Grant, Clinical Assistant Professor, Family Medicine/Orthopaedics and Rehabilitation, (2020); MD 2016 University of Iowa

Slayton, Rebecca Lynn, Emeritus Professor, Pediatric Dentistry, 1998 (2008); BA 1980 Earlham; MS 1983 Iowa; DDS 1992 Iowa; PHD 1998 Iowa

Slessor, Steven Robert, Adjunct Assistant Professor, Health Management Policy, 2023 (2023); BA 2006 UNI; MHA 2008 University of Iowa

Sliwicki, Alexander Lee, Instructor, Pediatrics, 2025 (2025); MD 2018 Medical College of Wisconsin

Sloan, Jordyn, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2020 University of Iowa

Sluka, Kathleen A., Professor, Neuroscience and Pharmacology/Nursing/Physical Therapy Rehab Science, 1996 (2006); BS 1985 Georgia State; PHD 1993 The University of Texas at Galveston

Slusarek, Maria, Adjunct Instructor, Teaching and Learning, (2025); BA 2013 St. Norbert College; MA 2013 St. Norbert College; BA 2016 Southern Oregon University; MA 2016 Southern Oregon University; PHD 2024 The University of Iowa

Slusarski, Diane C., Emeritus Professor, Biology, 1998 (2010); BA 1986 University of Illinois at Urbana Champaign; BS 1986 University of Illinois at Urbana Champaign; PHD 1993 Northwestern Univeristy

Small, Arnold M. Jr., Emeritus Professor, Communication Sciences and Disorders, 1958 (1964); BA 1951 San Diego State; MS 1953 University of Wisconsin-Madison; PHD 1954 University of Wisconsin-Madison

Small, Gary, Professor, Chemistry, 2002 (2002); BS 1979 University of North Carolina at Chapel Hill; PHD 1984 Pennsylvania State University

Smerage, Bradley D., Adjunct Instructor, Accounting, 2025 (2025); MAC 1996 University of Florida

Smidt, Gary Lee, Emeritus Professor, Physical Therapy Rehab Science, 1969 (1977);

Smith, Aaron James, Adjunct Assistant Professor, Health Management Policy, (2020); MHA 2018 University of Iowa

Smith, Aaron Christopher, Clinical Assistant Professor, Urology, (2022); DO 2004 Des Moines University-Osteopathic Medical Center

Smith, Alecia Ann, Adjunct Instructor, Social Work, 2018 (2018); BS 1999 Iowa State University; MSW 2006 University of Iowa

Smith, Alex Purman, Assistant Professor, Political Science, 2023 (2024); BA 2009 Wheaton College; MA 2017 University of Florida; PHD 2020 University of Florida

Smith, Alexa K., Adjunct Assistant Professor, Family Medicine, 2025 (2025); BS 2015 University of Iowa; DO 2021 Des Moines Univ. Iowa

Smith, Amanda Sue, Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2014); PHARMD 2013 University of Iowa

Smith, Andrew Clifford, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1976 Illinois Wesleyan Univ, IL; MD 1980 Univ of Iowa Coll of Medicine

Smith, Blake R., Assistant Professor, Biomedical Engineering/Radiation Oncology, (2022); PHD 2019 University of Wisc-Madison

Smith, Brian Joseph, Professor, Biostatistics, 2001 (2017); BA 1993 St. Louis; MS 1995 The University of Texas at Austin; PHD 2001 University of Iowa

Smith, Brian John, Adjunct Instructor, Preventive Community Dentistry, 2018 (2018); BS 2009 University of Iowa; DDS 2013 University of Iowa

Smith, Derek, Associate Professor, Dental Research/ Preventive Community Dentistry, (2025); BA 2004 DePauw University; DDS 2008 Indiana University School of Dentistry; PHD 2017 Vanderbilt University

Smith, Dustin Ralph, Adjunct Instructor, Family Medicine, 2017 (2017); BA 1992 Grinnell College, Iowa; MD 1997 Univ of Iowa College of Medici

Smith, Frederick M., Emeritus Professor, Asian Slavic Languages Literature/Religion, 1989 (2008); BA 1969 Coe; MA 1976 Poona-India; PHD 1984 Pennsylvania

Smith, Hayden Lee, Adjunct Associate Professor, Internal Medicine, 2012 (2019); BS 2003 University of Iowa; MPH 2006 Tulane; MS 2009 University of Iowa; PHD 2011 University of Iowa

Smith, Hayley Anne, Adjunct Assistant Professor, Nursing, 2016 (2025); BSN 2005 Luther College

Smith, Jacob Brigham, Adjunct Assistant Professor, Pathology, 2024 (2024); BS 2005 Brigham Young University

Smith, Jay J., Clinical Instructor, Radiology, (2023); CER 2005 UIHC Nuc Med Tech Program; MOL 2020 Waldorf University

Smith, Jeffrey J., Emeritus Associate Professor, Pediatrics, 1988 (1995); BA 1972 The University of Minnesota-Twin Cities; MD 1976 Mayo Medical

Smith, Jesse W., Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DDS 2003 Marquette University

Smith, Jessica, Clinical Associate Professor, Surgery, 2009 (2016); MD 2003 University of California-Davis

Smith, Jodi Linley, Associate Professor, Educ Policy Leadership Studies, 2003 (2020); BA 2000 University of Iowa; MA 2002 University of Iowa; PHD 2015 Michigan State University

Smith, Joseph, Adjunct Instructor, Health Management Policy, 2024 (2024); MHA 1992 University of Minnesota

Smith, Julie Cobb, Adjunct Assistant Professor, Interdisciplinary Programs, 2004 (2025); BA 1995 North Carolina State; MA 1997 University of Illinois at Chicago

Smith, Katharyn Loretta, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2020); PHARMD 2017 University of Iowa

Smith, Kathryn Jean, Associate Professor, Pharmacy Practice and Science, (2023); PHARMD 2013 Univ of Minnesota- Twin Cities

Smith, Kevin, Adjunct Assistant Professor, Creative Writing, 2016 (2018); BA 1986 California State University; AM 1988 University of California-Los Angeles; MFA 2016 Iowa

Smith, Leighton A., Adjunct Instructor, Finance, 2012 (2024); AB 2004 University of Illinois at Chicago; JD 2008 University of Iowa; MBA 2008 University of Iowa

Smith, Loren Elisa, Associate Professor, Anesthesia, 2025 (2025); MD 2012 University of Cincinnati

Smith, Marianne, Emeritus Associate Professor, Nursing, 1984 (2013); MS 1983 Colorado; PHD 2006 University of Iowa

Smith, Mark Charles, Clinical Professor, Radiation Oncology, 2004 (2020); BS 1993 Iowa State; MD 1999 University of Iowa

Smith, Michael Joseph, Adjunct Instructor, University College Courses, 2017 (2017); MA 1990 Univ of Northern Iowa

Smith, Richard J., Professor, Anatomy Cell Biology/ Biomedical Engineering/Internal Medicine/Molecular Physiology Biophysics/Otolaryngology-Head Neck Surgery/ Pediatrics, 1990 (1990); BA 1974 Rice; MD 1977 Baylor

Smith, Robert E., Emeritus Professor, Psychiatry, 2001 (2010); BS 1964 Iowa State; MD 1969 University of Iowa

Smith, Samatha Ann, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2021 South Dakota State University

Smith, Shelby, Adjunct Instructor, University College Courses, 2022 (2022); BS 2017 Iowa State University; MA 2020 The University of Iowa

Smith, Sidney J., Adjunct Assistant Professor, Family Medicine/Obstetrics Gynecology, (2021); MD 1975 Univ. of Toledo Med Ctr. Ohio; MS 1975 Univ. of Akron; MD 1981 University of Toledo

Smith, Tanner Usher, Adjunct Instructor, Psych Quant Foundations, 2025 (2025); BA 2018 University of Iowa; MSW 2020 University of Iowa

Smith, Theodore F., Emeritus Professor, Mechanical Engineering, 1971 (1981); BSME 1963 University of Illinois at Urbana Champaign; MSME 1965 University of Illinois at Urbana Champaign; PHD 1972 University of Illinois at Urbana Champaign

Smith, Tiffanie Ann, Adjunct Assistant Professor, Family Dentistry, 2025 (2025); DDS 2015 University of Iowa

Smock, Justin Wade, Clinical Professor, Internal Medicine, 2011 (2025); BA 2003 Northwestern Univeristy; MD 2007 University of Iowa

Smoker, Wendy Rue, Emeritus Professor, Neurosurgery/ Radiology, 2001 (2001); BS 1971 University of Iowa; MS 1972 University of Iowa; MD 1977 University of Iowa

Smolikove, Sarit, Professor, Biology, 2009 (2023); BS 1998 Tel Aviv; MS 2000 Tel Aviv; PHD 2004 Tel Aviv

Smollen, Margaret Alice, Clinical Assistant Professor, Obstetrics Gynecology, (2023); BS 1979 Stanford University; MD 1983 University of Wisconsin

Smolucha, Amy L., Adjunct Assistant Professor, Family Medicine/Obstetrics Gynecology, 2021 (2021); BA 2011 Purdue University; MD 2016 Saint George's School of Medicine

Smyth, Robert, Clinical Assistant Professor, Internal Medicine, (2023); MBBCH 2007 University College Dublin

Snetselaar, Linda G., Professor, Epidemiology/Internal Medicine, 1985 (2005); BS 1972 Iowa State; MS 1975 University of Iowa; PHD 1983 University of Iowa

Snitker, Brittney, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHAR 2017 University of Iowa; PHARMD 2017 University of Iowa

Snitker, Sara, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2013 University of Colorado Denver

Snitzer, James G., Emeritus Professor, School of Art, Art History, and Design, 1976 (2007); BA 1973 University of California-Los Angeles; MFA 1976 Art Inst of Chicago

Snow, Anthony Nicholas, Clinical Professor, Pathology, 2014 (2025); BS 2001 Marquette; MD 2008 Creighton

Snow, Max J., Instructor, Internal Medicine, (2024); MD 2017 American Univers. of Caribbean

Snyder, Jeanne M., Emeritus Professor, Anatomy Cell Biology/Pediatrics, 1988 (1993); BS 1968 Northwestern Univeristy; PHD 1972 Pennsylvania

Snyder, Jeffrey Edward, Instructor, Radiation Oncology, (2023); MS 2016 Stony Brook University; PHD 2024 University of Iowa

Snyder, Joseph J., Adjunct Assistant Professor, Family Medicine, 2017 (2017); BS 1989 Univ of OsteopathicHlthScience; DO 1996 Univ of OsteopathicHlthScience

Snyder, Patrick, Adjunct Instructor, Teaching and Learning, 2021 (2023); BA 2006 University of Iowa; MA 2010 Graceland University

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Sobocinski, Nicholas John, Adjunct Instructor, University College Courses, 2010 (2013); BS 2009 University of Iowa

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Socwell, Laura Ann, Adjunct Assistant Professor, Pediatrics, 2021 (2021); BS 2011 univ of Rochester; MD 2015 The University of Iowa

Sodawasser, Sara, Adjunct Instructor, Preventive Community Dentistry, 2003 (2003); BS 1988 University of Iowa

Soderberg, Gary L., Emeritus Professor, Physical Therapy Rehab Science, 1978 (1986); BA 1960 Augustana College/ Rock Island; MA 1962 University of Iowa; PHD 1971 Pennsylvania State University

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Sohn, Elliott H., Professor, Ophthalmology Visual Science, 2010 (2024); MD 2003 Washington

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Solimeo, Samantha L., Associate Professor, Internal Medicine, 2015 (2022); MA 2000 University of Iowa; MPH 2003 University of Iowa; PHD 2005 University of Iowa

Soll, David R., Emeritus Professor, Biology, 1972 (1982); BA 1964 University of Wisconsin-Madison; MA 1968 University of Wisconsin-Madison; PHD 1969 University of Wisconsin-Madison

Solow, Catherine Mitiguy, Emeritus Assistant Professor, Preventive Community Dentistry, 1986 (2009); BA ALBERTUS MAGNUS; MA University of Iowa

Solow, John L., Emeritus Professor, Economics, 1981 (2012); BA 1976 Yale; MA 1981 Stanford; PHD 1983 Stanford

Solt, Frederick, Professor, Political Science, 2012 (2024); BSE 1994 Princeton; JD 1998 The University of Texas at Austin; PHD 2003 University of North Carolina at Chapel Hill

Soltys, Karissa Lynn, Clinical Assistant Professor, Pediatrics, (2022); BS 2014 University of Illinois; MD 2018 Southern Illinois University

Soltys, Matthew David, Clinical Assistant Professor, Internal Medicine, (2021); BS 2013 University of Illinois; MD 2017 Southern Illinois University School of Medicine

Somek, Alexander, Adjunct Instructor, Law-Faculty, 2015 (2024); JD 1984 Vienna; LLM 1984 Vienna

Somers, Douglas L., Emeritus Associate Professor, Internal Medicine, 1992 (2002); BS 1982 Washington; MD 1986 St. Louis

Somers, Emma, Adjunct Instructor, Health Sport and Human Physiology, 2025 (2025); BS 2020 University of Illinois

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Sorensen, Sarah Renee, Adjunct Assistant Professor, Pharmacy Practice and Science, (2019); PHARMD 2018 University of Iowa

Sorensen, Stephen Martin, Adjunct Assistant Professor, Family Medicine, 2009 (2009); BS 1989 University of Iowa; MD 1995 University of Iowa

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Sowers, Levi Paul, Assistant Professor, Pediatrics, (2022); BA 2008 Univ of Iowa; PHD 2012 University of Iowa

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Spear, Sonja, Adjunct Assistant Professor, Religion, 2011 (2011); BA 1989 Chicago; MA 1998 Indiana; PHD 2005 Indiana

Spears, Steven, Adjunct Instructor, School of Planning and Public Affairs, 2014 (2024); BS 1991 Clemson; MA 2008 Virginia; PHD 2013 University of California-Los Angeles

Spears, Yolanda Denise, Clinical Associate Professor, Social Work, 2016 (2023); BSW 2004 University of Iowa; MSW 2007 University of Iowa

Spector, Arthur A., Emeritus Professor, Biochemistry and Molecular Biology/Internal Medicine, 1968 (1975); BA 1956 Pennsylvania; MD 1960 Pennsylvania

Spector, Michael, Clinical Associate Professor, Periodontics, 2005 (2014); BS 1992 Binghamton; DMD 1999 Temple; MS 2002 Columbia

Speer, John Edgar, Clinical Assistant Professor, Educ Policy Leadership Studies, 2017 (2025); BA 1994 University of Northern Iowa; MA 2000 University of Northern Iowa; EDD 2017 University of Northern Iowa

Spencer, Selden, Instructor, Neurology, 2021 (2024); MD 1978 University of North Dakota

Spieker, Ruth D., Emeritus Assistant Professor, Oral Path,RadiologyMedicine, 2002 (2002); BA 1979 Toronto; DDS 1983 Toronto

Spies, Kylie Ann, Adjunct Instructor, Social Work, 2025 (2025); MSW 2021 The University of Iowa

Spies, Leon Fred, Adjunct Instructor, Law-Faculty, 2005 (2023); BBA 1972 University of Iowa; JD 1975 University of Iowa

Spies, Maria, Professor, Biochemistry and Molecular Biology/ Radiation Oncology, 2011 (2018); PHD 2000 Osaka

Spies, Michael Ashley, Professor, Pharmaceutical Sciences and Experimental Therapeutics, 2011 (2021); BA 1991 Kansas; MA 1994 Kansas; PHD 1997 Kansas

Spisak, Arthur Louis, Emeritus Professor, Classics, 2011 (2011); BA 1966 Youngstown State; BA 1979 Youngstown State; MA 1985 John Carroll; PHD 1992 Loyla

Spitz, Douglas R., Professor, Pathology/Radiation Oncology, 2000 (2006); BA 1978 Grinnell; PHD 1984 University of Iowa

Spitzer, John Herbert, Emeritus Professor, Finance, 1995 (1997); BS 1966 Stanford; MS 1967 University of Iowa; PHD 1975 Duke

Spiva, Sara Daryl, Clinical Assistant Professor, Family Medicine, (2020); BS 2010 Wartberg College; DO 2014 Kansas City Univ. Osteophatic Med

Splett, Katelynn Sophia, Adjunct Assistant Professor, Internal Medicine, 2021 (2021); DO 2017 Des Moines University

Spoelma, Trevor, Associate Professor, Management and Entrepreneurship, 2025 (2025); BBA 2013 Grand Valley State University; BS 2013 Grand Valley State University; PHD 2018 University of Arizona

Spragg, Matthew Thomas, Clinical Assistant Professor, Emergency Medicine, 2011 (2012); DO 2000 Des Moines

Sprague, Kimberly Kay, Clinical Assistant Professor, Obstetrics Gynecology, (2020); BN 1993 Teikyo Marycrest Inst. University; MSN 2002 Case Western Reserve University

Sprigg, Brittany Nicole, Clinical Assistant Professor, Pediatrics, 2023 (2023); MD 2017 University of California, San Francisco

Sprince, Nancy L., Emeritus Professor, Occupational Environmental Health, 1990 (1999); BA 1971 Boston; MD 1971 Boston; MPH 1980 Harvard

Squier, Christopher A., Emeritus Professor, Oral Path,RadiologyMedicine, 1975 (1980); BA 1963 Cambridge - England; MA 1967 Cambridge - England; PHD 1967 London Hospital - England

Squire, Larry J., Emeritus Associate Professor, Family Dentistry, 1978 (1983); BS 1972 St. Ambrose; DDS 1976 University of Iowa

Srinivasan, Padmini, Professor, Business Analytics/ Computer Science/Nursing, 1989 (2005); MSC 1978 Birla Inst of Tech and Science; PHD 1985 Syracuse

Srivastava, Sanvesh, Associate Professor, Statistics Actuarial Science, 2015 (2022); PHD 2013 Purdue University Main Campus

Sroka, Lisa Lynette, Adjunct Instructor, Preventive Community Dentistry, (2020); BS 1995 University of Iowa

St Marie, Barbara, Associate Professor, Nursing, 2014 (2022); MA 1989 U of St. Thomas, St Paul, MN; MA 1995 St. Catherine Univ, St Paul MN; PHD 2012 University of Wisconsin-Milwaukee

St-Aubin, Joel, Clinical Associate Professor, Biomedical Engineering/Radiation Oncology, 2018 (2018); PHD 2010 University of Alberta

Staak, John, Assistant Professor, Marketing, 2023 (2025); BBA 2015 University of Iowa; MBA 2019 University of Iowa

Staber, Janice Marie Rose, Associate Professor, Pediatrics, 2010 (2021); BS 2000 University of Iowa; MD 2004 University of Iowa

Stachowiak, James Robert, Adjunct Instructor, Counselor Education, 2010 (2023); BSE 2003 University of Michigan-Ann Arbor; MSE 2004 University of Michigan-Ann Arbor

Stadsvold, Chad Allen, Adjunct Assistant Professor, Family Medicine, 2025 (2025); BS 2003 Univ of Iowa; Iowa City,IA; DO 2007 Des Moines, Univ; IA

Staffey, Kimberly, Clinical Professor, Internal Medicine/ Radiology, 2007 (2024); MD 2001 University of Illinois at Urbana Champaign

Stafford, Haraldine A., Emeritus Professor, Internal Medicine, 2001 (2010); BA 1975 Case Western Reserve; PHD 1981 Case Western Reserve; MD 1983 Case Western Reserve

Stahle, Rebecca S., Adjunct Assistant Professor, Pharmacy Practice and Science, 2002 (2002); PHARMD 2000 University of Iowa

Stahlin, Robert, Adjunct Instructor, Marketing, 2000 (2023); MBA 1999 University of Iowa

Stahly, Donald P., Emeritus Professor, Microbiology and Immunology, 1966 (1979); BS 1959 The Ohio State University; MS 1961 The Ohio State University; PHD 1964 University of Illinois at Urbana Champaign

Stallman, Ethan Thomas, Instructor, , 2024 (2024); BA 2024 University of Iowa

Stalter, Timothy John, Emeritus Professor, Music, 1999 (2012); BA 1985 Goshen College; MM 1989 University of Illinois at Urbana Champaign; DMA 1996 University of Wisconsin-Madison

Stamnes, Mark, Associate Professor, Internal Medicine/ Molecular Physiology Biophysics, 1997 (2004); BS 1986 Washington; PHD 1992 University of California-San Diego

Stanford, Amy Helen Carrie, Clinical Assistant Professor, Pediatrics, (2021); MD 2014 University of Iowa

Stanford, Brody Floyd, Adjunct Instructor, University College Courses, 2024 (2024); BA 2018 Coe College; MA 2020 University of Iowa

Stanford, Clark Mitchell, Professor, Biomedical Engineering/ Dentistry Administration/Prosthodontics, 1992 (2001); BS 1984 University of Iowa; DDS 1987 University of Iowa; PHD 1992 University of Iowa

Stange, Von, Adjunct Assistant Professor, Educ Policy Leadership Studies, 2004 (2004); BS 1983 South Dakota; MED 1987 Texas Tech; EDD 2002 South Dakota

Stangl, Elizabeth Ann, Adjunct Instructor, Communication Sciences and Disorders, 2012 (2012); BS 2006 U of OK; MA 2009 University of Iowa; DAUD 2010 University of Iowa

Stanier, Charles O., Adjunct Professor, Chemical Biochemical Engineering, 2004 (2018); BSE 1994 Princeton; ME 1998 Johns Hopkins; PHE 2003 Carnegie Mellon

Stanik-Hutt, Julie Ann, Clinical Professor, Nursing, 2016 (2016); MSN 1984 University of California-Los Angeles; PHD 1994 University of Maryland-College Park

Stapleton, Jack T., Professor, Internal Medicine/Microbiology and Immunology, 1986 (1996); BA 1977 University of Iowa; MD 1980 Kansas

Starcevich, Anna Marie, Assistant Professor, Nursing, (2024); BSN 2017 University of Iowa; DNP 2021 University of Iowa

Stark, Craig A., Adjunct Associate Professor, Internal Medicine, 1987 (2018); MD 1982 Wayne State

Starlin, Crystal S., Adjunct Assistant Professor, Pharmacy Practice and Science, 2006 (2006); PHARMD 1999 Creighton

Starr, Kathryn Elise, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2016 University of Iowa

Staudt, Genevieve Elaine, Adjunct Assistant Professor, Anesthesia, 2025 (2025); MD 2012 University of Iowa Carver Coll

Stauffer, George V., Emeritus Professor, Microbiology and Immunology, 1978 (1989); BS 1969 Pennsylvania State University; MS 1974 Pennsylvania State University; PHD 1976 Pennsylvania State University

Stauffer, Stephanie Lael, Clinical Assistant Professor, Pathology, 2016 (2016); BS 2006 Millersville Universtiy of PA; MD 2011 University of Iowa

Stauss, Harald Martin, Emeritus Associate Professor, Health Sport and Human Physiology, 2002 (2008); MD 1991 Heidelberg; PHD 1999 Humboldt

Stecher, Michael T., Adjunct Assistant Professor, Family Dentistry, 2023 (2023); DDS 2008 University of Iowa

Stecopoulos, Harilaos, Professor, English, 1999 (2023); BA 1986 Oberlin; PHD 1999 Virginia

Steelman, Victoria Jean, Emeritus Associate Professor, Nursing, 1989 (2001); BSN 1979 University of Iowa; PHD 1997 University of Iowa

Steen, Sven William, Clinical Assistant Professor, Emergency Medicine, 2018 (2018); BA 2010 Augusta College; MD 2014 University of Iowa

Steenblock, Douglas F., Adjunct Assistant Professor, Psychiatry, 2001 (2001); MD 1992 Creighton

Steenhoek, Wade, Associate Professor, Management and Entrepreneurship, 2015 (2021); BA 2005 Simpson College; MS 2010 Drake University

Stefani, Andrew James, Adjunct Assistant Professor, Internal Medicine, 2015 (2015); HS 2001 CR Washington HS; DO 2010 Des Moines University Osteopat

Steffensmeier, Andrew Clyde, Adjunct Assistant Professor, Ophthalmology Visual Science, 2011 (2011); BA 2000 Luther; MD 2004 University of Iowa

Steffensmeier, Gary John, Adjunct Instructor, Psych Quant Foundations, 2017 (2024); BS 1992 University of Northern Iowa; MA 1998 Kansas State University; PHD 2016 University of Iowa

Steger, Wayne Patrick, Adjunct Professor, Political Science, 2022 (2022); PHD 1995 University of Iowa

Stein, Colleen S., Research Assistant Professor, Internal Medicine, (2024); PHD 1993 UNIV. OF WESTERN ONTARIO

Stein, Hannah Elyse, Adjunct Assistant Professor, Family Medicine, 2025 (2025); BS 2016 Univ of Illinoisurbana-champai; MD 2020 Univ of Illinois,

Stein, Kaitlin White, Clinical Assistant Professor, Pediatrics, (2024); MD 2016 Ul Carver College of Med

Steinberg, Allen, Emeritus Associate Professor, History, 1991 (1993); BA 1972 Northwestern Univeristy; MA 1974 Columbia; MPHIL 1975 Columbia; PHD 1983 Columbia

Steinberg, Ryan Lawrence, Clinical Associate Professor, Urology, (2025); MD 2012 Rush Medical College

Steinitz, Joseph, Assistant Professor, Rhetoric, 2016 (2015); BA 2000 The Open University of Israel; MA 2003 DePaul University; PHD 2015 University of Iowa

Steinkamp, Heidi Marie, Assistant Professor, Pediatric Dentistry, (2021); DDS 2012 ; CER 2018 Ped. Dent. - Ohio State Univ.

Steinschneider, Mitchell, Adjunct Professor, Neurosurgery, 2018 (2018); MD 1984 Albert Einstein College of Med; PHD 1984 Albert Einstein College of Med

Stellwagen, Earle C., Emeritus Professor, Biochemistry and Molecular Biology, 1964 (1973); BS 1955 Elmhurst; MS 1959 Northwestern Univeristy; PHD 1963 University of California-Berkeley

Stellwagen, Nancy C., Emeritus Professor, Biochemistry and Molecular Biology, 1993 (1993); BA 1956 Northwestern Univeristy; MS 1958 University of California-Berkeley; PHD 1967 University of California-Berkeley

Stensvaag, John-Mark, Emeritus Professor, Law-Faculty, 1987 (1987); BA 1969 Augsburg; JD 1974 Harvard

Stephens, Samuel Brandon, Associate Professor, Anatomy Cell Biology/Internal Medicine, 2016 (2023); PHD 2007 Duke University

Stephenson, Cher M., Adjunct Instructor, Counselor Education, 2016 (2023); BA 1996 Coe College; MS 1998 UNC-Chapel Hill

Stephenson, Stephen R., Adjunct Professor, Pediatrics, 2008 (2008); MD 1973 California

Sterling, Jennifer J., Associate Professor, American Studies/ Journalism Mass Communication, 2016 (2023); BA 1999 Central College, Pella, IA; MA 2004 Seattle Pacific University; PHD 2013 University of Maryland, CP

Sterling, Kaylyn Shelby, Adjunct Instructor, Pharmacy Practice and Science, (2024); PHARMD 2024 Univ of Maryland Eastern Shore

Stern, David, Professor, Philosophy, 1988 (2004); BA 1979 Oxford; MA 1980 Pittsburgh; MA 1982 University of California-Berkeley; PHD 1987 University of California-Berkeley

Stern, Frederick, Professor, Mechanical Engineering, 1983 (1995); BS 1975 University of Michigan-Ann Arbor; MS 1977 University of Michigan-Ann Arbor; PHD 1980 University of Michigan-Ann Arbor

Sternhagen, Erin Lynn, Adjunct Instructor, Internal Medicine, 2023 (2023); MD 2020 University of South Dakota Sch

Steuber, Hailey Elizabeth, Adjunct Assistant Professor, Pharmacy Practice and Science, (2018); PHARMD 2016 University of Illinois at Chic

Stevens, Hanna, Professor, Psychiatry, 2014 (2024); PHD 2003 University of Illinois at Urbana Champaign; MD 2004 University of Illinois at Urbana Champaign

Stevens, Lewis Lee, Associate Professor, Pharmaceutical Sciences and Experimental Therapeutics, 2012 (2020); PHD 2005 University of Nebraska-Lincoln

Stevenson, Andrew Richard, Adjunct Assistant Professor, Family Dentistry, 2017 (2017); DDS 2016 University of Iowa

Stevenson, Chad Bruce, Adjunct Associate Professor, Family Dentistry, 2010 (2018); DDS 1988 University of Iowa

Stevenson, Lisa M., Adjunct Instructor, Educ Policy Leadership Studies, 2017 (2024); MA 2001 Northeastern Illinois Univ; MA 2004 University of Iowa; PHD 2014 University of Iowa

Stevenson, Sharon A., Adjunct Associate Professor, Nursing, 2024 (2024); BS 1978 University of Arkansas; MN 1999 University of Arkansas; DNP 2009 University of Tennessee

Stewart, Adele Marie, Assistant Professor, Neuroscience and Pharmacology, (2024); HS 2005 Illinois Math Sci Academy; BS 2009 Univ of Illinois; PHD 2014 University of Iowa

Stewart, David E., Professor, Mathematics, 1998 (2006); BE 1983 Univ of Queensland-Australia; BSC 1983 Univ of Queensland-Australia; PHD 1990 Univ of Queensland-Australia

Stewart, Garrett, Emeritus Professor, English, 1992 (1992); BA 1967 USC; MPHIL 1970 Yale; PHD 1971 Yale

Stewart, Greg L., Emeritus Professor, Management and Entrepreneurship, 2002 (2008); BS 1993 Brigham Young; PHD 1993 Arizona State

Stewart, Marissa Lareine, Adjunct Instructor, Pharmacy Practice and Science, 2022 (2022); PHARMD 2022 UICOP

Stewart, Mary, Emeritus Assistant Professor, Nursing, 1974 (1983);

Stewart, Stephanie Anne, Adjunct Assistant Professor, Nursing, 2019 (2019); MSN 2001 University of Iowa; PHD 2018 University of Iowa

Steyn, Jan, Associate Professor, Languages, Literatures, Linguistics, and Cultures, (2023); BA 2009 American University of Paris; MA 2010 American University of Paris; MA 2014 Cornell University

Stickney, Nicola Jane, Associate Professor, Nursing, 2001 (2017); BSN 1986 Sangamon State; MSN 2000 University of Iowa; DNP 2012 University of Iowa

Stier, Amy Christine, Clinical Professor, Medicine Administration/Pediatrics, 2007 (2019); BA 1999 The

University of Minnesota-Twin Cities; MD 2003 University of Iowa; MED 2011 University of Iowa

Stiffler, Kory M., Associate Professor, Physics Astronomy, (2023); MS 2007 University of Iowa; PHD 2010 University of Iowa

Stiles, Jared, Clinical Instructor, Radiology, (2016); BS 2009 University of Iowa; MS 2016 Waldon University

Stineman, Anita M. Thomas, Emeritus Professor, Nursing, 2001 (2018); BSN 1974 University of Iowa; MSN 1990 Missouri; PHD 2003 University of Iowa

Stinski, Mark F., Emeritus Professor, Microbiology and Immunology, 1973 (1983); BS 1964 Michigan State University; MS 1966 Michigan State University; PHD 1969 Michigan State University

Stipp, Christopher, Professor, Biology/Molecular Physiology Biophysics, 2003 (2024); BS 1989 Indiana University-Bloomington; PHD 1996 MA Institute of Tech

Stitt Cox, Stephanie Marie, Adjunct Instructor, Family Medicine, (2019); BS 1994 University of Iowa; MD 1999 University of Iowa

Stoakes, Christopher David, Professor, Civil-Environmental Engineering, 2011 (2023); BSE 2003 University of Iowa; ME 2007 Massachuesetts Inst; PHD 2011 University of Illinois at Urbana Champaign

Stockdale, Colleen Kennedy, Clinical Professor, Obstetrics Gynecology, 2002 (2017); AA 1979 Penninsula; BSN 1984 Eastern Washington; BSN 1991 Pennsylvania; MD 1995 Pennsylvania

Stoll, Andrew Thomas, Adjunct Instructor, Teaching and Learning, 2018 (2023); BS 2009 University of Iowa; MAT 2013 University of Saint Mary; MS 2014 Clemson University

Stoll, Haley Dianne, Assistant Professor, Nursing, 2019 (2024); BSN 2008 University of Iowa; MSN 2012 University of Iowa; DNP 2018 Rush University

Stolpen, Alan Howard, Emeritus Associate Professor, Radiology, 1999 (1999); MD 1988 Harvard; PHD 1988 Harvard

Stoltz, David, Professor, Internal Medicine/Molecular Physiology Biophysics, 2007 (2017); BA 1993 Mississippi; PHD 1998 Louisiana State; MD 2000 Louisiana State

Stoltzfus, Conrad M., Emeritus Professor, Microbiology and Immunology, 1979 (1985); BA 1966 Colorado; PHD 1971 University of Wisconsin-Madison

Stone, Edwin M., Professor, Ophthalmology Visual Science, 1990 (1997); BA 1978 Rice; PHD 1983 Baylor; MD 1985 Baylor

Stone, Elizabeth Anne, Professor, Chemical Biochemical Engineering/Chemistry, 2010 (2021); BA 2005 Grinnell; PHD 2009 University of Wisconsin-Madison

Stone, Mary S., Professor, Dermatology/Pathology, 1986 (2002); BS 1978 Baylor; MD 1981 Baylor

Stone, R. Eric, Emeritus Associate Professor, Theatre Arts, 2008 (2011); BA 1989 Lewis Clark; MFA 1994 Ohio

Stoner, James, Emeritus Associate Professor, Civil-Environmental Engineering, 1974 (1981); BS 1966 Iowa State; MS 1972 University of Iowa; PHD 1977 Northwestern Univeristy

Stopak, Joshua Kevin, Clinical Assistant Professor, Anesthesia/Pediatrics, (2020); MD 2006 University of Nebraska

Storey, Annika, Clinical Assistant Professor, Surgery, (2022); DO 2009 Lake Erie College of Osteopathic

Storey, Glenn R., Associate Professor, Anthropology/Classics/University College Courses, 1994 (2002); BA 1980 Trinity-Oxford; MA 1985 Pennsylvania State University; MA 1986 Oxford; PHD 1992 Pennsylvania State University

Storrs, Landon, Emeritus Professor, History, 2012 (2015); BA 1983 Yale College; MA 1989 University of Wisconsin-Madison; PHD 1994 University of Wisconsin-Madison

Story, Maria Teresa, Adjunct Assistant Professor, Physician Assistant, 2021 (2021); BS 2010 Iowa State University; MD 2014 University of Iowa

Story, William Thomas, Associate Professor, Community Behavioral Health, 2015 (2021); MPH 2004 University of Michigan-Ann Arbor; PHD 2013 University of Michigan-Ann Arbor

Stover, Peggy Elizabeth, Associate Professor, Marketing, 2013 (2018); BBA 1988 St. Mary''s University; MS 2011 University of Denver

Strack, Stefan, Professor, Neuroscience and Pharmacology/Pathology, 2000 (2012); BS 1985 Wurzburg; MS 1988 State Univ of New York-Albany; PHD 1991 State Univ of New York-Albany

Stradt-Johnson, Kristen, Adjunct Instructor, Educ Policy Leadership Studies, 2025 (2025); BA 2012 Western Illinois University; MS 2017 Western Illinois University; EDD 2023 St. Cloud State University

Strahn-Koller, Brooke, Clinical Associate Professor, Educ Policy Leadership Studies, (2023); PHD 2012 The University of Iowa

Stramer, Osnat, Associate Professor, Statistics Actuarial Science, 1994 (2000); BSC 1979 Hebrew-Israel; MA 1984 Haifa; PHD 1993 Colorado State

Strand, Kendra Dee, Associate Professor, Interdisciplinary Programs/Languages, Literatures, Linguistics, and Cultures, 2016 (2024); BA 2004 University of Montana; MA 2008 University of Michigan-Ann Arbor; PHD 2014 University of Michigan-Ann Arbor

Strang, Dean Arthur, Adjunct Instructor, Law-Faculty, 2021 (2025); BA 1982 Dartmouth College; JD 1985 University of Virginia

Stras, David R., Adjunct Instructor, Law-Faculty, 2014 (2024); BA 1995 Kansas; JD 1999 Kansas; MBA 1999 Kansas

Strathearn, Lane, Professor, Neuroscience and Pharmacology/Pediatrics/Psychiatry, 2015 (2015); MBBS 1992 University of Queensland; PHD 2009 University of Queensland

Strathman, Amy E., Professor, Chemistry, 2004 (2025); PHD 2001 Colorado

Stratton, John R., Emeritus Associate Professor, Sociology and Criminology, 1964 (1968); BA 1957 University of Illinois at Urbana Champaign; MA 1959 University of Illinois at Urbana Champaign; PHD 1963 University of Illinois at Urbana Champaign

Stratton, Margaret M., Emeritus Professor, School of Art, Art History, and Design, 1986 (2000); BA 1977 Evergreen State; MA 1983 New Mexico; MFA 1985 New Mexico

Strauss, Ronald G., Emeritus Professor, Pathology/Pediatrics, 1976 (1980); BS 1961 Capital; MD 1965 Cincinnati

Strayer, Andrea Lynn, Assistant Professor, Neurosurgery, (2024); BSN 1985 University of Iowa; MSN 1991 University of Wisconsin; PHD 2021 University of Wisconsin

Streeper, Paula Jo, Adjunct Assistant Professor, Pharmacy Practice and Science, 2020 (2020); PHARMD 1998 University of Iowa

Street, Nick, Professor, Business Administration-College/ Business Analytics/Computer Science/Nursing, 1998 (2010); BA 1985 Drake; MS 1990 DePaul; PHD 1994 University of Wisconsin-Madsn

Streeter, Jennifer, Assistant Professor, Internal Medicine, (2023); BS 2004 U of iowa; MD 2015 University of Iowa

Streeter, Matthew Thomas, Adjunct Assistant Professor, School of Earth, Environment, and Sustainability, 2021 (2023); BS 2010 Iowa State University; MS 2013 Iowa State University

Strehle, Joshua G., Adjunct Instructor, Family Medicine, 2017 (2017); BS 2007 Nebraska Wesleyan Univ, NE; DO 2012 DesMoinesUniv-Osteopathicmed

Streit, Jessica, Adjunct Assistant Professor, Pharmacy Practice and Science, (2020); PHARMD 2019 University of Iowa

Streit, Judy Ann, Clinical Professor, Internal Medicine, 1996 (2017); BS 1983 Iowa State; MD 1988 University of Iowa

Strickler, Rachel, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2019 Drake University

Striegel, Thomas Dean, Clinical Assistant Professor, Emergency Medicine, (2022); DO 2007 Des Moines University; MD 2007 Des Moines University

Strobel, Debra Joan, Assistant Professor, Nursing, 2006 (2024); BSN 2002 University of Iowa; MSN 2004 University of Iowa

Strohmer, Gerhard O., Emeritus Professor, Mathematics, 1986 (1998); DIPL 1976 Gottingen; PHD 1978 Habilitation Inst Tech-Aachen

Stromquist, Howard Shelton, Emeritus Professor, History, 1982 (1992); BA 1966 Yale; MA 1973 Pittsburgh; PHD 1981 Pittsburgh

Strong, Amy, Instructor, Pediatrics, 2022 (2023); BS 2011 University of Iowa; MD 2016 University of Iowa; MS 2022 University of Pennsylvania

Strong, Kalmia Elizabeth, Adjunct Instructor, Interdisciplinary Programs, 2017 (2019); BA 2007 New York University; MA 2015 University of Iowa; MFA 2015 University of Iowa

Strong, Michael, Clinical Associate Professor, Psychiatry, (2025); MD 2015 University of Iowa; MSED 2022 University of Pennsylvania

Stroup, Chereen Marie, Adjunct Instructor, Family Medicine, 2017 (2017); BS 1999 Univ of Iowa, Iowa City, IA; MD 2003 Univ of IA, CCOM, Iowa City

Strouse, Christopher, Clinical Assistant Professor, Internal Medicine, 2016 (2020); MD 2013 University of Wisconsin-Madison

Strouse, Jennifer Leah Miksanek, Clinical Assistant Professor, Internal Medicine, 2022 (2022); MD 2016 Medical College of Wisconsin

Stroyan, Keith, Emeritus Professor, Mathematics, 1973 (1982); BS 1967 Drexel Institute; PHD 1971 Calif Inst of Technology

Struble, Roger Daniel, Instructor, Internal Medicine, (2024); MD 2017 University of Kansas

Struck, Bryan David, Clinical Professor, Internal Medicine, 2022 (2022); MD 1995 Univ Texas, Houston Med School

Strudwick, David Michael, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 Temple University

Stuart, Scott Philip, Emeritus Professor, Psychiatry, 1993 (2004); BS 1983 Kansas; MD 1987 Kansas

Stubing, David Paul, Associate Professor, Accounting, (2022); DBA 2019 DePaul University

Stuckey, Leandra, Adjunct Instructor, Physical Therapy Rehab Science, 2024 (2024); BS 2014 Rockhurst University; DPT 2020 Creighton University

Studer, Seth F., Adjunct Instructor, University College Courses, 2025 (2025); BA 2006 The University of Iowa; MA 2017 Tufts University

Stufflebeam, Michael Dean, Adjunct Assistant Professor, Pediatric Dentistry, 2002 (2002); DDS 2000 University of Iowa

Stumpf, Nicholas John, Adjunct Assistant Professor, Pharmacy Practice and Science, 2013 (2013); PHARMD 2012 University of Iowa

Stumpf, Spencer Timothy, Adjunct Instructor, University College Courses, 2020 (2020); BBA 2015 University of Iowa; MBA 2020 University of Iowa

Sturchio, Gabriella, Assistant Professor, School of Art, Art History, and Design, (2022); MFA 2018 University of Texas

Sturdivant, Jeffrey Jack, Adjunct Assistant Professor, Orthodontics, 2022 (2022); DDS 1989 University of Iowa; MS 1994 University of Minnesota

Sturtevant, Karla Nancy, Adjunct Assistant Professor, Pharmacy Practice and Science, 2008 (2008); PHARMD 2006 University of Iowa

Stutzman, Michael L., Associate Professor, Management and Entrepreneurship, 2010 (2025); MBA 2000 St. Ambrose; PHD 2016 NorthCentral University

Su, Rong, Associate Professor, Management and Entrepreneurship, 2017 (2021); LLB 2007 Peking University Law School; PHD 2012 University of Illinois

Subramanian, Anu, Clinical Professor, Communication Sciences and Disorders, 2015 (2021); MS 1997 Univ of Mysore; PHD 2001 Univ of Illinois Urbana C

Subramanian, Joysree, Clinical Associate Professor, Anesthesia, (2023); MBBS 1986 Calcutta University

Sueppel, Paul C., Adjunct Instructor, University College Courses, 2003 (2013); BA 1990 University of Iowa

Sugg, Sonia, Emeritus Professor, Surgery, 2007 (2014); MD 1988 University of California-Los Angeles

Sugiyama, Daisuke, Clinical Associate Professor, Anesthesia, (2025); MD 2004 Gunma Uni Sch of Med, Japan

Sugiyama, Hiroyuki, Professor, Mechanical Engineering, 2013 (2020); PHD 2005 University of Illinois at Chicago

Suhadolnik, Sarah, Assistant Professor, Music, (2024); BA 2009 State University of New York; MA 2011 University of Michigan; PHD 2016 University of Michigan

Sukalski, Jennifer, Assistant Professor, Preventive Community Dentistry, 2013 (2023); BS 2010 University of Iowa; AASC 2013 Kirkwood; MS 2017 University of Iowa; PHD 2023 University of Iowa

Suksaranjit, Promporn, Clinical Associate Professor, Internal Medicine, 2018 (2024); MD 2003 Mahidol University

Sula, Taylor Marie, Adjunct Professor, Nursing, 2019 (2023); BSN 2013 University of Iowa

Sulentic, Joseph Nicholas, Associate Professor, Management and Entrepreneurship, 1998 (2018); MBA 1988 University of Iowa

Sulentic, Serina Kim, Associate Professor, School of Art, Art History, and Design/University College Courses, 2014 (2020); BFA 2003 WI - Stephens Point; MFA 2007 University of Iowa

Sullivan, Anne Mccormick, Adjunct Instructor, Physical Therapy Rehab Science, 2024 (2024); BS 2016 Iowa State University; DPT 2018 University of Iowa

Sullivan, Daniel, Adjunct Assistant Professor, Internal Medicine, 2010 (2010); DO 2000 Des Moines

Sullivan, Kelu Lu, Adjunct Instructor, Law-Faculty, 2020 (2023); BA 2004 George Mason University; JD 2007 University of Virginia

Sullivan, Sean Patrick, Professor, Law-Faculty, (2022); MA 2007 University of Virginia; PHD 2011 University of Virginia; JD 2013 University of Virginia

Sullivan, Shannon J., Emeritus Associate Professor, Pediatrics, 2000 (2007); BS 1980 University of Wisconsin-Madison; MD 1985 University of Wisconsin-Madison

Suls, Jerry M., Emeritus Professor, Psychological and Brain Sciences, 1990 (1990); BA 1968 Temple; MA 1971 Temple; PHD 1973 Temple

Summerhays, Erin Mary, Adjunct Instructor, Teaching and Learning, 2023 (2023); MED 2020 University of Northern Iowa

Summers, Daniel Wayne, Assistant Professor, Biology, 2019 (2019); PHD 2011 University of North Carolina

Sun, Hongli, Professor, Biomedical Engineering/Oral Maxillofacial Surgery, 2018 (2025); BS 2001 School of Life Science, China; MS 2004 School of Life Science, China; PHD 2007 Shanghi Inst. for Bio Sciences

Sun, Hua, Associate Professor, Pediatrics, (2025); MD 2001 Nanjing Medicial University

Sun, Mingyao, Instructor, Internal Medicine, (2024); PHD 2016 Penn State University

Sun, Minjee, Assistant Professor, Marketing, 2020 (2021); MS 2015 Korea Graduate School; PHD 2021 University of Toronto

Sun, Shiliang, Emeritus Professor, Radiology, 1993 (2021); MD 1987 Dalian

Sun, Wenqing, Clinical Associate Professor, Radiation Oncology, 2011 (2018); DSC 2004 University of Iowa

Sun, Xingshen, Emeritus Associate Professor, Anatomy Cell Biology, (2024); PHD 2001 Northeast Agricultural Univ

Sun, Yuanlu, Assistant Professor, Nursing, 2022 (2022); BSN 2011 Sun Yat-Sen Univertisty; PHD 2018 University of Missouri-Columbi

Sundaramurthy, Dhivya, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MBBS 2008 Pondicherry Institute

Sunderland, John, Professor, Physics Astronomy/Radiation Oncology/Radiology, 2008 (2021); PHD 1990 University of Wisconsin-Madison

Sundermann, Ryan Karl, Adjunct Assistant Professor, Emergency Medicine, 2017 (2017); MD 2003 University of Iowa

Suneja, Jeanenne Maria, Clinical Assistant Professor, Internal Medicine, 2005 (2008); MD 2000 Nebraska Medical Center

Suneja, Manish, Clinical Professor, Internal Medicine/ Medicine Administration, 2006 (2015); MD 1998 Armed Forces, Pune India

Sung, Gahyun, Assistant Professor, Psych Quant Foundations, (2024); PHD 2024 Harvard University

Sung, Yea Won, Assistant Professor, Biology, 2024 (2024); BS 2011 Iowa State University; PHD 2019 Univ of Alabama at Birmingham

Sunstein, Bonnie S., Professor, English, 1992 (2003); BS 1968 Boston; MED 1975 Boston; PHD 1991 New Hampshire

Supp-Montgomerie, David Charles, Associate Professor, Communication Studies, 2014 (2022); BS 2005 Illinois State University; MA 2007 University of Nebraska-Lincoln; PHD 2014 University of North Carolina at Chapel Hill

Supp-Montgomerie, Jenna, Associate Professor, Communication Studies/Religion, 2014 (2022); BA 1999 Swarthmore College; MDIV 2004 Union Theological Seminary; PHD 2013 University of North Carolina at Chapel Hill

Sutamtewagul, Grerk, Clinical Associate Professor, Internal Medicine, (2023); MD 2008 Chulalongkorn University

Sutherland, John E., Emeritus Professor, Family Medicine, 1992 (1992); MD 1962 The University of Minnesota-Twin Cities

Sutphin, John E., Emeritus Professor, Ophthalmology Visual Science, 1993 (1997); BS 1970 Millsap; MD 1974 Vanderbilt

Sutton, Matthew Alan, Adjunct Assistant Professor, Family Medicine, 2021 (2021); BS 2004 Univ of Illinois,Urbana, IL; MD 2009 Univ of IA Carver Coll of Med

Suvalsky, Lori B., Adjunct Assistant Professor, Psychiatry, 2020 (2020); MD 1990 University of Wisconsin @ Madison

Suzer, Mehmet Anil, Clinical Associate Professor, Anesthesia, (2024); MD 1999 Istanbul Universitesi

Suzuki, Hiroyuki, Clinical Assistant Professor, Internal Medicine, (2021); MD 2005 Mie University

Svatos, Rebecca Ann Lance, Adjunct Instructor, Civil-Environmental Engineering, 2022 (2022); MS 1986 University of Texas

Svec, Barry R., Adjunct Instructor, Preventive Community Dentistry, 1995 (1995); DDS 1989 University of Iowa

Swailes, Nathan Thomas, Instructor, Anatomy Cell Biology, 2010 (2022); BS 2000 Leeds; PHD 2005 Leeds

Swan, Colby C., Professor, Civil-Environmental Engineering, 1993 (2006); BS 1983 Maine; MS 1985 Miami; PHD 1993 Princeton

Swan, Jonas S., Adjunct Assistant Professor, Emergency Medicine, (2017); BS 2005 University of Wisconsin; DO 2009 Kirksville College of Osteopathy

Swanson, Ann, Adjunct Instructor, Teaching and Learning, 2024 (2024); BA 1997 University of Wisconsin Eau Cl; MA 2008 Kent State University; PHD 2015 University of Wisconsin Milwau

Swanson, Benjamin John, Assistant Professor, School of Earth, Environment, and Sustainability, 2018 (2018); PHD 2012 University of New Mexico

Swanson, Carrie Elizabeth, Associate Professor, Classics/ Philosophy, 2013 (2019); PHD 2011 Rutgers University-New Brunswick

Swanson, David E., Clinical Associate Professor, Anesthesia, 2002 (2020); BA 1986 Northern Iowa; MD 1991 University of Iowa

Swanson, Elizabeth Anne, Emeritus Associate Professor, Nursing, 1974 (1981); BSN 1969 University of Iowa; MA 1975 University of Iowa; PHD 1986 University of Iowa

Swanson, Stephen, Emeritus Professor, Music, 1994 (2002); BM 1968 North Park; MM 1971 Northwestern Univeristy

Swanston, Jeremy, Associate Professor, School of Art, Art History, and Design, 2015 (2021); MFA 2015 University of South Dakota

Swanton, Amanda Rachel, Clinical Assistant Professor, Urology, (2023); BA 2007 Grinnell College; MD 2017 University of Iowa

Swaran Singh, Tejinder Singh, Clinical Associate Professor, Anesthesia, 2012 (2019); MBBS 1998 Chennai, India

Swarm, Dustin, Assistant Professor, Physics Astronomy, (2025); BA 2010 Greenville College; BS 2018 Greenville College; PHD 2023 University of Iowa

Swatek, Anthony M., Assistant Professor, Cardiothoracic Surgery, (2022);

Swayze, Victor Warren Ii, Adjunct Associate Professor, Psychiatry, 1988 (1995); BS 1976 Union-Nebraska; MD 1979 Loma Linda

Swee, Melissa Lydia, Clinical Assistant Professor, Internal Medicine, (2017); MD 2011 Saba University SOM

Sweeney, Leah J., Adjunct Instructor, University College Courses, 2024 (2024); BA 2015 PLATTSBURGH STATE UNIVERSITY; MS 2022 PLATTSBURGH STATE UNIVERSITY

Sweers, Amanda Sue, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BA 2008 Wartburg College; DPT 2011 University of Iowa

Swegle, John Matthew, Clinical Associate Professor, Pharmacy Practice and Science, 1997 (2007); BS 1992 Drake; PHARMD 1996 University of Iowa

Sweidan, Hisham, Instructor, Internal Medicine, (2024); MD 2008 Hashimite University; MD 2018 Hashimite University

Swenson, Andrea, Clinical Professor, Neurology, 2008 (2022); BA 1999 Colorado College; MD 2003 North Dakota

Swenson, Erik Dean, Adjunct Assistant Professor, Internal Medicine, 2014 (2014); MD 2003 University of Iowa

Swett, Alan, Adjunct Associate Professor, Operative Dentistry, 1999 (2013); BS 1980 University of Iowa; DDS 1983 University of Iowa

Swett Tapia, Jorge, Adjunct Instructor, Preventive Community Dentistry, 2025 (2025); DDS 2017 State Univ of NY at Buffalo

Swick, Brian Lester, Clinical Professor, Dermatology/ Pathology, 2007 (2017); BS 1996 Iowa State; MD 2001 University of Iowa

Swisher, John Thomas, Adjunct Instructor, Family Medicine, 2017 (2017); BS 2002 Iowa St Univ, Ames, IA; DO 2006 Des Moines Univ OMS, IA

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Swope, Brianne Lee, Associate Professor, Health Sport and Human Physiology/University College Courses, 2009 (2022); BA 2002 University of Iowa; MA 2009 University of Iowa

Swope, Chad M., Adjunct Instructor, University College Courses, 2009 (2014); HS 1989 Regina High School

Sy, Mario, Clinical Assistant Professor, Internal Medicine, 2017 (2017); MD 1989 University of Santo Tomas

Syed, Nasreen A., Clinical Professor, Ophthalmology Visual Science/Pathology, 2002 (2017); BA 1989 Missouri-Kansas City; MD 1990 Missouri-Kansas City

Synan, William J., Clinical Professor, Oral Maxillofacial Surgery, 1994 (2006); BS 1979 Fordham; DDS 1983 Columbia

Syrbu, Ion, Clinical Associate Professor, Family Dentistry, 2016 (2024); BS 2009 University of Iowa; DDS 2013 University of Iowa

Syrbu, Sergei I., Clinical Professor, Pathology, 2004 (2018); MD 1982 Chishinau Moldova; PHD 1987 Moscow, USSR

Syrop, Craig H., Emeritus Professor, Obstetrics Gynecology, 1986 (1997); MD 1980 Virginia

Szachowicz, Peter James, Assistant Professor, Internal Medicine, (2025); MD 2016 Ross Univ, Portsmouth Dominica

Szachowicz, Sussette Gonzalez, Clinical Assistant Professor, Pediatrics, 2021 (2024); MD 2016 Ross University School of Med

Szecsei, Denise, Associate Professor, Computer Science/ Mathematics, 2007 (2019); BS 1985 Redlands, CA; MS 1995 Florida State; PHD 2000 Florida State

Szeluga, Debra J., Emeritus Associate Professor, Anesthesia, 1999 (2007); BS 1975 Maine; PHD 1985 Cornell; MD 1993 Rush

Szeszycki, Donald, Adjunct Instructor, Business Administration-Graduate Programs/Economics, 2001 (2018); MA 1980 Northern Illinois

Szot, Joseph F., Clinical Professor, Internal Medicine, 2003 (2014); BS 1990 St Bonaventure; MD 1994 Rochester, NY

Szubert, Madeline Rose, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 University of Wisconsin

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Taeger, Kelli Rae, Associate Professor, Health Sport and Human Physiology, 2014 (2024); PHD 2006 University of Iowa

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Takacs, Michael Edward, Emeritus Professor, Emergency Medicine, 2006 (2017); MS 1989 SUNY @ Buffalo; MD 2001 Loyola

Takes, Adam, Adjunct Instructor, Radiology, (2025); BA 2013 Universtiy of Iowa; BS 2018 University of Iowa

Talan, David A., Clinical Professor, Emergency Medicine/ Internal Medicine, (2020); MD 1981 University of Illinois @ Chicago

Talbert, Erin, Assistant Professor, Health Sport and Human Physiology/Internal Medicine/Molecular Physiology Biophysics, (2020); PHD 2013 University of Florida

Tallman, Daniel, Adjunct Instructor, Social Work, (2019); BS 2010 University of Minnesota; MSW 2019 University of Iowa

Talman, William T., Emeritus Professor, Neurology, 1983 (1990); BA 1966 Virginia Military Institute; MD 1970 Virginia

Tamboura, Harmony Genelle, Adjunct Instructor, Nursing, 2024 (2024); BSN 2013 Upper Iowa University; MSN 2018 Walden University

Tan, Aixin, Associate Professor, Statistics Actuarial Science, 2009 (2017); BS 2003 Peking; MS 2005 Florida; PHD 2009 Florida

Tan, Chen Sabrina, Associate Professor, Internal Medicine/ Microbiology and Immunology, (2023); MD 2002 New York University SOM

Tanaka, Nozomi, Associate Professor, Languages, Literatures, Linguistics, and Cultures, (2024); PHD 2016 University of Hawai?i M?noa

Tanaka, Tomohiro, Clinical Associate Professor, Health Management Policy/Internal Medicine, 2015 (2021); MD 2005 Nagoya University

Tanas, Jamie Lynn, Clinical Assistant Professor, Teaching and Learning, (2022); MS 2003 University of Washington; PHD 2021 The University of Iowa

Tanas, Munir Raja, Associate Professor, Pathology, 2014 (2020); BS 1999 Whitworth College; MD 2004 Washington

Tang, Jie Xin, Clinical Assistant Professor, Anesthesia, 2021 (2021); MD 2016 Wayne State University

Tang, Wenfang, Emeritus Professor, Political Science, 2009 (2009); BA 1982 Peking; MA 1985 Kansas; PHD 1990 University of Illinois at Chicago

Tangang, Dominic N., Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2009 University of Iowa

Tann, Victoria Joy, Clinical Associate Professor, Family Medicine/Psychiatry, (2025); MD 2015 University of Toledo

Tanner, Katie, Adjunct Instructor, Teaching and Learning, 2024 (2024); BS 2010 Augsburg College

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Tannous, Raymond, Emeritus Associate Professor, Pediatrics, 1977 (1982); MD 1971 France

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Tansey, Michael J., Clinical Professor, Pediatrics, 2001 (2012); BS 1991 Creighton; MD 1995 Loyola

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Tarvydas, Vilia Marie, Emeritus Professor, Counselor Education, 1991 (2002); BA 1971 Northwestern Univeristy; MS 1975 University of Wisconsin-Milwaukee; PHD 1987 University of Wisconsin-Madison

Tate, Jodi, Clinical Professor, Psychiatry, 2001 (2013); BS 1992 North Dakota State; MD 1996 North Dakota

Tatge, Mark, Adjunct Instructor, Journalism Mass Communication, 2020 (2020); PHD 2017 University of South Carolina

Taware, Vikram, Adjunct Assistant Professor, Internal Medicine, 2020 (2020); MBBCH 2013 Mahatma Gandhi Mission; MBBS 2013 Mahatma Gandhi Mission`s Medic

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Taylor, Curtis D., Assistant Professor, Music, (2024); DIPL 2003 Edford Senior High School; BA 2007 Michigan State University; MA 2009 Rutgers University

Taylor, Eric Benjamin, Professor, Molecular Physiology Biophysics, 2012 (2024); PHD 2005 Brigham Young

Taylor, Frank Alan, Adjunct Instructor, Law-Faculty, 2023 (2023); BA 1974 The University of Iowa; JD 1977 The University of Iowa

Taylor, Jack, Adjunct Instructor, Military Science, 2024 (2024);

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Taylor, Ryan M., Adjunct Assistant Professor, Pharmacy Practice and Science, 2014 (2014); PHARMD 2000 Drake

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Teitle, Jennifer Rebecca, Adjunct Instructor, University College Courses, 2010 (2010); BS 1999 Western IL; MS 2006 Western IL; PHD 2012 University of Iowa

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Templin, Jonathan, Professor, Psych Quant Foundations, (2019); MA 2002 Univ. Illinois - Urbana-Champ; MS 2002 Univ. Illinois - Urbana-Champ; PHD 2004 University of Illinois

Ten Eyck, Patrick, Adjunct Assistant Professor, Biostatistics, 2017 (2017); MS 2011 University of Cincinnati; PHD 2015 University of Iowa

Tenev, Vesselin Tenkov, Clinical Associate Professor, Psychiatry, 2015 (2025); MD 1999 Medical University Sofia, Bulg

Tenney, Olga, Adjunct Assistant Professor, Pediatrics, 2022 (2022); MD 1994 Smolensk State Medical University

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Tetmeyer, Lauren Lynne-Steinke, Assistant Professor, Health Sport and Human Physiology, (2024); BA 2018 Universit of Iowa; MS 2023 University of Iowa

Tewson, Timothy, Emeritus Professor, Radiology, 2000 (2000); PHD 1972 London

Thangaraj, Yuvaraj, Adjunct Assistant Professor, Internal Medicine, 2008 (2008); BA 1995 Stanley Medical; MBBS 2001 Stanley Medical

Thatcher, Collin James, Adjunct Assistant Professor, Emergency Medicine, 2024 (2024); MD 2020 University of Iowa

Thati Ganganna, Sreenath, Clinical Associate Professor, Pediatrics, 2019 (2024); MBBS 2003 Kilpauk Medical College

Thatikonda, Navya Spurthi, Clinical Assistant Professor, Psychiatry, (2025); MBBS 2014 Sri Devaraj URS Medical Colleg; MD 2018 JSS Medical College

Thattaliyath, Bijoy Damodaran, Clinical Associate Professor, Pediatrics, 2016 (2023); MBBS 1992 Medical College Calicut, India; MD 1999 All India Inst of Med Sciences

Thayyil, Abdullah, Clinical Professor, Pathology, 2005 (2025); MBBS 1987 Calicut Medical College

Thedens, Daniel Ross, Adjunct Associate Professor, Biomedical Engineering, 1999 (2018); BS 1989 Iowa; MS 1993 Iowa; PHD 1999 Stanford

Theiler, Carly Anne, Clinical Associate Professor, Emergency Medicine, 2018 (2023); BS 2007 University of Minnesota; MD 2012 Am Univ of the Caribbean

Theisen, Colleen Marie, Assistant Professor, Library Information Science, (2025); AB 2001 UNIVERSITY OF MISSOURI-COLUMBI; MS 2010 UNIVERSITY OF MICHIGAN-ANN ARBOR

Thelander, Kristin, Emeritus Professor, Music, 1989 (1995); BM 1976 St. Olaf; MA 1978 The University of Minnesota-Twin Cities; DMA 1987 University of Wisconsin-Madison

Thelen, Paul Gerard, Adjunct Instructor, Law-Faculty, 2016 (2019); BA 2002 Creighton Univ.; JD 2007 University of Iowa

Thenuwara, Hennadige Nandasiri, Assistant Professor, Economics/International Programs, 2008 (2012); PHD 1997 University of Iowa

Thenuwara, Kokila, Clinical Professor, Anesthesia, 2004 (2022); MBBS 1991 N Colombo Med, SriLanka; MD 2002 Uni Colombo,SriLanka

Thiel, Kristina Wyatt, Assistant Professor, Obstetrics Gynecology, (2022); BS 2001 Samford University; PHD 2007 Vanderbilt University

Thiel, William, Associate Professor, Internal Medicine, 2015 (2025); BS 2000 Emery University; PHD 2008 Vanderbilt University

Thill, Madeline, Adjunct Instructor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2025 Creighton University

Thoele, Jillian Marie, Clinical Assistant Professor, Teaching and Learning, (2024); BS 2006 Edinboro University; MED 2011 Georgia State University; PHD 2024 University of Georgia

Tholany, Joseph, Clinical Assistant Professor, Internal Medicine, 2022 (2023); MD 2017 St. Georgea??s University

Thom, Kevin Edward, Associate Professor, Economics, 2025 (2025); PHD 2000 Johns Hopkins University; BS 2003

Marquette University; MA 2006 Johns Hopkins University; PHD 2009 Johns Hopkins University

Thoma, Maddison Elaine, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2025); PHARMD 2023 University of Iowa

Thomann, Dana Lin, Associate Professor, Rhetoric, 2016 (2023); BA 2005 University of Iowa; PHD 2016 Iowa State

Thomann, Lauren Marie, Adjunct Instructor, Nursing, (2023); BS 2006 University of Iowa; MSN 2009 University of Iowa; DNP 2017 University of Iowa

Thomas, Andrew Michael, Assistant Professor, Statistics Actuarial Science, (2023); BS 2014 University of Minnesota; MS 2017 Purdue University; PHD 2021 Purdue University

Thomas, Barrett, Professor, Business Analytics/Provost Office Administration, 2002 (2018); BA 1996 Grinnell; MS 1999 University of Michigan-Ann Arbor; PHD 2002 University of Michigan-Ann Arbor

Thomas, Brady J'Nee A'Hearn, Clinical Associate Professor, Pediatrics, 2016 (2022); BS 2006 University of Iowa; MD 2010 SUNY Downstate Medical Center

Thomas, Carole L., Emeritus Associate Professor, Music, 1970 (1977); BS 1964 Northern Illinois; MM 1966 University of Illinois @ Champaign; MS 1968 University of Illinois @ Champaign

Thomas, Christie P., Professor, Internal Medicine/Obstetrics Gynecology/Pediatrics, 1992 (2005); MBBS 1982 Madras

Thomas, Downing A., Professor, French Italian/International Programs/Languages, Literatures, Linguistics, and Cultures, 1991 (2004); BA 1984 Washington; MA 1987 New York; PHD 1991 New York

Thomas, Emily Brenny Kroska, Clinical Associate Professor, Psychological and Brain Sciences, (2024); BA 2012 University of Kansas; MA 2014 University of Iowa

Thomas, Geb W., Professor, Industrial Engineering/ Orthopaedics and Rehabilitation, 1997 (2015); BS 1989 State Univ of NY-Stony Brook; MS 1995 Pennsylvania State University; PHD 1996 Pennsylvania State University

Thomas, John Ira, Adjunct Instructor, University College Courses, 2025 (2025); BA 1991 Texas Tech University; MA 1993 Texas Tech University; MA 1995 University of Iowa

Thomas, Jon Gregory, Adjunct Assistant Professor, Family Medicine, 1992 (2002); BS 1976 University of Iowa; MD 1982 University of Iowa

Thomas, Mary Margaret, Adjunct Instructor, University College Courses, 2023 (2023); MLIS 2022 Emporia State University

Thomas, Robert D., Adjunct Assistant Professor, Otolaryngology-Head Neck Surgery, 2021 (2021); MD 1998 Ohio State University

Thomas, Syeda, Associate Professor, Nursing, 2014 (2021); MSN 2009 Allen College; PHD 2016 Capella University

Thomas, Tila Jenique, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2023 Rosalind Franklin University

Thompson, Darrin, Adjunct Assistant Professor, Occupational Environmental Health, 2021 (2021); BS 2001 Graceland University; MPH 2004 Loma Linda University School; PHD 2020 University of Iowa

Thompson, Edward S., Emeritus Professor, Nursing, 1998 (2005); BA 1970 Cincinnati; MS 1973 North Dakota; BSN 1975 North Dakota; PHD 1997 The University of Minnesota-Twin Cities

Thompson, Faith N., Adjunct Assistant Professor, Pediatrics, 2023 (2023); MS 2015 University of North Dakota; MD 2019 University of North Dakota

Thompson, Hannah Joanne, Adjunct Instructor, Dermatology, 2025 (2025); BS 2017 University of Iowa; MD 2021 University of Iowa

Thompson, Jana, Adjunct Instructor, Business Analytics, 2024 (2024);

Thompson, Jennifer, Adjunct Assistant Professor, Internal Medicine, 2018 (2018); DO 2011 Univ of North Texas Health

Thompson, Jonathan Glenn, Adjunct Assistant Professor, Pathology, 2009 (2009); MD 2002 University of Iowa

Thompson, Katie Lynn, Adjunct Assistant Professor, Physician Assistant, 2020 (2020); BSN 2008 University of Iowa; DNP 2014 The Unversity of Iowa

Thompson, Lena, Adjunct Assistant Professor, Community Behavioral Health, 2025 (2025); MPH 2014 University of Iowa; PHD 2023 University of Iowa

Thompson, Melissa, Adjunct Instructor, Family Medicine, 2021 (2021); BS 1992 College of St. Mary, Omaha, NE; MD 1996 Creighton University

Thompson, Nancy J., Emeritus Associate Professor, Community Behavioral Health, 1980 (1986); BS 1969 California State-Stanislaus; MS 1971 Columbia; MPHIL 1974 Columbia; PHD 1979 Columbia

Thompson, Philip Howard, Associate Professor, Electrical-Computer Engineering, 2015 (2022); BSEE 1987 Iowa State University; MSEE 1989 Iowa State University

Thompson, Robert James, Adjunct Assistant Professor, Operative Dentistry, 2011 (2013); BA 1999 Central; MS 2001 Iowa State; DDS 2011 University of Iowa

Thompson Jacinto, Bruna, Clinical Assistant Professor, Biomedical Engineering/Radiology, (2023); MD 2007 University of Sao Paulo/EPM; PHD 2021 University of Sao Paulo/USP

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Thomsen, Teri, Emeritus Associate Professor, Neurology, 2007 (2012); MD 2001 University of Iowa

Thomsen, Timothy Alan, Emeritus Professor, Internal Medicine, 1976 (2004); MD 1974 University of Iowa

Thomsen, Timothy William, Clinical Associate Professor, Emergency Medicine/Orthopaedics and Rehabilitation, (2022); BS 2002 Watburg College; MD 2012 University of Iowa

Thoreson, Joseph D., Adjunct Assistant Professor, Internal Medicine, 1979 (1979); MD 1969 University of Iowa

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Thornell, Emma Marie, Research Assistant Professor, Internal Medicine, (2023); BA 2010 University of Iowa; PHD 2016 Univ. Andres Bello

Thornell, Ian Michael, Assistant Professor, Internal Medicine, (2019); PHD 2014 University of Alabama

Thornton, Karen Annette, Adjunct Instructor, Occupational Environmental Health, 2023 (2023); MS 2020 University of Iowa

Thorpe, Ryan, Assistant Professor, Otolaryngology-Head Neck Surgery, (2027); MD 2018 Temple University

Thow, Diana Corinna, Assistant Professor, Languages, Literatures, Linguistics, and Cultures, (2023); MFA 2008 University of Iowa

Throgmorton, James Alfred, Emeritus Professor, School of Planning and Public Affairs, 1986 (2004); BA 1966 Notre Dame; MS 1972 Louisville; PHD 1983 California-Los Angleles

Thul, Thomas William, Adjunct Assistant Professor, Family Dentistry, 2023 (2023); DDS 1981 University of Iowa

Thunhorst, Robert Louis, Adjunct Assistant Professor, Psychological and Brain Sciences, 1993 (1998); BA 1979 University of Iowa; PHD 1987 Washington

Thurtell, Matthew James, Associate Professor, Neurology/ Ophthalmology Visual Science, 2010 (2016); MBBS 2000 Sydney; MSC 2005 Sydney

Thyroff-Fitzwater, Anastasia, Adjunct Assistant Professor, Marketing, 2020 (2020); BS 2008 Clemson University; PHD 2013 University of Arkensas

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Tibbits, Tawny Lynn Bailey, Adjunct Instructor, University College Courses, 2016 (2023); BA 2009 University of Iowa; MA 2011 Univ. of Texas-San Antonio; PHD 2016 University of Iowa

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Tierney, Luke, Professor, Statistics Actuarial Science, 2002 (2002); BA 1977 Johns Hopkins; MA 1977 Johns Hopkins; MA 1979 Cornell; PHD 1980 Cornell

Tierney, Sarah Beth, Adjunct Associate Professor, Pharmacy Practice and Science, 2007 (2018); BS 1999 Iowa State; PHARMD 2007 University of Iowa

Tigges, Cody Ryan, Clinical Associate Professor, Pediatrics, 2015 (2021); BA 2004 Luther College; DO 2008 Des Moines University; BA 2015 Luther College

Tigges, Courtney Allison, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2023); PHARMD 2021 UICOP

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Timmons, Sherry Rene, Clinical Associate Professor, Dentistry Administration/Oral Path,RadiologyMedicine, 2002 (2016); BA 1991 Augustana; DDS 1995 University of Iowa; PHD 2001 University of Iowa

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Timpe, Donell M., Adjunct Instructor, Family Medicine, 2017 (2017); MD 1997 Univ of N Dakota Sch of Med

Tinelli, Cesare, Professor, Computer Science, 1999 (2012); MS 1995 University of Illinois at Urbana Champaign; PHD 1999 University of Illinois at Urbana Champaign

Tinker, Sharon Kay, Adjunct Instructor, Chemical Biochemical Engineering, 2017 (2017); BS 1980 The University of Iowa

Tinoco, Andrea, Adjunct Instructor, University College Courses, 2021 (2021); BA 2017 University of Central Missouri; MS 2019 Mississippi State University

Tippin, Jon M., Adjunct Professor, Neurology, 1999 (2011); BS 1975 George Fox; MD 1979 Oregon

Titcomb, Tyler, Adjunct Instructor, Internal Medicine, (2022); BS 2015 UNIVERSITY OF NORTH DAKOTA; PHD 2019 The University of Wisconsin Ma

Titler, Sarah, Clinical Professor, Anesthesia/Pediatrics, 2009 (2025); BA 2000 Cornell; MD 2004 Roy J. and Lucille A. Carver

Titus-Rains, Krystal Strand, Adjunct Assistant Professor, Pharmacy Practice and Science, 2014 (2016); PHAR 2014 University of Iowa

Titze, Ingo R., Emeritus Professor, Communication Sciences and Disorders, 1979 (1984); BS 1963 Utah; MSEE 1965 Utah; PHD 1972 Brigham Young

Tivanski, Alexei V., Professor, Chemistry, 2007 (2023); BS 1999 Moscow Inst. of Physics Tech; MS 2001 Moscow Inst. of Physics Tech; PHD 2005 Pittsburgh

Tiwari, Ashish, Professor, Finance, 1997 (2017); BSC 1982 Kurukshetra; MBA 1984 Panjab; MBA 1989 Windsor; PHD 1994 University of Iowa

Tiziani, Alberto, Adjunct Instructor, Accounting, 2025 (2025); MBA 2010 Liceo Scientifico Statale Jaco

Tobin, Mary Beth, Clinical Associate Professor, Nursing, (2025); MAN 1991 University of Iowa; PHD 2011 University of Iowa

Todd, Michael M., Emeritus Professor, Anesthesia, 2016 (1990); BA 1971 University of Illinois at Chicago; MD 1975 University of Illinois at Chicago

Toeteberg-Harms, Marc, Associate Professor, Ophthalmology Visual Science, (2024); MD 2007 Christian-Albrechts University

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Tolman, Elizabeth, Assistant Professor, Physics Astronomy, 2025 (2025); PHD 2020 MIT

Tomanek, Robert Joseph, Emeritus Professor, Anatomy Cell Biology, 1972 (1982); BS 1959 Omaha; MA 1960 University of Iowa; PHD 1967 University of Iowa

Tomasson, Michael, Professor, Health Sport and Human Physiology/Internal Medicine, 2016 (2016); MD 1992 Stanford University

Tomblin, J. Bruce, Emeritus Professor, Communication Sciences and Disorders, 1972 (1984); BA 1966 LaVerne; MA 1967 Redlands; PHD 1970 University of Wisconsin-Madison

Tomchik, Seth Martin, Professor, Neuroscience and Pharmacology/Pediatrics, (2022); PHD 2005 University of Miami

Tomkovicz, James J., Emeritus Professor, Law-Faculty, 1981 (1986); BA 1973 Southern California; JD 1976 University of California-Los Angeles

Tomlinson, Elizabeth Conrad-Reiter, Adjunct Associate Professor, Accounting, 2023 (2023); BA 2000 College of Wooster; MA 2007 John Carroll University; PHD 2011 Kent State University

Tonelli, Shalome Marie, Assistant Professor, Nursing, 2008 (2024); BA 2004 Iowa; BSN 2004 Iowa; MSN 2007 Iowa; PHD 2016 The University of Iowa

Tong, Zhiwei, Assistant Professor, Statistics Actuarial Science, (2021); MS 2018 University of Iowa; PHD 2021 The University of New South Wales

Tonn, Marla Rae Bartell, Adjunct Instructor, Pharmacy Practice and Science, 1997 (1997); BSPH 1987 Iowa

Tonui, Peter Mutai, Adjunct Assistant Professor, Surgery, 2014 (2014); MD 2002 Northwestern Univeristy

Toomey, James, Associate Professor, Law-Faculty, 2024 (2024); AB 2016 Cornell University; JD 2019 Harvard University

Toor, Fatima, Professor, Electrical-Computer Engineering/ Physics Astronomy, 2014 (2025); PHD 2009 Princeton University

Tootle, Tina Louise, Professor, Anatomy Cell Biology/ Biology, 2009 (2022); BS 1998 THE UNIVERSITY OF MARYLAND-COLLEGE PARK; PHD 2004 Massachusetts Inst of Tech

Torner, James C., Professor, Epidemiology/Neurology/ Neurosurgery, 1991 (1993); BS 1971 University of Iowa; MS 1974 University of Iowa; PHD 1984 University of Iowa

Torno Fashimpaur, Karen, Adjunct Assistant Professor, English, 2024 (2024); MA 1991 Eastern Kentucky University

Torstenson, Chad Jeffry, Adjunct Assistant Professor, Emergency Medicine, 2023 (2023); MD 2001 University of Iowa; MBA 2014 Loyola University Chicago

Totah, Deema, Assistant Professor, Biomedical Engineering/ Mechanical Engineering, 2021 (2021); BS 2012 MIT; MSE 2014 University of Michigan; PHD 2020 University of Michigan

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Trachsel, Mary C., Emeritus Associate Professor, Rhetoric, 1989 (1996); BA 1975 University of Iowa; MA 1980 Pennsylvania State University; PHD 1987 The University of Texas at Austin

Trachta, Michael Daniel, Adjunct Assistant Professor, Health Management Policy, 2023 (2023); MA 1997 University of Iowa; MBA 1997 University of Iowa

Tracy, Chad, Clinical Professor, Radiology/Urology, 2009 (2019); BS 1999 Richmond; MD 2003 University of Iowa

Traer, James, Assistant Professor, Psychological and Brain Sciences, (2020); BS 2005 Cambridge University; MS 2006 Cambridge University; PHD 2011 University of California

Tran, Hao Phung, Clinical Assistant Professor, Pediatrics, (2018); MD 1999 Johns Hopkins University

Tran, Phuong Anh, Adjunct Instructor, University College Courses, 2023 (2023); BS 2020 The State University of NY; MED 2022 The State University of NY

Tran, Valery, Clinical Assistant Professor, Family Medicine, 2023 (2023); BS 2011 Wash Univ, St Louis MO; MS 2013 Johns Hopkins,Baltimore,MD; MD 2019 Univ of Nebraska;Omaha,NE

Tranel, Daniel Thomas, Professor, Neurology/Psychological and Brain Sciences, 1986 (1994); BA 1979 Notre Dame; MA 1981 University of Iowa; PHD 1982 University of Iowa

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Triplett, Jane Ellen, Adjunct Instructor, Teaching and Learning, (2023); BM 1984 Iowa State University

Triplett, Steven Mark, Adjunct Instructor, Teaching and Learning, 2016 (2017); BA 1974 University of Northern Iowa; MS 1988 Western Illinois University

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Truhlar, Scott M., Adjunct Associate Professor, Radiology, 2005 (2014); BS 1993 Kansas State; MD 1998 Univ Kansas

Trumm, Jill Marie, Adjunct Instructor, University College Courses, 2015 (2015); MFA 2006 St. Mary's College of CA

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Tschirren, Janette Rogers, Adjunct Instructor, Communication Sciences and Disorders, 2005 (1999); MA 1996 University of Iowa

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Tsujimoto, Akimasa, Adjunct Associate Professor, Operative Dentistry, (2021); BDS 2006 Nihon University

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Tucker, Budd Albert, Professor, Neuroscience and Pharmacology/Ophthalmology Visual Science, 2010 (2019); BA 2001 Sir Wilfred Grenfell; PHD 2006 Memorial Univ, Newfoundland

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Tucker, Hope, Associate Professor, Cinematic Arts, (2022); BFA 1996 School of the Art Institute; MFA 2003 IOWA

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Venzke, Kristina, Adjunct Instructor, Biology, 2023 (2023); BA 1989 IOWA; MA 1995 School of Intl Training-VT; AA 2008 Kirkwood Community College

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Vikram, Ajit, Associate Professor, Internal Medicine, (2025); PHD 2011 NIPER

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Vispoel, Walter P., Emeritus Professor, Psych Quant Foundations, 1987 (2000); BA 1978 University of Illinois at Chicago; MED 1979 University of Illinois at Chicago; PHD 1987 University of Illinois at Urbana Champaign

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Voong, Susan, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2024); PHARMD 2017 University of Iowa

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Walker, Robert Bruce, Associate Professor, Management and Entrepreneurship/University College Courses, 2014 (2022); PHB 1983 Miami University; MBA 1991 University of Iowa; PHD 2011 Iowa State University

Walker, Robert Travis, Adjunct Assistant Professor, Aerospace Studies, 2025 (2025); BS 2018 US Air Force Academy; MS 2022 Air Force Institute of Tech.

Walker, Roger Dale, Adjunct Professor, Community Behavioral Health, 2014 (2014); BS 1968 Oklahoma; MD 1972 Oklahoma

Walker, Stacey Lynn, Adjunct Instructor, Political Science, 2025 (2025); BA 2010 University of Iowa

Walker, Tammie, Professor, Music, 2019 (2019); BM 1995 University of Wisconsin; MM 1997 University of Illinois; DMA 2001 University of Illinois

Walker, Tod M., Adjunct Assistant Professor, Physician Assistant, 2016 (2016); BA 2005 Coe College; MPAS 2009 University of Nebraska Lincoln

Walkner, Laurie Marie, Adjunct Instructor, Community Behavioral Health, 2004 (2024); BSN 1980 University of Iowa; MA 1992 University of Iowa

Wall, Brian Charles, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2014 Drake

Wall, Geoffrey, Adjunct Assistant Professor, Internal Medicine, 2014 (2014); PHARMD 1998 Idaho State University

Wall, Michael, Professor, Neurology/Ophthalmology Visual Science, 1991 (1996); BS 1972 Tulane; MD 1976 Tulane

Wallace, Anne Marie, Emeritus Associate Professor, Communication Sciences and Disorders, 1992 (1992); BA 1978 University of Iowa; MA 1979 University of Iowa

Wallace, Lincoln Russell, Adjunct Instructor, Family Medicine, 2018 (2018); BS 1989 N Dakota State Univ, ND; MD 1995 Univ of IA CCOM, IowaCity,IA

Wallace, Robert B., Emeritus Professor, Epidemiology, 1972 (1979); BS 1964 Northwestern Univeristy; MD 1967 Northwestern Univeristy; MSC 1972 State Univ of New York-Buffalo

Wallingford, Tyler, Adjunct Instructor, Preventive Community Dentistry, (2019); MS 2012 Creighton University; DDS 2017 University of Iowa

Wallrath, Lori Lyn, Professor, Biochemistry and Molecular Biology/University College Courses, 1996 (2009); BS 1986 Michigan State University; PHD 1991 Michigan State University

Walls, Jeffrey Hei, Associate Professor, Educ Policy Leadership Studies, (2024); MAT 2014 Hamline University; PHD 2017 University of Minnesota

Walsh, Emily O., Adjunct Assistant Professor, School of Earth, Environment, and Sustainability, 2016 (2010); PHD 2003 University of California-Los Angeles

Walsh, Emily Bly, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2018 University of Iowa

Walsh, Erin Elsbeth, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2021 University of Iowa

Walsh, Rachel Danielle Tranter, Clinical Associate Professor, Emergency Medicine, 2016 (2021); BS 2010 Boise State University; MPAS 2013 University of Iowa

Walsh, Thomas, Emeritus Associate Professor, Marketing, 2013 (2018); BS 1979 Eastern Michigan; MBA 1981 Michigan State University

Walter, Alka Cornelius, Clinical Associate Professor, Family Medicine, 2018 (2025); MBBS 1995 Christian Med Coll, India

Walter, Gayle, Adjunct Instructor, Health Sport and Human Physiology, 2016 (2024); BS 2000 Independence University; MPH 2007 Walden University; PHD 2010 Walden University

Walton, Richard E., Emeritus Professor, Family Dentistry, 1983 (1983); BA 1961 Washington; DMD 1965 Oregon; MS 1970 University of Illinois at Urbana Champaign

Waltz, Brandon, Assistant Professor, Biology, 2023 (2024); BS 2013 Iowa State University; MS 2018 Univ of Louisiana-Lafayette; PHD 2019 Univ of Louisiana-Lafayette

Wanat, Carolyn L., Emeritus Associate Professor, Educ Policy Leadership Studies, 1990 (1996); BS 1969 Central Missouri State; MA 1973 Central Missouri State; EDS 1978 Wichita; PHD 1990 University of Wisconsin-Madison

Wang, Boxiang, Associate Professor, Statistics Actuarial Science, 2018 (2024); PHD 2018 University of Minnesota

Wang, Chao, Associate Professor, Industrial Engineering, (2025); MS 2018 Univ of Wisconsin Madison; DPHIL 2019 University of Wisconsin - Madison

Wang, Cong, Assistant Professor, Mechanical Engineering, (2023); MS 2014 California Institute of Techno; PHD 2019 California Institute of Techno

Wang, Danye, Assistant Professor, Accounting, 2022 (2022); PHD 2022 NYU

Wang, David, Adjunct Assistant Professor, Neurology, 2025 (2025); MD 2019 University of Iowa

Wang, Grace, Adjunct Assistant Professor, Obstetrics Gynecology, 2020 (2020); BA 1991 Northwestern University; BS 1991 Northwestern University; MD 1995 University of Illinois

Wang, Jing, Professor, Marketing, 2005 (2019); PHD 2005 Northwestern Univeristy

Wang, Jinxi, Research Assistant Professor, Internal Medicine, (2023); PHD 2019 Shanghai Jiao Tong University

Wang, Jun, Professor, Chemical Biochemical Engineering/ Civil-Environmental Engineering/Electrical-Computer Engineering/Physics Astronomy, 2015 (2015); MS 1999 Chinese Academy of Sciences; PHD 2005 University of Alabama

Wang, Kai, Professor, Biostatistics, 1999 (2013); BA 1986 Lanzhou; MA 1989 Nankai; MA 1996 University of Iowa; PHD 1999 University of Iowa

Wang, Lihe, Professor, Mathematics, 1993 (1997); BA 1979 Peking-China; MS 1983 Peking-China; MS 1986 University of Illinois at Chicago; PHD 1989 Courant

Wang, Ling, Research Assistant Professor, Orthopaedics and Rehabilitation, (2021); PHD 2005 Fudan University

Wang, Runping, Instructor, Internal Medicine, (2023); MD 1995 Hebei Medical Univ; MS 1999 Capital Univ of Med Science; PHD 2006 Georgia State Univ

Wang, Wei-Yeh, Emeritus Professor, Biology, 1975 (1987); BS 1966 National Taiwan; PHD 1972 Missouri

Wang, Weiran, Assistant Professor, Computer Science, 2024 (2024); PHD 2013 Univ of California Merced

Wang, Xiangyu, Adjunct Instructor, Business Analytics, 2024 (2024); MBA 2017 Beihang University, China; MBA 2021 University of Iowa; PHD 2022 University of Iowa

Wang, Yi, Assistant Professor, Social Work, (2019); BA 2004 Hohai University - China; MSW 2011 George Warren Brown School of Social Work; DR 2019 Washington Uni - St. Louis; MA 2019 Washington University - St. Louis; MSW 2019 Washington University - St Lou

Wang, Yi Jie Casey, Adjunct Assistant Professor, Internal Medicine, 2022 (2022); MD 2018 Univ of South Carolina SOM

Wang, Yihui, Research Assistant Professor, Internal Medicine, (2024); BS 2014 Fujian Medical University; PHD 2021 Peking Union Medical

Wang, Zhe, Assistant Professor, Chemical Biochemical Engineering, (2024); PHD 2019 Rice University

Wankum, Kayla J., Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2018); PHARMD 2016 Drake University

Ward, Caitlin Eilis, Adjunct Assistant Professor, Nursing, 2021 (2021); MS 2018 The University of Iowa; PHD 2021 The University of Iowa

Ward, Emily Kristen, Adjunct Assistant Professor, Nursing, 2018 (2024); BSN 2007 Millikin University; MBA 2014 University of Iowa; DNP 2023 University of Iowa

Ward, Kelly, Clinical Professor, Obstetrics Gynecology, 2004 (2024); BS 1996 UNI of the Pacific; MD 2000 South Dakota SOM

Ward, Larry D., Emeritus Professor, Law-Faculty, 1972 (1978); BS 1966 Kansas; JD 1969 Kansas; MAC 1996 University of Iowa

Ward, Lilah Greer, Adjunct Assistant Professor, School of Art, Art History, and Design, 2024 (2024); BFA 2019 Univ. of Texas - Tyler; MFA 2023 The University of Iowa

Ward, Marcia M., Research Professor, Health Management Policy, 1997 (2006); BA 1973 The Ohio State University; MA 1976 The Ohio State University; PHD 1981 The Ohio State University

Warner, Courtney M., Adjunct Instructor, Preventive Community Dentistry, (2019); AASC 2015 Kirkwood Community College

Warner-Blankenship, Matthew Alan, Adjunct Instructor, Law-Faculty, (2023); BA 2001 Grinnell College; MS 2004 University of Iowa; JD 2011 University of Iowa

Warren, Janice Marie, Adjunct Instructor, University College Courses, 2015 (2025); BME 1985 Michigan State University; MA 1993 University of Iowa

Warren, John Joseph, Professor, Preventive Community Dentistry, 1999 (2009); BS 1981 University of Iowa; DDS 1986 University of Iowa; MS 1991 University of Iowa

Warren, Stephen A., Professor, American Studies/History, (2020); BA 1992 Indiana University-Bloomington; MA 1994 Arizona State University; PHD 2000 Indiana University-Bloomington

Warwick, Celsiana, Assistant Professor, Classics, (2019); BA 2012 University of California Davis; MA 2014 University of California LA; PHD 2018 University of California LA

Washington, M. Todd, Professor, Biochemistry and Molecular Biology/Radiation Oncology, 2003 (2015); BA 1992 The Ohio State University; BSC 1992 The Ohio State University; PHD 1998 The Ohio State University

Wasion, Holly Lilena, Adjunct Instructor, Social Work, 2025 (2025); MA 2016 St Ambrose University

Wasserman, Edward A., Professor, Psychological and Brain Sciences, 1972 (1983); BA 1968 University of California-Los Angeles; PHD 1972 Indiana University-Bloomington

Wassink, Thomas Henry, Professor, Pediatrics/Psychiatry, 1999 (2012); BA 1985 Northwestern Univeristy; MD 1993 University of Illinois at Chicago

Wasson, Aaron Michael, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MD 2016 Thomas Jefferson University

Wasson, Racheal J., Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); AASC 2013 Kirkwood Community College

Waterbury, Nancee Virginia, Adjunct Associate Professor, Pharmacy Practice and Science, 2002 (2013); PHARMD 2000 University of Iowa

Waters, Glen Kurris, Adjunct Assistant Professor, African-American Studies/Creative Writing, 2023 (2023); MFA 2023 The University of Iowa

Waters, Thomas Samuel, Adjunct Instructor, Family Medicine, 2020 (2020);

Watkins, Gordon L., Emeritus Associate Professor, Radiology, 1989 (2006); BSC 1967 Sir John Cass College-London; PHD 1983 Southern California

Watkins, Shannon Lea, Assistant Professor, Community Behavioral Health, (2019); PHD 2015 Indiana University

Watkinson, Erica, Assistant Professor, Nursing, 2019 (2024); BSN 2011 Coe College; DNP 2018 University of Iowa

Watson, David B., Emeritus Professor, Psychological and Brain Sciences, 1993 (1993); BS 1975 Santa Clara; PHD 1982 The University of Minnesota-Twin Cities

Watson, Kathryn, Adjunct Instructor, Psych Quant Foundations, 2024 (2024); PHD 2023 University of Colorado

Watson, Lucas W., Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2016); PHARMD 2014 University of Iowa

Watson, Megan Michelle, Adjunct Assistant Professor, Pharmacy Practice and Science, 2016 (2016); PHARMD 2014 University of Iowa

Watt, Sherry Kay, Professor, Educ Policy Leadership Studies, 2000 (2016); BA 1990 University of North Carolina at Greensboro; MS 1993 North Carolina State; PHD 1997 North Carolina State

Wear, Nathan L., Adjunct Instructor, Educ Policy Leadership Studies, 2023 (2023); BA 2002 Wartburg University; MED 2005 Texas State University

Weatherford, Eric Thomas, Research Assistant Professor, Internal Medicine, (2021); BA 2001 Drake University; MS 2004 Iowa State University; PHD 2011 University of Iowa

Weber, Andrea Nicole Ryan, Clinical Associate Professor, Internal Medicine/Psychiatry, 2017 (2023); MD 2012 University of Iowa

Weber, Brooke Jordyn, Adjunct Assistant Professor, Pharmacy Practice and Science, (2019); PHARMD 2018 University of Iowa

Weber, Gina Lynn, Adjunct Instructor, Communication Sciences and Disorders, 2008 (2008); BA 1996 Central College; MA 2007 Northern Iowa

Weber, Larry Joseph, Professor, Civil-Environmental Engineering, 1994 (2007); BS 1989 University of Iowa; MS 1990 University of Iowa; PHD 1993 University of Iowa

Weber, Mary, Associate Professor, Microbiology and Immunology/Molecular Physiology Biophysics, 2017 (2023); PHD 2014 Texas AM Health Sci Ctr

Weber, Ryan, Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2015); PHARMD 2009 Drake University

Weber-Gasparoni, Karin, Professor, Pediatric Dentistry, 2003 (2018); DDS 1994 Estadual Brazil; MS 1999 University of Iowa; PHD 2003 University of Iowa

Webster, Sharaine Markay, Clinical Assistant Professor, Social Work, 2018 (2024); BA 2012 University of Iowa; MSW 2015 University of New England

Weckmann, Michelle, Emeritus Associate Professor, Psychiatry, 2005 (2018); BA 1993 North Central IL; MS 1995 The Ohio State University; MD 2000 University of Wisconsin-Madison

Wedeking, Suzanne Elizabeth, Assistant Professor, Spanish Portuguese, 2015 (2024); BA 2011 University of Iowa; MA 2015 University of Iowa

Wedig, Isabel G., Adjunct Instructor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2024 University of Wisconsin

Weeks, Daniel L., Emeritus Professor, Biochemistry and Molecular Biology, 1987 (2001); BS 1976 Purdue University Main Campus; PHD 1983 Purdue University Main Campus

Weger, Natalie Sofia, Clinical Assistant Professor, Surgery, 2018 (2020); DO 2001 Des Moines University

Wegner, Jennifer Fae, Adjunct Assistant Professor, Physician Assistant, 2022 (2022); BA 2006 University of Northern Iowa; MPAS 2008 University of Iowa

Wehby, George Labib, Professor, Economics/Health Management Policy/Preventive Community Dentistry, 2007 (2017); PHD 2006 University of Iowa

Wehr Maves, Lisa Marie, Adjunct Assistant Professor, Psychiatry, 2023 (2023); MD 2018 University of Iowa

Wei, Shunguang, Associate Professor, Internal Medicine, (2022); BS 1986 Fudan Univ, China; MS 1997 Shandong Med Univ, China; PHD 2007 University of Iowa

Weig, Emily, Adjunct Assistant Professor, Dermatology, 2023 (2023); BS 2015 Loras College; MD 2019 University of Iowa

Weigel, Ronald, Professor, Anatomy Cell Biology/ Biochemistry and Molecular Biology/Molecular Physiology Biophysics/Surgery, 2005 (2005); MD 1986 Yale; PHD 1986 Yale; MBA 2005 Wharton-Univ. of Penn.

Weihe, Paul Edward, Adjunct Instructor, University College Courses, 2014 (2021); MS 1993 Eastern Michigan; PHD 1996 The Ohio State University

Weiler, Kay Boese, Emeritus Associate Professor, Nursing, 1982 (1995); BS 1972 Indiana University-Bloomington; JD 1985 University of Iowa; MA 1986 University of Iowa

Weinberger, Miles, Emeritus Professor, Pediatrics, 1975 (1980); BA 1960 Pittsburgh; MD 1965 Pittsburgh

Weiner, George J., Professor, Internal Medicine/ Pharmaceutical Sciences and Experimental Therapeutics, 1989 (2000); BA 1978 Johns Hopkins; MD 1981 The Ohio State University

Weiner, Joshua, Professor, Biology/Clas Administration/ Psychiatry, 2004 (2017); BA 1992 Northwestern Univeristy; PHD 1999 University of California-Los Angeles

Weiner, Lukasz Dobromir, Clinical Associate Professor, Pediatrics, 2019 (2024); MD 2013 Medical University of Lublin

Weiner, Rebecca Larie, Clinical Associate Professor, Pediatrics, (2024); BS 2009 University of East Carolina; MD 2012 University of East Carolina

Weingeist, Thomas A., Emeritus Professor, Ophthalmology Visual Science, 1975 (1983); BA 1963 Earlham; PHD 1969 Columbia; MD 1972 University of Iowa

Weinkauf, Adam, Adjunct Assistant Professor, Pharmacy Practice and Science, 2013 (2013); PHARMD 2011 University of Iowa

Weinstein, Alisa Faye, Adjunct Assistant Professor, Anthropology, 2022 (2022); PHD 2019 Syracuse

Weinstein, Stuart L., Professor, Orthopaedics and Rehabilitation/Pediatrics, 1976 (1984); BA 1968 University of Illinois at Urbana Champaign; MD 1972 University of Iowa

Weir, Connor M., Adjunct Instructor, University College Courses, 2025 (2025); BS 2023 Central Michigan University; MED 2025 Clemson University

Weirich, Alex J., Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2016 Drake University

Weirich, Frank H., Associate Professor, Civil-Environmental Engineering/School of Earth, Environment, and Sustainability, 1988 (1988); BSC 1973 Toronto-Canada; MSC 1979 McMaster; PHD 1982 Toronto

Weis, Robert F., Adjunct Assistant Professor, Internal Medicine, 2000 (2000); MD 1977 University of Iowa

Weismann, Amy, Assistant Professor, Law-Faculty, 2006 (2006); JD 2000 University of Iowa

Weismann, Douglas N., Emeritus Associate Professor, Pediatrics, 1977 (1984); AB 1968 Occidental; MD 1972 University of Arizona; MS 1977 University of Iowa

Weiss, David S., Professor, Microbiology and Immunology, 1998 (2017); BA 1985 Swarthmore; PHD 1991 University of California-Berkeley

Weiss, Doyle L., Emeritus Professor, Marketing, 1987 (1987); BS 1957 Kansas; MS 1960 Carnegie Mellon; PHD 1965 Carnegie Mellon

Weiss, Jerrold P., Emeritus Professor, Internal Medicine, 1997 (1997); BS 1973 State Univ of New York; PHD 1981 New York University

Weiss, Robert M., Professor, Internal Medicine, 1989 (2004); BA 1976 Northwestern Univeristy; MD 1982 University of Michigan-Ann Arbor

Weitz, Christina M., Adjunct Instructor, Teaching and Learning, 2025 (2025); BA 2003 The University of Iowa; MAT 2015 Morningside College Sioux City

Welborn, Megan Elyse, Clinical Assistant Professor, Pediatric Dentistry, (2024); DDS 2016 University of Iowa; CER 2021 University of Minnesota

Welbourne Eleazar, Miranda, Assistant Professor, Center for Soc Sci Innovation/Law-Faculty/Management and Entrepreneurship, 2021 (2021); BA 2003 University of Michigan; JD 2006 University of Michigan Law School; PHD 2021 University of Texas at Dallas

Welch, Catherine Jo, Professor, Psych Quant Foundations, 2007 (2007); BBA 1980 University of Iowa; MA 1984 University of Iowa; PHD 1990 University of Iowa

Welch, Heidi Marie, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BS 2003 Univ of Wisconsin-Madison; MPT 2005 Univ of Wisconsin-Madison

Welch, Kelly, Adjunct Instructor, Finance, 2013 (2024); PHD 1999 University of Illinois at Chicago

Welch, Myron D., Emeritus Professor, Music, 1980 (1984); BM 1965 Michigan State University; MM 1966 Michigan State University; EDD 1973 University of Illinois at Urbana Champaign

Welch, Tara, Adjunct Associate Professor, Classics, 2015 (2015); BA 1990 University of So California; BA 1993 Oxford University; PHD 1999 University of California-Los Angeles

Welder, Emily R., Clinical Assistant Professor, Family Medicine, (2019); BS 2011 Buena Vista University; MD 2016 University of Iowa

Weller, Paul A., Emeritus Professor, Finance, 1990 (1994); BA 1968 Oxford-England; MA 1973 Essex-Oxford; PHD 1981 Essex-Oxford

Wellington, Katlynn, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2020 Drake University

Wellington, Melanie Anne, Clinical Professor, Pediatrics, 2017 (2021); MD 1995 Duke University; PHD 2005 University of Rochester

Wellnitz, Kari Aline, Clinical Associate Professor, Pediatrics, 2018 (2023); MD 2011 Univ of Texas-Houston Med Sch

Wells, Jacob Milota, Adjunct Instructor, Biology, 2024 (2024);

Wells, Jacqueline L., Adjunct Instructor, Physical Therapy Rehab Science, 2022 (2025); BS 2014 Iowa State University; DPT 2016 University of Iowa

Wells, Kirsten, Adjunct Assistant Professor, Pharmacy Practice and Science, 2024 (2024); PHARMD 2020 University of Iowa

Wells, Lilimore V., Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); DPT 2008 Des Moines University

Wells, Mickey Lee, Emeritus Associate Professor, Pharmaceutical Sciences and Experimental Therapeutics, 2008 (2008); BSPH 1987 University of Iowa; PHD 1990 University of Iowa

Wells, Mylo, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2018 UICOP

Wells, Tammy Jo, Adjunct Assistant Professor, Family Medicine, 2014 (2014); BS 1988 Iowa State University; MD 1993 University of Iowa

Welsh, Michael James, Professor, Internal Medicine/ Molecular Physiology Biophysics/Neurology/Neurosurgery, 1981 (1987); BS 1970 University of Iowa; MD 1974 University of Iowa

Welter, Trisha Lynn, Adjunct Instructor, Health Sport and Human Physiology, 2010 (2010); BA 2006 University of Iowa; MPH 2008 University of Iowa

Weltin, Ann, Clinical Associate Professor, Nursing, (2021); DNP 2012 Clarke University

Welty, Timothy E., Adjunct Assistant Professor, Neurology, 2025 (2025); PHARMD 1982 University of Minnesota

Wemmie, John A., Professor, Molecular Physiology Biophysics/Neurosurgery/Psychiatry, 2000 (2013); BA 1989 Central; MD 1996 University of Iowa; PHD 1996 University of Iowa

Wendt, Michael Keith, Associate Professor, Internal Medicine/Pharmaceutical Sciences and Experimental Therapeutics, (2023); PHD 2007 Medical College of Wisconsin

Weng, Esperanza, Clinical Assistant Professor, Anesthesia, 2016 (2017); MD 1999 U of Cal, San Diego Sch of Med

Wenke, Diana Mary Carol, Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHAR 2021 University of Iowa

Wentzell, Emily Anne, Adjunct Associate Professor, Anthropology, 2010 (2016); BA 2003 Johns Hopkins; MA 2006 University of Michigan-Ann Arbor; PHD 2009 University of Michigan-Ann Arbor

Wentzien, Jane Marie, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BS 1990 University of Iowa; MPT 1993 University of Iowa

Wenzel, Lori Sue, Clinical Assistant Professor, Obstetrics Gynecology, (2024); MD 1991 University of Iowa

Wenzel, Shannon, Adjunct Instructor, Epidemiology, 2024 (2024); BA 2023 The University of Iowa; MPH 2024 The University of Iowa

Werneke, Jessica Marie, Assistant Professor, History, (2022); AB 2007 University of Iowa; PHD 2015 The Univ of Texas - Austin

Wertz, Christopher A., Emeritus Associate Professor, Asian Slavic Languages Literature, 1977 (1980); BA 1963 Columbia; MA 1969 University of Michigan-Ann Arbor; PHD 1971 University of Michigan-Ann Arbor

Wertz, Philip W., Emeritus Professor, Oral Path,RadiologyMedicine, 1990 (1993); BA 1971 Rutgers University-New Brunswick; PHD 1976 University of Wisconsin-Madison

Wesely, Pamela Mary, Professor, Education Administration/ Teaching and Learning, 2009 (2021); BA 1996 Yale; MA 1998 New York; PHD 2009 The University of Minnesota-Twin Cities

Wesemann, Daniel Edward, Clinical Associate Professor, Nursing, 2015 (2022); MN 2006 University of Iowa; MSN 2008 University of Iowa; DNP 2015 Rush University

Wesley, Paul, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); DO 2016 Des Moines University

Wessel, Jan Reinhold, Professor, Biomedical Engineering/ Neurology/Psychological and Brain Sciences, 2015 (2025); PHD 2011 University of Cologne, Germany

Wessels, Jana Sue, Adjunct Associate Professor, Health Management Policy, 2020 (2020); BA 1975 University of Iowa; JD 1978 University of Iowa; MBA 1990 University of Iowa

West, Steven Ensley, Adjunct Assistant Professor, Preventive Community Dentistry, 2016 (2016); DDS 1976 University of Iowa

Westefeld, John S., Emeritus Professor, Psych Quant Foundations, 1991 (1999); BA 1972 University of North Carolina at Chapel Hill; MPH 1973 University of North Carolina at Chapel Hill; PHD 1978 University of North Carolina at Chapel Hill

Wester, Barbara, Adjunct Instructor, Accounting, 2024 (2024); MA 1999 University of Illinois at U.C.

Westercamp, Jeralyn Gale, Adjunct Instructor, Management and Entrepreneurship, (2024); BBA 2014 University of Iowa; BS 2014 University of Iowa; MHA 2016 University of Iowa; MBA 2020 University of Iowa

Westergaard, Nickolas Harry, Associate Professor, Accounting, 2012 (2024); BA 2001 University of Iowa

Westermann, Robert, Associate Professor, Orthopaedics and Rehabilitation, 2016 (2024); BS 2007 Pacific Lutheran University; MD 2011 University of Washington

Westermann, Shawna Jane, Clinical Associate Professor, Internal Medicine, 2003 (2018); BA 1994 Augustana; MD 1998 University of Iowa

Westermeyer, Katie Frances, Adjunct Instructor, University College Courses, 2023 (2023); BS 2020 Missouri State University; MA 2022 University of Iowa

Westfall, Ruth Ellen, Emeritus Assistant Professor, Spanish Portuguese, 2005 (2005); BA 1984 University of Iowa; MA 1987 Indiana University-Bloomington; PHD 1995 The University of Texas at Austin

Weston, Mark A., Instructor, Radiation Oncology, 2024 (2024); PHD 2013 McMaster University

Westrich, Marit Marie, Adjunct Instructor, Social Work, 2024 (2024); MSW 2020 University of Iowa

Wetlaufer, Gerald, Emeritus Professor, Law-Faculty, 1985 (1991); BA 1967 Princeton; JD 1972 Yale

Wettach, Matthew B., Adjunct Assistant Professor, Family Dentistry, 2016 (2016); BA 2012 Luther; DDS 2016 University of Iowa

Wetzel, Alyssa Sue, Clinical Assistant Professor, Pediatrics, (2025); BA 2015 Cornell College; PHD 2022 University of Iowa

Weyeneth, Jeffrey Grant, Adjunct Assistant Professor, Nursing, 2019 (2019); BS 1990 Bradley University Peoria IL; MD 1994 University of Illinois Peoria

Whalen, Jessica Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2012 (2024); PHARMD 2012 Iowa

Whaley, Deborah Elizabeth, Emeritus Professor, English, 2007 (2017); PHD 2002 Kansas

Wheeler, Danielle Christine, Adjunct Assistant Professor, Magid Center for Writing, 2020 (2020); MFA 2012 University of Iowa

Wherritt, Irene Marie, Emeritus Associate Professor, Spanish Portuguese, 1980 (1984); BA 1965 University of California-Berkeley; MA 1969 University of Arizona; PHD 1977 New Mexico

Whipple, Mary T., Clinical Assistant Professor, Emergency Medicine/Orthopaedics and Rehabilitation, (2021); MD 2016 UIHC - CCOM

Whisler, Melissa Irene, Adjunct Assistant Professor, Health Management Policy, 2022 (2022); BBA 2004 University of Iowa; MBA 2006 University of Iowa; MHA 2006 University of Iowa

Whiston, John Booker, Emeritus Professor, Law-Faculty, 1994 (2006); BA 1970 Yale; JD 1984 Montana

Whitacre, John Brennan Hunter, Adjunct Assistant Professor, Psychiatry, 2025 (2025); MD 2020 University of California

Whitacre, Melinda A., Clinical Assistant Professor, Pediatrics, (2025); MD 2020 University of California

Whitaker, Kara, Associate Professor, Epidemiology/Health Sport and Human Physiology, (2023); BS 2009 University of Michigan; MPH 2011 University of South Carolina; PHD 2015 University of South Carolina

Whitaker, Nash, Adjunct Associate Professor, Emergency Medicine, 2022 (2022); MD 2013 Creighton University

White, Jerrold Lee, Adjunct Assistant Professor, Family Medicine, 1994 (1994); MD 1987 University of Iowa

White, Katherine Margaret, Clinical Associate Professor, Internal Medicine, 2012 (2019); MD 2006 Indiana University-Bloomington

White, Melissa, Adjunct Instructor, Library Information Science, 2022 (2022); AB 2000 Winthrop University; AM 2005 East Carolina Univeristy

White, Stephanie Hoffman, Associate Professor, Internal Medicine/Nursing, 2013 (2019); MSN 2003 University of Wisconsin-Madison; PHD 2011 University of California-San Francisco

White, Susan Chrysler, Emeritus Professor, School of Art, Art History, and Design, 2000 (2014); BA 1977 University of California-Berkeley; MFA 1980 University of California-Davis

Whitehill, Dawn Marie Marcellus, Adjunct Associate Professor, Pharmacy Practice and Science, 2008 (2008); PHARMD 2001 University of Iowa

Whiteman, Charles H., Emeritus Professor, Economics, 1980 (1992); BA 1975 Kansas; PHD 1981 The University of Minnesota-Twin Cities

Whitney, Brendan Mark, Assistant Professor, Psychological and Brain Sciences, (2024); BS 2014 SUNY College at Oneonta; MA 2015 Stony Brook University; PHD 2024 University of Iowa

Whitson, Staci Louise, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BA 1994 Coe College; MPT 1997 University of Iowa; DPT 2014 Shenandoah University

Whitt, Elizabeth J., Emeritus Professor, Educ Policy Leadership Studies, 1997 (2003); BA 1973 Drake; MA 1977 Michigan State University; PHD 1988 Indiana University-Bloomington

Whitten, Blake, Emeritus Lecturer, Statistics Actuarial Science, 2004 (2007); BS 1983 NORTHERN AZ; MS 1992 University of Wisconsin-Madison; PHD 2001 Florida State

Whitter, Tyrone Bruce, Clinical Associate Professor, Anesthesia, 1995 (2003); BS 1982 Rochester; PHD 1988 University of Iowa; MD 1991 University of Iowa

Wibbenmeyer, Lucy A., Clinical Professor, Surgery, 1997 (2015); BA 1987 Missouri-Columbia; MD 1991 Tennessee

Wiblin, Raymond Todd, Clinical Professor, Internal Medicine, 1996 (2015); MD 1990 Case Western Reserve

Wichman, Michael D., Adjunct Assistant Professor, Occupational Environmental Health, 2000 (2000); AS 1976 Iowa Western Community College; BS 1978 Creighton; MS 1980 Creighton; PHD 1984 Kansas State

Wicker, Chase, Adjunct Assistant Professor, Endodontics, 2017 (2017); BS 2010 University of Iowa; DDS 2015 University of Iowa

Wickline, Jessica, Assistant Professor, Biology, 2025 (2025); BS 2017 Illinois State University; PHD 2023 Univ. of Texas Health San Anto

Wicklund, Gary A., Emeritus Associate Professor, Business Analytics, 1967 (1973);

Wickwire Cheek, Dana Michelle, Assistant Professor, Social Work, (2025); BS 1994 Iowa State University; MSW 2005 University of Iowa; PHD 2024 University of Iowa

Widness, John A., Emeritus Professor, Pediatrics, 1988 (1992); BA 1968 Amherst; MD 1972 Duke

Wiebel, Cara C. D., Instructor, University College Courses, 2013 (2013); MA 2013 University of Iowa

Wiedenfeld, Sara, Adjunct Associate Professor, Family Medicine/Pharmacy Practice and Science, 2007 (2025); PHARMD 2007 Drake; PHD 2007 Drake

Wieland, Jenna, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2009 Drake University

Wieland, Julie A., Instructor, Communication Sciences and Disorders/Otolaryngology-Head Neck Surgery, 2012 (2012); BA 1988 University of Iowa; MA 1990 Northern Iowa; DR 2004 University of Arizona

Wielenga, Sara Marie, Adjunct Instructor, Physical Therapy Rehab Science, 2019 (2025); BA 2005 Augustana College; DPT 2007 University of Iowa

Wiemer, David F., Professor, Chemistry, 1978 (1989); BS 1972 Marquette; PHD 1976 University of Illinois at Urbana Champaign

Wierzbowski, Katherine Anne, Clinical Assistant Professor, Pediatrics, (2025); MD 2022 Indiana University School of Medicine

Wieting, Stephen George, Emeritus Associate Professor, Sociology and Criminology, 1971 (1977); BA 1962 Whitworth; BD 1965 Princeton Theological Seminary; PHD 1971 The University of Minnesota-Twin Cities

Wikle, Elizabeth Mann, Clinical Assistant Professor, Pediatrics, 2023 (2023); BA 2015 Truman State University; MD 2020 University of Iowa Carver Coll

Wikle, Nathan Bayliss, Assistant Professor, Statistics Actuarial Science, (2023); BS 2016 Truman State University; PHD 2021 Pennsylvania State University

Wikoff, Haley Dianne, Adjunct Instructor, Counselor Education/Psych Quant Foundations, 2020 (2024); PHD 2019 University of Iowa

Wilbur, Jason K., Clinical Professor, Family Medicine, 2003 (2017); BS 1995 Missouri-Columbia; MD 1999 Saint Louis

Wilcox, Adam, Adjunct Assistant Professor, Pharmacy Practice and Science, 2015 (2015); PHAR 2013 University of Iowa

Wilcox, Jonathan, Professor, English, 1987 (2002); BA 1981 Manchester - England; PHD 1987 Cambridge - England

Wild, Angela Racquel, Clinical Assistant Professor, Emergency Medicine, 2021 (2022); MD 2015 Howard University

Wilde, Jaron Harp, Professor, Accounting, 2013 (2023); PHD 2013 Texas A

Wilde, John, Clinical Assistant Professor, Internal Medicine, (2021); DO 2017 Western University of Health S

Wilder, David G., Emeritus Professor, Biomedical Engineering, 1994 (2013); BS 1974 Vermont; MS 1978 Vermont; PHD 1985 Vermont

Wilensky, Joseph Buckner, Adjunct Instructor, School of Planning and Public Affairs, 2024 (2024); BA 2008 American University

Wiley, Luke A., Research Assistant Professor, Ophthalmology Visual Science, 2016 (2016); BS 2002 University of Illinois at Urbana Champaign; PHD 2007 Southern Illinois University

Wilgenbusch, Tammy Lynn Vinzant, Clinical Associate Professor, Pediatrics, 2010 (2021); MA 1997 Mankato State; PHD 2002 University of Iowa

Wilken, Jason Mitchell, Associate Professor, Physical Therapy Rehab Science, (2017); BA 1999 Luther College; MPT 2001 University of Iowa; PHD 2006 University of Iowa

Wilkinson, Joshua C., Adjunct Assistant Professor, Pharmaceutical Sciences and Experimental Therapeutics, 2025 (2025); PHD 2024 University of Iowa

Wilkinson, Mark E., Clinical Professor, Ophthalmology Visual Science, 1997 (2007); OD 1980 Illinois College Optom Chicago

Wilkinson, Richard J., Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DMD 1976 Fairleigh Dickinson

Willard, Derek Hunt, Emeritus Professor, Preventive Community Dentistry, 1974 (2012); BA 1964 Rhode Island; MA 1968 Pennsylvania; PHD 1975 University of Iowa

Willard, Pamela H., Emeritus Assistant Professor, Nursing/ Occupational Environmental Health, 1982 (1998); BSN 1966 Cornell-New York; MS 1979 University of Iowa

Willer, Jason William, Adjunct Instructor, Physical Therapy Rehab Science, 2023 (2023); BSC 2000 University of Iowa; MPT 2003 University of Iowa

Willey, Michael, Associate Professor, Orthopaedics and Rehabilitation, 2014 (2025); BS 2005 University of Iowa; MD 2009 University of Iowa

Willham, Oliver Lee, Adjunct Assistant Professor, Orthodontics, (2022); BGS 1985 University of Iowa; DDS 1988 University of Iowa; MS 1990 University of Iowa

Williams, Aislinn, Associate Professor, Psychiatry, 2017 (2017); MD 2010 University of Iowa.; PHD 2010 University of Iowa.

Williams, Charles F., Associate Professor, Rhetoric, 2012 (2025); PHD 2012 University of Iowa

Williams, Charles J., Adjunct Instructor, Law-Faculty, 2001 (2023); BBA 1985 University of Iowa; JD 1988 University of Iowa; LLM 1997 Missouri

Williams, David Monte, Clinical Assistant Professor, Physical Therapy Rehab Science, 2002 (2017); MPT 1993 MAYO; PHD 2011 University of Iowa

Williams, Florence, Assistant Professor, Chemistry, 2019 (2019); BS 2006 New York Univeristy; DPHIL 2011 University of California Irvin

Williams, Janet Karen Day, Emeritus Professor, Nursing, 1969 (2002); BSN 1968 University of Iowa; MA 1972 University of Iowa; PHD 1989 University of Iowa

Williams, Jennifer L., Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2018); PHAR 2012 University of Arkansas

Williams, Jeremy Lloyd, Adjunct Instructor, Counselor Education, 2018 (2021); BA 2005 Bethel University; MA 2015 University of St. Thomas; PHD 2018 University of Iowa

Williams, Katina, Adjunct Instructor, Management and Entrepreneurship, 2024 (2024); BA 1996 Auburn University; MA 2005 State University of W. Georgia; PHD 2013 Florida State University

Williams, Kristine Nordlie, Adjunct Professor, Nursing, 2012 (2012); BS 1978 Kent State; MS 1983 Connecticut; PHD 2001 Kansas

Williams, Lisa C., Adjunct Instructor, Law-Faculty, 2024 (2024); BA 2001 Smith College; JD 2004 The University of Iowa

Williams, Michele, Associate Professor, Management and Entrepreneurship, 2016 (2022); BA 1988 Johns Hopkins University; MA 2001 Columbia University; PHD 2001 U of Michigan-Ann Arbor

Williams, Nancy Ann, Clinical Professor, Psychiatry, 1998 (2011); BS 1989 Iowa State; MD 1990 University of Iowa

Williams, Priscilla, Assistant Professor, Civil-Environmental Engineering, 2023 (2023); BAS 2011 University of Windsor; MS 2014 University of Windsor; PHD 2020 University of Windsor

Williams, Vincent D., Emeritus Professor, Family Dentistry, 1972 (1991);

Williamson, Anne Elizabeth, Emeritus Associate Professor, Endodontics, 2003 (2007); BS 1984 University of Nebraska-Lincoln; DDS 1988 University of Nebraska-Lincoln; CER 2003 University of Iowa; MSD 2004 University of Iowa

Williamson, H. E., Emeritus Professor, Neuroscience and Pharmacology, 1960 (1970); BS 1953 University of Wisconsin-Madison; PHD 1959 University of Wisconsin-Madison

Williamson, Richard Alan, Emeritus Associate Professor, Prosthodontics, 2001 (2008); BS 1976 Texas A M; DDS 1980 The University of Texas at Austin; MS 2001 University of Nebraska-Lincoln

Williamson, Roger A., Emeritus Professor, Obstetrics Gynecology, 1981 (1990); BS 1966 Colorado State; MD 1971 Baylor; MS 1971 Baylor

Willis, Elizabeth, Professor, Creative Writing, 2014 (2014); BA 1983 University of Wisconsin-Madison; PHD 1994 New York

Willis, Melissa Sue Jay, Clinical Associate Professor, Dermatology, 2016 (2022); BS 2008 Western Illinois University; MD 2012 University of Iowa

Willits, Jordan, Adjunct Instructor, Teaching and Learning/ University College Courses, 2024 (2024); BA 2014 Knox College

Willms, Jacqueline Suzanne, Adjunct Assistant Professor, Pharmacy Practice and Science, (2023); PHARMD 2019 Drake University

Willour, Virginia Lea, Professor, Pediatrics/Psychiatry, 2011 (2021); BS 1992 University of Michigan-Ann Arbor; PHD 1998 Stanford

Wills, Daniel Edward, Adjunct Instructor, University College Courses, 2023 (2023); BARC 2012 The Cooper Union; MS 2018 Southern California Institute

Willyerd, Sherstin Kay, Adjunct Assistant Professor, Pharmacy Practice and Science, 2017 (2017); PHARMD 2014 Drake University

Wilsey, Kristina, Adjunct Instructor, Teaching and Learning, 2024 (2024); AA 1996 Wenatchee Valley College; BED 1997 Central Washington University; MED 2002 Grand Canyon University

Wilson, Barbara Jan, Professor, Communication Studies/ President, 2021 (2021); PHD 1985 University of Wisconsin-Madiso

Wilson, Benjamin, Adjunct Instructor, University College Courses, 2016 (2016); HS 1996

Wilson, Catherine Marie, Adjunct Instructor, Teaching and Learning, (2023); MAT 1986 University of Iowa

Wilson, Elizabeth Marie, Adjunct Assistant Professor, Pharmacy Practice and Science, 2013 (2016); PHARMD 2013 Creighton

Wilson, Jaime Rae, Adjunct Assistant Professor, Nursing, 2015 (2025); BSN 2009 University of Iowa; DNP 2018 University of Iowa

Wilson, Jeffrey Scott, Clinical Professor, Internal Medicine, 1989 (2003); BS 1978 University of Iowa; MD 1983 University of Iowa

Wilson, Kinda June, Adjunct Instructor, Marketing, 2019 (2022); BS 2002 Oklahoma State University; MBA 2004 Oklahoma State University

Wilson, Kristin D., Adjunct Associate Professor, Health Management Policy, (2022); MHA 1993 Saint Louis University; PHD 2008 Saint Louis University

Wilson, Mark Cooper, Clinical Professor, Internal Medicine, 2004 (2004); BA 1981 Westminster; MD 1985 Texas Tech; MPH 1991 Johns Hopkins

Wilson, Mary Edythe, Professor, Epidemiology/Internal Medicine/International Programs/Microbiology and Immunology, 1986 (1997); BA 1975 Carleton; MD 1980 Rochester

Wilson, Nicole L., Associate Professor, Management and Entrepreneurship, 2022 (2022); BA 1999 University of Oregon; MS 2001 University of Oregon; PHD 2008 University of Washington

Wilson, Ryan James, Professor, Accounting, 2007 (2022); BS 1999 Oregon; PHD 2007 Washington

Wilson, Saul, Clinical Associate Professor, Neurosurgery, 2011 (2024); MD 2003 Louisiana State

Wilson, Scott Alan, Adjunct Instructor, Finance, 2023 (2023); BBA 2004 University of Iowa; MBA 2010 University of Iowa

Wilson Kimber, Marian, Professor, Music, 2004 (2017); BA 1983 University of North Carolina at Greensboro; MM 1989 Florida State; PHD 1993 Florida State

Wilton, Allister Edwin, Instructor, Psychiatry, 2021 (2025); MD 2015 University of South Carolina

Wimp, Patrick Murphy, Associate Professor, Cinematic Arts, (2024); MFA 2009 DePaul University

Winders, Christi, Adjunct Instructor, Dental Clinic Administration, 2024 (2024); BA 1998 University of Northern Iowa; AASC 2003 Kirkwood Community College

Windschitl, Paul D., Professor, Psychological and Brain Sciences, 1997 (2009); BA 1991 Creighton; MS 1993 Iowa State; PHD 1996 Iowa State

Windsor, Jimmy John, Clinical Professor, Anesthesia/ Pediatrics, 2017 (2025); MD 1995 University of Miama

Winet, Jon, Emeritus Professor, School of Art, Art History, and Design, 2002 (2014); BA 1979 University of California-Berkeley; MA 1979 San Francisco State

Wing, Adrien K., Professor, International Programs/Law-Faculty, 1987 (1993); AB 1978 Princeton; MA 1979 University of California-Los Angeles; JD 1982 Stanford

Wing, Daniel Thomas, Adjunct Assistant Professor, Emergency Medicine, 2016 (2016); BA 2005 Drake University; DO 2009 Des Moines University

Winga, Edward R., Adjunct Assistant Professor, Internal Medicine, 1982 (1991); MD 1962 University of Iowa

Winkelmann, Susan Jane, Adjunct Instructor, Teaching and Learning, 2018 (2023); MS 1985 Western Illinois University

Winker, Michael Joseph, Associate Professor, Health Sport and Human Physiology, 2016 (2025); BA 1988 Mount Mercy University; MA 1999 University of Iowa

Winn, Bryon Stephen, Professor, Theatre Arts, 1995 (2011); BA 1992 Weber State; MFA 1995 University of Iowa

Winn, Richard, Adjunct Professor, Neurosurgery, 2015 (2010); MD 1968 Pennsylvania

Winokur, Patricia Lee, Professor, Internal Medicine/Medicine Administration, 1993 (2009); BA 1981 Brown; MD 1985 Washington-St. Louis

Winstead, Emma Jean, Adjunct Assistant Professor, Pharmacy Practice and Science, 2021 (2021); PHARMD 2018 Drake University

Wirtjes, Julianne, Adjunct Instructor, Teaching and Learning, (2023); BA 1986 Mount Mercy University; MED 1998 College of St. Scholastica

Wise, Sara, Adjunct Assistant Professor, Psychiatry, 2020 (2021); BA 2014 University of Wisconsin; MA 2019 University of Iowa; PHD 2020 University of Iowa

Witry, Matthew John, Associate Professor, Pharmacy Practice and Science, 2014 (2022); PHARMD 2008 University of Iowa; PHD 2013 University of Iowa

Witry, Sarah Marjorie Benson, Clinical Assistant Professor, Social Work, (2020); BS 2006 University of Iowa; MSW 2009 University of Iowa

Witt, Doris S., Associate Professor, English, 1994 (2001); BA 1984 Centre; MA 1987 Virginia; PHD 1995 Virginia

Witt, Eleanor J., Adjunct Instructor, Languages, Literatures, Linguistics, and Cultures, (2025); MA 2025 The University of Iowa

Witt, Travis J., Adjunct Instructor, Family Medicine, 2017 (2017); BS 2006 University of Iowa; MD 2010 Univ of IA CCOM; Iowa City,IA

Wittenberg, Craig, Adjunct Associate Professor, Family Medicine, 2004 (2004); BA 1987 University of Iowa; MD 1991 University of Iowa

Wittenberg, David H., Professor, Cinematic Arts/English, 1998 (2022); BA 1987 Yale; MA 1989 Northwestern Univeristy; PHD 1995 Johns Hopkins; MARCH 1996 University of California-Berkeley

Wittmer, Jason Bradley, Adjunct Assistant Professor, Internal Medicine, (2019); MD 1997 University of Kansas

Wittrock, Cory Allen, Clinical Associate Professor, Emergency Medicine, (2020); MD 2006 University of Iowa

Wittry, Alexander Michael, Adjunct Assistant Professor, Emergency Medicine, 2022 (2024); BA 2007 University of Iowa; MD 2011 University of Iowa

Witzke, Brian J., Adjunct Assistant Professor, School of Earth, Environment, and Sustainability, 2015 (1982); BA 1974 University of Wisconsin-Milwaukee; MS 1976 University of Iowa; PHD 1981 University of Iowa

Wo, James Clement, Associate Professor, Center for Soc Sci Innovation/School of Planning and Public Affairs/ Sociology and Criminology, 2017 (2023); BA 2010 University of California, Irvi; MA 2012 University of California, Irvi; PHD 2017 University of California, Irvi

Wohl, Elyana Renee, Clinical Assistant Professor, Anesthesia, (2022); MD 2011 McGill University

Wohlers, Kathryn S., Adjunct Assistant Professor, Pharmacy Practice and Science, 2023 (2023); PHARMD 2004 Creighton University

Wohlgenannt, Markus, Professor, Physics Astronomy, 2002 (2015); MS 1997 Graz-Austria; PHD 2000 Utah

Woida, Kathleen, Adjunct Professor, Earth and Environmental Sciences, 2020 (2020); PHD 1991 University of Iowa

Wokosin, Michael J., Adjunct Instructor, Marketing, 2018 (2022); BBA 1988 University of Iowa; MBA 1996 University of Chicago

Wold, Marc S., Emeritus Professor, Biochemistry and Molecular Biology, 1989 (2000); BS 1979 California Inst of Technology; PHD 1984 Johns Hopkins

Wolf, Anthony David, Adjunct Assistant Professor, Military Science, 2005 (2005); BGS 1987 University of Iowa; AA 1995 Kirkwood Community; MA 2002 University of Iowa

Wolf, Brian Robert, Professor, Orthopaedics and Rehabilitation/Physical Therapy Rehab Science, 2003 (2016); BA 1989 Loyola; MD 1997 Loyola; MS 2006 University of Iowa

Wolf, Christopher Shane, Clinical Assistant Professor, Family Medicine, 2020 (2020); BS 2009 University of Iowa; DO 2016 Des Moines Univ; DesMoines,IA

Wolfe, Katherine, Associate Professor, Music, 2004 (2004); BM 1992 Indiana University-Bloomington; MM 1994 Manhattan School of Music

Wolfe, Steven L., Emeritus Professor, Family Medicine, 2001 (2008); BA 1968 Cornell; MD 1976 University of Iowa

Wolinsky, Fredric D., Emeritus Professor, Health Management Policy, 2003 (2003); BA 1972 Friends UNI; MA 1974 Drake; PHD 1977 Southern Illinois

Wolter, Erin Elizabeth, Adjunct Instructor, Social Work, 2024 (2024); MSW 2021 University of Iowa

Wolterman, Courtney, Adjunct Instructor, Preventive Community Dentistry, 2014 (2014); AASC 2001 Des Moines

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Wong, Carolyn, Clinical Assistant Professor, Psychiatry, 2024 (2024); MD 2020 University of Illinois

Wong, Cynthia, Professor, Anesthesia, 2015 (2015); MD 1984 University of Illinois at Chicago

Wong, Samuel W., Clinical Associate Professor, Pediatrics, (2025); DO 2011 Midwestern Uniiversity - Chicago

Wood, Kelly Elizabeth, Clinical Professor, Pediatrics, 2010 (2020); BS 2000 University of Iowa; MD 2004 University of Iowa

Wood, Shari M., Adjunct Instructor, Pharmacy Practice and Science, 2000 (2000); BS 1993 University of Iowa; BSPH 1993 University of Iowa

Wood, Susannah Margaret, Professor, Counselor Education, 2006 (2021); BA 1997 Richmond(VA); MED 2000 William Mary; PHD 2006 William Mary

Woodard, Fredrick, Emeritus Associate Professor, English, 1973 (1979); BA 1961 Iowa Wesleyan; MA 1971 University of Iowa; PHD 1976 University of Iowa

Woodhead, Jerold C., Emeritus Associate Professor, Pediatrics, 1979 (1988); BA 1967 Stanford; MD 1971 Yale

Woodman, Catherine L., Clinical Associate Professor, Family Medicine/Psychiatry, 1990 (2000); BA 1981 Brown; MD 1985 Brown

Woodroffe, Lisa Marie, Clinical Associate Professor, Orthopaedics and Rehabilitation/Pediatrics, 2018 (2024); MD 2014 University of Iowa

Woodroffe, Royce, Adjunct Assistant Professor, Neurosurgery, 2021 (2021); MD 2014 University of Iowa

Woods, Anna Marie, Adjunct Instructor, Preventive Community Dentistry, 2013 (2013); DDS 2008 The University of Minnesota-Twin Cities

Woods-Swafford, Wendy, Adjunct Associate Professor, Pediatrics, 2009 (2021); MD 2002 Missouri - KC; MPH 2008 Vanderbilt

Woodson-Defauw, Nicole, Clinical Assistant Professor, Family Medicine/Psychiatry, 2024 (2024); MD 2018 Meharry Medical College

Woodward, Mckenna Jo, Adjunct Instructor, Preventive Community Dentistry, 2024 (2024); DDS 2022 University of Iowa

Woodworth, Benjamin James, Adjunct Instructor, Social Work, 2015 (2015); BA 1996 Buena Vista University; MSW 1999 University of St. Thomas

Woodworth, George, Emeritus Professor, Biostatistics/ Statistics Actuarial Science, 1971 (1996); BA 1962 Carleton; PHD 1966 The University of Minnesota-Twin Cities

Woolley, Nicole, Adjunct Instructor, Nursing, 2020 (2023); BSN 2005 University of Iowa; DNP 2017 University of Iowa

Woolson, Robert F., Emeritus Professor, Biostatistics/ Epidemiology/Statistics Actuarial Science, 1972 (1981); BA 1967 Delaware; PHD 1972 University of North Carolina at Chapel Hill

Worford, Joel, Adjunct Assistant Professor, Creative Writing, 2025 (2025); MFA 2025 The University of Iowa

Workman, Craig David, Adjunct Assistant Professor, Health Sport and Human Physiology, 2023 (2023); MS 2010 Utah State University; PHD 2018 University of Houston

Worrell, James B., Emeritus Associate Professor, Neurology, 2001 (2001); BA 1964 University of Iowa; MD 1967 University of Iowa

Worthington, Kristan Sorenson, Associate Professor, Biomedical Engineering/Chemical Biochemical Engineering, 2016 (2023); BS 2009 Utah State University; MS 2009 Utah State University; PHD 2014 University of Iowa

Wortman, William E., Adjunct Assistant Professor, Internal Medicine, 2015 (2015); MD 2011 University of Nebraska-Lincoln

Wren, John, Clinical Assistant Professor, Pediatrics, (2024); MD 2017 Wake Forest School of Medicine

Wretman, Debra, Adjunct Instructor, Teaching and Learning, 2015 (2023); BS 1978 Iowa State; MA 1983 Northeast Missouri

Wright, Andre D., Adjunct Instructor, Journalism Mass Communication, 2023 (2023); BFA 2005 University of Iowa

Wright, Angela Jean, Adjunct Instructor, Social Work, 2024 (2024); BA 2014 University of Iowa; MSW 2016 University of Iowa

Wright, Arlene, Adjunct Instructor, Pharmacy Practice and Science, 1997 (1997); BSPH 1981 Drake

Wright, Jacquelyn Alicia, Adjunct Assistant Professor, English, 2016 (2016); MFA 2016 University of Iowa

Wright, Michael Eugene, Associate Professor, Molecular Physiology Biophysics, 2008 (2017); BS 1994 Nevada; PHD 2000 Washington

Wright, Suzanne, Assistant Professor, School of Art, Art History, and Design, (2019); MFA 2011 University of California @ San Diego

Wu, Chun-Fang, Professor, Biology, 1979 (1989); BS 1969 Tunghai-Taiwan; PHD 1976 Purdue University Main Campus

Wu, Jeannett Tan, Instructor, Internal Medicine, (2024); MD 1991 Far Eastern Univ., Philippines

Wu, Li, Professor, Microbiology and Immunology, (2019); BS 1994 Northwest China Normal Univ; MS 1997 Lanzhou Inst of Biological Pro; PHD 2000 Shanghai Medical College

Wu, Xiaodong, Professor, Electrical-Computer Engineering/ Radiation Oncology, 2005 (2016); BS 1992 Peking; MCS 1995 Peking; PHE 2002 Nortre Dame

Wu, Ying-Qing, Emeritus Professor, Mathematics, 1993 (2001); BS 1982 Hehai-China; MS 1984 Beijing-China; PHD 1987 Beijing-China

Wu, Yu-Hsiang, Professor, Communication Sciences and Disorders, 2010 (2024); PHD 2007 University of Iowa

Wubben, Megan Nicole Weems, Instructor, Pediatrics, 2022 (2025); BS 2014 Iowa State University; MD 2018 University of Iowa

Wuehle, Candice, Instructor, University College Courses, 2023 (2023); BA 2008 University of Iowa; MA 2012 University of Minnesota; PHD 2019 University of Kansas

Wurster, Dale Eric, Emeritus Professor, Pharmaceutical Sciences and Experimental Therapeutics, 1982 (1996); BS 1974 University of Wisconsin-Madison; PHD 1979 Purdue University Main Campus

Wyatt, Mark A., Adjunct Instructor, University College Courses, 2008 (2014); AA 1997 Kirkwood Community College

Wyborny, Ann M., Clinical Assistant Professor, Neurology, (2025); DO 2018 Rocky Vista University

Wyland, Meredith, Adjunct Assistant Professor, Internal Medicine, (2021); BSPH 2017 University of Wisconsin; PHARMD 2019 University of Wisconsin-Madiso

Wyman, Wayne Herrington, Assistant Professor, Music, 2012 (2024); BS 1987 Tennessee-Knoxville; MM 1994 Austin Peay State

Wymore, Lisa Marie, Adjunct Instructor, Teaching and Learning, (2023); BA 1991 University of Northern Iowa; MAE 1999 University of Northern Iowa; PHD 2023 University of Iowa

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Xander, Charles, Adjunct Instructor, Counselor Education, 2023 (2023); MA 2016 University of Northern Iowa

Xiao, Shaoping, Professor, Mechanical Engineering, 2003 (2023); BS 1995 Univ of Science and Tech China; MS 1998 Univ of Science and Tech China; PHD 2002 Northwestern Univeristy

Xie, Jian, Research Assistant Professor, Internal Medicine, 2017 (2017); PHD 2002 UT Southwestern

Xie, Xian Jin, Adjunct Professor, Biostatistics/Dental Research, 2017 (2017); MS 1998 University of Iowa; MS 2001 University of Iowa; PHD 2005 University of Iowa

Xie, Yuliang, Assistant Professor, Biomedical Engineering, (2020); BS 2007 Zhejiang University; MS 2010 Zhejiang University; PHD 2016 Pennsylvainia State

Xing, Kuan, Clinical Assistant Professor, Family Medicine, (2023); MED 2015 Univ of Illinois at Chicago; PHD 2020 Univ of Illinois at Chicago

Xiong, Jeffrey, Adjunct Assistant Professor, Creative Writing, 2025 (2025); MFA 2025 The University of Iowa

Xu, Boli, Assistant Professor, Economics, 2022 (2022); BA 2014 Peking University; MA 2020 Northwestern University; PHD 2023 Northwestern University

Xu, Changhui, Adjunct Instructor, Business Analytics/ Computer Science, 2023 (2023); BS 2010 Nanjinig Univ, China; MS 2015 University of Iowa; MCS 2016 University of Iowa

Xu, Jiajie, Assistant Professor, Finance, 2022 (2022); BA 2015 Fudan University, School of Ec; MA 2017 Peking University, Guanghua; PHD 2022 Boston College

Xu, Weiyu, Professor, Electrical-Computer Engineering, 2011 (2024); MS 2005 Tsinghua,(Beijing); MS 2006 Cal Tech; PHD 2008 Cal Tech

Y

Yablon, Nicholas, Professor, American Studies/History, 2003 (2021); BA 1994 Birmingham, England; PHD 2002 University of Illinois at Chicago

Yack, H. John, Emeritus Associate Professor, Physical Therapy Rehab Science, 1994 (1994); BS 1973 New Hampshire; MS 1981 University of North Carolina at Chapel Hill; PHD 1987 Waterloo-Canada

Yaddanapudi, Sridhar, Adjunct Associate Professor, Radiation Oncology, 2016 (2021); PHD 2015 University of MO-Columbia

Yahr, Timothy Lee, Emeritus Professor, Microbiology and Immunology, 2001 (2013); BS 1991 University of Wisconsin-Stevens Point; MS 1995 Medical College of Wisconsin; PHD 1998 Medical College of Wisconsin

Yale, Elizabeth Esther, Associate Professor, History/ Interdisciplinary Programs, 2014 (2025); BS 2002 Yale; AM 2004 Harvard; PHD 2008 Harvard

Yamada, Masaaki, Clinical Assistant Professor, Internal Medicine, 2019 (2019); MD 2006 Kanazawa University SOM

Yamada, Thoru, Emeritus Professor, Neurology, 1975 (1984); MD 1966 Nagoya

Yamaguchi, Satoshi, Associate Professor, Neurosurgery, 2017 (2024); MD 1994 Hiroshima University

Yaman, Fatma, Adjunct Associate Professor, Teaching and Learning, 2015 (2020); DPHIL 2012 Karadeniz Technical University

Yamashita, Hiroki, Adjunct Assistant Professor, Mechanical Engineering, 2018 (2018); MA 2012 Tokyo University of Sciences; PHD 2016 The University of Iowa

Yan, Ziying, Emeritus Professor, Anatomy Cell Biology, 2015 (2022); BS 1986 Sun Yat-Sen, China; MS 1989 Sun Yat-Sen, China; PHD 1995 Chinese Academy, China

Yang, Jianming, Adjunct Associate Professor, Mechanical Engineering, 2007 (2011); PHD 2004 THE UNIVERSITY OF MARYLAND-COLLEGE PARK

Yang, Jingzhen, Adjunct Professor, Community Behavioral Health, 2004 (2022); BA 1982 Suzhou, China; MPH 1999 Indiana University-Bloomington; PHD 2004 University of North Carolina at Chapel Hill

Yang, Kailin, Assistant Professor, Radiation Oncology, 2024 (2024); DPHIL 2012 Harvard University; PHD 2012 Harvard University; MD 2017 Case Western Reserve Cleveland

Yang, Keyang, Adjunct Instructor, Finance, 2025 (2025); PHD 2019 University of Iowa

Yang, Lew, Adjunct Instructor, Preventive Community Dentistry, 2023 (2023); DMD 2018 AT Still University

Yang, Limin, Emeritus Associate Professor, Radiology, 2010 (2015); MD 1987 Beijing Medical, China; MS 1990 Peking Union, China; PHD 1996 Univ of TX Hlth Sci Cntr S.A.

Yang, Ling, Associate Professor, Anatomy Cell Biology/ Molecular Physiology Biophysics, 2014 (2020); BS 1995 Lanzhou Univ (China); MS 1998 Lanzhou Univ (China); PHD 2007 Kent State University

Yang, Shujie, Assistant Professor, Pathology, 2013 (2013); PHD 2009 New Mexico

Yang, Ying Chi, Adjunct Instructor, Internal Medicine, 2018 (2023); MBBS 2007 University of Medicine Myan

Yankowitz, Jerome, Emeritus Professor, Obstetrics Gynecology, 1993 (2003); BS 1980 Yale; MD 1986 State U of NY-Dwnst Med Cntr

Yannelis, Nicholas C., Professor, Economics, 2011 (2011); MA 1977 London-Economics; MA 1979 Rochester; PHD 1983 Rochester

Yao, Tong, Professor, Finance, 2008 (2020); BA 1991 Fudan; PHD 2001 Boston College

Yarahmadi, Alireza, Adjunct Assistant Professor, Neurology, 2011 (2011); MD 1994 Kermanshah Medical

Yarbrough, Donald B., Emeritus Professor, Psych Quant Foundations, 1982 (2009); BA 1971 Hendrix; MA 1973 Kentucky; PHD 1982 Georgia

Yaseen, Sameer Ahmad, Adjunct Assistant Professor, Internal Medicine, 2024 (2024); MD 1994 University of Jordan

Yasin, Shima K., Adjunct Assistant Professor, Pediatrics, 2021 (2021); MD 2005 University of Khartoum; MSC 2008 University of Witwatersand

Ye, Muchao, Assistant Professor, Computer Science, (2024); BENG 2019 South China University of Tech; PHD 2024 Pennsylvania State University

Ye, Yangbo, Professor, Mathematics, 1990 (1999); BS 1981 QingHua-China; MA 1982 Columbia; MPH 1986 Columbia; PHD 1986 Columbia

Yeager, Anson, Adjunct Instructor, Surgery, 2004 (2021); BA 1976 Augustana; BS 1978 South Dakota MED; MD 1980 Tufts Med, MA

Yeaman, Charles A., Associate Professor, Anatomy Cell Biology, 2001 (2006); BS 1986 University of California-San Diego; PHD 1993 University of Wisconsin-Madison

Yeats, Robert Evan, Emeritus Associate Professor, Music, 1973 (1981); BS 1966 Ithaca; MA 1971 University of Iowa; MFA 1977 University of Iowa

Yeh, Malcolm H., Clinical Associate Professor, Neurology, 1992 (2004); BA 1980 University of California-Berkeley; MD 1985 University of California-Davis

Yerkes, Elizabeth Anne, Adjunct Assistant Professor, Health Management Policy, 2015 (2019); BBA 2005 University of Iowa; MBA 2014 University of Iowa

Yetley, Phoebe, Adjunct Instructor, University College Courses, 2024 (2024); BA 2017 The University of Iowa

Yin, Jun, Adjunct Assistant Professor, Biostatistics, 2019 (2019); BS 2007 Fudan University; MS 2009 University of Iowa

Ying, Jie, Adjunct Instructor, Finance, 2022 (2024); PHD 2018 University of Iowa

Yockey, Joseph W., Professor, Law-Faculty/Management and Entrepreneurship, 2010 (2010); BA 2000 Kansas; JD 2004 University of Illinois at Urbana Champaign

Yoder, Abigail Ann, Adjunct Instructor, Social Work, (2018); DIPL 2002 Naperville North High School; BSW 2006 University of Iowa; MSW 2008 University of Iowa

Yoder, Cassandra Ashley, Adjunct Assistant Professor, Pharmacy Practice and Science, 2018 (2021); PHARMD 2018 University of Iowa

Yoder, Holly Blosser, Adjunct Instructor, University College Courses, 2010 (2019); BA 1985 Eastern Mennonite; MA 2009 University of Iowa

Yoder, Rachel Joy, Assistant Professor, Cinematic Arts, 2015 (2015); MFA 2007 University of Arizona; MFA 2011 University of Iowa

Yoder Dowden, Amy Melinda, Clinical Professor, Internal Medicine/Pediatrics, 2007 (2021); BA 2000 Missouri-Kansas; MD 2000 Missouri-Kansas

Yohe, William Tyson, Adjunct Assistant Professor, Pharmacy Practice and Science, 2010 (2010); PHARMD 2000 University of Iowa

Yoon, Jin-Young, Research Assistant Professor, Internal Medicine, (2021); PHD 2010 Seoul National University

Yoon, Junho, Adjunct Assistant Professor, Business Analytics, 2024 (2024); PHD 2024 University of Iowa

Yoon, Sang-Seok, Assistant Professor, Languages, Literatures, Linguistics, and Cultures/World Languages, Literatures, and Cultures, 2012 (2021); BA 1995 Korea; MA 2002 Hawaii at Manoa; PHD 2010 Hawaii at Manoa

Yoon, Si On, Adjunct Assistant Professor, Communication Sciences and Disorders, (2019); MA 2012 Univ. of Ill @ Urbana; PHD 2016 Univ of Ill @ Urbana

Yoon, Ye Rin, Assistant Professor, Marketing, 2025 (2025); BA 2015 University of California, LA; MS 2019 Korea University; PHD 2025 Cornell University

Yorek, Mark A., Professor, Internal Medicine, 1987 (2002); BS 1976 Bemidji; PHD 1981 North Dakota

Yoshimura, Tatsuya, Clinical Associate Professor, Anesthesia, (2023); MD 2003 Hamamatsu University

Yoshioka, Misa, Adjunct Instructor, Preventive Community Dentistry, 2025 (2025); DMD 2019 Western Univ of Health Sci; MS 2021 Ohio State Univ

Yost, William J., Adjunct Professor, Internal Medicine, 1997 (2010); MD 1988 University of Iowa

Yotty, Amy C., Adjunct Instructor, Physical Therapy Rehab Science, 2024 (2024); SCB 2010 University of California; DPT 2013 Midwestern University

You, Hye Sun, Assistant Professor, Teaching and Learning, (2022); BS 2005 Yonsei University; MED 2016 The University of Texas - Aust; PHD 2016 University of Texas at Austin; MED 2021 University of Texas at Austin; PHD 2021 The University of Texas - Aust

Youmans, Matthew, Adjunct Professor, Aerospace Studies, (2021); BA 2005 University of Iowa; MPA 2011 American Military University; MAS 2019 Air University

Young, Beth Ann, Adjunct Assistant Professor, Pharmaceutical Sciences and Experimental Therapeutics, (2024); PHD 2022 University of Iowa

Young, Cory James, Assistant Professor, History, (2023); BA 2013 SUNY-Geneseo; MA 2016 Georgetown University; PHD 2021 Georgetown University

Young, Donald Carleton, Adjunct Assistant Professor, Obstetrics Gynecology, 2009 (2009); BA 1981 Drake; DO 1985 Des Moines University

Young, Jeffrey Owen, Adjunct Assistant Professor, Pediatric Dentistry, 2024 (2024); DDS 1982 University of Iowa; CER 1988 Eastman Dental Center(PedDent)

Young, Lance B., Associate Professor, Preventive Community Dentistry, 2008 (2021); BA 1989 Duke; MBA 1991 Tulane; MA 1996 West Florida; PHD 2008 University of Iowa

Young, Mark A., Emeritus Associate Professor, Chemistry, 1990 (1997); BA 1979 Princeton; PHD 1987 University of California-Berkeley

Young, Murphy Kellene, Adjunct Instructor, Teaching and Learning, 2024 (2024); BS 2015 Texas AM University; MED 2016 Texas AM University; PHD 2024 Southern Methodist University

Young, Rachel, Associate Professor, Journalism Mass Communication, 2013 (2019); BA 1995 Beloit College; MA 2001 Missouri; PHD 2013 Missouri

Young, Samuel Martin, Assistant Professor, Music, (2021); BM 2009 Metropolitan State University; MM 2012 Mannes The New School for Musi; PHD 2018 University of California

Youngstrom, Christopher Eric, Adjunct Assistant Professor, Biology, 2024 (2024); BS 2013 University of Iowa; PHD 2022 University of Iowa

Yu, Liping, Adjunct Professor, Biochemistry and Molecular Biology/Molecular Physiology Biophysics, 2014 (2014); BS 1982 Southern Yangtze, China; MS 1985 University of California-Davis; PHD 1989 University of California-Davis

Yu, Nanmeng, Clinical Assistant Professor, Internal Medicine, (2023); MD 2015 Wake Forest School of Medicine; PHD 2015 Wake Forest School of Medicine

Yu, Wenjie, Research Assistant Professor, Internal Medicine, (2024); BS 2007 China Agricultural University; MS 2009 East China Normal University; PHD 2017 University of Iowa

Yueh, Bevan, Professor, Otolaryngology-Head Neck Surgery, (2025); BS 1983 Princeton University; MD 1989 Stanford University; MPH 2000 John Hopkins University

Yuen, Kee-Ho, Emeritus Professor, School of Art, Art History, and Design, 2000 (2009); BA 1983 Chinese of Hong Kong; MA 1988 University of Iowa; MFA 1989 University of Iowa

Yumul, Ily Kristine, Clinical Associate Professor, Internal Medicine, 2018 (2025); MD 2008 Univ of the Philippines

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Zabner, Joseph, Professor, Internal Medicine, 1995 (2004); MD 1987 UnivCentral de Venezuela

Zaborowski, Philip John, Assistant Professor, English, (2025); AS 2016 Monroe County Community Colleg; BA 2018 The University of Toledo; PHD 2025 University of Iowa

Zacharjasz, Mark J., Adjunct Instructor, Family Medicine, 2021 (2021); MD 2015 St Louis University Sch of Medicine

Zadeh, Catherina, Clinical Assistant Professor, Radiology, (2024); MD 2016 Lebanese University

Zadeh, Wendy W., Adjunct Assistant Professor, Neurology, 2020 (2020); MD 1997 George Washington University

Zafred Marcelino, Antonio Sergio, Clinical Assistant Professor, Radiology, (2023); MD 1992 University of Sao Paulo

Zaharis, Catherine Ann, Emeritus Professor, Finance, 2010 (2019); BBA 1982 University of Iowa; MBA 1983 Drake

Zahbi, Shigraf, Adjunct Assistant Professor, Rhetoric, 2025 (2025); UNKNOWN 2016 Sacred Heart Convent; BA 2020 Jamia Millia Islamia; MFA 2025 The University of Iowa

Zaheer, Asgar, Emeritus Associate Professor, Neurology, 1995 (2011); PHD 1979 Bombay-India

Zahid, Rehan, Clinical Assistant Professor, Surgery, (2023); MBBS 2009 Aga Khan University

Zahn, Miranda, Assistant Professor, Psych Quant Foundations, 2024 (2024); BS 2016 University of Wisonsin-Madiso; MS 2018 University of Wisconsin-Madiso; DED 2022 University of Wisconsin-Madiso; PHD 2022 University of Wisonsin Madison

Zahnd, Whitney E., Assistant Professor, Health Management Policy, (2021); BS 2005 University of Illinois Urbana; MS 2007 University of Illinois Urbana; PHD 2018 University of Illinois Urbana

Zahrli, Tyler, Adjunct Assistant Professor, Psychiatry, 2025 (2025); MD 2019 St. Louis University

Zajacz, Rita, Associate Professor, Communication Studies, 2005 (2019); BA 1995 Budapest, Hungary; MA 1998 Indiana University-Bloomington; PHD 2005 Indiana University-Bloomington

Zak, Anna Jeannette, Adjunct Assistant Professor, Family Dentistry, 2023 (2023); DDS 2008 University of Iowa

Zakharia, Yousef, Adjunct Professor, Internal Medicine, 2014 (2024); MD 2005 Damascus University SOM

Zalenski, Grace Redmond, Adjunct Instructor, Mathematics, 2019 (2019); BA 2012 Lewis and Clark College; MS 2016 The University of Iowa

Zalenski, Julia Catherine, Adjunct Instructor, Law-Faculty, 2022 (2022); DIPL 2007 Williamsburg High School; BA 2010 University of Iowa; JD 2013 University of Iowa

Zamba, Gideon Kd, Professor, Biostatistics/Radiology, 2003 (2018); MS 1995 DU Benin; PHD 2003 The University of Minnesota-Twin Cities

Zan, Xin, Assistant Professor, Industrial Engineering/ Pediatrics, 2024 (2024); PHD 2024 University of Florida

Zanaty, Mario, Assistant Professor, Neurosurgery, (2023); MD 2012 St. Joseph University

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Zavala, Jeffrey, Clinical Assistant Professor, Internal Medicine, (2023); MD 2017 University of Iowa

Zavaleta, Armando, Assistant Professor, Economics, 2012 (2012); BA 1996 National University of Mexico; MA 2001 El Colegio de Mexico; PHD 2012 University of Calgary

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Zearley, Jennifer Rose, Adjunct Assistant Professor, Pharmacy Practice and Science, 2009 (2009); PHARMD 2002 University of Iowa

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Zeithamel, Marcia C., Adjunct Assistant Professor, Pharmacy Practice and Science, 2008 (2008); PHARMD 2005 Kansas

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Zeitler, William Andrew, Clinical Assistant Professor, Internal Medicine, (2020); BA 2005 St Olaf College; MD 2013 University of Iowa

Zembrzuska, Hanna Dominika, Clinical Associate Professor, Internal Medicine/Psychiatry, 2016 (2025); MD 2007 Rush Medical College

Zemkova, Yana Aleksandrovna, Clinical Assistant Professor, Internal Medicine, (2025); MD 2018 University of New Mexico

Zeng, Erliang, Associate Professor, Biostatistics/Dental Research/Preventive Community Dentistry, 2018 (2018); PHD 2008 Florida International Univ

Zeng, Jing, Associate Professor, Chemical Biochemical Engineering, (2021); MS 2004 University of Alabama; PHD 2006 University of Alabama

Zepeski, Anne Elise, Clinical Assistant Professor, Emergency Medicine/Pharmacy Practice and Science, 2016 (2018); PHARMD 2016 University of Iowa

Zerwic, Julie, Professor, Nursing, 2017 (2017); PHDN 1991 University of Minnesota

Zhai, Wenyang, Assistant Professor, Languages, Literatures, Linguistics, and Cultures, (2022); BA 1999 Tianjin Foreign Studies Univ; MA 2007 Tianjin Foreign Studies Univ; PHD 2014 Florida State University

Zhang, Bingbing, Assistant Professor, Center for Soc Sci Innovation/Journalism Mass Communication, (2023); MA 2019 Texas Tech University; PHD 2023 Penn State University

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Zhang, Ke Anne, Clinical Associate Professor, Psychological and Brain Sciences, (2022); BS 2008 University of Toronto; PHD 2016 University of Iowa

Zhang, Meina, Adjunct Assistant Professor, Nursing, 2025 (2025); BSN 2020 D'Youville University; PHDN 2025 University of Iowa

Zhang, Mengxiao, Assistant Professor, Business Analytics, 2024 (2024); BS 2018 Peking University; PHD 2024 University of Southern Califor

Zhang, Qiang, Clinical Assistant Professor, Neurology, (2021); MD 2003 Peking Union Medical College

Zhang, Shaoping, Associate Professor, Periodontics, 2018 (2024); DDS 2002 University of Virginia; PHD 2011 UNC Chapel Hill; MS 2014 UNC Chapel Hill

Zhang, Tianyu, Assistant Professor, Computer Science, 2024 (2024); PHD 2018 Northeastern University

Zhang, Xiaoyi, Professor, Mathematics, 2009 (2020); BA 1998 Zheng Zhou, China; PHD 2003 China Academy

Zhang, Yanchen, Assistant Professor, Psych Quant Foundations, (2021); PHD 2019 University of Minnesota

Zhang, You-Kuan, Emeritus Professor, Earth and Environmental Sciences, 1993 (2006); BS 1978 Chamgchun Institute-China; MS 1982 Nanjing-China; PHD 1990 University of Arizona

Zhao, Kang, Professor, Business Analytics, 2012 (2023); BE 2003 Beijing Inst of Tech, China; MS 2006 Eastern Michigan U; PHD 2012 Pennsylvania State University

Zhao, Renbo, Assistant Professor, Business Analytics, 2022 (2022); BE 2015 National Univ of Singapore; BENG 2015 National Univ of Singapore; MSC 2018 National Univ of Singapore; PHD 2023 MIT

Zhorne, Derek James, Clinical Associate Professor, Pediatrics, 2014 (2019); MD 2008 University of Iowa

Zhorne, Leah Marie, Clinical Associate Professor, Neurology/ Pediatrics, 2014 (2020); MD 2008 University of Iowa

Zhou, Roy Ruosheng, Clinical Assistant Professor, Pediatrics, (2021); MD 2015 Albert Einstein College of Medicine

Zhu, James Zhenghui, Adjunct Assistant Professor, Creative Writing, 2023 (2023); HS 2009 Plane West Sr HS; MFA 2023 University of Iowa

Zhu, Qiuyun, Assistant Professor, Statistics Actuarial Science, 2025 (2025); BA 2016 Nanjing University; MA 2017 University of Wisconsin-Madiso; PHD 2023 Boston University

Zhu, Xueyu, Associate Professor, Mathematics, 2016 (2022); BS 2003 Zhejiang University, China; MS 2007 Royal Institute of Technology,; PHD 2013 Brown University

Ziegler, Ekhard E., Emeritus Professor, Pediatrics, 1973 (1981); MD 1964 Innsbruck-Austria

Zielinski, Julie Anne, Associate Professor, Marketing, 2005 (2022); BBA 1989 Notre Dame; MBA 1994 Iowa

Zigrino Curto, Ines Edith, Assistant Professor, Computer Science, 2000 (2000); PHD 2000 University of Iowa

Zihlman, Kevin, Adjunct Instructor, University College Courses, 2015 (2015); BA 1999 Western Illionois University; MA 2005 University of Iowa

Zike, Wilbur L., Emeritus Associate Professor, Surgery, 1969 (1975); AB 1953 Houghton; MD 1957 McGill

Zimmerman, Dale, Professor, Biostatistics/Statistics Actuarial Science, 1986 (1999); BS 1980 Iowa State; MS 1982 The University of Minnesota-Twin Cities; PHD 1986 Iowa State

Zimmerman, Jessica Ann Odendahl, Assistant Professor, Pediatrics, (2022); MD 2014 University of Iowa

Zimmerman, Jill Ann, Adjunct Assistant Professor, Pharmacy Practice and Science, 2025 (2025); PHARMD 2013 University of Iowa

Zimmerman, Miriam Bridget, Clinical Professor, Biostatistics, 2003 (2008); BS 1978 Phillipines; MS 1982 Phillipines; MS 1984 Iowa State; PHD 1987 Iowa State

Zimmermann, Gerald Neal, Adjunct Associate Professor, Communication Sciences and Disorders, 1977 (1982); PHD 1973 University of Iowa

Zimmermann, Leah Myers, Clinical Assistant Professor, Teaching and Learning, (2023); MED 2012 Marymount University; PHD 2022 University of Iowa

Zimotti, Giovanni, Associate Professor, Spanish Portuguese, 2018 (2023); MA 2015 University of Alabama; PHD 2018 University of Alabama

Zingman, Leonid, Professor, Internal Medicine, 2007 (2024); MD 1984 First Leningrad Medical

Zirker, Darrick J., Instructor, Hospital Dentistry, 2019 (2025); BA 2003 Bringham Young University; DDS 2007 University of Iowa

Zittergruen, Lisa Ann, Adjunct Instructor, Family Medicine, 2017 (2017); BS 2004 Valparaiso Univ, Indiana; MD 2009 Univ of IA CCOM, Iowa

Zlatnik, Frank J., Emeritus Professor, Obstetrics Gynecology, 1975 (1984); BA 1962 Carleton; MD 1966 Cornell

Zmolek, Michael A., Adjunct Assistant Professor, History, 2013 (2013); BA 1988 University of Iowa; MA 1994 York; PHD 2009 York

Zmolek Beck, Mary Gwen, Emeritus Professor, Internal Medicine, 1997 (2010); MD 1994 University of Iowa

Zobeck, Bryan J., Adjunct Assistant Professor, Pharmacy Practice and Science, 2011 (2022); PHARMD 2011 Iowa

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